

NOT YET CALENDARED FOR ORAL ARGUMENT

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IN THE UNITED STATES COURT OF APPEALS  
FOR THE DISTRICT OF COLUMBIA CIRCUIT

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No. 11-1449

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SHIELDALLOY METALLURGICAL CORPORATION,  
Petitioner,

v.

UNITED STATES NUCLEAR REGULATORY COMMISSION  
and the UNITED STATES OF AMERICA,  
Respondents,

STATE OF NEW JERSEY,  
Intervenor.

---

ON PETITION FOR REVIEW OF AN ORDER OF THE  
U.S. NUCLEAR REGULATORY COMMISSION

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BRIEF FOR INTERVENOR

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**CERTIFICATE AS TO PARTIES, RULINGS,  
AND RELATED CASES**

Counsel adopts the certification in petitioner Shieldalloy Metallurgical Corporation's opening brief with respect to the parties, rulings, and related cases.

Dated: June 12, 2012

By: /s/ Andrew D. Reese  
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**GLOSSARY**

AEA	Atomic Energy Act of 1954, as amended, 42 <u>U.S.C.</u> § 2011, <u>et seq.</u>
ALARA	as low as is reasonably achievable
DP	decommissioning plan
EPA	Environmental Protection Agency
HDPE	high density polyethylene
LTC License	Long Term Control License
mrem	millirem
NJDEP	New Jersey Department of Environmental Protection
NRC	Nuclear Regulatory Commission
OAL	Office of Administrative Law
pCi/g	picocuries per gram
RAI	Request for Additional Information
Shieldalloy	Shieldalloy Metallurgical Corporation
TEDE	Total Effective Dose Equivalent
Th-232	Thorium-232
U-238	Uranium-238

**JURISDICTIONAL STATEMENT**

New Jersey agrees with the Jurisdictional Statement in Shieldalloy Metallurgical Corporation's opening brief (pp. 4-6).

**ISSUES PRESENTED**

New Jersey agrees with the Issues Presented in the NRC's opening brief (pp. 1-2).

**STATUTES AND REGULATIONS**

All applicable statutes and regulations are contained in the Addendum to Shieldalloy's opening brief.

**STATEMENT OF THE CASE**

Once it found that New Jersey's radiation protection program was adequate and compatible with the NRC's program, the NRC was required under the AEA to allow New Jersey to assume regulatory authority over all licensees, including Shieldalloy. The AEA does not allow the NRC to make an exception to a state's authority solely at the request of a licensee.

The NRC's transfer of authority to New Jersey does not interfere with Shieldalloy's decommissioning proceeding. Shieldalloy has failed to submit an acceptable decommissioning plan since it ceased operations 14 years ago in violation of the NRC's Timeliness Rule. Shieldalloy's four decommissioning plans have all

sought to permanently dispose of its radioactive waste at its Newfield, New Jersey facility, which is located immediately adjacent to residences and businesses. Under the Timeliness Rule, Shieldalloy should have submitted an acceptable decommissioning plan in 2001. Shieldalloy's claim that the 2009 transfer of authority disrupts its licensing proceeding is simply false.

New Jersey carefully crafted its radiation protection program to incorporate certain NRC standards for decommissioning, such as requiring license termination and general ALARA, and providing restricted release options. New Jersey also provided more stringent standards, such as its all controls fail standard. The NRC properly concluded that New Jersey's program was sufficiently protective and compatible.

### **STATEMENT OF FACTS**

#### **1. Background**

To date, Shieldalloy has accumulated approximately 65,800 cubic meters of radioactive waste at its Newfield, New Jersey facility. (DP Rev. 1 page 176). To provide context for the massive quantities involved, an average sized refrigerator is approximately one cubic meter. The waste has been stored on the ground, exposed to the elements without any cover, behind a chain-link fence. (LBP-

08-08 at 7, n.18). Shieldalloy's own decommissioning plan states that the waste contains thorium-232 ("Th-232"), uranium-238 ("U-238"), and radium-226 ("Ra-226"). (DP Rev. 1 page 68-69). U-238 has a half-life of over 4 billion years and Th-232 has a half-life of over 14 billion years. (Handbook of Health Physics and Radiological Health, page 8-4). The facility is located adjacent to residences and businesses. (DP Rev 1b App. 19.1 page 1-5).

Shieldalloy has had two major problems with each of its four decommissioning plans since submitting its first in 2002. First, Shieldalloy has continually failed to provide sufficient technical information in its decommissioning plans to demonstrate that the decommissioned site would safely isolate and contain its radioactive waste. (A12-20; A91-93; A305-A351). Second, Shieldalloy has failed to propose an adequate institutional control<sup>1</sup> for the onsite disposal of its radioactive waste. (A18; A92). As discussed below, the NRC continually warned that Shieldalloy's onsite disposal plan may not be approved. Shieldalloy simply ignored these

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<sup>1</sup> The NRC has stated that acceptable institutional controls for a site containing small quantities of short-lived radioactive materials may include deed restrictions. 62 Fed. Reg. at 39070. Where large quantities of uranium or thorium are present, more stringent institutional controls are required, such as "legally enforceable deed restrictions and/or controls backed up by State and local government control or ownership, engineered barriers, and Federal ownership, as appropriate." Id.

basic requirements by submitting multiple decommissioning plans containing many of the same deficiencies. (A12-20; A91-93; A357-A372).

In 1993, prior to ceasing operations, Shieldalloy submitted a conceptual decommissioning plan to the NRC that proposed to dispose of its radioactive waste onsite. 58 Fed. Reg. 62387, 62388 (Nov. 26, 1993). The NRC responded that the onsite disposal plan may eventually be rejected because "it is inconsistent with NRC's requirements for decommissioning, which require that residual radioactivity be reduced to a level that permits release of the property for unrestricted use." Id. Thus, nearly twenty years ago, Shieldalloy was put on notice that onsite disposal was problematic.

In amending its decommissioning regulations in 1994 and 1997, the NRC stated that for sites containing large quantities of materials contaminated with low level radioactivity, onsite disposal may require the site to be placed under the custody of a State or Federal agency" to fulfill the institutional control requirement. 59 Fed. Reg. 43200, 43217 (Aug. 22, 1994); 62 Fed. Reg. 39058, 39070 (July 21, 1997).

In 1998, Shieldalloy ceased licensed operations. (LBP-08-08 at 3). Although the NRC's Timeliness Rule requires licensees to inform the NRC that it has ceased licensed operations within 24 months of

ceasing operations or within 2 months of deciding to cease principal activities, 10 C.F.R. § 40.42(d), Shieldalloy waited until August 2001 to notify the NRC, (A9-A11). Shieldalloy did not submit its first decommissioning plan until August 2002, four years after it ceased operations. (DP Rev 0 cover page).

Shieldalloy's first decommissioning plan, and each subsequent plan, proposed disposal of its radioactive waste onsite despite prior NRC statements regarding the various regulatory obstacles. (DP Rev 0 page xxi; DP Rev 1 pages xxiii to xxiv; DP Rev 1a App. 19.9 page 1-1; DP Rev 1b page xxv). On February 28, 2003, the NRC rejected the first plan because Shieldalloy proposed governmental custody of the decommissioned site as the institutional control without actually obtaining any government's consent. (A459; A18). Shieldalloy also failed to provide sufficient information regarding dose modeling, engineered controls, and financial assurance. (A12-20).

On May 2, 2003, the NRC Staff issued SECY 03-0069, which constituted an analysis of the NRC's License Termination Rule. (A21). On November 17, 2003, the NRC Commission approved SECY 03-0069. (A62-A63). SECY 03-0069 again placed Shieldalloy on notice that its onsite disposal plan was not viable because additional regulations were required. (A58). SECY 03-0069 recommended creating

a new general license as an institutional control for long-term care for decommissioned sites containing a "higher hazard" or for "longer duration (e.g. long-lived radionuclides such as uranium or thorium sites) . . . ." <sup>2</sup> Id. However, SECY 03-0069 made very clear that this option would require rulemaking "to establish a new general license program and fee category." Id.

On October 21, 2005, Shieldalloy submitted its second decommissioning plan. (DP Rev 1 cover page). The second plan proposed to use the new license in SECY 03-0069 as the institutional control for the onsite disposal of its radioactive waste. (DP Rev 1 pages xxii). The NRC found that this plan contained some of the same technical deficiencies as the first plan, including insufficient institutional and engineered controls, dose modeling, and financial assurance. (A91-93).

The NRC continued to indicate that Shieldalloy's onsite disposal approach may not be approved because of the problem in establishing an acceptable institutional control. In September 2005, the NRC Staff proposed the Long Term Control ("LTC") license, which had been analyzed in SECY 03-0069. (Draft Supplement 1). The

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<sup>2</sup> SECY 03-0069 also proposed a possession only license. (A55). Under SECY 03-0069, the NRC could issue this license for sites containing radioactive waste that did not have a "higher hazard" or "longer duration." See A58.

LTC license was designed to address the circumstance where a licensee could not establish acceptable institutional controls, such as governmental ownership, for a decommissioned site. (Draft Supplement 1 at II-6). But in proposing the license, the NRC stated that the LTC license "should be considered as a last resort." Id. On December 28, 2006, when the NRC provided the final version of the LTC license in a guidance document titled NUREG-1757, the NRC stated that the LTC license "should not be considered a guaranteed option, but would be a last resort under the criteria in 10 CFR 20.1403(b)." (A501, NUREG-1757 vol. I page M-9).

On June 30, 2006, Shieldalloy submitted its third decommissioning plan that relied upon an LTC license as the institutional control. (DP Rev. 1a at 155). The third plan was so deficient on its face that the NRC was compelled to issue a 73-part Request for Additional Information before it undertook any further review. (A305-A351). The Request was required, in part, because Shieldalloy again failed to provide sufficient technical information regarding its dose modeling, (A309-A322), its ALARA analysis, (A326-A344), and its proposed institutional and engineered controls, (A322-A326, A330, A342, A343, A345-A347). The Request also corrected Shieldalloy's purported misunderstanding that the NRC agreed to issue the LTC license as the institutional



control. (A344). The NRC had previously noted these same deficiencies in Shieldalloy's first and second decommissioning plans. (A12; A91-A93). The EPA also reviewed the third decommissioning plan and found it to be "severely deficient." (A352).

On February 22, 2007, NRC Commissioner Jeffrey Merrifield sent Shieldalloy a letter encouraging it to explore decommissioning options that involved offsite disposal of its radioactive waste. (A240).

On June 2, 2008, the Atomic Safety and Licensing Board, an adjudicatory body within the NRC, issued a Memorandum criticizing Shieldalloy for its delay in submitting a compliant decommissioning plan in violation of the Timeliness Rule, or at least the spirit of the Rule.<sup>3</sup> (LBP-08-08 at 2, 6-9, 11-15). The NRC's Timeliness Rule sets strict deadlines for facilities that have ceased operations to decommission their facility. 10 C.F.R. § 40.42(d). The Board recognized that Shieldalloy's delay in disposing the radioactive waste presented a safety risk to Newfield residents, and also noted that disposing the waste offsite at a licensed facility was "relatively low in comparative complexity among the numerous site

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<sup>3</sup> The Memorandum was issued in the proceeding on Shieldalloy's decommissioning plan. The Board stayed a hearing on the plan pending this appeal.

decommissioning proposals [the NRC Staff] confronts." (A369). The NRC affirmed the Board's finding. (A379).

In response to the 73-part Request for Additional Information, on August 28, 2009, Shieldalloy submitted its fourth decommissioning plan to the NRC. (A388-A390). Just days later, the NRC signed the agreement transferring authority to New Jersey. 74 Fed. Reg. 51882 (October 8, 2009).

In the fourth decommissioning plan, Shieldalloy did not propose to terminate its license. (DP Rev 1b pages xviii, xxv). Shieldalloy instead proposed that the NRC would issue an LTC license, which would constitute the institutional control for the onsite disposal of its radioactive waste. Id. Shieldalloy now concedes in its brief that the License Termination Rule requires the NRC to terminate a facility's license upon decommissioning. (Shieldalloy Bf. at 50-54); see also 10 C.F.R. §§ 40.42(k) (requiring termination of the license upon decommissioning), and 20.1003 (defining "decommission" to require termination of the license). Hence, the NRC would have likely rejected the fourth plan because it did not comply with the License Termination Rule.

On May 23, 2006, New Jersey initiated the application process to become an Agreement State pursuant to section 274 of AEA. 40 N.J. Reg. 2309(a), 2310 (May 19, 2008). "Agreement State" status is

New Jersey's assumption of regulatory authority over materials then regulated by the NRC, including source, certain special nuclear, and byproduct material. Id. New Jersey did not seek Agreement State status to regulate Shieldalloy's decommissioning. Rather, New Jersey primarily sought the authority because it wished to retain its long-standing regulation of naturally occurring and accelerator produced radioactive material. Id. The 2005 Energy Policy Act (42 U.S.C. § 13201, et seq.) would have preempted New Jersey's regulation of these radioactive materials unless it became an Agreement State. Id.

New Jersey provided notice and solicited public comments on its proposed regulations to implement its Agreement State authority. 40 N.J. Reg. at 2309; 40 N.J. Reg. 5196(b) (Sept. 15, 2008). The NRC also provided notice and an opportunity for public comment regarding the proposed agreement with New Jersey. 74 Fed. Reg. 25283 (May 27, 2009); 74 Fed. Reg. 26739 (June 3, 2009); 74 Fed. Reg. 27572 (June 10, 2009); 74 Fed. Reg. 28728 (June 17, 2009). After an extensive review, the NRC concluded that New Jersey's Radiation Protection Regulations comply with NRC regulations and are sufficiently protective of the public safety and environment. 74 Fed. Reg. at 51883. On September 30 2009, the NRC and New Jersey executed the agreement. Id.

Pursuant to New Jersey's Agreement State status, the NRC transferred 490 licenses for regulation and 17 pending license applications to New Jersey for review, including Shieldalloy's. 40 N.J. Reg. at 2359; CLI-11-12 at 31.

Shortly after assuming Agreement State status, on October 8, 2009, New Jersey sent Shieldalloy a letter stating that the fourth decommissioning plan did not comply with New Jersey's regulations because it did not propose to terminate its license. (A391). The letter directed Shieldalloy to submit a decommissioning plan that complies with New Jersey's regulations by January 31, 2010. Id. Shieldalloy has yet to submit a decommissioning plan to New Jersey.

## **2. Shieldalloy's Legal Challenges Before Other Forums**

On October 14, 2009, Shieldalloy sought a stay from the NRC of its grant of Agreement State authority to New Jersey. (NRC decision dated Jan. 7, 2010 at 1). On January 7, 2010, the NRC denied Shieldalloy's stay request. Id. at 12-30.

On November 18, 2009, Shieldalloy sought a stay from the NJDEP requirement to submit an acceptable decommissioning plan and sought an exemption from certain regulations. (Shieldalloy letter to NJDEP dated Nov 18, 2009). On December 11, 2009, the NJDEP denied the stay but offered to extend the deadline to submit an acceptable

decommissioning plan to July 31, 2010. (A399-401). The letter also denied the exemption request. Id. NJDEP granted Shieldalloy's request for an adjudicatory hearing in the Office of Administrative Law on the exemption denial and on the radiation license. (A401).

On January 29, 2010, Shieldalloy filed a motion with the New Jersey Superior Court, Appellate Division, to stay the requirement that it submit and implement a decommissioning plan under the NJDEP's regulations. (Court order dated April 12, 2010). The court denied the motion. Id.

Shieldalloy has also filed two appeals in the New Jersey Superior Court, Appellate Division. (Shieldalloy's NOA and CIS dated Sept. 14, 2009 and Nov. 25, 2009). In Docket No. A-278-09T2, Shieldalloy challenged the NJDEP's regulations adopted to implement its Agreement State authority. (Shieldalloy's NOA and CIS dated Sept. 14, 2009). In Docket No. A-1481-09T2, Shieldalloy filed a separate Notice of Appeal challenging a NJDEP letter dated October 8, 2009, that required Shieldalloy to submit a decommissioning plan complying with the NJDEP's regulations, (A391; Shieldalloy's NOA and CIS dated Nov. 25, 2009).

In Shieldalloy Metallurgical Corp. v. State Dep't of Env'tl. Prot., 743 F. Supp. 2d 429, 431 (D.N.J. 2010), the District Court dismissed Shieldalloy's complaint against New Jersey asserting that

New Jersey's assumption of Agreement State authority violates a 1997 bankruptcy settlement agreement and other alleged agreements between New Jersey and Shieldalloy. Id. On November 10, 2010, Shieldalloy filed a Notice of Appeal with the Third Circuit. (No. 10-4319).

The parties jointly moved to stay these matters pending this appeal.

3. **Shieldalloy's Legal Challenges Before This Court**

In November 2009, Shieldalloy filed its first Petition for Review in this Court. Shieldalloy Metallurgical Corp. v. NRC, 624 F.3d 489 (D.C. Cir. 2010). The Petition challenged the NRC's grant of Agreement State authority to New Jersey. New Jersey participated as an amicus curiae.

This Court remanded the transfer of jurisdiction over the Shieldalloy facility back to the NRC on the basis that the NRC had failed to adequately explain how the transfer of jurisdiction would not interfere with or interrupt Shieldalloy's decommissioning application. Id. at 494-95. This Court also held that it could not rule on the NRC's interpretation of the AEA--that it was not permitted to make an exception to a state's authority at the sole

request of a licensee--because the NRC provided this interpretation for the first time during oral argument. Id. at 495.

On January 3, 2011, the NRC invited Shielddalloy and New Jersey to submit their views on whether the NRC should reinstate the transfer of regulatory authority to New Jersey or retain it. (CLI-11-12 at 2). Shielddalloy and New Jersey submitted their views. (New Jersey's Feb. 4, 2011 and Feb. 11, 2011 letters).

On October 12, 2011, the NRC issued a Memorandum and Order that remanded jurisdiction over Shielddalloy back to New Jersey. (CLI-11-12). The Memorandum and Order closely examined the language and legislative history of subsections 274b and 274d of the AEA, 42 U.S.C. §§ 2021(b), 2021(d), which authorize the NRC to enter into an agreement with a state to regulate radioactive materials. (CLI-11-12 at 12-20). It found that the AEA does not grant the NRC authority to withhold regulatory authority where a state requests to regulate certain nuclear materials and has a compatible and adequate regulatory program. Id. The Memorandum and Order also considered and rejected Shielddalloy's assertions that New Jersey's program was not compatible or adequate to protect the public safety and the environment. Id. at 20-50.

**SUMMARY OF THE ARGUMENT**

The NRC properly interpreted the AEA as requiring it to transfer authority to New Jersey because New Jersey's radiation program is compatible and adequate to protect the public health and safety and because New Jersey requested Agreement State status. The AEA does not allow the NRC to make an exception to New Jersey's authority at Shielddalloy's sole request.

Shielddalloy's argument that the 2009 transfer of authority to New Jersey disrupts its licensing proceeding is unfounded. Shielddalloy has failed to submit an acceptable decommissioning plan in 14 years, in violation of the NRC's Timeliness Rule. Shielddalloy had no approvable decommissioning plan. (A305-351). Shielddalloy now admits that its last decommissioning plan violates the License Termination Rule. (Shielddalloy Bf. at 50-54). Thus, New Jersey's assumption of authority could not disrupt the licensing proceeding.

The assertion that New Jersey was hostile in past decommissioning proceedings is without basis and should also be rejected. New Jersey simply raised legitimate factual, technical, and legal concerns about Shielddalloy's various decommissioning plans, many of which were also raised by the NRC and the EPA.

Shielddalloy's argument that New Jersey's radiation protection program is incompatible or less protective than the NRC's



regulations lacks merit. The NRC conducted a thorough review of New Jersey's radiation protection program and correctly concluded that it is sufficiently protective of the public health and safety and compatible with the NRC's program. For example, New Jersey adopted the NRC's ALARA principle. N.J. Admin. Code § 7:28-6.1(a) (incorporating 10 C.F.R. § 20.1101(b)); see also 10 C.F.R. § 20.1003 (the definition of ALARA), and requires license termination for decommissioned facilities. N.J. Admin. Code § 7:28-58.1(c)(27) (incorporating 10 C.F.R. § 40.42(k)); N.J. Admin. Code § 7:28-6.1 (incorporating the definition of "decommission" at 10 C.F.R. § 20.1003). New Jersey's all controls fail scenario dose modeling requirement is actually more stringent than the NRC's all controls fail requirement. Compare N.J. Admin. Code § 7:28-12.11(e) (100 mrem per year dose limit), with 10 C.F.R. § 20.1403(e)(2) (up to 500 mrem per year dose limit).

**ARGUMENT**

***Standard of Review***

New Jersey agrees with the arbitrary and capricious standard of review in respondent NRC's opening brief (pp. 32-34).

**Point I**

**BECAUSE THE NRC FOUND THAT NEW JERSEY'S RADIATION PROTECTION PROGRAM IS ADEQUATE AND COMPATIBLE, THE ATOMIC ENERGY ACT REQUIRES THE NRC TO TRANSFER REGULATORY AUTHORITY TO NEW JERSEY.**

Section 274 of the AEA, 42 U.S.C. § 2021, provides the conditions under which the NRC is required to transfer its regulatory authority to a state. The NRC considered section 274's language and construction, underlying policies, and legislative history. (CLI-11-12 at 12-19). The NRC properly concluded that it lacks the authority to withhold authority from a state that wants it and has a qualifying program.

Subsection 274d of the AEA provides the specific "[c]onditions" on which regulatory authority can be turned over to the states. 42 U.S.C. § 2021(d). Subsection d provides that the NRC "shall enter into an agreement under subsection b of this section with any State if" certain conditions are met - namely, the state's

governor "certifies that the State has a program for the control of radiation hazards adequate to protect the public health and safety with respect to the materials within the State covered by the proposed agreement, and that the State desires to assume regulatory responsibility for such materials," and "the Commission finds that the State program is . . . compatible with the Commission's program for regulation of such materials, and . . . adequate to protect the public health and safety with respect to the materials covered by the proposed agreement." Id. (emphasis added).

Because subsection d uses the mandatory phrase "shall," the NRC reasonably interpreted this provision as requiring the NRC to turn over authority to a state where it meets the subsection d criteria. (CLI-11-12 at 13). Congress' use of the term "shall" was intentional since an earlier version of the bill used the permissive term "may." Id. at 13.

Subsection b refers to NRC's authority to enter into an agreement covering "any one or more of" the three types of nuclear material regulated under the AEA. 42 U.S.C. § 2021(b). This provision does not allow the NRC to make exceptions to a state's regulatory authority at the request of a licensee. Rather, the provision simply makes clear that section 274 "'does not authorize a wholesale relinquishment or abdication by the Commission of its

regulatory responsibilities but only a gradual, carefully considered turnover, on a State-by-State basis, as individual States may become qualified.'" CLI-11-12 at 17 (quoting Joint Committee Report at 8). The mandatory nature of subsection 274d reflects Congress' objective of resolving the complex and "difficult question of Federal-State relationship in connection with nuclear activities," mindful of the "delicate ground [that] exists between the jurisdiction of the Federal Government and the sovereign jurisdiction of the States. . . ." CLI-11-12 at 15 (quoting 105 Cong. Rec. S17510 (Sept. 11, 1959) (Remark of Sen. Hickenlooper); see also Alden v. Maine, 527 U.S. 706, 714, 119 S. Ct. 2240, 2247, 144 L.Ed.2d 636, 653 (1999) (the Constitution reserves to states a "substantial portion of the Nation's primary sovereignty, together with the dignity and essential attributes inhering in that status.")).

The NRC warned that allowing licensees to object to a state's authority could allow the licensee to manipulate the license application process. (CLI-11-12 at 19). Shieldalloy argues that the NRC's concern is speculative and "bears no connection to reality." (Shieldalloy Bf. at 30). Shieldalloy points to its own "arduous efforts to gain NRC approval of its DP" as support. Id. In fact, Shieldalloy's 11-year delay in pursuing one failed decommissioning

plan after another and its subsequent refusal to submit a decommissioning plan to New Jersey illustrates how a licensee can continue to manipulate the process if permitted to object to an agreement state's authority.

**Point II**

**THE TRANSFER OF REGULATORY AUTHORITY DOES NOT  
DISRUPT SHIELDALLOY'S LICENSING PROCEEDING BECAUSE  
SHIELDALLOY FAILED TO SUBMIT A TIMELY, ACCEPTABLE  
DECOMMISSIONING PLAN.**

Transferring authority to New Jersey for the Shieldalloy decommissioning does not disrupt any ongoing licensing proceedings because Shieldalloy has yet to submit an acceptable decommissioning plan. Because a plan has never been approved, there is no "proceeding" to disrupt. Shieldalloy now concedes that its fourth decommissioning plan does not comply with the License Termination Rule. (Shieldalloy Bf. at 50-54). Shieldalloy's single facility should not be exempt from New Jersey's jurisdiction simply because Shieldalloy has delayed compliance.

The NRC's Timeliness Rule provides strict deadlines for decommissioning a facility. 10 C.F.R. § 40.42(d). Where the licensee decides to cease principal activities, or such activities have ceased for 24 months, the Rule requires the licensee to notify the NRC and submit an acceptable decommissioning plan within 12 months of the notification. Id. In this case, Shieldalloy ceased principal activities at the Newfield facility in 1998. (A244-245). It was not until August 2001 that Shieldalloy notified the NRC of the cessation. (A246). Although an acceptable plan was due 12

months later, Shieldalloy has yet to submit an acceptable plan to either the NRC or, now, New Jersey. Thus, Shieldalloy's ten-year delay violates the Timeliness Rule, or at the very least, the Rule's spirit.

Shieldalloy's four decommissioning plans have each sought to dispose of its radioactive waste by capping the waste at its Newfield facility. (DP Rev 0 page xxi; DP Rev 1 pages xxiii to xxiv; DP Rev 1a App. 19.9 page 1-1; DP Rev 1b page xxv). The plans have proposed different forms of a cap. The first two plans proposed a cap consisting of soil, crushed stones, and a HDPE plastic membrane. (DP rev. 0 Fig. 18.10; DP rev. 1 page 37 note 92, pages 60-61, Fig. 18.8). The third decommissioning plan mistakenly proposed to both include and exclude a geotextile membrane with the soil and crushed stones. (Compare DP rev. 1a Fig. 18.8, pages 38, 64, 73, 74, note 184, with Shieldalloy's July 30, 2006 cover letter Attachment 1 page 7). The fourth plan proposed to include a geotextile membrane with the soil and crushed stones. (DP rev. 1b Fig. 18.8). Shieldalloy's first plan proposed institutional controls that included a fence, signs, a recorded deed notice, and government ownership of the site. (DP Rev 0 page xxiii). Subsequent plans substituted government ownership for a NRC issued LTC license that would amend Shieldalloy's current license upon

decommissioning. (DP Rev 1 pages xxiii to xxiv; DP Rev 1a App. 19.9 page 1-1; DP Rev 1b page xviii). The LTC license would require Shieldalloy or a third-party to maintain the decommissioned site for 1,000 years. (Rev 1b page xviii). The NRC rejected these first three plans before transferring authority to New Jersey. (A12-20, A88-93, A305-351). Shieldalloy now concedes that the fourth plan does not comply with the License Termination Rule. (Shieldalloy Bf. at 50-54).

Shieldalloy argues that the NRC had a long history of cooperation where both parties sought to dispose of Shieldalloy's radioactive waste onsite. (Shieldalloy Bf. at 35); see also Shieldalloy, 624 F.3d at 494-95. However, as discussed above in the Statement of Facts, the NRC had been stating for many years that Shieldalloy's onsite disposal plan may not be an option for its facility for two reasons. See, e.g., 58 Fed. Reg. 62387, 62388 (Nov. 26, 1993); 59 Fed. Reg. at 43217; 62 Fed. Reg. at 39070; A58; A379; A305-351. First, Shieldalloy has continually failed to provide sufficient technical information in its various decommissioning plans to justify that the decommissioned site would safely contain Shieldalloy's radioactive waste, which will remain a radioactive hazard for billions of years. (A12-20; A91-93; A305-351). Second, NRC regulations adopted before Shieldalloy submitted



its first plan likely prohibit the onsite disposal of Shieldalloy's radioactive waste. See, e.g., 10 C.F.R. §§ 20.1403(b) (requiring sufficient institutional controls for restricted release decommissioning), 40.42(k) (requiring license termination upon decommissioning). Shieldalloy simply ignored these obstacles by submitting multiple decommissioning plans containing the same deficiencies. (A12-20; A91-93; A305-351).

As discussed in the Statement of Facts, the NRC recognized that Shieldalloy's conceptual onsite disposal plan may eventually be rejected because "it is inconsistent with NRC's requirements for decommissioning, which require that residual radioactivity be reduced to a level that permits release of the property for unrestricted use." 58 Fed. Reg. at 62388.

In amending its decommissioning regulations in 1994 and 1997, the NRC stated both times that for sites containing large quantities of materials contaminated with low level radioactivity, onsite disposal may require the site to be placed under the custody of a State or Federal agency to fulfill the institutional control requirement. 59 Fed. Reg. at 43217; 62 Fed. Reg. at 39070.

On May 2, 2003, the NRC Staff issued SECY 03-0069, which constituted an analysis of the NRC's License Termination Rule. (A21). On November 17, 2003, the Commission approved SECY 03-0069.

(A62-A63). SECY 03-0069 again placed Shieldalloy on notice that its onsite disposal plan was not viable because additional regulations were required. (A58). SECY 03-0069 recommended creating a new general license as an institutional control for long-term care for decommissioned sites containing a "higher hazard" or for "long-lived radionuclides such as uranium or thorium sites." Id. However, SECY 03-0069 made very clear that this option would require rulemaking "to establish a new general license program and fee category."<sup>4</sup> Id.; see also 42 U.S.C. §§ 2232(a), 2233 (requiring the NRC to provide the terms and conditions of each license in a rule or regulation).

The NRC would also be required to amend the License Termination Rule to allow sites to decommission without terminating

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<sup>4</sup> Because the first decommissioning plan was so deficient, on April 15, 2004, the NRC Staff attempted to guide Shieldalloy by issuing the NRC Staff Interim Guidance for a Long-Term Control Possession Only License at the Shieldalloy Newfield Site, New Jersey. (A153). The guidance suggested proposing the new license from SECY 03-0069, even though the NRC had not yet issued regulations providing the license. Id. It should be noted that the 5-member Commission never approved the Interim Guidance. Moreover, the NRC is not required to grant a proposed license merely because a decommissioning plan follows a NRC guidance since the guidance does not constitute a regulation. See New Jersey v. United States NRC, 526 F.3d 98, 102 (3d Cir. 2008). The Commission would likely reject a Shieldalloy decommissioning plan that included the LTC license because, as Shieldalloy now concedes, the NRC's License Termination Rule requires a facility's license to be terminated upon final decommissioning. (Shieldalloy Bf. at 50-54).

their license. See 10 C.F.R. §§ 20.1003 (defining "decommission" as requiring license termination), 40.42(k) (requiring license termination upon decommissioning). Shieldalloy now concedes this in its brief. (Shieldalloy Bf. at 50-54).

The NRC has continually expressed its preference for unrestricted release of a decommissioned site, which would require a facility's radioactive waste to be disposed offsite at a licensed disposal facility. See, e.g., CLI-11-12 at 39 ("in view of the inherent complexities and uncertainties associated with restricted release, we explicitly expressed a preference for unrestricted release in adopting our license termination rule."); A379 ("unrestricted release is the preferable method for terminating radioactive materials licenses"); A501 (use of the LTC license for restricted release "should not be considered a guaranteed option, but would be a last resort . . . ."). The ALARA initial eligibility test under 10 C.F.R. § 20.1403(a) is a manifestation of this preference. (CLI-11-12 at 41; NRC Bf. at 55-56).

Shieldalloy concedes that the NRC's License Termination Rule requires license termination upon decommissioning. (Shieldalloy Bf. at 50-54). However, Shieldalloy's second, third and fourth decommissioning plans failed to propose to terminate its license upon decommissioning. (DP Rev. 1 at xxii; DP Rev.1a at 155; DP

Rev.1b at 116-117). Rather, the plans proposed that the NRC would amend Shieldalloy's current license to the LTC license. Id. By Shieldalloy's own admission, the NRC could not approve the fourth decommissioning plan because it does not propose license termination. (Shieldalloy Bf. at 50-54); see also 10 C.F.R. §§ 40.42(k) (requiring termination of the license upon decommissioning), and 20.1003 (defining "decommission" to require termination of the license).

Shieldalloy asserts that it wasted time and resources submitting the fourth decommissioning plan under the NRC's regulations. (Shieldalloy Bf. at 35). However, New Jersey's review of the fourth decommissioning plan indicates that much of the technical work could be applied to a decommissioning plan submitted under New Jersey's regulations. (NJ's letter dated Feb. 4, 2011 at 28-29). In any event, Shieldalloy now concedes that the fourth plan was not approvable under the NRC's License Termination Rule. (Shieldalloy Bf. at 50-54).

It was Shieldalloy's choice to continue to pursue one failed on-site disposal plan after another over the last 14 years for what the Atomic Safety and Licensing Board called a decommissioning that is "relatively low in comparative complexity." See LBP-08-08 at 13. Shieldalloy continually failed to provide sufficient information in

its decommissioning plans even though the NRC continually noted these deficiencies. (A12-20; A91-93; A305-351). Shieldalloy continually ignored the institutional control requirement for the onsite disposal plan. (A18; A92). Shieldalloy now admits that its latest decommissioning plan does not comply with the NRC's regulations because it does not propose to terminate its license. (Shieldalloy Bf. at 50-54; DP Rev.1b at 116-117). Because Shieldalloy repeatedly failed to submit an acceptable decommissioning plan in violation of the NRC's Timeliness Rule, it cannot complain that the transfer of authority to New Jersey interferes with its decommissioning proceeding. By its own actions, Shieldalloy never left square one. It cannot complain that it finds itself there now.

Shieldalloy argues that New Jersey's assumption of regulatory authority over Shieldalloy will result in the "abrupt termination" of Shieldalloy's decommissioning plan. (Shieldalloy Bf. at 35). In support, Shieldalloy cites to this Court's dicta, made without the benefit of briefing on the issue, that New Jersey's participation in Shieldalloy's licensing proceeding "has been consistently hostile." Shieldalloy, 624 F.3d at 494-95. However, this Court also observed that "New Jersey is entitled to take part in hearings on licensing actions and to petition for rulemaking, and that the

state's exercise of those rights did not in themselves indicate the New Jersey plan's incompatibility with the federal regime under criterion 25." Id. at 493. New Jersey's participation in the Shieldalloy licensing proceeding has not been hostile, and New Jersey's assumption of jurisdiction over the Shieldalloy decommissioning need not "inevitably result in the . . . abrupt termination[] of the processing of Shieldalloy's license application." (See Shieldalloy Bf. at 35).

New Jersey simply raised legitimate factual, technical, and legal problems with the decommissioning plans, many of which were also raised by the NRC and the EPA. For example, the NRC, the EPA, and New Jersey all raised similar concerns regarding Shieldalloy's proposed institutional and engineering controls, (A384-A385; A322-A326, A330, A342, A343, A345-A347; A353, A355; A152, A194), its proposed financial assurance, (A191); 72 Fed. Reg. 46102, 46103 (Aug. 16, 2007) (providing notice that the NRC was rescinding the investment rate utilized by Shieldalloy); (A355), and its failure to provide sufficient technical information to demonstrate that the plan will safely isolate the radioactive waste<sup>5</sup>.

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<sup>5</sup> The specific information regarded (1) potential contamination of groundwater, (A311, A319-A322; A356; A139, A146, A197); (2) the proposed cap, (A311; A355; A152); (4) investigating the site for radioactive contamination, (A315-A316; A354-A356; A159, A197,

New Jersey's participation in the decommissioning proceeding was limited to raising legitimate technical and legal problems with Shieldalloy's various onsite disposal plans, which were also raised by the NRC and EPA. The concerns need to be addressed, regardless of whether New Jersey or the NRC has jurisdiction. Transferring authority to New Jersey will not disrupt its licensing proceeding.

### **Point III**

#### **NEW JERSEY'S RADIATION PROTECTION PROGRAM IS PROTECTIVE OF THE PUBLIC SAFETY AND ENVIRONMENT AND COMPATIBLE WITH THE NRC'S PROGRAM.**

Shieldalloy criticizes New Jersey's regulatory program as being both too stringent and too lax, and therefore argues that delegation is not appropriate. (Shieldalloy Bf. at 41-56). To the extent that Shieldalloy challenges the specifics of New Jersey's program, its challenge belongs in the New Jersey Superior Court, Appellate Division, where Shieldalloy has an action pending. (Shieldalloy NOA and CIS dated Sept. 14, 2009). However, in making its decision to delegate, the NRC carefully reviewed New Jersey's program and determined that delegation was appropriate. This

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A201); (5) proper modeling of radiation doses to the public, (A309, A319-A321; A354; A164); and (6) the ALARA analysis, (A313-A314, A326-A33; A183).

determination is entitled to deference. See Baltimore Gas & Elec. Co. v. Natural Res. Defense Council, Inc., 462 U.S. 87, 103, 103 S. Ct. 2246, 2255, 76 L. Ed. 2d 437, 450 (1983). Examining the specifics of Shieldalloy's arguments supports the NRC's decision.

A. New Jersey Adopted the ALARA Principle.

Shieldalloy argues that New Jersey's radiation protection program is incompatible with the NRC program because New Jersey did not adopt the ALARA (as low as is reasonably achievable) principle. (Shieldalloy Bf. at 41). However, Shieldalloy's understanding of the ALARA principle is misplaced. New Jersey incorporated the general ALARA principle, which requires all doses to workers and the public to be reduced below the applicable dose limits in accordance with ALARA. N.J. Admin. Code § 7:28-6.1(a) (incorporating 10 C.F.R. § 20.1101(b)). 10 C.F.R. § 20.1101(b) provides that "[t]he licensee shall use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable (ALARA)." See also 10 C.F.R. § 20.1003 (defining ALARA) (incorporated by N.J. Admin. Code § 7:28-6.1(d)(2)).



New Jersey did not, however, adopt the ALARA principle articulated at 10 C.F.R. § 20.1403(a). Shieldalloy claims this renders New Jersey's program incompatible because the licensee is required under this ALARA test to compare doses between a decommissioning under restricted release and unrestricted release. (Shieldalloy Bf. at 43-47). However, the NRC considered this argument in the remand and explained that 10 C.F.R. § 20.1403(a) does not require such a comparison. (CLI-11-12 at 40). Rather, 10 C.F.R. § 20.1403(a) simply provides an initial eligibility test for determining if restricted release decommissioning is allowable. Id. at 41. If a licensee seeks approval of the restricted release option, it must demonstrate, in part, that that further reductions in residual radioactivity necessary to decommission under the unrestricted use option could not be justified under a cost-benefit analysis. CLI-11-12 at 41; 10 C.F.R. § 20.1003 (the definition of ALARA).

New Jersey's radiation program is sufficiently protective of the public safety and environment even though it decided not to adopt the ALARA principle into an initial eligibility test for restricted release because New Jersey instead incorporated a more stringent "all-controls-fail" dose standard to protect the public safety and the environment. Under both the NRC and New Jersey

regulations, a decommissioning facility seeking to cap its radioactive waste onsite is required to model doses of radiation to members of the public if engineering and institutional controls fail. 10 C.F.R. § 20.1403(e)(2); N.J. Admin. Code 7:28-12.11(e), -12.15(a). Under the "all-controls-fail-scenario," New Jersey regulations limit doses to 100 mrem per year, N.J. Admin. Code § 7:28-12.11(e), while the NRC's regulations allow up to 500 mrem per year, 10 C.F.R. § 20.1403(e)(2).

In sum, New Jersey has adopted the general ALARA requirement under 10 C.F.R. § 20.1101. N.J. Admin. Code § 7:28-6.1(a); see also CLI-11-12 at 34-44. Although New Jersey did not adopt ALARA for the initial eligibility determination for restricted release, New Jersey's adoption of a more stringent dose standard adequately protects the public safety and environment when a decommissioning facility seeks to cap its radioactive waste onsite and is compatible with the NRC's requirements.

B. New Jersey's Regulations Require  
License Termination for a  
Decommissioned Facility.

Shieldalloy argues that New Jersey's regulations fail to implement the NRC's regulations that require license termination for a site decommissioned under restricted-use conditions.

(Shieldalloy Bf. at 50-52). This argument fails for a number of reasons. First it fails procedurally because Shieldalloy failed to raise it below. See United Transp. Union v. Surface Transp. Bd., 114 F.3d 1242, 1244-45 (D.C. Cir. 1997).

Second, Shieldalloy's assertion is factually wrong. New Jersey's regulations do require license termination for sites decommissioned under the restricted release standard. At N.J. Admin. Code § 7:28-58.1(c)(27), New Jersey specifically incorporated by reference, with a minor change to cross-reference its general remediation standards for radioactive materials, the NRC regulation, 10 C.F.R. § 40.42(k), that requires license termination for a decommissioned site. This rule provides: "Specific licenses, including expired licenses, will be terminated by written notice to the licensee when the Commission determines that: . . . (3)(i) A radiation survey has been performed which demonstrates that the premises are suitable for release in accordance with the criteria for decommissioning . . . ." In addition, New Jersey incorporated the NRC's definition of "decommission," which requires "termination of the license." 10 C.F.R. § 20.1003 (incorporated by N.J. Admin. Code § 7:28-6.1).

Moreover, it is disingenuous for Shieldalloy to argue that New Jersey's program is flawed for failing to require license

termination where Shieldalloy's third and fourth decommissioning plans did not even propose to terminate its license. (DP Rev.1a at 155; DP Rev.1b at 116-117). Instead, Shieldalloy's plans proposed to amend its current license to the LTC license. Id.

Shieldalloy argues that where a site is decommissioned under restricted-use conditions, the licensee remains responsible for a decommissioned site under a "remedial action permit." (Shieldalloy Bf. at 52 (citing N.J. Admin. Code § 7:26C-7.10(b))). A New Jersey remedial action permit requires the permittee to certify that its engineering and institutional controls and financial assurance are still in place. N.J. Admin. Code § 7:26C-7.3, -7.4. However, New Jersey does not utilize the remedial action permit for remediations subject to its Agreement State authority, under N.J. Admin. Code § 7:28-12.1 et seq. See N.J. Admin. Code § 7:26C-1.4(a).<sup>6</sup>

Shieldalloy argues that New Jersey does not allow for long-term control of a remediated site by a governmental entity because it did not incorporate 10 C.F.R. § 40.27, which provides permits to federal agencies to care for tailings disposal facilities.<sup>7</sup>

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<sup>6</sup> Shieldalloy failed to raise this issue below, either to the NRC or New Jersey.

<sup>7</sup> Shieldalloy states in footnote 23 that New Jersey does not allow for the issuance of a long-term care and control license. (Shieldalloy Bf. at 53 n.23). As explained above, New Jersey does

(Shieldalloy Bf. at 53). New Jersey did not adopt 10 C.F.R. § 40.27 because the Federal government retains its sovereign immunity from state regulation under the AEA. See United States v. Kentucky, 252 F.3d 816, 825 (6th Cir. 2001). New Jersey was not allowed to adopt this section because it pertains to regulating the Department of Energy. New Jersey lacks the authority to license the Federal government.

Furthermore, New Jersey incorporated the NRC regulations that provide for long-term control of a remediated site by a governmental entity. N.J. Admin. Code § 7:28-12.12(b)(2) (incorporating 10 C.F.R. § 20.1403(c)). The regulations specifically provide the option of a "governmental custodian of a site." 10 C.F.R. § 20.1403(c); see also 10 C.F.R. § 20.1403(c)(3), (4).

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not issue such license for decommissioned facilities because it requires the license to terminate upon decommissioning.

C. The NRC Properly Found that the  
Changes New Jersey Adopted from  
the NRC's Regulations Are  
Compatible and Protective of the  
Public Safety and Environment.

New Jersey carefully considered the NRC decommissioning and remediation standards and adopted certain reasonable changes that are compatible with the NRC standards.

Shieldalloy complains that New Jersey's regulations are not compatible because they set a different dose standard of 15 mrem per year (instead of the NRC's 25 mrem per year), require dose modeling beyond 1,000 years, and subject licensees to the New Jersey Ground Water and Surface Water Standards. (Shieldalloy Bf. at 55-56). But the only reason Shieldalloy cites in support of its argument is that these rules are too stringent. Id. at 56-57. However, the NRC explained that under its 1997 Policy Statement, a state's more stringent regulations are not a basis for rejecting a request for Agreement State status. CLI-11-12 at 31 (citing 1997 Policy Statement, 62 Fed. Reg. 46517, 46520 (Sept. 3, 1997)).

Furthermore, the New Jersey regulations at issue are not necessarily more stringent than federal requirements. The NRC concluded that ALARA would generally require doses to be brought down to 15 mrem per year under its own regulations:

the costs of reducing exposures to, or in some cases below, a 0.15 mSv/y (15 mrem/y) criterion would not generally be unduly burdensome for most licensees, although in those cases where the costs would present an unreasonable burden, release of the site with restrictions placed on its use would provide an alternative means for achieving the same level of protection.

62 Fed. Reg. at 39060.

Although New Jersey's regulations explicitly require licensees in certain circumstances to model to the peak dose if they occur beyond 1,000 years, N.J. Admin. Code § 7:28-12.11(f)(2)(iii), the NRC stated that it would require the same peak dose modeling for long-lived radionuclides, 62 Fed. Reg. at 39083 (Response F.7.3).

Finally, a remediation under New Jersey's radiation program requires compliance with New Jersey's Ground Water and Surface Water Standards. N.J. Admin. Code § 7:28-12.8(b), (c). This is necessary to ensure compliance with federal standards for surface and drinking waters. The Federal Clean Water Act requires states' surface water standards to be no less stringent than the EPA standards. 33 U.S.C. §§ 1313, 1370. New Jersey's Surface Water standards under N.J. Admin. Code § 7:9B-1.14(d)(6) incorporate the EPA's Surface Water Quality standards for radioactivity at 40 C.F.R. §§ pt. 122 App. D, 130.3, 130.7. The Federal Safe Drinking Water Act requires the EPA to establish maximum drinking water

contaminant levels and requires states to adopt drinking water standards that are no less stringent than EPA standards. 42 U.S.C. §§ 300g-1, 300g-2. New Jersey's groundwater standards incorporate the EPA's standards pertaining to gross alpha, gross beta, uranium and radium radionuclides. 40 C.F.R. §141.66(e); N.J. Admin. Code § 7:9C-1, App.

In any event, New Jersey allows licensees to seek exemptions from any of its radiation protection regulations as long as radiation limits are met and the licensee can demonstrate hardship or compelling need. N.J. Admin. Code § 7:28-2.8.

Shieldalloy claims that the combined effect of New Jersey's departures from the NRC's program renders the NRC's decision to grant New Jersey Agreement State status arbitrary and capricious. (Shieldalloy Bf. at 60). But as discussed above, New Jersey's program is compatible with the NRC's program and sufficiently protective of the public safety and the environment. The NRC affirmed the finding after an exhaustive review of New Jersey's program in the Agreement State application and again in 2011 when the NRC remanded jurisdiction over Shieldalloy back to New Jersey. 74 Fed. Reg. at 51883; CLI-11-12 at 20-50. Such technical determinations are entitled to a heightened level of deference. See Baltimore Gas, 462 U.S. at 103, 103 S. Ct. at 2255, 76 L. Ed. 2d at



450 (a reviewing court “must generally be at its most deferential” when reviewing an agency’s scientific determinations in an area within the agency’s technical expertise).

#### **Point IV**

##### **NEW JERSEY’S RADIATION PROTECTION PROGRAM IS FAIR AND IMPARTIAL.**

Shieldalloy complains that the New Jersey regulations unfairly target its facility.<sup>8</sup> (Shieldalloy Bf. at 58-59). But New Jersey’s regulations are generally applicable to the “remediation of real property contaminated by radioactive materials.” N.J. Admin. Code § 7:28-12.1. The remediation standards set forth at N.J. Admin. Code § 7:28-12.8 apply uniformly to all “sites” contaminated by radioactive materials.

Shieldalloy asserts that five of New Jersey’s regulatory provisions demonstrate that the facility is unfairly targeted. (Shieldalloy Bf. at 58). Shieldalloy first points to the absence of ALARA. Id. But as discussed above in Point III.A, New Jersey has adopted the general ALARA requirement.

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<sup>8</sup> Shieldalloy has raised an identical argument in its appeal of New Jersey’s regulations in the New Jersey Superior Court, Appellate Division. (Shieldalloy’s CIS dated Sept. 14, 2009).

Second, Shieldalloy argues that New Jersey does not provide a restricted release option for license termination. (Shieldalloy Bf. at 58). However, New Jersey provides three options for restricted release, under which licensees may apply to leave contaminated soils or materials at the decommissioned site. Two of these options, the limited restricted use and restricted use options, require the licensee to remediate radioactive contamination so that the soil concentration for radionuclides meet the concentration standards set forth in the tables at N.J. Admin. Code § 7:28-12.9. The third option allows licensees to seek alternative standards. N.J. Admin. Code § 7:28-12.9. Further, as discussed above in Point III.B, New Jersey requires license termination for a decommissioned facility.

Third, Shieldalloy argues that New Jersey's requirement to model the peak dose beyond 1,000 years unfairly targets its facility. (Shieldalloy Bf. at 58). But the NRC also requires modeling beyond 1,000 years if the peak dose occurs after 1,000 years. 62 Fed. Reg. at 39083 (Response F.7.3). Furthermore, New Jersey only requires peak dose modeling if the licensee applies for the alternative standards decommissioning. N.J. Admin. Code § 7:28-12.11(a)(1), (f)(2).

Fourth, Shieldalloy complains that New Jersey requires the calculation of potential doses using only specific exposure scenarios and does not allow credit for gradual degradation of engineering controls over time. This argument relates to the peak dose modeling requirement, which only applies if a licensee seeks alternative standards. Id. § 7:28-12.11(a)(1), (f)(2). Contrary to Shieldalloy's claim, New Jersey's regulations allow applicants to propose alternative exposure scenarios. Id. § 7:28-12.11(c)(4). New Jersey does not allow credit for gradual degradation of engineering controls under alternative standards because New Jersey requires applicants to assume a worst-case scenario: that engineered barriers completely fail. 40 N.J. Reg. at 5200. This assumption is reasonable for long-lived radioactive materials located in a populated area since individuals may damage engineering controls if signs or fences fail. Id.

Fifth, Shieldalloy states in cursory fashion that New Jersey's program does not assure the fair and impartial administration of regulatory law. However, if Shieldalloy objected to a NJDEP licensing decision, Shieldalloy would be entitled to independent review through an administrative hearing in the New Jersey Office of Administrative Law ("OAL"). N.J. Admin. Code § 7:28-4.18. The OAL is an independent agency pursuant to its authorizing statute.

N.J. Stat. Ann. § 52:14F-1. After the OAL issues its Initial Decision, the NJDEP issues a final decision. The licensee has the right to appeal the final NJDEP decision to the New Jersey Superior Court, Appellate Division, an independent appellate court in the judiciary branch. N.J. Court Rule 2:2-3(a)(2). "In New Jersey, judicial review of administrative agency determinations has the support of a special constitutional provision (art. VI, sec. 5, para. 4) which largely immunizes it from legislative curbs." In re Senior Appeals Examiners, 290 A.2d 129, 132 (1972). New Jersey courts apply the same arbitrary, capricious, and unreasonable standard to agency actions as federal courts. See, e.g., N.J. State League of Municipalities v. Dep't of Cmty. Affairs, 729 A.2d 21, 27 (1999). As discussed above, Shieldalloy has filed numerous challenges in these various forums, demonstrating that it is receiving due process through impartial proceedings.

**CONCLUSION**

For the reasons set forth above, the petition for review should be denied.

Respectfully submitted,

JEFFREY S. CHIESA  
ATTORNEY GENERAL OF NEW JERSEY

Dated: June 12, 2012

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

**CERTIFICATE OF INTERVENOR**

New Jersey is permitted to file a separate brief under D.C. Cir. R. 28(d)(4). Also, New Jersey is filing a separate brief to elaborate on its radiation protection program and on Shieldalloy's unacceptable delays in submitting a decommissioning plan.

Dated: June 12, 2012

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

**CERTIFICATE OF LENGTH OF BRIEF**

I hereby certify that the foregoing Brief for the Intervener of New Jersey contains 8,301 words, excluding the Table of Contents, Table of Authorities, Pertinent Statutes and Regulations and Certificates of Counsel, as counted by the Microsoft Word 2010 program.

Dated: June 12, 2012

By: /s/ Andrew D. Reese  
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**CERTIFICATE OF SERVICE**

I hereby certify that on June 12, 2012, an electronic copy of the foregoing Brief for the Intervenor State of New Jersey was filed with the Clerk of the Court and served upon the following counsel of record in the case through the CM/ECF System:

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