

December 19, 2005

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
 )  
U.S. Army ) Docket No. 40-8838-MLA  
 )  
(Jefferson Proving Ground Site) )

NRC STAFF'S RESPONSE TO PETITION TO INTERVENE AND  
REQUEST FOR HEARING FILED BY SAVE THE VALLEY, INC.

INTRODUCTION

Pursuant to 10 C.F.R. § 2.309(h), the Staff of the Nuclear Regulatory Commission ("Staff") hereby files its response to the "Petition to Intervene and Request for Hearing" (Hearing Request) filed by Save the Valley, Inc. ("STV"). For the reasons set forth herein, the Staff concludes that STV has standing and has proposed at least one admissible contention. Thus, the Staff submits that the STV Hearing Request should be granted.

BACKGROUND

On May 25, 2005, the U.S. Army ("Licensee" or "Army") submitted a license amendment request to the NRC for an alternate schedule for submitting a decommissioning plan for its facility at Jefferson Proving Ground ("JPG") in Madison, Indiana. See Letter and Attachments from Alan G. Wilson to Dr. Tom McLaughlin, dated May 25, 2005, ADAMS No. ML051520319 (hereinafter May 25, 2005 Request). The alternate schedule request included a plan for site sampling and characterization to support the submission of a decommissioning plan within five years of NRC approval of the alternate schedule. The Staff treated the May 25, 2005 Request and accompanying documents as superseding the Army's previous license amendment request of September 22, 2003. See Letter from Tom McLaughlin to Alan G. Wilson, dated

June 16, 2005, ADAMS No. ML051640102. Therefore, on June 27, 2005, a “Notice of Consideration of Amendment Request for an Alternate Decommissioning Schedule for the Department of the Army, U.S. Army Garrison, Rock Island Arsenal, Rock Island, IL, and Opportunity to Request a Hearing” (Notice of Opportunity for a Hearing) was published in the *Federal Register*. 70 Fed. Reg. 36964 (June 27, 2005). On November 23, 2005, STV filed a petition to intervene and request for hearing.<sup>1</sup> The Staff’s response first describes the requirements for intervention and then addresses the merits of STV’s petition.

## DISCUSSION

### I. STANDING

Any person who requests a hearing or seeks to intervene in a Commission proceeding must demonstrate that they have standing to do so. 10 C.F.R. § 2.309(a). For the purposes of this proceeding, the Commission ruled that “STV’s standing shall be considered already established[.]” *U.S. Army (Jefferson Proving Ground)*, CLI-05-23, 62 NRC \_\_\_ (2005). Therefore, no further analysis of standing is necessary here.

### II. REGULATORY FRAMEWORK

The Notice of Opportunity for a Hearing limited the scope of the proceeding to the Army’s proposal “to amend its License No. SUB-1435 to authorize an alternate decommissioning schedule pursuant to 10 CFR 40.42(g)(2).” 70 Fed. Reg. at 36964. Only contentions that raise issues within the scope of § 40.42(g)(2) are admissible. See 10 C.F.R. § 2.309(f)(1)(iii). Under § 40.42(g)(2), the Commission

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<sup>1</sup> In an October 26, 2005 Order, the Commission affirmed the Presiding Officer’s decision to reinstate a prior JPG proceeding and granted STV an additional 30 days from the date of the order to request a hearing. *U.S. Army (Jefferson Proving Ground)*, CLI-05-23, 62 NRC \_\_\_ (2005). The same order directed the appointment of a three-judge panel to conduct further proceedings; that panel was established on November 2, 2005. See *Establishment of Atomic Safety and Licensing Board (Corrected)* (Nov. 2, 2005).

may approve an alternate schedule for submittal of a decommissioning plan required pursuant to paragraph (d) of this section [40.42] if the Commission determines that the alternative schedule is necessary to the effective conduct of decommissioning operations and presents no undue risk from radiation to the public health and safety and is otherwise in the public interest.

10 C.F.R. § 40.42(g)(2). Accordingly, the Commission's approval of an alternate schedule involves a three-part inquiry: the change in the time for submitting a decommissioning plan must 1) be necessary to the effective conduct of decommissioning; 2) present no undue risk from radiation to the public health and safety; and 3) be otherwise in the public interest.

Therefore, it is important to provide a brief explanation of the regulatory background and structure of § 40.42. In particular, it is critical to distinguish the § 40.42(g)(2) alternate decommissioning schedule from the other types of decommissioning-related license amendments contemplated by 10 C.F.R. § 40.42.

One of the NRC's overarching objectives under § 40.42 was to emphasize "timely decontamination and decommissioning by nuclear material licensees." *See Timeliness in Decommissioning of Materials Facilities* (Proposed Rule), 58 Fed. Reg. 4099 (Jan. 13, 1993). The Commission also intended to "place a limit on the time permitted to decontaminate and decommission and place the burden of proof directly on the licensee to demonstrate that a longer period of time is required for completing decommissioning." *Id.* Because the Commission sought to "minimize the difficulties associated with a case-by-case approach" it proposed specific requirements for completion of each stage of the decommissioning process. *Id.* at 4100.

However, the Commission acknowledged that the sites it had been regulating "present varying degrees of radiological hazard, cleanup complexity, and cost." *Id.* at 4099. Although setting target completion times was a key objective of the new rule, the significant differences

between sites illustrated the need to incorporate some flexibility in determining both when decommissioning should start and when it could be safely completed. *See id.* at 4100-101. For example, the Commission noted that some licensees might want to leave some buildings and areas inactive while continuing licensed activities elsewhere on the site, making it appropriate to put off the start of decommissioning. *See id.* at 4101. Other licensed sites might require more complex site characterization to create a valid decommissioning plan. *See Timeliness in Decommissioning of Materials Facilities* (Final Rule), 59 Fed. Reg. 36026, 36028 (July 15, 1994). Still other sites, such as uranium recovery licensees, might require longer times for implementation of the cleanup plan. *See* 58 Fed. Reg. at 4101-102.

Consequently, § 40.42 provides separate analyses of 1) the time for initiating the decommissioning process, 2) the time to create and submit a final plan for decommissioning, and 3) the time for actually implementing that plan. Although the Commission expected each of these three phases to be completed in a timely manner, it recognized that certain sites might involve unique challenges at one or more phases. Therefore, while the Commission set target time periods it considered to be reasonable as a general matter for completing each phase, the Commission deliberately coupled its baseline decommissioning requirements for each phase with a provision allowing a licensee to demonstrate that a modified timetable for (or

postponement of) that phase would be warranted.<sup>2</sup> In short, the flexibility reflected in § 40.42's phased structure is integral to the proper implementation of the Timely Decommissioning Rule.

As the first phase, § 40.42(d) identifies which events trigger the initiation of the decommissioning process; such events include when a site, or at least certain buildings on that site, have not been used for principal activities for twenty-four months. See 10 C.F.R. § 40.42(d)(3), (4). For some sites, initiation entails NRC notification and the start of actual decommissioning activities within sixty days; for others, it requires NRC notification and, within twelve months, submittal of a decommissioning plan (i.e., actual decommissioning activities do not necessarily commence immediately). See 10 C.F.R. § 40.42(d). However, § 40.42(f) allows licensees to request a delay or postponement of initiation if, for example, additional time would allow more short-lived isotopes to decay before beginning decommissioning operations, or if it would be more effective to initiate decommissioning once activities have ceased at other buildings on the site. See 58 Fed. Reg. at 4100-101; 59 Fed. Reg. at 36029.

A second phase—the one at issue in the instant proceeding—applies only to licensees who are required to submit a plan before carrying out decommissioning. Section 40.42(d) sets a twelve-month time period for creating and submitting a decommissioning plan if such a plan is required by § 40.42(g)(1). See 10 C.F.R. § 40.42(d). Such a plan may be required either by the terms of the license or if the necessary decommissioning procedures have potential safety

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<sup>2</sup> The terminology for the modification a licensee can request depends on the phase at issue. At the phase determining whether decommissioning should be initiated, a licensee can request to delay or postpone initiation; however, for the plan-submittal and implementation phases, a licensee requests an “alternate schedule.” See 10 C.F.R. § 40.42(f), (g)(2), and (i), respectively.

This phased framework is reiterated in NRC guidance documents. See NUREG-1757, Vol. 3, at 2-10 (“In implementing this approach, NRC will establish specific and enforceable milestones for each phase of decommissioning through license amendments or orders. These schedules should be developed in conjunction with the licensee or responsible party and provide flexibility for the licensee or responsible party to demonstrate good cause for delaying cleanup, based on technical and risk-reduction considerations or for reasons beyond the licensee’s or responsible party’s control.”); see *also* NUREG-1757, Vol. 1, at 5-4, 5-5 (describing the criteria for each of the two “alternative schedule” provisions).

impacts and have not been previously approved by the Commission. See 10 C.F.R. § 40.42(g)(1). The “flexibility clause” which corresponds to this requirement is the § 40.42(g)(2) alternate schedule request. It involves only a modification of the default twelve-month window for submitting a plan; it is distinct from the § 40.42(f) postponement of the initiation of the decommissioning process. See 58 Fed. Reg. at 4101. However, just as with a § 40.42(f) request, it remains the licensee’s burden under § 40.42(g)(2) to show that its alternate schedule satisfies the Commission’s criteria.

The Commission made clear that site-specific differences required flexibility in the rule at this plan preparation phase as well. Significantly, in its Statements of Consideration on the final § 40.42 rule, the Commission addressed comments it had received about the twelve-month window for submittal. These comments included concerns that 1) the deadline “failed to recognize the scope of work necessary to characterize a site prior to preparing a plan” and should be developed site by site and 2) the deadline was unrealistic because other regulatory agencies have requirements that licensees must take into account in preparing a plan. See 59 Fed. Reg. at 36028. The Commission responded by noting that “flexibility has been included in the final rule” because the “NRC may approve alternate schedules” under what is now § 40.42(g)(2). *Id.*<sup>3</sup> In short, the Commission acknowledged that some sites might require more complex site characterization, and it created the § 40.42(g)(2) process for all requests concerning the plan-submittal phase.

As the third and final stage of decommissioning, § 40.42(h) establishes a twenty-four month target for the implementation of the licensee’s final decommissioning plan. This requirement reflects the Commission’s strong desire that decommissioning commence and

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<sup>3</sup> The paragraph lettering within § 40.42 has since changed; what was labeled as paragraph (f) at the time of the quoted Statements of Consideration is now paragraph (g). See *Clarification of Decommissioning Funding Requirements*, 60 Fed. Reg. 38235, 38239 (July 26, 1995); see also *Minor Amendments to Miscellaneous Cross-References*, 61 Fed. Reg. 29636, 29637 (June 12, 1996).

finish promptly after a plan has been approved by the NRC. The “flexibility clause” which matches this requirement is § 40.42(i), which authorizes approval of an alternate schedule request for completion of decommissioning. As the Commission discussed in detail in its Statements of Consideration, the time extensions requested via § 40.42(i)—reminiscent of the flexibility described in § 40.42(g)(2)—allow the NRC to consider “site-specific factors on a case-by-case basis,” including the technical feasibility of completion within twenty-four months. See 58 Fed. Reg. at 4101. However, just as with requests for alternate schedules in the initiation or submittal phases, the licensee must demonstrate to the Commission that any change from the twenty-four month baseline is warranted and compatible with protection of the public. See 10 C.F.R. § 40.42(i); *see also* 10 C.F.R. § 40.42(g)(4)(vi).

In sum, the phased structure of § 40.42 as a whole clearly demonstrates what is and what is not within the scope of this § 40.42(g)(2) proceeding. The licensee in a § 40.42(g)(2) request is required to demonstrate only that more time is necessary to create and submit an effective plan and that the time extension is necessary to the effective conduct of subsequent decommissioning, presents no undue risk from radiation to the public health and safety, and is otherwise in the public interest. Therefore, the content of an eventual decommissioning plan—that is, those elements that the licensee is required to satisfy only once a decommissioning plan is submitted for approval and implementation—is beyond the scope, because the prerequisite fact at the § 40.42(g)(2) phase is that no decommissioning plan has been submitted. The necessary elements of a submitted plan, which are outlined in § 40.42(g)(4), include the timetable for completion (expected to be within twenty-four months of NRC approval of the plan) and an updated detailed cost estimate for the implementation of decommissioning. See 10 C.F.R. § 40.42(g)(4)(v), (vi).

Consequently, if proposed contentions in a § 40.42(g)(2) proceeding are based on standards applicable only to a final decommissioning plan, such contentions conflict with the structure and purpose of § 40.42, and would be inadmissible.

### III. CONTENTIONS

#### A. Legal Requirements for Contentions

To gain admission to a proceeding as a party, a petitioner must submit at least one valid contention that meets the requirements of 10 C.F.R. § 2.309(f)(1). For a contention to be admissible, a petitioner must provide:

- (i) a specific statement of the issue of law or fact to be raised or controverted;
- (ii) a brief explanation of the basis for the contention;
- (iii) a demonstration that the issue raised in the contention is within the scope of the proceeding;
- (iv) a demonstration that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
- (v) a concise statement of the alleged facts or expert opinions which support the petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the petitioner intends to rely to support its position on the issue; and
- (vi) sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.

10 C.F.R. § 2.309(f)(1). *See also USEC, Inc. (American Centrifuge Plant), CLI-04-30, 60 NRC 426, 429 (2004).*

Failure to comply with any of these requirements is grounds for dismissal of a contention. *Private Fuel Storage* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999); *Louisiana Energy Services* (National Enrichment Facility), LBP-04-14, 60 NRC 40, 54 (2004). One of the purposes of the rule is to assure that the parties are on notice concerning what issues they will have to defend against or oppose. *Philadelphia Elec. Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20 (1974).

The application of the § 2.309(f)(1) requirements has been further developed by NRC case law. To be admissible, contentions must fall within the scope of the proceeding as defined by the notice of hearing. See *Florida Power and Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-00-23, 52 NRC 327, 329 (2000); *LES*, LBP-04-14, 60 NRC at 55. The reach of a contention “necessarily hinges on its terms coupled with its stated bases.” See *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-899, 28 NRC 93, 97 (1988); Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 557 (2004). Moreover, a contention must present a genuine dispute with the applicant on a material issue of law or fact, and any contention that fails directly to controvert the application or that mistakenly asserts the application does not address a relevant issue can be dismissed. See *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 247-48 (1993), *review declined*, CLI-94-2, 39 NRC 91 (1994). The petitioner must present the factual information and expert opinions necessary to support its contention adequately. See *Georgia Institute Technology* (Georgia Tech Research Reactor), LBP-95-6, 41 NRC 281, 305, *vacated in part and remanded on other grounds*, CLI-95-10, 42 NRC 1, *aff’d in part*, CLI-95-12, 42 NRC 111 (1995). Neither mere speculation nor bare assertions alleging that a matter should be considered will suffice to allow the admission of a proffered contention. See *Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003). If a

petitioner neglects to provide the requisite support for its contentions, it is not within the Board's power to make assumptions of fact that favor the petitioner. See *Georgia Tech*, LBP-95-6, 41 NRC at 305. The contention rule is "strict by design." See *Dominion Nuclear Connecticut, Inc.*, (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001).

In short, the contention rule "seeks to ensure that the adjudicatory process is used to address real, concrete, specific issues that are appropriate for litigation." See *Changes to Adjudicatory Process*, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004). For the reasons set forth below, only one of STV's contentions meets these requirements for admissibility.

#### B. STV's Contentions

For each set of contentions, this response will summarize the Staff's response to the primary contention, and identify which, if any, of STV's cited bases support the admissibility of the contention. It will then address each cited basis for the contention in turn.

##### 1. Environmental Radiation Monitoring Plan ("ERMP") Contentions

For reasons detailed below, contentions related to the ERMP are beyond the scope of this proceeding. Consequently, Contention A-1 is inadmissible for failure to satisfy 10 C.F.R. § 2.309(f)(1)(iii). The Staff will address this issue first because this objection applies to all of STV's A-1 bases. Although this is sufficient reason to hold the contention inadmissible, the additional grounds the Staff has for finding each basis inadmissible are discussed in the Staff's response to each individual basis.

As previously stated, a § 40.42(g)(2) proceeding is solely about an alternate schedule for creating and submitting a decommissioning plan for approval. It does not encompass obligations that are already imposed separately by the Army's ongoing license terms and conditions. The Army's ERMP falls within this category. The Army is required to have an ERMP as a requirement of maintaining its license, independent of its preparations for

decommissioning. See Letter and Attachments from Robert A. Nelson to Col. James Kriebel, dated May 8, 1996, at License Term #13.<sup>4</sup> The purpose of the ERMP is to monitor the JPG site in a manner that ensures that there is no contaminant migration that presents a radiological health risk, especially to off-site individuals and the public. Modifications to the ERMP are subject to NRC approval. See *id.* The Army's ERMP was updated and approved by the NRC in 1996, and modifications to the plan were approved in 1999; this 1999 modified plan (hereinafter 1999 ERMP) is the ERMP currently in effect for the Army's license.<sup>5</sup>

In 2003, the Army requested an indefinitely renewable license, having concluded that active site characterization was not feasible and therefore only monitoring activities were appropriate. See Letter from Dr. John Ferriter to Larry Camper, dated February 4, 2003, ADAMS No. ML030520478; Letter and enclosure from Dr. John Ferriter to Dr. Tom McLaughlin (September 30, 2003), ADAMS No. ML032731017 (hereinafter 2003 Proposed ERMP). As part of this request, the Army sought modification of the ERMP. Because the Army was not proposing to conduct other activities for site characterization, the adequacy of the ERMP (with the proposed modification) was at issue in the 2003 license application. Consequently, because the NRC identified deficiencies in the 2003 ERMP, the 2003 license application was not approved and was eventually superseded by the Army's May 25, 2005 Request. See, e.g., Letter from Tom G. McLaughlin to Alan G. Wilson, dated March 22, 2005, ADAMS No.

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<sup>4</sup> See ADAMS Legacy Library Nos. 9605150402; 9605150415; 9605150432; 9605150445.

<sup>5</sup> See (1) Letter and enclosures from Edward G. Stauch to Robert A. Nelson, dated July 12, 1996, ADAMS Legacy Library Accession No. 9607230370 (seeking approval of the 1996 ERMP); (2) Letter from Clayton L. Pittiglio to Col. James Kriebel, dated July 22, 1996, ADAMS No. ML053530174 (approving the 1996 ERMP); (3) Letter and enclosure from Dal M. Nett to Larry W. Camper, dated August 10, 1999, ADAMS No. ML993230068 (submitting 1999 ERMP for approval); (4) Letter from Clayton L. Pittiglio to Del M. Nettl [sp?], dated Sept. 7, 1999, ADAMS No. ML053530171 (approving 1999 ERMP).

ML050730376. However, it is to this withdrawn ERMP document that STV's contentions apparently are addressed.

In the instant proceeding, neither the current ERMP nor the 2003 proposal is part of the Army's application. See May 25, 2005 Request. While the Army's alternate schedule request acknowledges the ERMP, it confirms that ERMP activities are not pre-empted by the FSP, but will continue pursuant to the license itself.<sup>6</sup> Therefore, as both the application and the Staff's Acceptance Review indicate,<sup>7</sup> the ERMP is an ongoing process conducted in parallel with, but distinct from, the FSP. The current alternate schedule request is not dependent on data obtained through the ERMP.

Unlike the 2003 proceeding, where the Army sought to modify only its environmental monitoring obligations (to justify an indefinite renewable license) and the ERMP therefore was the pertinent document, the Army in this instance is seeking approval of an alternate schedule for active site characterization and submission of a decommissioning plan. The proposed alternate schedule, including the site characterization plan contained in the FSP and HASP, does not require any change, or reference, to the existing ERMP. In short, because the ERMP is a current and independently enforceable monitoring condition of the Army's license, and is not germane to site characterization, the Army was not required to (and did not) submit a new or updated ERMP with the May 2005 request at issue in these proceeding. The adequacy and

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<sup>6</sup> For example, the Army notes the biannual sampling under the current ERMP that "is scheduled to continue until license termination is complete." See May 25, 2005 Request, at 2-7. Other references in the 2005 application to the ERMP are either to the 1999 ERMP or to future ERMP revisions that will be informed by the results of the site characterization. See, e.g., *id.* at 2-14 and 4-4.

<sup>7</sup> The Staff's Acceptance Review commented that "We note in your application that you will continue to conduct bi-annual sampling under the current Environmental Radiation Monitoring Plan... ." See Acceptance Review of Request for an Amendment to License SUB-1435 (Docket No. 040-08838) Proposing an Alternate Decommissioning Schedule for the Decommissioning of Jefferson Proving Ground (June 16, 2005), ADAMS No. ML051640102. This comment reflects that while ERMP activities will continue and may be informed by the results of FSP sampling, approval of the alternate schedule request does not require modification of, or integration with, the existing ERMP.

implementation of the existing ERMP therefore is unaffected by the proposed alternate schedule and is not a document the Staff considers, much less revises, in its § 40.42(g)(2) evaluation.

Moreover, even if the substance of the Licensee's ERMP were within the subject matter of the present request, it is clearly fatal to STV's contentions that the Army's 2003 ERMP is not currently operative, having already been superseded by (and not re-offered in) the instant alternate schedule request. STV's criticisms of deficiencies in the 2003 ERMP consequently are directed at a document that is inapplicable, both to the Army's existing ERMP and to the present alternate schedule request.

STV's Contention A-1 is thus beyond the scope of this proceeding. Further, as discussed below, none of the bases supporting Contention A-1 otherwise meet the requirements of 10 C.F.R. § 2.309(f).

Contention A-1:

The Army's most recent Environmental Radiation Monitoring Plan is still inadequate in several material respects to meet the requirements of 10 CFR § 40.42(g)(2) [Hearing Request, at 14.]

Staff Response:

Contention A-1 is inadmissible because it is outside the scope of the proceeding, see 10 C.F.R. § 2.309(f)(1)(iii), because it fails to demonstrate that the issue is material to the findings the NRC must make to support the action that is involved in the proceeding, see § 2.309(f)(1)(iv), because it does not state facts to support the petitioner's position, see § 2.309(f)(1)(v), and/or because it fails to raise a genuine dispute with the Licensee on a material issue of law or fact, see § 2.309(f)(1)(vi).

Contention Basis (a):

The ERMP states with respect to the monitoring results for the various environmental media that, at 50% of Action Level,

SBCCOM will conduct an “independent assessment” of the results and any trends. See ERMP, Table 3-1. Yet, there is no specification of the assessment which will be performed and no explanation offered as how an assessment, however specified, will be “independent” if it is performed by the Army. The ERMP should further define and explain the “independent assessment.”

Staff Response:

As previously stated, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. The basis is also inadmissible because it fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). Section 3 of the 2003 ERMP described the Army’s plans for monitoring environmental media. See 2003 Proposed ERMP, at 3-2. Table 3-1 summarized the program and the planned monitoring activities by environmental medium and the associated action levels. *Id.* The Table provided that if certain action levels were exceeded, the Army would notify the NRC. *Id.* STV does not appear to take issue with this provision of the plan. Rather, STV is concerned with the provision that provided for additional assessment in the event that monitoring results reached 50% of the action level but still remained below the action level. However, STV does not contend that the Army’s existing assessment process is actually inadequate, and it identifies no reason to doubt that the Army’s review is in fact “independent.” Nor has STV made clear why further details of the below-action-level assessments would impact public safety in a way relevant to a five-year extension for site characterization. STV’s desire for more detail therefore does not constitute a genuine dispute germane to this alternate schedule request.

Contention Basis (b):

The ERMP also states with respect to the monitoring results for the various environmental media that, if an Action Level is reached and that result is confirmed by additional sampling, specific remedial actions and timetables ‘may’ be defined. See

ERMP, Table 3-1. But, the whole point of an 'Action Level' is to establish a monitoring result at which defined remedial action 'shall' occur. Otherwise, the concept becomes meaningless. The ERMP should define and commit to perform remedial actions at specified 'action levels.'

Staff Response:

As previously stated, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. The basis is also inadmissible because it fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R.

§ 2.309(f)(1)(vi). STV's claim that remedial action only "may" occur is contradicted by the language of both the existing 1999 ERMP and the superseded 2003 proposal. The current 1999 ERMP requires additional sampling, investigation, NRC notification, or decontamination for readings above specified levels. See 1999 ERMP, section 5(e). Similarly, the superseded 2003 ERMP proposal stated that, for readings exceeding specified limits, the Army "will" complete NRC notification and additional sampling within stated deadlines. See 2003 Proposed ERMP, at 3-3, 3-4 (Table 3-1). STV does not explain why these steps are inadequate or what other pre-set remedial actions it believes are necessary.

Contention Basis (c):

The ERMP incorrectly denies the existence of neighbors who use private wells for drinking water:

Onsite and offsite human and ecological receptors could be impacted by DU leaching through soil to the underlying aquifer. Contaminated groundwater can enter the human or ecological food chain indirectly (e.g., livestock drinking water) or directly (e.g., drinking water supply). Direct exposure of humans to drinking water is unlikely given that the aquifer is not a drinking water source and is of poor quality (Rust 1998).

See ERMP, at 3-4. However, it has previously been established that two of the original STV affiants who live directly west of JPG

get their drinking water from a private well, as do some other nearby residents. The Training Range Site Characterization and Risk Screening, Regional Range Study, JPG Madison, IN, Final (CHPPM, August 2003) (hereafter “Regional Range Study”) also acknowledges that “[t]here are limited numbers of private wells in the area surrounding JPG (Ebasco, 1990).” See Regional Range Study, Section 6, at 4. The ERMP should acknowledge and address this fact.”

Staff Response:

As previously stated, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. The basis is also inadmissible because it fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). Assuming STV is correct that off-site individuals obtain drinking water from off-site wells, STV does not explain in what way this fact renders the Army’s monitoring plan—which does monitor ground water and surface water—inadequate to identify and respond to migration trends. STV’s assertion is inapplicable, whether applied to the existing ERMP or to the superseded 2003 ERMP proposal. The presently in force 1999 ERMP acknowledges the possibility of a waterborne exposure pathway and therefore evaluates the movement of contaminants into drainage watershed. See 1999 ERMP, at section 4(a)(3)(a). Similarly, the 2003 proposed ERMP described direct drinking water exposure to humans as “unlikely” but nevertheless incorporated a sampling program intended to monitor migration into groundwater or surface water. See 2003 Proposed ERMP, at section 3.3.1. In short, STV has not presented grounds for concluding that the Army’s groundwater monitoring strategy is ineffective or that possible use of off-site wells requires material changes to the monitoring plan. Consequently, STV has not raised a genuine material dispute.

Contention Basis (d):

The aquifer underlying the JPG site is not sufficiently characterized to demonstrate its extent and gradient – as the

Army itself has previously conceded. See Regional Range Study, Section 6.5.2.3.2, Hydrogeology, at 35 (“Monitoring wells near and within the Delta Impact Area south of Big Creek are too widely spaced to construct a meaningful ground-water elevation contour map.”) The ERMP should acknowledge and address this critical fact.”

Staff Response:

As previously stated, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. The basis is also inadmissible because it fails to state facts to support the petitioner’s position. See 10 C.F.R. § 2.309(f)(1)(v). Assuming STV is correct that uncertainty remains about the ultimate extent and gradient of the aquifer, STV does not state why (or whether) this uncertainty renders the current ERMP inadequate to identify and respond to migration trends. In short, STV does not explain why the ERMP does not properly compensate for the uncertainty raised by STV.

Contention Basis (e):

The entire monitoring data history for the JPG site is not used in the ERMP’s trend analyses. Most of the trending analyses begin in 1994 or 1996, with some beginning as late as 1998. The absence of discernable trends over the selected time period is then cited as the justification for not performing expanded sampling. See, e.g. ERMP, at 3-6. Examination of the entire data history, i.e. 1984/85 to present, would provide a more complete picture for analysis purposes. Moreover, the ERMP characterizes historic data trends (or the absence thereof) in narrative terms, but the actual data are not included for review and confirmation of the Army’s conclusions. The ERMP should acknowledge and address the entire monitoring history of JPG site.”

Staff Response:

As previously stated, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. The basis is also inadmissible because it fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). STV questions the Army’s trending analysis but does not provide grounds that

show that inclusion of more years would reveal identifiable trends, that any consequential trends exist and have been overlooked, or that the Army's analysis even is inaccurate. STV's statement that including data from additional years in the site history would "provide a more complete picture" is not a cognizable dispute, but only STV's opinion that past studies may or may not shed light on site trends. In short, STV has not demonstrated why the Army's trending analysis is materially inadequate.

As to STV's request for the Army's numeric data, STV has not clearly identified a basis to challenge the adequacy of the Army's analysis. Instead, it has only requested the underlying data "for review and confirmation" of the Army's conclusions; without an articulated reason to oppose the Army's evaluation, STV has not presented a genuine dispute of fact.

Contention Basis (f):

The ERM dismisses the need for air monitoring during future prescribed burns. See ERMP, at 3-10 to 11. It also denies the need for future biota sampling. See ERMP, at 3-12. However, this conclusion is based on insufficient site-specific information and general references to other studies at other sites which are not representative of JPG. The ERMP should either provide for air monitoring during future prescribed burns or support its absence with site-specific information. The ERMP should also be updated to reference the future biota sampling included in the Army's Field Sampling Plan ("FSP") filed May 25, 2005, as it may be modified in response to NRC Staff comments and/or STV's contentions below regarding the FSP."

Staff Response:

As stated previously, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. The basis is also inadmissible because it fails to state facts to support the petitioner's position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). As explained previously, the ERMP and FSP are separate documents with distinct purposes; if there is a substantive

basis for approval of each plan, whether all potential cross-references are incorporated is not critical to the Staff's analysis. In addition, STV states that the Army uses studies from sites that are "not representative of JPG," but STV does not provide a factual basis for this assertion or state any reason why the references to other site studies are an inappropriate basis for the Army's conclusions. STV thus fails to explain why the Army's site-specific information is "insufficient." STV also does not provide a factual basis for its statement that air monitoring and future biota sampling are necessary to the ERMP, and it is unclear from STV's contention why it finds the absence of such monitoring in the ERMP problematic. Consequently, this contention fails to identify a genuine dispute and is inadmissible.

## 2. Field Sampling Plan ("FSP") Contentions

### Contention B-1:

As filed, the FSP is not properly designed to obtain all of the verifiable data required for reliable dose modeling and accurate assessment of the effects on exposure pathways of meteorological, geological, hydrological, animal, and human features specific to the JPG site and its surrounding area.  
[Hearing Request, at 17.]

### Staff Response:

Contention B-1 is admissible, but only for three of STV's stated bases. The other bases are inadmissible because they are outside the scope of the proceeding, see 10 C.F.R. § 2.309(f)(1)(iii), because they fail to demonstrate that the issues are material to the findings the NRC must make to support the action that is involved in the proceeding, see § 2.309(f)(1)(iv), because they do not state facts to support the petitioner's position, see § 2.309(f)(1)(v), and/or because they fail to raise a genuine dispute with the Licensee on a material issue of law or fact, see § 2.309(f)(1)(vi).

### Contention Basis (a):

The EI geophysical study which will follow the fracture analysis study, as described in section 6.1 of the FSP, is supposed to find all significant karst features and location of the water table. From these studies, 10 to 20 pairs of monitoring wells are proposed to attempt to tie into “conduits” of ground water flow. This study may help to site monitoring wells, but stream gauging studies should be an early and integral part of the search for likely conduits. The stream reaches of strong gain would be a very strong direct indicator of the discharge points of ground water “conduits.” EI is an indirect technique and can miss conduits or identify features that are not conduits. The FSP alludes to doing stream gauging in its discussion of well location criteria, but the time table shown indicates stream studies will follow the ground water studies by a year.

Staff Response:

The Staff considers this basis admissible.

Contention Basis (b):

The discussion in section 6.2.1 is disturbing in its failure to set out the chemistry of the monitoring system at this stage and its cavalier dismissal of ground water as a direct exposure route to humans due to its supposedly “poor quality.” The “poor quality” that is being cited is, in part, a function of existing data being sampled from wells that are definitely not in “conduits” that would presumably flush frequently and carry good water. Instead, the “poor quality” data are drawn often from tight, clayey wells and wells that may well have had multiple types of contaminating material falling into them due to poor maintenance.

Staff Response:

This basis is inadmissible because it fails to state facts to support the petitioner’s position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). STV argues that the Army’s proposal does not describe monitoring chemistry and does not credit ground water as a direct source of human exposure. However, STV has not identified why either alleged failure makes the proposal materially inadequate or would present any undue risk from approval of the alternate schedule request. STV does not state that off-site human consumption of affected groundwater is an actual

concern, nor does it explain how the Army's selection of wells for its sampling data relates to any risk of contamination transport or exposure through off-site human consumption. In short, STV does not clearly explain why ground water is, in fact, a likely direct exposure route to humans that the sampling plan must consider.

Contention Basis (c):

The wells to be used for staging should not be limited *by assumption* to six wells, as proposed in section 6.2.2. Six may be enough, but it also may not be. The actual number should be a function of results achieved, not assumptions made. (It is hoped that the last sentence in this section mistakenly left an 's' off the word 'well.'

Staff Response:

This basis is inadmissible because it fails to state facts to support the petitioner's position. See 10 C.F.R. § 2.309(f)(1)(v). STV does not state any grounds for its criticism of the number of wells proposed; it asserts only that six "may not be" enough, without explanation. Such a general statement is inadequate to satisfy the requirement of factual support. Second, STV fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). STV does not assert that the Army's choice of wells is wrong and even concedes that the number "may be enough." Because it does not articulate any specific problem with the Army's proposed number of wells, STV's claim that the proposal "may" be inadequate or could be better does not amount to a meaningful dispute.

Contention Basis (d):

The FSP specifies in section 6.2.4 that the "conduit" wells will be paired, but does not describe or explain the reason(s) for the relative positions of the two wells at each well site. Presumably, the objective is to provide a means of measuring vertical gradients at each site, but that is not explained or discussed. Nor is there an indication of whether the "paired" well will be above or below the

“conduit” well or whether that relative position would change depending upon unspecified geologic or hydrogeologic conditions.

Staff Response:

This basis is inadmissible, first, because it fails to state facts to support the petitioner’s position. See 10 C.F.R. § 2.309(f)(1)(v). Although STV expresses interest in further explanation of the well siting, it does not state any clear grounds for skepticism about either the purpose of the exercise or the Army’s placement criteria. Indeed, STV itself provides a valid explanation for the Army’s proposal and describes what paired wells traditionally are designed to measure. Furthermore, as the FSP makes clear, well locations and depths will be informed by the fracture analysis and the EI study. See FSP, at 6-4, 6-12. STV does not explain why the absence of additional detail about the exact relative location of the paired wells raises any significant question about the usefulness of the data expected to be gathered by the paired wells, the overall adequacy of the sampling plan, or the presence of any associated risk to the public.

Second, STV fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). Assuming the Army’s well pairings do not measure vertical gradients, STV does not state why the absence of those measurements would affect the overall validity and adequacy of the sampling plan for preparing to submit a decommissioning plan. In effect, while STV’s contention suggests that additional siting detail would be informative, it does not reveal any substantive disagreement with the Army’s proposal.

Contention Basis (e):

The FSP also specifies in section 6.2.4.3 that a boring that does not produce enough water for a well will be abandoned. If lack of production occurs because the system is “tight” (i.e., impermeable), that makes some sense. However, the nature of karst terrain is such that conduits may not produce water because the flow is highly transient and, unless there is a new flow event at

the time of drilling and/or testing, a well may be dry even though it has been placed in an appropriate and important location. To ensure the problem is a temporary lack of water, rather than a permanent lack of permeability, it is necessary to monitor the boring for enough time to be sure it never produces before abandoning it.

Staff Response:

This basis is inadmissible because it fails to state facts to support the petitioner's position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). STV has failed to show why the Army's criteria for assessing the functionality of its boreholes raises any significant question about the quality of the sampling plan. STV's suggestion that a well abandoned under the Army's criteria might be "in an appropriate and important" location is entirely speculative. However, assuming the suggestion is true, STV provides no grounds to believe the Licensee will be unable to site an alternative monitoring well that will be as, or more, effective in obtaining the necessary data. Therefore, STV has not demonstrated that the abandonment criteria would compromise the adequacy of the sampling plan.

Contention Basis (f):

The FSP states in section 6.2 that all new wells to be completed will be in "conduit" settings in bedrock. This placement is too limited. Certainly, most off-site transport is likely to occur through bedrock karst features. But, the projectiles and the DU reside in the till and/or the weathered bedrock/colluvium. Simply because good, shallow wells were not completed in the original set of JPG wells does not mean that properly located and completed shallow wells are not necessary to characterize properly the hydrogeology of the site.

Staff Response:

The Staff considers this basis admissible.

Contention Basis (g):

The FSP states in section 6.2.4.4 that the new wells will not be tested for permeability. Granted, if a particular well is sunk into a well-developed conduit, it will not be feasible to measure permeability. But, the nature of karst features is to be hard to locate precisely, so it is likely that at least some of the wells will simply be in bedrock with some enhanced permeability, which should be measured if it can be. Moreover, the conductivity of the rock adjacent to and feeding the conduit is a major determinant of flow through the system. The same holds true for aquifer testing. If pumping the aquifer shows interconnection among two or more of these conduit pairs, that result will provide very valuable information about the system transporting DU from the site.

Staff Response:

This basis is inadmissible because STV has not raised a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). STV concedes that in many (if not all) of the monitoring wells, permeability testing will not even be feasible, given the site's karst features. STV's advocacy of a testing method that is of only speculative applicability--and that would be conducted only "if it can be"--does not constitute a genuine dispute. In short, STV has not contended that the Army's proposed plan for groundwater sampling is materially inadequate; here, STV's claim that both slug testing and aquifer testing merely could provide "valuable information" about transport does not create an admissible dispute.

Contention Basis (h):

Contrary to section 6.2.4.3, geophysical testing and video taping of all of the well drilling should be required in intervals where it is physically possible. The understanding obtained from cuttings, particularly air-drilled cuttings, what material has been drilled through and in which a well is being completed is extremely limited. Logging and videoing the borings as they are being drilled actually records what the boring encountered and provides much valuable information for reasonably interpreting the water data that is later collected over time. If turbidity precludes video taping of a boring, televue logging is a valuable alternative. Where

boring logs cannot safely be run, logging through the casing can be done.

Staff Response:

This basis is inadmissible because STV has not raised a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). Logging and videotaping might provide additional information concerning site composition. However, STV appears to note that geophysical testing and videotaping may not even be “physically possible” in all intervals, whether due to terrain or turbidity. STV’s advocacy of a testing method that is of only speculative applicability does not constitute a genuine dispute. Moreover, while STV characterizes the information to be gleaned from cuttings as “extremely limited,” it does not contend that more is required for proper site characterization. That additional information could be helpful does not mean that it is necessary. In short, STV has not contended that the Army’s existing plan for groundwater sampling is materially inadequate; here, STV’s claim that logging or videotaping merely could provide “valuable information” for data interpretation does not create an admissible dispute.

Contention Basis (i):

Specifying the exact number and precise locations of the surface water sampling and gauging points at the outset of FSP implementation, as proposed in section 6.4.1, is not a good idea. Until the ground water data show where to look for discharges, such points cannot be reasonably selected. There is no scientific reason why the surface water sampling locations and the sediment samples need be in the same location(s). Each medium should be sampled at locations that are appropriate for that medium. Sediment buildup has nothing to do with the location of base flow connections between ground and surface water. Similarly, the FSP concept in section 6.4.2 of putting in only five gauging stations which are sited before the ground water system is better understood is both too limited in number and may well be counter productive in location.

Staff Response:

This basis is inadmissible, first, because STV fails to state facts to support its position. See 10 C.F.R. § 2.309(f)(1)(v). STV criticizes the Army's siting methodology but does not state why the currently selected locations are ineffective; it only suggests that they might be. In addition, STV states that the gauging stations are "too limited in number" and "may well be counterproductive" but does not provide specific grounds to support either assertion.

Second, STV fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). STV criticizes the Army's proposal for initial surface water sampling and gauging points as "not a good idea." It argues that the Army's sampling points cannot "reasonably" be selected before ground water data analysis and that surface water and sediment samples do not "need" to be in the same location. However, STV has not provided any clear statement that the initial sampling sites identified in the plan are actually ineffective or inappropriate. Furthermore, STV ignores the fact that the Army states in the same FSP section that its determination of sampling locations "will be continually developed based on ongoing investigation activities, such as soils verification, surface soils characterization, locations of physical features (e.g., caves, fracture traces), and hydrogeologic investigations." See FSP, at 6-29. The FSP also notes that "additional surface water drainageways and areas of erosion (sediment transport) may be identified and proposed for additional sediment and surface water sampling locations." *Id.*

In short, the Licensee's proposal acknowledges that the sampling process will require some iteration and revision of the number and location of sampling sites as data is collected. Therefore, even if the Army's initial sampling points have been selected by methods other than those STV would prefer, STV has not explained why its criticism means the proposed plan is inadequate to obtain the necessary data for site characterization and formulation of a decommissioning plan. Even if STV's siting method could produce a more effective "starting

point” for data collection, STV’s criticism does not genuinely dispute the ultimate effectiveness of the Army’s proposal.

Contention Basis (j):

The entire Kd exercise described in section 2.3.4.3 is inaccurate, unreliable, and, particularly when it forms such a key element of the modeling, rife with opportunities for abuse. It is described in the FSP text as “an important input parameter” for the results of exposure calculations. But, the exercise does not yield a real number and its functionality is based upon assumptions that are known to be invalid. The biggest erroneous assumption is the one spelled out in the text: “the underlying assumption is that rapid equilibrium is reached between the dissolved and sorbed concentrations of a chemical species, and that these two concentrations are linearly related through the Kd factor.” At best, there are an infinite number of Kd values based upon the infinite number of combinations of soil types, sorbent contents, ground water compositions and oxidation states that may exist along the flow path from any individual DU projectile. USEPA tried to use the Kd approach in its modeling for solid wastes, and only recently completed spending almost five years to find an alternative way because Kds just do not work. They don’t even work for such simple, monovalent contaminants as lead or cadmium; it is preposterous to rely on the Kd approach for something that is so pH-Eh dependent as the uranium system. Field observations should be used to calibrate geochemical modeling with a program on a par with Geochemist’s Workbench, with a lot of soil analyses to identify the abundances of sorbents in the soil that will control the mobility of the uranium. And, if the exposure program that SAIC is using requires the Kd approach, it should also be replaced with one that has more sophistication.

Staff Response:

The Staff considers this basis admissible.

Contention Basis (k):

The FSP lacks any plan for analysis of penetrators for transuranics such as plutonium, americium, technetium and neptunium or other impurities such as uranium-236. Table 4-1, p. 4-3 of the FSP indicates that 24 penetrators will be collected to establish a “corrosion/dissolution rate.” However, there is no mention in the plan to assay the rounds for these other elements.

This failure was challenged in previous Army plans by the NRC Staff (Sept. 27, 2001) and ATSDR (Oct. 30, 2002), but has not been corrected in the FSP.

Staff Response:

This basis is inadmissible because STV fails to state facts to support its position and has not raised a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). Although STV states that the FSP does not include sampling for transuranic elements or other impurities, STV has provided no support for a claim that the mere presence of TRU elements or impurities present a likely safety concern or that analysis of these elements in the FSP is necessary. That the Staff raised questions about this issue in connection with a prior plan does not, by itself, constitute adequate factual support for a contention. *Cf. Duke Energy Corporation* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 341-42 (1999) (concerning Staff Requests for Additional Information).<sup>8</sup> Consequently, STV's demand for testing of other TRU elements does not constitute a genuine dispute of material fact.

Contention Basis (I):

The background levels being proposed in sections 6.2.3, 6.3.1, and 6.6.1.4 of the FSP are inappropriate. There is an assumption that natural uranium could exist in the rock and geological formations of JPG. This could be true. However, given the nature and chronology of DU use at JPG, standard fate and transport theory would say that DU onsite but away from the DU area and even offsite would have increased since DU was first used at JPG. Conditions such as the air and water dispersal of aerosolized or particulate DU that occurs when the DU projectiles land on hard objects (rocks, other DU and UXO projectiles, etc.), and the physical movement of DU fragments due to flooding that

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<sup>8</sup> Similarly, non-specific references to challenges that may previously have been made by other parties (and to prior Army plans) do not provide adequate grounds to support the petitioner's claim of existing deficiencies. See 10 C.F.R. § 2.309(f)(1)(v); *cf. Oconee*, 49 NRC at 341-42.

occurs especially in the spring would all contribute to this increase.

Risk Assessment Guidance for Superfund (RAGS) and eco-risk texts (e.g., Suter, G.W. II, et al) say that a monitoring site is inappropriate for background if it is potentially contaminated by the contaminant of concern. Therefore, two alternatives could be used for the “background” readings that are required for accurate assessments and reliable models:

- 1) Data obtained from USGS cores, or any other soil, water and air data obtained prior to the start of DU testing (i.e. 1983 or earlier) is preferred.
- 2) For fill-in data, potential “background” samples (air, water, and soil) that clearly do not have the DU isotope ratio signature could be used. However, it is better to be conservative in what is considered to be a background isotope ratio.

Staff Response:

This basis is inadmissible because STV fails to state facts to support the petitioner’s position and does not raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). STV concedes that an assumption of background levels of naturally occurring uranium at JPG “could be true.” Consequently, STV does not provide a clear reason to contradict the appropriateness of the Army’s proposed method for assessing background uranium levels in rock and sediment. STV simply asserts that “standard fate and transport theory” might predict increased background levels in a broader portion of JPG; STV then speculates about possible conditions of dispersal. However, STV does not clarify why its “standard theory” would be relevant to the JPG site, reference any studies that make such a correlation, or state any grounds to believe that its posited dispersal conditions are applicable. Because STV has not articulated a specific basis to assume that there is potential contamination of the monitoring sites to be used for background levels, its assertions that other background-assessment methods should be used are unsupported. In short, STV’s vague invocation of “fate and transport” theory and associated speculation about how DU might have spread is an insufficient factual basis for a contention.

Contention Basis (m):

Air remains a potential exposure pathway as evidenced by the air sampling requirements to be implemented for the field workers (Health and Safety Plan, Section 4.2.2.1). If short-term air exposure is a concern for the workers, long-term air exposure is a concern for residents in surrounding communities, as well as for the animals living in the JPG ecosystem. Thus, the FSP is deficient for purposes of adequate site characterization in providing for no air sampling whatsoever.”

Staff Response:

This basis is inadmissible because STV fails to state facts to support its position and has not raised a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). STV has identified the Licensee’s choice to monitor air in connection with workers conducting field activities. However, STV has not explained why this localized and short-term monitoring demonstrates a need for air monitoring for impacts beyond the site boundaries. In short, STV has identified no grounds to support its assertion that air is an off-site exposure pathway and that air sampling is necessary as part of the FSP. It therefore has not identified any germane omission in the Army’s sampling procedure.

Contention Basis (n):

In order to really do a site-specific environmental and human health risk assessment, understanding the fate and transport (F&T) of DU within the JPG ecosystem is critical. In order to develop such a model, standard eco-risk-associated field sampling practices specify samples from different parts of the ecosystem within the same approximate period of time and definitely within the same field season in order to identify the distribution of the contaminant (DU) at that time. Further it is best to take multiple samples from these different locations over time. Thus, to truly model F&T within the JPG ecosystem (which is NOT the Yuma or Aberdeen Proving Ground ecosystem), a particular sample taken at a particular time should include all media and relevant biota and each of these media and biota should be sampled on multiple occasions. Ideally, samples should also be taken under different types of field conditions, as appropriate for the changes that occur at the site of concern. For example, at a

site that floods, as JPG does, samples should be taken from all media and biota at high flow (flood season) and low flow. Similarly, in a seasonal environment like JPG, samples should be taken from all media and biota in different seasons. When reproduction is seasonal for the biota of potential concern, seasonal sampling is of special concern. Thus, the much more limited sampling described in section 6.3 of the FSP is deficient for purposes of adequate site characterization.

Staff Response:

This basis is inadmissible, first, because it fails to state facts to support the petitioner's position. See 10 C.F.R. § 2.309(f)(1)(v). In this basis, STV asserts that a variety of sampling techniques are important to understanding transport within the JPG ecosystem. However, it does not identify any basis for these assertions other than the vague suggestion (at the start of its paragraph) that they may be drawn from "eco-risk-associated field sampling practices." Therefore, it is unclear not only what standards STV may be citing or relying upon, but also in what specific ways those standards differ from the Army's proposal. Furthermore, STV's array of generalized statements—for example, that certain samples should "ideally" be taken, that "it is best" to obtain multiple samples, or that other steps help "to truly model" the site—do not demonstrate why any of these steps in fact are necessary for adequate site characterization. To constitute an adequate factual foundation for a contention in this proceeding, STV must articulate more specific support than a general principle that a broader array of media and biota sampling would be ideal. See 10 C.F.R. § 2.309(f)(1)(v).

In addition, STV fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). Although the precise source of the sampling practices that STV endorses is unclear, STV does contend that more biota sampling in a broader geographic area is warranted. However, the FSP states that evidence of broader DU uptake in the results from both abiotic sampling and deer tissue samples will trigger collection of tissue data from other biota, both in the DU Impact Area and in background locations. See

FSP, at 6-24, 6-25, 6-27, 6-29. Therefore, even if the Army's initial biota sampling differs from STV's preferred methodology, STV has not explained clearly why the "phasing" in the proposed plan is inadequate to obtain the necessary data for site characterization and formulation of a decommissioning plan. In sum, even if STV's sampling objectives could produce a more effective "starting point" for data collection, STV's criticism does not genuinely dispute the ultimate effectiveness of the Army's proposal.

Contention Basis (o):

Although deer are not the most representative biota to sample, they are the only biota proposed for sampling by section 6.3 of the FSP. Nonetheless, when data from samples early and late in DU testing are not combined, it is evident that DU levels in even the deer are increasing. This result in deer clearly mandates sampling other, more representative biota as well. Based on what little data is available, the bioaccumulation factors (BAFs) for vegetation and the aquatic filter feeders such as crayfish (both of which are eaten by higher animals and humans) are relatively high, on the order of 10<sup>2</sup> to 10<sup>3</sup> times as high as the BAFs for persistent, bioaccumulative, and toxic chemicals (PBTs) listed as being of concern by the U.S. EPA and the Persistent Organic Pollutants (POPs) Treaty. Clearly, vegetation and aquatic filter feeders are better indicators of DU migration into the eco-food chain than are deer and they should be sampled.

Staff Response:

This basis is inadmissible because STV fails to state facts to support its position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). STV notes that vegetation and aquatic filter feeders may be more effective BAF indicators for PBT (though conceding that "little data" is available), but STV does not explain why or how this is relevant to the value of these biotic sources for revealing DU migration. STV also provides no support for its assertion that "deer are not the most representative biota to sample[.]" As previously stated, to constitute an adequate factual

foundation for a contention in this proceeding, STV must do more than claim that other biota sampling would provide additional data; it must explain why that data is material.

Moreover, as previously stated, the FSP states that evidence of broader DU uptake in the results from both abiotic sampling and deer tissue samples will trigger collection of tissue data from other biota, both in the DU Impact Area and in background locations. See FSP, at 6-24, 6-25, 6-27, 6-29. STV has not explained why these stages in the Army's plan will not produce the necessary data for site characterization and formulation of a decommissioning plan. In sum, even if STV's sampling objectives could produce a more effective "starting point" for data collection, STV's criticism does not genuinely dispute the ultimate effectiveness of the Army's proposal.

Contention Basis (p):

Several non-standard data gathering and modeling tools are not being employed in the FSP, but should be. These would help the future risk modeling. For example, GIS modeling of individual data points (all samples) will help identify migration and will better pinpoint movements of DU into and through JPG and its surrounding ecosystem. Identification of individual vegetation samples will also help identify whether there is preferential uptake of DU into specific types of plants – a potentially significant phenomenon which can be detected by the relatively new phyto-remediation technologies being developed at Purdue with EPA funding.

Staff Response:

This basis is inadmissible because STV fails to state facts to support its position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). STV does not define adequately what tools it is referencing, nor why they are appropriate or feasible at the JPG site. STV also fails to explain why "preferential uptake of DU into specific types of plants" involves data that is relevant or necessary to

adequate site characterization. In short, STV has not provided enough detail about its proposed methods to identify what changes to the FSP it is advocating.

In addition, STV makes a vague claim that “non-standard” and “relatively new” data gathering and modeling tools may be “helpful” in identifying “potentially significant” trends. This limited information is insufficient to show that the tools or trends in question are relevant to modeling of the JPG site, much less to demonstrate that not employing them constitutes a material omission in the Licensee’s proposal.

Contention Basis (q):

DU dissolution rates should be calculated for different soils and under different site specific wetness and temperature regimes in order to measure accurately DU dissolution at JPG. However, Table 4-1 and related text of the FSP do not specify such multiple measurements.

Staff Response:

This basis is inadmissible because it fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). STV argues for calculation of DU dissolution rates for different soils and moisture or temperature regimes. However, the proposed FSP states that the calculation of DU dissolution rates will come from actual samples of penetrators from the DU Impact area and that the “objective will be to establish a corrosion/dissolution rate for the penetrators subject to the environmental conditions specific to JPG.” See FSP, at 4-3 (Table 4-1). In other words, the calculation will be informed not by a range of potential conditions, but by the dissolution conditions already experienced by a series of DU samples from the site itself. In addition, the FSP provides that geochemical speciation modeling “will be based on actual soil physical and geochemical properties and model based thermodynamic data.” *Id.* It is unclear why STV believes these provisions are not sufficiently representative or are inadequate to measure DU dissolution accurately. Therefore, without

providing grounds to believe that the proposed FSP does not already address STV's concern, STV's statement cannot constitute a genuine dispute.

Contention Basis (r):

The Independent Technical Review Team Leader for the HSP and FSP is the same person as the Project Manager (Corinne Shia, SAIC). See FSP, Certification 4- Contractor Certification of Independent Technical Review, and HSP, Certification 4 - Contractor Certification of Independent Technical Review. To assure "independent" technical review, these roles should be performed by different individuals.

Staff Response:

This basis is inadmissible because it fails to state facts to support its position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). STV does not explain how overlap in the leadership of the two teams raises any cognizable question about the ability of the teams to implement the responsibilities the Army has assigned them. From the fact that one individual has two roles, STV has not indicated a basis to believe the review team is not meaningfully separate from the implementation team, much less that the resulting analysis or review will be affected detrimentally. STV must provide more substantive grounds for asserting that the overlap of some personnel alters the independence of the review, in a sense that is relevant to the actual adequacy of the results.

3. Health and Safety Plan ("HASP") Contentions

For reasons detailed below, contentions related to the portions of the HASP identified by STV are beyond the scope of this proceeding. Consequently, Contentions C-1 and C-2 are inadmissible for failure to satisfy 10 C.F.R. § 2.309(f)(1)(iii). The Staff will address this issue first because this objection applies to all of STV's C-1 and C-2 bases. Although this is sufficient

reason to hold the contentions inadmissible, the additional grounds the Staff has for finding each basis inadmissible are discussed in the Staff's response to each individual basis.

The bases for STV's C-1 and C-2 contentions all focus on the limited discussion in the Army's HASP of specific safety precautions or worker training related to the avoidance, handling, or management of unexploded ordnance ("UXO"). In effect, STV contends that the Army must explain in greater detail how it plans to instruct and protect its field operators from ordnance when conducting its sampling activities.

It is undisputed that the presence of UXO on the JPG site presents special logistical considerations. However, the fact that these logistics are not detailed in the Health and Safety Plan is not a factor in whether to approve the Licensee's alternate schedule request. There is no NRC regulatory requirement for the licensee—whether or not in a § 40.42(g)(2) proceeding—to explicitly address UXO in Decommissioning Plans and/or Health and Safety Plans. The relevant safety-specific standard for the Staff's § 40.42(g)(2) inquiry is that the alternative schedule "presents no undue risk *from radiation* to the public health and safety[.]" See 10 C.F.R. § 40.42(g)(2) (emphasis added). By contrast, STV's proposed contentions all appear to concern the potential risks to site personnel who may encounter UXO; STV seeks additional detail on safety precautions the Army plans to take to avoid those risks. But STV never explains why the potential risks it identifies are radiological rather than conventional, nor how the associated hazard (from radiation or otherwise) would be to the public health and safety rather than limited to the DU Impact Area.<sup>9</sup> While the presence of UXO at JPG most

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<sup>9</sup> Indeed, STV states in the overview of its contentions that it is challenging the HASP because, if not corrected, the alleged HASP deficiencies "will impede the Army in conducting the field sampling activities necessary for proper site characterization"; absent from the overview is a claim that these HASP deficiencies present any risk from radiation to the public health or safety. See Hearing Request, at 13. STV does not provide grounds in any of its individual bases to believe that UXO, even if triggered, would present a radiological risk either to field personnel or the off-site public. For the same reason, STV has failed to state facts that would show that the absence of logistic detail in the HASP contributes to any such risk. Consequently, each of STV's part C contentions are also inadmissible because they do

certainly is a safety issue, it is a dimension of safety that is not within the NRC's regulatory authority. In short, contentions concerning the non-radiological risks presented by UXO are beyond the scope of a § 40.42(g)(2) alternate schedule request and are therefore inadmissible.

As for STV's claim that the HASP is not "effectively integrated" with the FSP, there is no regulatory requirement that the various application documents for an alternate schedule request be "integrated" in a specific manner. Nor is there a requirement that certain provisions appear in multiple application documents as cross-references. A licensee's alternate schedule request only must demonstrate that the proposed plan, as a whole, substantively has addressed all the considerations in § 40.42(g)(2). STV's attempt to assert an additional "integration" requirement is beyond the scope of this proceeding.

Contention C-1:

The HASP is very generic and not site-specific in nature, without identification of the particular UXO hazards to be addressed or the specific locations in which they are found. [Hearing Request, at 22.]

Contention C-2:

The HASP is not effectively integrated with the FSP. [Hearing Request, at 23.]

Staff Response:

Contentions C-1 and C-2 are inadmissible because they are outside the scope of the proceeding, see 10 C.F.R. § 2.309(f)(1)(iii), because they fail to demonstrate that the issues are material to the findings the NRC must make to support the action that is involved in the proceeding, see 10 C.F.R. § 2.309(f)(1)(iv), and because they fail to raise a genuine dispute with the Licensee on a material issue of law or fact, see 10 C.F.R. § 2.309(f)(1)(vi).

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not provide facts to support STV's position. See 10 C.F.R. § 2.309(f)(1)(v).

Bases for Contention C-1:

Contention Basis (a):

Table 2-1, "DU Impact Area Site Characterization Project Onsite Tasks" (page 2-2), lists 'Installation of 10 multi-well clusters ...', 'Collect 24 samples (penetrators) from the DU Impact Area', and an optional task to sample 'other biota (plants, earthworms, birds, mammals, and fish)' as project tasks that will be accomplished. It is possible that UXO may be encountered while performing these operations, but there is very little specific information on the UXO safety precautions required to be followed during these activities. For example, common industry practice is to have a UXO specialist locate a clear entry and exit pathway for the drill rig and then ensure that no subsurface metal objects are located at the well location. Then, the UXO specialist usually performs downhole geophysical avoidance surveys during the well drilling operation (this is usually done by hand boring the cleared area as far as possible and then removing the drill from the well at 2-ft. increments to check that no metal objects are in the path of the drill until a specified depth is reached).

Staff Response:

As stated previously, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. This basis also is inadmissible because STV fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). Even if elaboration of field-staff UXO safety precautions were germane to the HASP and within the NRC's jurisdiction, STV indicates no basis to believe that the absence of a detailed description means that the Army fails to follow appropriate UXO-avoidance practices in its sampling operations. Indeed, Section 8-13 of the HASP describes UXO training for all onsite workers and notes the UXO-specific surveying that will occur before any subsurface activities. See HASP, at 8-6, 8-7. Consequently, STV has failed to articulate clear grounds to believe the Army has not anticipated and will not account for these UXO risks.

Contention Basis (b):

In section 8.12, "Drill Rig Operations," there are also no specific precautions described for UXO. The text in this section appears to be standard drill rig precautions and should be modified to emphasize the potential UXO hazards that may be encountered during this intrusive operation and what specific UXO avoidance measures will be used to ensure the safety of the drillers.

Staff Response:

As stated previously, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. This basis also is inadmissible because STV fails to state facts that support its position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). Even if such a discussion of drill rig UXO safety precautions were germane to the HASP and within the NRC's jurisdiction, STV indicates no basis to believe that the absence of a detailed description means that the Army fails to follow appropriate UXO-avoidance practices in its drilling operations. Section 8-13 of the HASP describes UXO training for all onsite workers and notes the UXO-specific surveying that will occur before any subsurface activities. See HASP, at 8-6, 8-7. STV does not provide any reason to believe the Army will take inadequate precautions against UXO risks during drilling.

Contention Basis (c):

Section 8.13 on "Unexploded Ordnance" is more general boilerplate. There is no site-specific information presented. This is highly unusual for field operations on a known UXO contaminated site. In what specific locations are the samples going to be collected? What is the type and density of UXO that is expected to be encountered in these locations? How deep are these UXO expected to penetrate (important information for the drillers)?

Staff Response:

As stated previously, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. This basis also is inadmissible because STV fails to state

facts that support its position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). Even if advance mapping of sampling activities against projected UXO density were germane to the HASP and within the NRC's jurisdiction, STV simply poses general questions; it states no basis to believe that further detail in the HASP itself is necessary, or that the Army's operations will not account for these concerns properly. As stated previously, Section 8-13 of the HASP describes UXO-specific training and surveying practices that apply to all on-site activities, reflecting awareness of the UXO identification issues STV identifies. See HASP, at 8-6, 8-7. STV has failed to articulate clear grounds to believe the Army has not adequately anticipated the UXO risks noted in STV's questions.

Contention Basis (d):

Appendix B is an 'Example Activity Hazard Analysis.' However, since this HASP is intended to be a site-specific health and safety plan it would be most appropriate to include the completed activity hazard analyses instead of just an example. Since this HASP does not contain the site-specific activity hazard analyses, when will they be completed and how will they be presented to the site personnel? This question was addressed to Army and SAIC personnel during a conference call on September 8, 2005. The only response was that that the HASP would be subsequently supplemented with the necessary site-specific hazard analyses. To date, no such supplementary analyses have been supplied.

Staff Response:

To the extent this basis is directed at on-site non-radiological hazards presented by UXO, it is inadmissible because, as stated previously, that issue is outside the scope of the proceeding. In any event, this basis is inadmissible because STV fails to state facts that support its position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). STV does not explain why the absence of a completed activity hazard analysis correlates with any specific safety risk, nor why it reveals a

material deficiency in the HASP. STV does not specify any activity hazards (whether UXO-related or not) that it believes have not been addressed. As stated previously, Section 8-13 of the HASP describes UXO-specific training and surveying practices that apply to all on-site activities. See HASP, at 8-6, 8-7. To contend, as STV does, that it would be better to include a complete analysis rather than just an example does not constitute an actual dispute about the present adequacy of the HASP. STV has failed to articulate clear grounds to believe the Army has not anticipated and will not account for relevant activity hazards.

Bases for Contention C-2:

Contention Basis (a):

The person identified in Table 3-1 to serve as Field Manager for the FSP (Seth Stephenson) possesses the training and experience required to serve as the UXO expert on the project. However, he is the only UXO support person listed for the project. One UXO specialist is only able to monitor one field operation at a time, such as one sampling team or one drill rig. It is not likely that he will be able to perform any additional duties associated with being the Field Manager when sampling operations are being conducted because his presence will be required at the sampling site as the UXO expert. It is likely to be much more efficient to have the project Field Manager and UXO support specialist(s) be different people.”

Staff Response:

To the extent this basis is directed at on-site non-radiological hazards presented by UXO, it is inadmissible because, as stated previously, that issue is outside the scope of the proceeding. This basis also is inadmissible because STV fails to state facts that support its position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). STV indicates no basis to believe that the Army’s allocation of management responsibilities does not account appropriately for either UXO risks or for the management resources necessary for the project. To state, as STV does, that a different

delegation of Field Manager and UXO support functions “is likely to be much more efficient” is unsupported and does not constitute an actual dispute about the present adequacy of the HASP. Similarly, STV cites no support for its statement that a UXO specialist “is only able to monitor one field operation at a time”, nor for its speculation that “it is not likely” that the specialist “will be able to perform any additional [Field Manager] duties[.]” STV has failed to articulate clear grounds to believe the Army has not anticipated and will not account for these UXO risks in its site management.

Contention Basis (b):

The last bullet in Section 4.0 notes that UXO is present at the site and also states that, “Site investigation plans will be adjusted, as appropriate and necessary, to ensure that the H&S of all field personnel are always protected.” This type of statement shows an almost complete lack of knowledge and concern for UXO on the project. Accepted safety procedures on UXO sites require plans to be developed to safely perform sampling operations before beginning work, thereby minimizing the need to adjust the plans to maintain safety once sampling has begun. There is virtually no planning for UXO safety incorporated into the sampling procedures included in the FSP.

Staff Response:

As stated previously, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. This basis also is inadmissible because STV fails to state facts to support its position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). STV does not identify what “[a]ccepted safety procedures on UXO sites” it is referencing, much less whether such procedures necessitate greater detail or assurances than are provided, for example, in Section 8.13 of the HASP. Similarly, STV’s claim that the FSP reflects an “almost complete lack of knowledge and concern for UXO on the project” simply ignores the direct discussion of UXO in the HASP. STV

has failed to articulate clear grounds to believe the Army has not anticipated and will not account for the risks presented by UXO.

Contention Basis (c):

Section 4.2 on “Applicable Regulations/Standards” does not mention any of the guidance documents covering UXO avoidance and safety procedures for environmental sampling projects. These documents are available on the website of the U.S. Army Corps of Engineers Engineering and Support Center, Huntsville, Alabama.

Staff Response:

As stated previously, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. This basis also is inadmissible because STV fails to state facts to support its position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). STV does not identify what substantive information might be in the guidance documents it mentions, nor does it state whether that information is already addressed in the Army’s proposal. Furthermore, STV fails to explain why the absence of these references has any consequence for the NRC’s analysis. STV has failed to articulate any clear grounds to believe the Army has not anticipated and will not account for applicable UXO risks or that it will fail to follow existing Army guidance on the handling of UXO.

Contention Basis (d):

Section 6.1 describes the field procedures that will be accomplished during “Geophysics (Electrical Imaging).” This process involves driving electrodes into the ground and transmitting electrical current between the electrodes. This involves UXO hazards caused by driving the electrodes into the ground and also by emitting electromagnetic radiation which may be a potential initiation source for electrically initiated ordnance. UXO safety procedures must be specified to support this sampling

procedure and the issues involved with electromagnetic radiation must be incorporated in the plan.

Staff Response:

As stated previously, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. This basis also is inadmissible because STV fails to state facts to support its position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). STV does not identify any support for its claim that the EI process “may be a potential initiation source for electrically initiated ordnance,” nor does it explain whether that risk is relevant to any of the types of ordnance present at JPG. Furthermore, to state that it would be appropriate to specify additional safety procedures does not constitute an actual dispute about the present adequacy of the HASP. STV has failed to articulate clear grounds to believe the Army has not anticipated and will not account for applicable UXO risks, including those involved in the EI process.

Contention Basis (e):

Section 6.2 on sampling “Groundwater” contains no information on UXO avoidance or safety even though this section describes drilling wells. For example, Figure 6-1, the “Drill Rig Operational Checklist,” lists numerous safety requirements including fire extinguishers, grounding the drill rig, watching for electrical lines, etc. However, there is *nothing* on the safety requirements for drilling in an area contaminated with UXO. Also, page 6-14 references setting three or four steel well guards in concrete 2-ft. into the ground around each well. But, again, there is no mention of having UXO safety support for this intrusive operation.

Staff Response:

As stated previously, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. This basis also is inadmissible because STV fails to state facts that support its position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). Even if the addition of UXO

Checklist points or well guard guidance were germane to the HASP and within the NRC's jurisdiction, STV states no basis to believe that the Army's plan does not account for these risks appropriately. As noted previously, Section 8-13 of the HASP describes UXO-specific training and surveying practices that apply to all on-site activities. See HASP, at 8-6, 8-7. STV has failed to articulate clear grounds to believe the Army has not anticipated and will not account for applicable UXO risks.

Contention Basis (f):

Sections 6.5 and 6.6 relate, respectively, to "Soil Sampling" and "Sediment Sampling." These sections contain no information on or references to specific UXO safety procedures for performing these two operations, both of which are intrusive and would be expected to encounter UXO.

Staff Response:

As stated previously, this basis is inadmissible, first, because the entire contention is outside the scope of the proceeding. This basis also is inadmissible because STV fails to state fact that support its position and fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v), (vi). Even if UXO soil and sampling guidance were germane to the HASP and within the NRC's jurisdiction, STV states no reason to believe that the Army's plan does not account for these risks appropriately. As noted previously, Section 8-13 of the HASP describes UXO-specific training and surveying practices that apply to all on-site activities. See HASP, at 8-6, 8-7. Consequently, STV has failed to articulate clear grounds to believe the Army has not anticipated and will not account for applicable UXO risks.

4. Timeliness and Financial Assurance Contentions

For the reasons described below, STV's timeliness and financial assurance contentions are inadmissible.

Contention D-1:

The alternate schedule being proposed fails to meet the requirements of 10 C.F.R. § 40.42 of a *definite* schedule for *timely* decommissioning of the JPG site. [Hearing Request, at 25.]

Staff Response:

Contention D-1 is inadmissible because it is outside the scope of the proceeding, see 10 C.F.R. § 2.309(f)(1)(iii), because it fails to demonstrate that the issue is material to the findings the NRC must make to support the action that is involved in the proceeding, see 10 C.F.R. § 2.309(f)(1)(iv), and because it fails to raise a genuine dispute with the Licensee on a material issue of law or fact, see 10 C.F.R. § 2.309(f)(1)(vi).

Contention Basis (a):

"...[T]he alternate schedule being proposed fails to "place a limit on the time permitted to decontaminate and decommission" the site, as required by the Timely Decommissioning Rule. The Army's May 25, 2005 letter does not state when decommissioning will start nor when it will end. Instead, it simply requests approval to extend the time for submission of a DP by five years following approval of the current POLA request. In effect, the current five-year POLA request, as filed, represents no more than the first installment of the indefinite POLA with five year renewals previously proposed and supposedly withdrawn by the Army."

Staff Response:

Basis (a) is inadmissible, first, because it is outside the scope of the proceeding. See 10 C.F.R. § 2.309(f)(1)(iii). As previously stated in Part II's discussion of the regulatory background of § 40.42, there is no generic § 40.42 evaluation of the "time permitted to decontaminate and decommission" a site. Instead, the scope of the inquiry depends on what

phase of decommissioning is at issue. A § 40.42(g)(2) proceeding is only about an alternate schedule for creating and submitting a decommissioning plan for approval. Section 40.42(g)(2) does not require the licensee to specify in advance what timetable it will eventually propose in a final decommissioning plan; indeed, one premise of an alternate schedule request may be that more time and information is necessary for the licensee to create that timetable.

Therefore, STV's concern that the Army "simply requests approval to extend the time for submission of a DP by five years" reveals a misunderstanding about the structure of § 40.42, because that is the precise inquiry that the Commission has authorized in § 40.42(g)(2). STV's apparent demand for an estimate of the completion time for decommissioning activities would apply once a decommissioning plan is required to be submitted for approval, but that is outside the scope of this proceeding.

Second, Basis (a) fails to demonstrate that the issue is material to the findings the NRC must make to support the action that is involved in the proceeding. See 10 C.F.R. § 2.309(f)(1)(iv). STV contests the absence of a timetable that would state how long the implementation of a decommissioning plan will take once it has begun. However, because this proceeding concerns an extension only of the time for submittal, not for implementation, the absence (or presence) of that estimate for implementation is not material to the Staff's review under § 40.42(g)(2). The Licensee must show that the alternate schedule is necessary to the effective conduct of decommissioning. Therefore, it may be material whether the additional time for site characterization and planning is necessary to produce an effective decommissioning plan by the requested new submittal deadline. However, the question of what implementation timetable ultimately might be included in the submitted plan is, at this phase, outside the Staff's § 40.42(g)(2) inquiry.

Third, in regard to the proposed five year target for submittal (the only area where the Licensee's timetable is clearly material to the Staff's analysis), Basis (a) fails to raise a genuine

dispute with the Licensee. See 10 C.F.R. § 2.309(f)(1)(vi). The Licensee has stated its intention to complete and submit a decommissioning plan to the NRC at the end of the five-year alternate schedule. See May 25, 2005 Request, at 1, 2. STV does not provide any basis for contradicting this statement. STV's assertion that the alternate schedule "represents no more than the first installment of the indefinite POLA with five year renewals previously proposed" is without support. This speculation does not amount to a genuine dispute, and is inadmissible.

Contention Basis (b):

The current proposal also fails to 'place the burden of proof directly on the licensee to demonstrate that a longer period of time is required for completing decommissioning' as required by the Timely Decommissioning Rule. The Army's May 25, 2005 letter does not even commit to completing decommissioning with twenty-four months of DP approval. Instead, it effectively places the burden on STV (or any other concerned group in the future) to demonstrate that a shorter, more definite period is required. This effectively turns the Timely Decommissioning Rule on its head and creates precisely the type of situation which the rule was adopted to correct and prevent: the indefinite postponement of the decommissioning and decontamination of licensed sites. And, it does so at a former SDMP site at which there have already been multiple, lengthy delays in decommissioning.

Staff Response:

Basis (b) is inadmissible, first, because it is outside the scope of the proceeding. See 10 C.F.R. § 2.309(f)(1)(iii). STV contends that the Licensee has not committed "to completing decommissioning with twenty-four months of DP approval." However, as previously stated, a § 40.42(g)(2) proceeding concerns only an alternate schedule for creating and submitting a decommissioning plan for approval. Section 40.42(g)(2) does not require the licensee to commit to any specific timetable in its final decommissioning plan; in fact, one premise of a licensee's alternate schedule request may be that more time and information is necessary to project an accurate and adequate timetable. As STV seems to recognize, the timetable that the

Licensee ultimately must submit as part of its decommissioning plan will be measured against the NRC's twenty-four month implementation requirement. Moreover, the Licensee has the burden to justify any completion that is proposed to take longer. See 10 C.F.R.

§ 40.42(g)(4)(vi). However, that requirement is beyond the scope of § 40.42(g)(2) because the decommissioning plan itself is not yet at issue. The final decommissioning plan has not been (and is not required to be) submitted at this phase.

For the same reason, STV is incorrect that the Army's proposal "fails to place the burden of proof" on the Licensee. As previously stated, in any phase of the § 40.42 decommissioning process where a licensee requests delayed initiation or an alternate schedule, the licensee must justify that change to the Commission. See 10 C.F.R. § 40.42(f), (g)(2), (g)(4)(vi), (g)(5), (i). STV's Hearing Request itself describes the requirements that licensees "must meet" to obtain Commission approval under § 40.42(g)(2). Clearly, § 40.42 makes it the licensee's burden to demonstrate timely implementation, but only once a decommissioning plan is submitted. STV's attempt to require a "timely implementation" showing in this § 40.42(g)(2) inquiry is precluded by the structure of § 40.42 and is thus beyond the scope of this proceeding.

Second, Basis (b) fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). Assuming the twenty-four month target for the implementation phase were relevant to the § 40.42(g)(2) inquiry, STV has stated no grounds to believe that the Army's submitted plan will fail to provide a satisfactory timetable as required, much less that the Army's request amounts to "indefinite postponement" of decommissioning. The Licensee has stated its intention to complete and submit a decommissioning plan to the NRC at the end of the proposed five-year alternate schedule. See May 25, 2005 Request, at 1, 2. STV's speculation to the contrary does not amount to a genuine dispute, and is inadmissible.

Contention Basis (c):

The Army's current proposal provides no description of its regulatory history, especially but not exclusively at the JPG site, to establish a pattern of compliance with Commission decommissioning rules and guidance which would instill confidence that timely decommissioning will actually occur at JPG. Such a showing is especially critical in a situation in which the Army is once again requesting an extended period of delay in decommissioning and decontamination at a former SDMP site at which there have already been multiple, lengthy delays in decommissioning. Such a showing is also expressly contemplated by Commission guidance on the evidence required for an alternate schedule for decommissioning. In particular, NUREG-1757, Vol.3, Section 2.6, provides, in pertinent part: 'To demonstrate that delaying the start of decommissioning will not be detrimental to public health and safety, a licensee should submit the following: A discussion of its record of regulatory compliance, particularly its compliance with NRC regulations.'

Staff Response:

Basis (c) is inadmissible, first, because it is outside the scope of the proceeding. See 10 C.F.R. § 2.309(f)(1)(iii). STV contends that the Licensee has not provided a "description of its regulatory history...which would instill confidence that timely decommissioning will actually occur at JPG." To the extent STV is reading into § 40.42(g)(2) an independent requirement of confidence in the timetable for eventual implementation of a decommissioning plan, STV is erroneously applying standards from other phases of § 40.42. As previously stated, § 40.42 does not employ a broad-brush "timeliness" evaluation of the entire decommissioning process. Instead, it establishes and evaluates milestones for three distinct phases. A § 40.42(g)(2) proceeding concerns only an alternate schedule for creating and submitting a decommissioning plan for approval. It does not involve speculation about whether the licensee will include a particular timetable in its final plan. The inquiry is whether the additional site characterization and planning proposed for the five year extension is necessary to the effective conduct of decommissioning, presents no undue radiological risk to the public safety, and is otherwise in

the public interest. Accordingly, STV's focus on the implementation stage is beyond the scope of this proceeding.

Second, assuming a licensee's "regulatory history [instilling] confidence that timely decommissioning will actually occur" were an issue legally within the scope of § 40.42(g)(2), Basis (c) fails to demonstrate that it is material to the findings the NRC must make here. See 10 C.F.R. § 2.309(f)(1)(iv). STV again misinterprets the showings that must be made at different phases of § 40.42. The "regulatory history" requirement that STV cites from NRC guidance documents applies only to requests under § 40.42(f) to postpone the initiation of the decommissioning process.<sup>10</sup> NRC guidance does not call for evaluation of this information at the § 40.42(g)(2) phase. In this proceeding, in contrast to a § 40.42(f) request, all parties accept that the decommissioning process has been triggered and that a decommissioning plan must be submitted. Under these circumstances, a "regulatory history" is not a necessary part of the Staff's inquiry, and so its absence from the Army's application is not material.

In any event, however, Basis (c) fails to raise a genuine dispute on the facts. See 10 C.F.R. § 2.309(f)(1)(vi). In its FSP, the Army does, in fact, briefly discuss its regulatory history with the NRC in these JPG proceedings. See FSP, at 2-4. This discussion includes its previous decommissioning plan submissions and its responses to NRC requests for additional information. The Army has acknowledged its obligation to decommission the site as well as its responsibility to submit and implement a decommissioning plan, and has now proposed a modification only of the timing of its plan submittal. See May 25, 2005 Request, at 1, 2. In its contention, however, STV has identified no actual failures by the Army to comply with NRC regulations, nor has it stated any specific basis to infer non-compliance with the deadline for

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<sup>10</sup> See NUREG-1757, Vol. 3, at 2-11 through 2-16. The guidance in this section cited by STV is not made applicable to § 40.42(g)(2) proceedings. It is facially limited to the postponements or delays evaluated under § 40.42(f).

submittal if the alternate schedule is approved. Consequently, STV has not shown the genuine dispute required for an admissible contention.

Contention D-2:

The financial assurance provided for the Army's alternate schedule for decommissioning is insufficient to meet the requirements of 10 C.F.R. §§ 40.36 and 40.42 for a *complete, definite and quantified* financial commitment for the decommissioning of the JPG site. [Hearing Request, at 26.]

Staff Response:

Contention D-2 is inadmissible because it is outside the scope of the proceeding, see 10 C.F.R. § 2.309(f)(1)(iii), because it fails to demonstrate that the issue is material to the findings the NRC must make to support the action that is involved in the proceeding, see 10 C.F.R. § 2.309(f)(1)(iv), and because it fails to raise a genuine dispute with the Licensee on a material issue of law or fact, see 10 C.F.R. § 2.309(f)(1)(vi).

Contention Basis (a):

“The indefiniteness of the Army's alternate schedule is compounded by the vagueness of its funding. All the Army says in its May 25 letter to the NRC Staff is, “All actions under the plan are subject to funding of course.” There is no specific budget for the overall plan, its principal components, or the individual years in the five-year implementation period. There is no formally expressed or executed statement of intent on the part of an Army official with the authority to approve or even to request the necessary funds. ....”

Staff Response:

Basis (a) is inadmissible, first, because it is outside the scope of the proceeding. See 10 C.F.R. § 2.309(f)(1)(iii). As previously stated, a § 40.42(g)(2) proceeding concerns only an alternate schedule for creating and submitting a decommissioning plan for approval. It does not require examination of the elements that will be required in the submitted plan, including the “updated detailed cost estimate for decommissioning” in § 40.42(g)(4)(v). Because this cost estimate is required only at a different phase of § 40.42, Section 40.42(g)(2) does not require

the licensee to provide a new and detailed budget; in fact, one premise of an alternate schedule request may be that it is necessary in part to generate an accurate cost estimate for the final submitted plan.

Furthermore, licensees have an obligation under § 40.36 to maintain funding assurances for decommissioning and periodically provide a cost estimate for its decommissioning activities. See 10 C.F.R. § 40.36(d), (e). To make clear that this obligation continues once a decommissioning plan is in place, the Commission added § 40.42(e) to emphasize that from the time decommissioning is initiated, licensees must “maintain in effect all decommissioning financial assurances” pursuant to § 40.36. See 10 C.F.R. § 40.42(e). The Statements of Consideration accompanying § 40.42(e) made clear that the rule was requiring a licensee’s financial assurances “to correspond to the detailed cost estimate submitted *with the decommissioning plan.*” See *Clarification of Decommissioning Funding Requirements*, 60 Fed. Reg. 38235, 38236 (July 26, 1995) (emphasis added). Thus, before a decommissioning plan is submitted, licensees are already required to update periodically their cost estimate and assurances under § 40.36 and to maintain existing assurances under § 40.42(e); furthermore, licensees are required to update their cost estimate at the time a final decommissioning plan is submitted and modify their assurances accordingly. See 10 C.F.R. § 40.36(d); 10 C.F.R. § 40.42(g)(4)(v). In short, the only phase of § 40.42 where financial assurances are to be reconsidered or reexamined by the NRC is during approval of the decommissioning plan.<sup>11</sup> Therefore, STV’s demand for a detailed funding plan and new assurances is beyond the scope of a § 40.42(g)(2) proceeding.

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<sup>11</sup> Correspondingly, the Commission might also address financial assurances under this section if a licensee has failed to provide financial assurances that cover the cost estimate submitted in the decommissioning plan, or if a licensee seeks to reduce its financial assurances following approval of the decommissioning plan. See 10 C.F.R. § 40.42(e)(1), (2).

Second, Basis (a) fails to demonstrate that the issue is material to the findings the NRC must make to support the alternate schedule request. See 10 C.F.R. § 2.309(f)(1)(iv). The Army is already required to provide, periodically, a cost estimate for the JPG site; the Army's statement of intent must be adjusted if the cost estimate changes. See 10 C.F.R. § 40.36(d), (e)(4). The Army provided a cost estimate in its statement of intent in 1998, and it will be required to submit an updated cost estimate (and associated statement of intent) in December 2006. *Id.*; see also Letter from Thomas L. Roller to Clayton L. Pittiglio, dated June 8, 1998, ADAMS No. ML053530173. In light of the Army's existing estimates and assurances required by § 40.36 and § 40.42(e), as well as its status as a government entity, financial assurance is not a material consideration in the Staff's review of the Army's alternate schedule request.

Third, Basis (a) fails to raise a genuine dispute with the Licensee on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). Assuming § 40.42 authorized an inquiry into financial assurance at the § 40.42(g)(2) stage, STV has not identified any reason to question the Army's intent or ability to fund its proposed activities during the five-year extension. Contrary to STV's contention, the Army has stated its commitment to "seek and secure all funding necessary to complete the actions contemplated in its current application[.]" See Statement of Intent to Secure Funding Necessary to Complete Site Characterization for Jefferson Proving Ground (Sept. 14, 2005), ADAMS No. ML052710071. As the Army correctly notes, government officials cannot guarantee funds not yet appropriated. See 31 U.S.C. § 1341 *et seq.* Having stated no facts to contradict the Army's sincerity or solvency, STV's complaint that the funds for site characterization are not literally guaranteed cannot constitute a genuine dispute.

Contention Basis (b):

[The Army's September 14, 2005 Statement of Intent] does not satisfy the requirements of 10 C.F.R. § 40.36(e)(4) ... [it] contains no cost estimate to conduct the FSP and implement the HASP, let alone to perform eventual site decommissioning as required by the rule. There is also no indication in the Army's Statement as to what effect, if any, the requested delay in decommissioning will have on the eventual cost of decommissioning. NRC guidance puts the Army on specific notice that this is significant information to be submitted in support on an alternate schedule request. See, e.g., NUREG-1757, Vol.3, Section 2.6 (requiring "discussion of the current decommissioning cost estimate and the potential for increased decommissioning costs if an extension of the time period is approved") and Vol.1, Section 5.4 (stating "waste disposal costs have, in the past, increased at rates significantly higher than the rate of inflation and therefore delaying remediation will result in higher costs to the public.") ... [T]he Army's Statement of Intent does not provide adequate documentation that the funds required to perform decommissioning, whatever the amount may be, will be obtained when necessary. The stated intention to seek and secure funds is limited to the actions contemplated in the Army's May 25 letter to support an alternate schedule ... it does not include eventual decommissioning itself. There is also no documentation whatsoever of the authority of the letter's signator to request and approve disbursement of the funds necessary for these actions, let alone decommissioning of the site. Indeed, there is no express reference or other evidence in the Army's statement of any conscious effort to follow the Commission's written guidance for a statement of intent which would meet the applicable regulatory requirements. See NUREG-1757, Vol. 3, Sections 4.3.1 and 4.3.2.13 and Appendix A-16.

Staff Response:

Basis (b) is inadmissible, first, because it is outside the scope of the proceeding. See 10 C.F.R. § 2.309(f)(1)(iii). As previously stated, a § 40.42(g)(2) proceeding concerns only an alternate schedule for creating and submitting a decommissioning plan for approval. It does not require the licensee to provide new cost estimates either for site characterization activities or for eventual decommissioning. Those estimates are either mandated by the independent updating obligation of § 40.36(d) or are not reviewed until a final decommissioning plan—which must encompass all the § 40.42(g)(4) elements, including the cost estimate in (v)—is submitted for approval. Therefore, contrary to STV's assertion, the Army's September 2005 statement of intent does not need to satisfy § 40.36(d), because that is a separate regulatory obligation and not a requirement of § 40.42(g)(2). For the same reason, the statement of intent accompanying

the alternate schedule request does not need to include a funding analysis of the implementation stage of decommissioning.

As with its timeliness contention, STV mistakenly refers to NRC guidance that does not apply to § 40.42(g)(2), but deals only with requests concerning other phases of the § 40.42 decommissioning process. STV's cite to NUREG-1757, Vol. 3, is again to a section that is not applicable to § 40.42(g)(2) proceedings. The guidance cited is facially limited to the postponements or delays evaluated under § 40.42(f) for extension of the time for "triggering" the decommissioning process.<sup>12</sup> See NUREG-1757, Vol. 3, at 2-14, 2-15. Similarly, STV's cite to NUREG-1757, Vol. 1 (concerning "higher waste disposal costs"), is to the section containing guidance for approving an "alternative schedule for completion"; it is the previous section that lists criteria for approving an "alternative DP submission date." Compare NUREG-1757, Vol. 1, at 5-4 with 5-4 to 5-5. Furthermore, as stated previously, "financial assurances" are not within the scope of the § 40.42(g)(2) inquiry. Consequently, STV's cited guidance from NUREG-1757, Vol. 3 and Appendix A-16, concerning the detailed criteria of financial assurances, simply is not applicable here.

Second, Basis (b) fails to raise any issue that is material to the findings the NRC must make to support approval of an alternate schedule request. See 10 C.F.R. § 2.309(f)(1)(iv). As stated previously, the Army is already required to provide, periodically, a cost estimate for the JPG site; the Army's statement of intent must be adjusted if the cost estimate changes. See 10 C.F.R. § 40.36(d), (e)(4). The Army provided a cost estimate in its statement of intent in 1998, and it will be required to submit an updated cost estimate (and associated statement of intent) in December 2006. *Id.*; see also Letter from Thomas L. Roller to Clayton L. Pittiglio,

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<sup>12</sup> For example, another bullet point in the same cited series requires a licensee to explain "whether a DP will ultimately be required for the site," which would obviously be inapplicable to § 40.42(g)(2) because the very purpose is to set a date for the DP's submittal. See NUREG-1757, Vol. 3, at 2-14, 2-15.

dated June 8, 1998, ADAMS No. ML053530173. Therefore, the Staff already has a reliable mechanism to confirm the Army's funding commitment. In addition, the Staff will have a full opportunity to review the expected costs of the implementation of decommissioning at the time a plan is submitted.

Third, even assuming that the question of funding for site characterization and ultimate decommissioning were integral to the § 40.42(g)(2) inquiry, Basis (b) fails to raise a genuine dispute with the Licensee about those assurances. See 10 C.F.R. § 2.309(f)(1)(vi). As explained in the Staff's response to Basis (a), STV has identified no specific grounds to doubt the Army's intent or ability to perform the activities in its proposed alternative schedule. At root, STV's basis is simply 1) speculation that the Army may not obtain its funding and 2) an equivocal claim that improved and expanded site characterization is necessary but that any delay in submittal could raise costs. Without more specific concerns, these vague assertions cannot constitute a genuine dispute.

#### IV. CONCLUSION

For the aforementioned reasons, STV has the requisite standing and has proffered at least one admissible contention. The Staff concludes that only Contention B-1 is admissible and should be limited to stated bases (a), (f), and (j). The Staff therefore submits that STV's petition should be granted.

Respectfully submitted,

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Patrick A. Moulding  
Counsel for NRC Staff

Dated at Rockville, Maryland  
this 19<sup>th</sup> day of December 2005





UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
U.S. ARMY ) Docket No. 40-8838-MLA  
(Jefferson Proving Ground Site) )  
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CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF RESPONSE TO PETITION TO INTERVENE AND REQUEST FOR HEARING FILED BY SAVE THE VALLEY" and "NOTICE OF APPEARANCE" of Patrick A. Moulding and Marian L. Zobler in the above captioned proceeding have been served on the following by electronic mail with copies deposited in the Nuclear Regulatory Commission's internal mail system as indicated by a single asterisk or by U.S. Mail, first class, as indicated by a double asterisk, this 19<sup>th</sup> day of December, 2005.

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