UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

NATURAL RESOURCES DEFENSE COUNCIL, INC., COMMITTEE TO BRIDGE THE GAP, and CITY OF LOS ANGELES, Plaintiffs, v. DEPARTMENT OF ENERGY, SPENCER ABRAHAM, Secretary, Department of Energy, and CAMILE YUAN-SOO HOO, Manager, National Nuclear Security Administration, Oakland Operations Office, Defendants.	No. C-04-04448 SC ORDER GRANTING PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT

I. INTRODUCTION

Plaintiffs Natural Resources Defense Council, Inc., Committee to Bridge the Gap, and City of Los Angeles ("Plaintiffs") bring this action against the Department of Energy ("DOE"), Spencer Abraham, Secretary, DOE, Camille Yuan-Soo Hoo, Manager, Nuclear Security Administration, Oakland Operations Office ("Defendants" or "DOE").

Plaintiffs allege that the DOE's March 2003 decision regarding the remediation of Area IV of Santa Susana Field Laboratory in Simi Valley, California violates the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321, et seq., the

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), 42 U.S.C. §§9601, et seq., and the Endangered Species Act ("ESA"), 16 U.S.C. §§ 1531, et seq. See Compl. at 4.

In summary, Plaintiffs challenge 1) the DOE's decision to issue a Finding of No Significant Impact ("FONSI") after conducting an Environmental Assessment ("EA"), as opposed to preparing a further, more in depth, Environmental Impact Statement ("EIS"); and 2) the manner with which the DOE has subsequently chosen to conduct the remediation of Area IV. See Compl. On this basis, the Complaint requests that the Court:

> 1) declare that Defendants "have violated, and continue to violate, NEPA, CERCLA, the ESA" and the Administrative Procedures Act ("APA");
>
> 2) "set aside . . . defendants' March 31, 2003 FONSI on the AREA IV cleanup";
>
> 3) "preliminarily and permanently enjoin the [Defendants] from transferring ownership or possession of, or otherwise relinquishing control over, any portion of Area IV until defendants have (a) completed an EIS and issued a Record of Decision pursuant to NEPA; (b) complied with CERCLA's standards and completed the CERCLA process; and (c) obtained a Biological Opinion from FWS [U.S. Fish and Wildlife Service] pursuant to the ESA";[1]
>
> 4) "retain jurisdiction of this matter until the

[1]On February 17, 2005, the parties submitted a Joint Case Management Statement and Proposed Order, in which Defendants inter alia stipulated that "[t]he cleanup at ETEC is on-going and Defendants do not anticipate that it will be completed prior to the conclusion of the briefing schedule" and further "agree[d] to give Plaintiffs notice of at least thirty days prior to the completion of the cleanup as described in the EA and the subsequent transfer of control or ownership of the land or facilities which are at issue in this case." Docket No. 15 at 5. This stipulation mooted Plaintiffs' request for a preliminary injunction.

> [Defendants] have fulfilled all of their legal obligations under NEPA, CERCLA, the ESA, and the APA"; and
>
> 5) award plaintiffs costs, attorneys fees, disbursements, and any other relief the Court deems proper.

Compl. at 27-28. Plaintiffs have supplemented their NEPA-related requests for relief with an alternative prayer for an order by the Court requiring the DOE to supplement the EA in light of new information which has recently arisen. See Plaintiffs' Memorandum is Support of Motion for Summary Judgment ("Mot.") at 34.

Plaintiffs move the Court for Summary Judgment, see Mot., and the DOE cross-moves for the same. See Cross-Mot. The parties have stipulated that the case does involve any significant factual disputes and should be able to be resolved through these cross-motions for summary judgment. See Docket No. 15 at 3-4. For the reasons contained herein, the Court GRANTS Plaintiffs' Motion as it relates to their NEPA claims, and RESERVES JUDGMENT on both parties' Motions as they relate to Plaintiffs' CERCLA and ESA related claims.

II. BACKGROUND

This action concerns the DOE's remediation of a portion of the Santa Susana Field Laboratory ("SSFL"), known as "Area IV." See Compl. at 1.

A. Area IV

Area IV is located on approximately 290 acres of the SSFL's Northwest corner, which slopes, generally, to the Southeast

towards Los Angeles. See Administrative Record ("AR")-264 at 10928, 10965.[2] The SSFL is an area of approximately 2,850 acres of land "atop a range of hills between Simi and San Fernando Valleys in southeastern Ventura County, California." Id. at 10928.

As of March 2003, the closest residential area to Area IV, an area of Simi Valley, was 1.7 miles to the Northwest; another community, Santa Susana Knolls, was located 3 miles to the Northeast of Area IV; the Bell Canyon, which appears to be a semi-rural populated area, began 1.4 miles to the Southeast of Area IV. See id. at 10964. In total, the DOE estimated that, as of March 2003, 1,403 people lived within two miles of the center of the SSFL and 69,398 lived within five miles. See id. Area IV's other neighbors include: the Santa Monica Mountains National Recreation Area, two state parks, and a 3,000 acre Jewish educational center and camp facility ("the Camp"). See id. An endangered plant, Brauton's milkvetch, is found in the SSFL. See SAR-13 at 1762.

Most of the SSFL, which totals 2,399.3 acres, is the property of the Rocketdyne Propulsion & Power Division ("Rocketdyne") of The Boeing Company; the remaining 451.2 acres is the property of the National Aeronautics and Space Administration ("NASA"). See AR-264 at 10965. However, the DOE is "responsible for the

[2] Citations to the AR and Supplemental Administrative Record ("SAR") will note the AR number or SAR number along with Bates number pinpoint citation, except when a Bates number is not available. In the latter cases, the documents internal numbering system will be used.

operation of Energy Technology Engineering Center (ETEC), a government-owned complex of buildings located within Area IV." Id. at 10928. This includes the responsibility "to remediate the site prior to returning the site to the owner, Boeing Canoga Park." AR-114 at 6024. The instant case concerns this remediation. See Compl.

From the mid-1950's to the mid-1990's, the DOE and its predecessor agencies operated the ETEC as a "testing facility . . . primarily for the testing of components for nuclear energy, solar energy, and geothermal energy." Id.; see AR-264 at 10928. At its peak, "the ETEC consisted of over 200 facilities," id. at 10938, including ten nuclear research reactors, seven criticality test facilities, "the Hot Laboratory, the Nuclear Materials Development Facility, the Radioactive Materials Handling Facility (RMHF), and various test and nuclear material storage areas." Id. at 10934. According to the Environmental Protection Agency ("EPA"), these facilities housed to two main DOE-activities: 1) "nuclear operations," which involved "development, fabrication, disassembly, and examination of nuclear reactors, reactor fuel, and other radiological materials"; and 2) "liquid sodium testing of liquid metal fast breeder reactor components." AR-80 at 5918; see also AR-264 at 10934 (analogous DOE description).

The DOE and EPA concur that as a result of these activities at least some parts of Area IV "became radioactively activated or contaminated," id. (DOE); see also AR-80 at 5918 (EPA), and at least some parts of Area IV contain chemical contaminants. See

id. (EPA); AR-264 at 10937 (DOE). The radiological contamination appears to be the result of the regular operation of the facilities, see id. at 10934, dumping of radioactive materials, see AR-158 at 7476, 7476, and at least nine nuclear accidents. See AR-78 at 5756-9. Among these accidents was the partial melt-down of one of the facilities' nuclear reactors in 1959. See AR-264 at 11062. The DOE's Final EA identified five "potential radionuclides of concern at Area IV[:] . . . uranium-238, thorium-232, cessium-137, strontium-90, and cobalt-60." AR-264 at 11026. Ground water samples taken at the SSFL in recent years have detected the radioactive substance tritium. See SAR-1806.

The DOE has stated little on the record regarding the causes, types, or extent of chemical contamination of Area IV, but the Final EA noted that "[h]azardous materials such as asbestos and lead-based paint were also used in ETEC facilities." See id. at 10934. The EPA, however, has found that, in addition, "hydrocarbons, metals, solvents, and polychlorinated biphenyls (PCBs) . . . may have been used or generated in ETEC's historic operations and/or may be present in existing facilities, soils, groundwater, or other media." AR-80 at 5924. The California Department of Toxic Substance Control ("DTSC") has identified perchlorate contamination in the SSFL and areas surrounding the SSFL including Simi Valley and the Camp. See SAR-13 at 1780.

Following the decision to close the ETEC in 1996, many of its facilities were "decontaminated, decommissioned, and demolished" in a process that was categorically excluded from the application

NEPA. AR-264 at 10938. As of the date of the Final EA's issuance, "[a]pproximately 64 structures remain[ed]." Id.

B. Rocketdyne Survey

Preceding the 1996 closure decision, between March 1994 and September 1995, Rocketdyne undertook a survey of Area IV "to locate and characterize any previously unknown areas of elevated radioactivity in Area IV" ("Rocketdyne Survey"). AR-2 at 52. Rocketdyne issued its final report based on the Survey on August 15, 1996. Id. The DOE's motion papers refer to the Survey as a DOE endeavor. See Defs' Cross-Mot. at 4. The Final EA states explicitly that "[t]he impacts of Alternatives 1 and 2 and the No Action Alternative described in [the Final EA] are based on soil sampling data collected on Area IV by Rocketdyne." AR-264 at 11018; see also, AR-67 at 3-2.

1. EPA Criticism of the Rocketdyne Survey

Upon issuance, the EPA was highly critical of the Rocketdyne Survey, faulting its methodology on several accounts and ultimately calling for it to be scrapped and redone. See AR-271 at 11910.

On April 8, 1997 the EPA sent a letter to Boeing, the subsequent owner of Rocketdyne, to which was attached an internal EPA memo. See AR-340. The letter itself focused mainly on the 15 millirems per year radiation exposure screening level employed in the survey, see AR-340 at 12613. The memo also detailed several more specific concerns over the Survey's methodology, which the memo's author had raised in a previous telephone call with a

Boeing official. See AR-340 at 12613, 12615-17.

The memo cited a number of problems with how the survey was conducted which "leads to the conclusion that the survey could have missed radionuclides in the ground or buried sources." Id. at 12616. These included: the "grid distance" used in the survey; the depth to which the detectors were capable of penetrating the earth, which appeared to be, at best, one foot; the calibration, size, and number of detectors used; how the detectors were used in the walking survey, which the memo characterized as "much too fast to allow the instrument to respond or an operator to note the response"; and "techniques . . . used to identify where soil samples are collected." Id. at 12615-16.

The memo also cited several problems with the way the survey analyzed data, such as: failures to address data "anomalies"; inadequate addressment of inconsistent data quality between contractors; and problems with the locations used as controls. Id. at 12616-17.

Finally, the memo cited the survey's exclusion of 25% of Area IV from the study, which, the memo stated, results in "the reader [being] left wondering" about the condition of the entire site. Id. at 12617.

A few months after the April 8, 1997 letter and after a meeting with Rocketdyne officials regarding the survey, the EPA sent Rocketdyne another letter on July 11, 1997. See AR-271. The letter strongly expressed the EPA's displeasure with the Rocketdyne Survey and with Boeing/Rocketdyne's response to the

EPA's previous expressions of concern. See id. The letter stated flatly "we do not believe that Rocketdyne's survey was sufficient to find potentially unknown areas of contamination." AR-271 at 11910. It clarified further that while accepting that Boeing and the EPA could seek to resolve their "differences on the appropriate clean-up level for Area IV" at a later time, the EPA's "principal concern is the overall quality of the survey." Id. The letter recognized "Rocketdyne must rely on the quality of the Area IV survey as the primary method to find unknown radiation contamination." Id. And thus, in light of the problems which the EPA had identified with the survey, the letter's author personally stated: "I am now asking, in writing, that Rocketdyne conduct a new Survey of Area IV." AR-271.

2. Abandoned Plan for Collaborative Survey of Area IV by EPA and DOE

Following this exchange, the DOE and EPA apparently agreed on a plan which would have allowed the EPA to conduct a survey of Area IV, See AR-78 at 5723. On December 8, 1998, the EPA sent a letter to United States Senator Dianne Feinstein in response to a previous inquiry by the Senator regarding the EPA's involvement in the cleanup of SSFL. See AR-78 at 5723. The EPA informed Senator Feinstein that the DOE and EPA had agreed on a plan "allowing the EPA to conduct the final survey of Area IV," and that the EPA was "extremely pleased" by this result. AR-78 at 5723.

On May 5, 1999, Senator Feinstein sent a letter to the DOE enclosing a letter the Senator had sent to President Clinton regarding the DOE's planned cleanup of Area IV, which noted the

Senator's particular concern with the DOE's chosen 15 milirem cleanup level. AR-275 at 11958-59. On August 24, 1999, Senator Barbara Boxer sent a letter to the DOE expressing very similar concerns. AR-275 at 11950-11553. The DOE's responses to both Senators referenced inter alia the DOE's plan to "work collaboratively with EPA" on the clean-up of Area IV. Id. at 11956 (May 20, 1999 DOE letter to Sen. Feinstein); see also id. at 11961 (May 5, 1999 DOE letter to Sen. Feinstein); id. at 11955 (DOE Sep. 29, 1999 letter to Sen. Boxer).

On March 31, 2000, the DOE sent a letter to the EPA which appeared to confirm the commitments the DOE had made to California's U.S. Senators to coordinate the clean-up of Area IV with the EPA. AR-213 ("Summary of Commitments to EPA Regarding Cleanup Activities at ETEC"). These commitments included: "DOE will enter into an interagency agreement with EPA/Las Vegas to conduct radiological characterization of the soil in Area IV." Id. at 7865.

However, just one day before, on March 30, 2000, an internal DOE memo, titled "Closure of DOE ETEC Site Activities-Divestiture, Decontamination and Site Restoration-OAK NEPA Strategy, March 2000," was distributed to DOE employees, which seemed to contradict these commitments. AR-114 at 6024. The memo contained no mention of EPA involvement and nothing regarding further soil testing. Id. at 6025. Rather, the memo recommended that an EA be prepared, predicting that "a FONSI will result." Id. at 6026. On September 15 2000, the DOE announced its intent to prepare an

EA "to evaluate the environmental effects of the Environmental Restoration Project at the Energy Technology Engineering Center." 65 Fed. Reg. 55949-01 (2000).

The EPA apparently believed that the EA process would involve redoing the Rocketdyne Survey with EPA participation. On May 31, 2001, the EPA sent a letter to Senator Feinstein in response to a query by the Senator regarding the EPA's participation in the remediation of Area IV. See AR-78 at 5746. The letter stated inter alia:

> The Environmental Protection Agency (EPA) will continue to work with you and the local community to guide the proper cleanup of Area IV. EPA is prepared to provide a thorough radiological survey of Area IV, contingent upon funding from the Department of Energy. EPA will closely review the Department of Energy's activities and radiological cleanup plans at the site and ensure that the cleanup is consistent with Superfund cleanup standards.

AR-78 at 5746. The EPA even went so far as to create a thirty-two page document titled "Draft Scoping Document for Development of Workplan for a Soil Remediation of Santa Susana Field Laboratory Area IV," which laid out a detailed plan "to gather data regarding the radiological conditions at the 290-acre Area IV parcel of the SSFL." AR-308 at 12417, 12421. However, the planned survey with the EPA was apparently never conducted and the EA was instead based largely on the Rocketdyne Survey. See AR-264 at 11018.

C. The EA Process

As mentioned, in September 2000, the DOE announced its intention to prepare an EA, pursuant to NEPA, "to evaluate the environmental effects of the Environmental Restoration Project at

the Energy Technology Engineering Center (ETEC)." 65 Fed. Reg. 55949 (2000).

> An EA is a document that, under NEPA, (1) provides sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact; (2) aids an agency's compliance with NEPA when no EIS is necessary; and (3) facilitates preparation of an EIS when one is necessary.

Nat'l Parks and Conservation Assoc. v. Babbitt ("NPCA"), 241 F.3d 722, 728 (9th Cir. 2001) (internal quotations omitted).

The DOE characterizes its decision to prepare an EA as a reaction to "acute interest in the SSFL cleanup shown by a few outspoken individuals." Cross-Mot. at 6 (citing AR-264 at 10928, which states that the DOE decided to prepare an EA "[a]s public concern over cleanup activities at ETEC increased."). However, the decision to prepare an EA, as opposed to preparing an EIS, itself raised concern from some of those same individuals. See, e.g., AR-275 (May 26, 2000 Letter from Senator Boxer to DOE, expressing the Senator's "strong disagreement with the [DOE's] recent decision to conduct an [EA]," rather than an EIS.).

1. The Draft EA

In January 2002, the DOE issued a Draft EA. See AR-67. The Draft EA covered the dismantling and demolition of approximately sixty-four structures remaining in the ETEC: thirteen buildings making up three radiological facilities, a sodium facility, and fifty other facilities. See id. at 2-4. The Draft EA listed some of the these facilities as radiologically contaminated. See id. It also identified areas of radiologically contaminated soil in Area IV, based on information derived from the Rocketdyne Survey.

See id. at 3-2. The Draft EA categorically excluded consideration of possible chemical contamination, which, it states, "will be considered in the Resource Conservation and Recovery Act (RCRA) Facility Investigation process." See id. at 1-2.

The Draft EA offered three alternatives for actions for dealing with the situation at Area IV. See id. at 3-1. Alternative 1, called for DOE "to clean up the ETEC site using the DOE cleanup standard for decontamination of radiological facilities and surrounding soils." Id. The Draft EA estimated that application of this standard would result in an additional 15-millirem annual radiation dose to "the maximally exposed individual," which would expose such a person to an additional "lifetime cancer risk" of 3×10^{-4}, i.e. 3 in 10,000 individuals. Id. To achieve this result, the Draft EA estimated that over the course of five years the remaining buildings would be demolished and soil would be removed from one location. See id. at 3-2. Alternative 2 called for the use of a .05-millirem additional annual dose, a 1×10^{-6} additional lifetime cancer risk standard. See id. The EPA mandates the 1×10^{-6} additional lifetime cancer risk standard as a default "point of departure for determining remediation goals." 40 C.F.R. § 300.430(e)(2)(i)(A)(2). Alternative 2 would require more soil removal than Alternative 1. See id. at 3-8. Both Alternative 1 and Alternative 2 assumed that "[t]he SSFL RCRA corrective program (including ongoing groundwater treatment) would continue." Id. at 3-1. Alternative 3 is the "No Action Alternative," which proposed no cleanup of the site other

than continued groundwater treatment, and that Rocketdyne would control access to the site. Id. Alternative 1 was identified as the "DOE's preferred alternative." Id.

2. Comments on the Draft EA

Issuance of the Draft EA did even less to quell the interest of "outspoken individuals" than the DOE's decision to prepare the EA. Cross-Mot. at 6. Indeed, the Draft EA inspired significant criticism from federal and state agencies, state and federal politicians, and local community members. In total, the DOE received sixteen oral comments and sixty-three written comments on the Draft EA. See AR-264 at 10932. Plaintiffs state, and Defendants do not refute, that all these comments were negative. Pls' Opp. at 7, n. 4; see Defs' Reply.

a. EPA Comments on the Draft EA

The EPA was particularly outspoken in its criticism of the Draft EA. See AR-80. The "key issues" the EPA had with the Draft EA fell, generally, into three categories. Id. at 5916.

i. Ambiguity as to Purpose, Scope, and Context

At a fundamental level, the EPA criticized the Draft EA for failing "to provide a well-reasoned basis for the decision(s)" contained, or referred to, therein. AR-80 at 5921. The Draft EA, the EPA complained, "[did] not clearly identify the decision(s) to be made, how those decisions relate to each other, or how and when they will be made." Id. In this respect, the EPA criticized the Draft EA particularly for: 1) not being clear whether the Draft EA addresses only the ETEC or all of Area IV, and failing to

contain adequate analyses "of all pertinent closure issues" and sites within the ETEC itself; 2) being "ambiguous and confusing in its treatment of chemical contamination at the ETEC as it relates to closure," vacillating between discussion of such contamination and statements purporting to exclude such contamination from the scope of the Draft EA; and 3) failing to describe how the DOE would select, implement, or verify a remedy process, and failing to describe the process by which the "ETEC and/or Area IV" would be released for unrestricted use. Id.

ii. Conclusions in the Draft EA Regarding Cleanup Based on Inadequate Standards and Information

The EPA's comments stated bluntly: "The EPA believes that it is premature to select 15 millirems per year (mrem/yr) as a cleanup level or make any other cleanup decision, in the absence of additional site investigation data sufficient to support a risk-based cleanup evaluation . . . [and] that the CERCLA process should be used to evaluate and select a cleanup alternative." AR-80 at 5921.

(1) 15 mrem/yr, 3 x 10^{-4} Standard

The EPA's comments stated that the Draft EA's preferred alternative's goal of achieving a 15 mrem/yr cleanup level and thus an additional 3 x 10^{-4} cancer risk is contrary to CERCLA and that the DOE should apply CERCLA's 1 x 10^{-6} departure point standard. Id. In support, the comments cited documents which reflect the DOE's policy since the mid-1990's of following CERCLA in decommissioning activities, and sections of CERCLA which the

comments claimed require such compliance. See id. at 5921-22. The comments took the DOE to task not only for the Draft EA's apparent failure to comply with these requirements, but also for its failure to address the project's consistency with these legal requirements. See id. at 5927.

(2) Sufficiency of Basis of Information on Radioactivity

Regarding the sufficiency of information on which the Draft EA was based, the comments noted several shortcomings:

> [The Draft EA] does not present or identify enough measurements of radioactivity to support remedy evaluations or decision, and many of the existing measurements that did not detect contamination may have used methods that were not sensitive enough to do so. The instruments and methods used to collect the existing data were not sensitive enough to detect levels needed to support decisions about the need for cleanup, and not enough measurements were made in enough places to provide a thorough understanding of the location and levels that may be present at the site. Additionally, some of the measurements lack documentation of collection conditions, precision, accuracy, and reproducibility needed to demonstrate its utility and justify its use.

Id. at 5923. As noted above, the Draft EA based most of its radiological soil analysis on the Rocketdyne Survey. See AR-67 at 3-2.

iii. Range of Alternatives in Draft EA Inadequate

The comments characterized the range of alternatives in the Draft EA as "restricted" and "limited and incomplete." AR-80 at 5916; 5924. The comments stated that the "EPA and public have identified several other alternatives in various forums but these" were not considered in the Draft EA. Id. These included:

> (1) using EPA's CERCLA approach to evaluate the need for and selection of any remedy; and (2) on-site active management and/or treatment of radiological materials to reduce potential impacts associated with transporting radiological waste materials treating waste on-site to reduce impact of transporting radiological materials off-site.

Id. Additionally, the comments suggested that the Draft EA should have considered other transportation options that might mitigate such impacts and the "inclusion of an alternative to evaluate the possible restrictions that might be imposed to prevent residential use on all or portions of the ETEC site might be necessary to meet NEPA requirements." Id. at 5924-25.

iv. EPA's Other Problems with the Draft EA

The EPA Comments also identified, inter alia, the following problems with the Draft EA:

- Failure to address the effects of possible contamination by other non-radiological "toxic or otherwise hazardous materials." Id. at 5924.
- Lack of any planned examination of other areas in Area IV besides the ETEC that might be radiologically or otherwise contaminated, including facilities that were decommissioned in the past according to non-NEPA standards. Id. 523-24.
- Failure to address radiological contamination of groundwater, see id. at 5925, and "the potential for migration of radioactivity and/or chemical contamination to groundwater or streambeds that carry stormwater, [or] . . . related risks to human health and the environment." Id. at 5924.
- Very high estimated impacts, in the form of truck traffic necessary for soil removal under Alternative 2, indicates possibly faulty calculations. See id. at 5925.
- Failure to provide bases for calculations and conclusions made in the Draft EA. See id. at 5926.

b. Comments by the California Department of Toxic Substance Control ("DTSC")

The DTSC is a department of the California Environmental

Protection Agency which has a specific mandate to oversee the cleanup of sites in California where hazardous substances have been released and regulate entities that manage hazardous waste. See Cal. Health & Safety Code § 58004.5. The DTSC's comments reflect many of the same concerns as the EPA. See AR-81.

These concerns include: the insufficiency of "data to support the assumptions used to estimate waste volume," id. at 5933; problems with the "1995 characterization data" (i.e. the Rocketdyne Survey) as a basis for assessment of alternatives, id. at 5936; failure to address the need to reevaluate ground water data, id. at 5933; failure to address past radiological releases and their cleanup or "additional areas at ETEC where residual radiological contamination may be present," id. at 5934; and failure to address "multiple exposures, i.e., chemical and radiological, as well as exposure to multiple radionuclides." Id. at 5938.

c. Comments by the City of Los Angeles

The City of Los Angeles ("City") submitted comments on the Draft EA which echoed many of the concerns raised by the DTSC and EPA, with a particular emphasis on the lack of consideration paid to potential effects of the proposed action on surrounding communities. See AR-109. Reflecting the intensity of the City's concern, the Los Angeles City Council issued a resolution on January 29, 2002, with which the Mayor concurred, that, inter alia, called on the DOE to "cease and desist from implementing low-level clean-up standards at the former Rocketdyne nuclear

research facility in Simi Hills." AR-121 at 6080. The City is a Plaintiff in the instant action. See Compl.

d. Comments by Federal and State Elected Officials

The Draft EA also elicited critical comments from federal and state elected officials. Senator Boxer, who had previously sent letters to the DOE criticizing its waste disposal procedures and decision to prepare an EA rather than an EIS, see AR-275, sent a letter to the DOE which criticized the Draft EA for, in particular, the Preferred Alternative's plan to "leave behind 98 percent of the radioactively contaminated soil estimated to be present" and the determination that the increased cancer rates this would cause would be acceptable. AR-275 at 11999-11200. California State Assembly Member Fran Pavely ("Assem. Mem. Pavely") sent a letter to the DOE expressing similar concerns. See id. at 12003-12004. Senator Boxer also co-authored with Senator Feinstein a letter to the EPA, see id. at 12027-12028, and the DOE, see id. at 12029-12030, which expressed the Senators' concerns regarding the Draft EA.

e. Comments by Other Plaintiffs in the Instant Action and Community Members

The DOE also received critical comments from other Plaintiffs in the instant action and members of communities in the vicinity of the SSFL reflecting many of the same concerns as others discussed above. See AR-60; AR-78; AR-119; AR-336.

Notable among the comments by other Plaintiffs was that by the Committee to Bridge the Gap ("CBG"). See AR-78. The CBG's comments questioned inter alia those conclusions of the Draft EA

regarding suitability of the site for future residential use which were based on the assumption that "everyone lives in a house with a 4 inch concrete slab function . . .and everyone sleeps on the second floor of a two story house." AR-78 at 5390. The DOE has admitted basing its conclusions inter alia on this assumption. See Answer at 9.

Roberta Mirzayans' comments are representative of community members. See AR-60. Ms. Mirzayans identified herself as "hav[ing] lived and worked more than 5 miles from the site for the past thirty years and hav[ing] experienced birth defects and cancer in my own family." AR-60 at 4811. Ms. Mirzayans took particular issue with the fact that the EA did not cover "the whole site," did not address the potential health effects of "adjacent communities," and the acceptable rate of additional cancer risk in the Draft EA's preferred alternative. Id.

3. DOE's Reaction to Comments-Final EA

In March 2003, the DOE issued its Final EA. See AR-264. The Final EA is, for the most part, unchanged from the Draft EA, see id.; AR-67, but does contain the following responses to the criticisms discussed above.

a. Information on Radioactivity of Soil

In response to criticism of the bases of information used by the DOE to determine the radioactivity of soil, and in particular the use of the Rocketdyne Survey, the Final EA described the prior "radiological characterization" as extensive, see AR-264 at 10997, and stated that the DOE "believes [the Rocketdyne Survey] to be

valid for the purposes for which it was used." Id. at 11048. The Final EA also clarified that, in addition to the Rocketdyne survey, the Draft EA is based on a significantly smaller-scale 2000 survey of soil surrounding one of the radiological facilities. See id. at 11018.

The Final EA dedicated six pages purportedly answering the EPA's criticisms of the methodologies employed in the Rocketdyne Survey. See id. at 11018-11025. However, this section also admited the following shortcomings in the Rocketdyne Survey: the survey's method for spacing detection areas "was not designed or intended to detect all potential levels of contamination at all depths," id. at 11018; similarly, measurements using a Sodium Iodide probe which was less than half as long as the EPA said should have been used "were not designed, or intended, to detect all potential levels of contamination at all depths," id. at 11019; "that a better job of segregating the laboratory data could have been done," id. at 11021, and that "[t]he 5 microReoentgen per hour action level used and its translation into 44 mrem per year appears to be inconsistent with a cleanup standard of 15 mrem per year." Id. at 11021. Lastly, the Final EA stated that a "post-remediation characterization would be performed" and "[a]dditional sampling and analysis would also be performed at any sites suspected to be contaminated," but provided no information regarding on what basis such a suspicion would arise. Id. at 10997; see also id. at 11000 (stating, "[i]f additional radiological contamination is found at levels substantially beyond

that analyzed in the EA, the document will be modified," but not discussing how such contamination might be found).

b. 15 mrem/yr, 3 x 10^{-4} Standard

The Final EA's chief response to criticism of Alternative 1's 15 mrem/yr, 3 x 10^{-4} standard, was that the actual level of additional cancer risk will be between 1 x 10^{-5} and 1 x 10^{-6}. See id. at 10096, 11043. As a basis for this disparity, the Final EA pointed to the DOE's intention to apply a policy known as "as low as reasonably achievable" ("ALAR") to the remediation work. Id. at 10096. The Final EA did admit, however, that application of a 3 x 10^{-4} standard as opposed to 1 x 10^{-6} standard would result in "allowing 10,000 times more radioactive soil" to remain in situ. Id. at 11044.

c. Range of Alternatives

The Final EA did not respond in any detail to criticism of the range of alternatives which the Draft EA offered.[3] Rather, the Final EA stated only that the "DOE initially considered several alternatives but limited the detailed impacts to the 15 mrem and .05 mrem alternatives." Id. at 10998. In response to the suggestion that an alternative which involved barring access to the area should be considered, the Final EA stated that the DOE does not have the authority to mandate such a situation. See id. The Final EA further stated that while "Rocketdyne has no plans to

[3]Defendants claim that "one of the alternatives explored in detail in the EA was added at the request of commentators." Cross-Mot. at 9 (citing AR-264 at 10931). However, both the Draft EA and the Final EA appear to consider the same three alternatives. See AR-264 at 10929-10931; AR-67 at 1-2 to 1-4.

release the site for public use anytime in the near future . . . [t]here is currently no restriction preventing the immediate of eventual development of the site for residential use." Id.

d. Responses to Other Concerns Raised

The Final EA contained the following responses to other concerns raised by EPA and others regarding the Draft EA:

- Regarding concerns over chemical contamination including possible chemical groundwater contamination: the final EA states that the cleanup of chemical contamination was being conducted according to a separate process, and that the DOE would only be responsible for the cleanup of "groundwater plumes that were created as a result of DOE-funded activities." Id. at 10998.

- Regarding possible cumulative effects of radiological and chemical contamination at the site: the Final EA reiterated that chemical cleanup will be conducted in a separate process and declined to consider any possible cumulative effects of the two types of contamination on the grounds that "[b]ecause any residual radioactive contamination from the DOE's cleanup will be in areas away from the chemical contamination, and the inability for a receptor to be in direct contact with separate portions of the site at the same time." Id. at 10988.

- Regarding the geographic scope of the EA, the Final EA stated that the DOE would not survey the entire SSFL because it only has responsibility for the ETEC. See id. at 10997.

- Regarding other areas of the ETEC which have already been decommissioned according to a non-NEPA standard: the Final EA stated that they were not addressed because they were already remediated but that they would be analyzed as part of the final site evaluation post-cleanup. See id. at 10999-1100.

- Regarding conducting the remediation according to CERCLA: the Final EA stated that the DOE actions were consistent with CERCLA, in accordance with DOE policy, but made clear that the remediation would be performed under the DOE's authority flowing from the Atomic Energy Act. See id., at 10932, 11042-11043.

4. Issuance of FONSI and Initiation of Remediation Work

On March 31, 2003, the DOE issued a Finding of No Significant Impact ("FONSI"). See AR-263. "As its title suggests, a FONSI states the reasons why an agency's proposed action will not have a significant effect on the environment and, therefore, it believes that the preparation of an EIS is unnecessary under NEPA." NPCA, 241 F.3d at 729. The three and a half page FONSI stated, in essence, that the DOE had conducted an EA in which it has considered the three alternatives discussed above and that the preferred alternative, Alternative 1, had been chosen. See AR-263 at 10915. The FONSI continued, "implementation of this alternative will be fully protective of future users of the site and does not significantly affect the quality of human health or the environment within the meaning of NEPA." Id. On this basis, and without significant explanation, the FONSI stated an EIS is not required. See id. Soon thereafter, the DOE began remediation work at the site. See Lopez Decl. at 1.

5. Reaction to the FONSI

In a July 2003 Report, the United States Senate Appropriations Committee expressed concerns about the DOE's decision to issue the FONSI and implement Alternative 1. See S. Rep. 108-105 (2004) at 94-96 (2003). In particular, the report noted the Committee's "concern[] that under the [DOE's] plans, the ETEC site will not be remediated to CERCLA standards" and the DOE's intention "to remediate 5,500 cubic meters of soil around one installation, leaving in place an additional 400,000 cubic meters of contaminated soil." Id. at 95. In conclusion, the

report stated:

> This may represent an unacceptable deviation from the Department's commitment in a 1995 Department of Energy-EPA Joint Policy. Under that agreement, the Department committed to fund an EPA radiological survey of the ETEC site and to remediate the site to CERCLA standards. The Committee urges the Department to fulfill those commitments and reassess whether the decision meets the joint policy and CERCLA standards.

Id. at 95-96.

In response, the DOE argued that the Joint Policy did not refer specifically to the remediation of the ETEC, but confirmed that the Joint Policy reflected the DOE's agreement to follow the CERCLA process. See SAR-13. It further stated that the remediation will be done to "a level consistent with the acceptable [CERCLA] risk range" and "is fully protective of human health and the environment." Id. at 1805.

The EPA, however, submitted further comments on December 2003 which made clear that it disagreed with this assessment. See id. at 1765. The comments reiterated many of the same concerns the EPA had already raised and took issue with the adequacy of the DOE's response to them. See id. at 1765-1775. The comments noted in particular that the radiological characterizations of the area were inadequate and needed to be supplemented and that the DOE's remediation plan was not consistent with CERCLA. See id. at 1765-1766. In light of these concerns, the comments recommended that if the DOE's chosen cleanup plan is unmodified, it should be accompanied by restrictions on land use, such as limiting "access . . . to day-use recreational activities with limitations on picnic and camping facilities, other time consuming activities."

Id. at 1766.

In May 2004, the DOE announced that it had discovered levels of radioactive contamination in groundwater monitoring wells in Area IV that were four times the EPA's maximum level allowed for drinking water. See SAR-13 at 1806.

On July 19, 2004, two Plaintiffs in the instant action, CBG and the Natural Resources Defense Council submitted a letter to the DOE, describing their continued concerns regarding DOE remediation plans, and communicating their intention to sue. See SAR-13.

On October 21, 2004, Plaintiffs filed the Complaint alleging: 1) that the DOE is violating NEPA and the APA by failing to prepare an EIS; 2) that the DOE is violating CERCLA and the APA by failing to conduct the remediation in accordance with CERCLA, its implementing regulations, and the 1995 Joint Policy; and 3) that the DOE is violating the ESA with respect to the impacts of the remediation on the Braunton's Milk Vetch. See Compl. On the basis of these allegations, Plaintiffs request relief as described in the Introduction. See supra. In March 2006, Plaintiffs submitted the instant Motion, see Docket No. 42; and in April 2006, Defendants responded with the instant Cross-Motion. See Docket No. 47.

A few weeks prior to Plaintiffs' filing of the instant Motion, the DOE received a response from the Fish and Wildlife Service ("FWS") of the Department of the Interior to the DOE's request for the FWS's "concurrence that [the remediation of Area

IV] is not likely to affect the federally threatened Baunton's milk-vetch." Pl. Ex. 6. The FWS expressed its concurrence that the plant would not likely be adversely affected by excavation of uncontaminated material from a pit on the property to replace contaminated material; nor would the use of roads during the remediation likely negatively affect the plant. See id.

On June 14, 2006, the State of California filed an Amicus Brief in the instant action in support of Plaintiffs. See Docket Nos. 43, 58.

III. STANDARD OF REVIEW

Entry of summary judgment is proper "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." F.R.C.P. 56(c). "Summary judgment should be granted where the evidence is such that it would require a directed verdict for the moving party." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 250 (1986). Thus, "Rule 56(c) mandates the entry of summary judgment . . . against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial." Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986). Conversely, entry of summary judgment in a party's favor is appropriate when there are no material issues of fact as to the essential elements of the

party's claim. Anderson, 477 U.S. at 247-49.

IV. DISCUSSION

A. NEPA

Plaintiffs' NEPA claim principally seeks an order from the Court declaring the DOE in violation of NEPA and requiring the DOE to prepare an EIS regarding the remediation of Area IV. See Compl. at 27. In the alternative, the claim also seeks (more or less clearly): an order remanding the case to DOE to explain why an EIS is not necessary; an order declaring the EA inadequate under NEPA and, thus, presumably, requiring that DOE redo the EA process; and an order requiring that the DOE supplement the EA in light of new facts. See Mot. at 31-36. The Court finds that the DOE is in violation of NEPA and orders it to prepare an EIS regarding the remediation of Area IV.[4]

1. NEPA Standard of Review

NEPA does not provide an independent cause of action; thus, courts review claims alleging violations of NEPA under the APA, 5 U.S.C. § 706. ONRC Action v. Bureau of Land Mgmt., 150 F.3d 1132, 1135 (9th Cir. 1998). Thus, the Court reviews the DOE's decision according to whether it was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. §

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[4]In light of this holding, the Court declines to address any of the Plaintiffs' alternative NEPA-related claims and requests for relief. See generally Humane Soc'y of the United States v. Dep't of Commerce, 423 F. Supp. 2d 4, 23 n. 13 (D.D.C. 2006) (noting that having found an EIS was required, the court need not address the sufficiency of the EA).

706(2)(A). More specifically, the Court must determine whether the DOE's "decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." Akiak Native Comm. v. U.S. Postal Serv., 213 F.3d 1140, 1146 (9th Cir. 2000).

In making this determination, the DOE's decision is "entitled to a presumption of regularity," but that "presumption is not to shield [its] action from a thorough, probing, in-depth review." Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 415 (1971). And in evaluating the merits of Plaintiffs' claims, the Court is generally limited to reviewing the administrative record upon which the DOE based its decision. See 5 U.S.C. § 706; Florida Power & Light Co. v. Lorion, 470 U.S. 729, 743-44 (1985). However, the Court may consider "extra-record materials if necessary to determine whether the agency has considered all relevant factors and has explained its decision." See Earth Island Inst. v. United States Forest Serv., 442 F.3d 1147, 1162 (9th Cir. 2006) (internal quotations omitted).

2. Preparation of an EIS is Required

After a thorough, probing, in-depth review of the AR, the Court finds that Plaintiffs have established, as a matter of law, that the DOE's decision to issue a FONSI rather than prepare an EIS was not in accordance with the law and constituted a clear error of judgment.

"The EIS is a procedural obligation designed to assure that agencies give proper consideration to the environmental

consequences of their actions. The EIS also insures that the public is informed about the environmental impact of proposed agency actions." Douglas County v. Babbitt, 48 F.3d 1495, 1498 (9th Cir. 1995)(internal quotations and citations omitted).

NEPA requires that an agency prepare an EIS for any "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(C). The Ninth Circuit has clarified the meaning of this standard:

> An EIS must be prepared if substantial questions are raised as to whether a project may cause significant degradation of some human environmental factor. To trigger this requirement a plaintiff need not show that significant effects will in fact occur, but raising substantial questions whether a project may have significant effect is sufficient.

Ocean Advocates v. U.S. Army Corps of Engineers, 402 F.3d 846, 864-65 (9th Cir. 2005) (internal quotations and modifications omitted; emphasis in original).

Where, as here, the agency prepares an EA in the first instance, the agency must prepare an EIS "[i]f the EA establishes that the agency's action may have a significant effect upon the environment." NPCA, 241 F.3d at 730. Otherwise, "the agency must issue a Finding of No Significant Impact (FONSI), accompanied by a convincing statement of reasons to explain why a project's impacts are insignificant." Id. (internal quotations and modifications omitted).

The Council on Environmental Quality has enacted regulations interpreting NEPA that are "binding on all Federal agencies for implementing the procedural provisions of NEPA." 40 C.F.R. §

1500.3. These regulations make clear that the potential "significance" of an action's effect must be analyzed in terms of both its "context and intensity," and list ten factors that an agency should consider in determining the intensity of a proposed action. See 40 C.F.R. § 1508.27. The Ninth Circuit has held that the existence of "one of these factors may be sufficient to require preparation of an EIS in appropriate circumstances." Ocean Advocates, 402 F.3d at 865.

Plaintiffs principally argue that preparation of an EIS is required based on two of the factors listed in Section 1508.27(b): 1) "[t]he degree to which the effects on the quality of the human environment are likely to be highly controversial," 40 C.F.R. § 1508.27(b)(4); and 2) "[t]he degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks." 40 C.F.R. § 1508.27(b)(5). See Mot. at 25-27.

Secondarily, Plaintiffs argue that the DOE's planned remediation implicates the following four Section 1508.27 factors: 1) degree of its effect on "public health or safety," 40 C.F.R. § 1508.27(b)(2); 2) its potential to "establish a precedent for future actions with significant effects," 40 C.F.R. § 1508.27(b)(6); 3) its potential to have a "cumulatively significant impact" in combination with other related actions, 40 C.F.R. § 1508.27(b)(7); and 4) and its potential to violate "Federal, State, or local law or requirements imposed for the protection of the environment," 40 C.F.R. § 1508.27(b)(10). See Mot. at 28-30.

In addition to refuting these arguments, the DOE argues that because the remediation is a cleanup it cannot be said to significantly affect the environment in a manner that would require the DOE to prepare an EIS. See Cross-Mot. at 15. The Court addresses the latter argument first.

a. Characterization as Cleanup Doesn't Exempt the Remediation from EIS Requirement

The DOE's argument that the remediation is categorically excluded from the requirement to prepare an EIS by virtue of being a cleanup fails for several reasons.

First, this argument fails because the focus of the law is not simply on the potential effect of an action on the natural environment, but on the human environment. The remediation of Area IV creates a strong potential for such an effect.

NEPA unambiguously states that the requirement to do an EIS is triggered by "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(c)(emphasis added); see also Ocean Advocates, 402 F.3d at 864 ("may cause significant degradation of some human environmental factor"). Lest there be any confusion, the regulations make clear that "human environment," as used in NEPA, is to be "interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment." 40 C.F.R. § 1508.14.

The regulations further state that when determining whether an action may have significant effects on the human environment, direct effects and indirect effects are to be considered. See 40

C.F.R. § 1508.8 The latter category includes "effects related to induced changes in the pattern of land use, population or growth rate." 40 C.F.R. § 1508.8 (b).

Without question, the remediation of Area IV has the potential to induce changes in the pattern of land use and population in the area in a manner which would affect the relationship between people and the natural environment. The Final EA states that "[a]lthough currently an industrial facility, future use of the property for residential purpose is probable." AR-264 at 10961. In response to an EPA suggestion that the DOE consider an alternative that would involve preventing human access to the site, the DOE states:

> Access to the site is currently being controlled by Rocketdyne. DOE cannot determine the long-term use of the site. Rocketdyne has no plans to release the site for public use anytime in the near future and will maintain control of the site. There is currently no restriction preventing the immediate or eventual development of the site for residential use.

AR-264 at 10998. It is of no event that these statements do not express with certainty that use of the site will switch from industrial to residential following the remediation, or that such a switch could theoretically be initiated absent the remediation. It is sufficient that the remediation could potentially induce such a shift. See generally Ocean Advocates, 402 F.3d at 864. And, in fact, the Final EA's estimates of potential increased cancer rates are partly based on exposure rates for individuals presumed to be "residing on the site." Id. at 10975, 10977. Thus, the remediation creates the substantial possibility of a

significant effect on the human environment as the phrase is used in NEPA.

Second, the DOE's belief that the remediation will have, on the whole, a positive effect on the natural environment does not remove it from scrutiny under NEPA. See Mot. at 15. Section 1508.8 makes clear that when determining whether preparation of an EIS is necessary, effects to consider "may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial." 40 C.F.R. § 1508.8.

Thus, the Ocean Advocates court rejected the Corp of Engineers' claim that because its planned addition to an oil refinery dock would decrease the chances of an oil spill while tankers were moored, it need not prepare an EIS on the project. Ocean Advocates, 402 F.3d at 865-866. Rather, the court found that, even if you accepted this claim at face value, it was not sufficient in light of the Corp's failure to address whether the project could also increase the risk of oil spills by encouraging increased tanker traffic at the dock. Id. at 866.

Similarly, in this case, the remediation could well leave the site less radioactively contaminated than before and thereby improve the quality of the site's natural environment. However, as just discussed, the remediation also has the potential to induce people to move to and reside in the site, which would elevate the risk of people's exposure to such contamination. Further, the remediation is likely to cause a significant

disturbance to some parts of the site's natural environment. The remediation calls for excavation of 5,500 cubic tons of contaminated soil from the site to be replaced in part by other uncontaminated soil excavated elsewhere on the site. See AR-264 at 10949-10950. It further predicts close to 2500 truck shipments being required. See id. at 10952. Thus, the possibility that the remediation could have some positive impacts on the natural environment of the site does not alleviate the responsibility to determine whether it could also adversely effect other elements of the human environment.[5]

Finally, Douglas County, 48 F.3d 1495, which the DOE selectively quotes in support for their position, is inapposite. See Cross-Mot at 16, n. 18. The broad holding of Douglas County has nothing to do with the instant situation: NEPA procedures are not required where the agency action will simply maintain an area in its natural state. 48 F.3d at 1505. Area IV is far from being in its natural state, see AR-264 at 10961, and the planned remediation calls for significant alterations, such as the installation of equipment, demolition of structures, and excavation of soil. See id. at 10947-10952.

The more narrow holdings of Douglas County, from which the DOE's quoted language comes, has even less to do with the instant

[5] Additionally, though the Court need not resolve the issue at this time, the Court is not completely convinced that the DOE's statement in another action "that both beneficial and adverse effects on the environment can be significant within the meaning of NEPA, and thus require an EIS," is not correct. NRDC v. Herrington, 768 F.2d 1355, 1431 (D.C. Cir. 1985).

situation. See Cross-Mot. at 16, n. 18. The complete passage reads: "As with the decision to list a species under the ESA, the decision to preserve critical habitat for a species protects the environment from exactly the kind of human impacts that NEPA is designed to foreclose." Id. at 1507. In context, this statement refers to a situation wherein the procedures of another statutory regime aimed at protecting the environment make NEPA-based procedures "superfluous." Douglas County, 48 F.3d at 1503 There is no statutory regime that could arguably displace NEPA here. Indeed, the DOE's own regulations make clear that NEPA governs this and similar situations. See 10 C.F.R § 1021.400 (titled, "Level of NEPA review."). Thus, the DOE's creative editing of the quotation so as to make it read "no EIS is required where the decision at issue 'protects the environment from exactly the kind of human impact NEPA is designed to foreclose,'" is unavailing. Cross-Mot. at 16, n. 18.

Finally, simply characterizing the remediation as a cleanup does not eliminate the potentially significant effects which cleanup procedures may have on the natural environment. Thus, even if the Court was to accept that only potential effects on the natural environment were relevant, which it doesn't, the remediation would not be categorically exempted from the possible requirement of an EIS review by virtue of the DOE's characterization of it as a cleanup.

b. The DOE's Remediation Decision is Highly Controversial

The DOE's remediation decision is highly controversial under 40 C.F.R. § 1508.27(b)(4). An action is controversial "when substantial questions are raised as to whether a project may cause significant degradation of some human environmental factor, or there is a substantial dispute about the size, nature, or effect of the major Federal action." NPCA, 241 F.3d at 736 (internal quotations and modifications omitted). The DOE's decision regarding the remediation of Area IV meets this standard.

The above NPCA standard uses the disjunctive "or" to separate what appears to be two possible bases for finding that an action is controversial: a "substantial question" basis and a "substantial dispute" basis. NPCA, 241 F.3d at 736. However, in application, the substantial question basis rarely, if ever, is applied independently of a substantial dispute analysis. See, e.g., id. at 736-37; Greenpeace Action v. Franklin, 14 F.3d 1324, at 1333-34 (9th Cir. 1992); Found. for N. Am. Wild Sheep v. Dep't of Transp. ("FNAWS"), 681 F.2d 1172, 1178-79, 1182 (9th Cir. 1982); California v. Dep't of Transp., 260 F. Supp. 2d 969, 973 (N.D. Cal. 2003). The distinguishing factor of a substantial question analysis is an additional focus on the scale and quality of the comments received by the agency, including whether the comments came from an individual or entity with expertise in a relevant area. See NPCA, 241 F.3d at 736 (describing the receipt of approximately 450 comments, 85% negative, as "more than sufficient to meet the 'outpouring of public protest' discussed in Greenpeace Action, 14 F.3d at 1334"); FNAWS, 681 F.2d at 1182

(citing "numerous responses from conservationists, biologists, and other knowledgeable individuals, all highly critical of EA," including from "[b]oth the California State Department of Natural Resources and California State Department of Fish and Game."); California v. Dep't of Transp., 260 F. Supp. 2d 969, 973 (N.D. Cal. 2003) (citing "the volume of comments from and the serious concerns raised by federal and state agencies specifically charged with protecting the environment," noting also that the "special expertise" of these agencies increased the significance of their comments.). In light of this, the proper analysis is to look at the quantity and quality of the comments elicited by the action prior to the issuance of a FONSI or EIS and then apply the two-part substantial dispute test described immediately below.

The two-part test for finding a substantial dispute, articulated by the Ninth Circuit in NPCA, is:

> A substantial dispute exists when evidence, raised prior to the preparation of an EIS or FONSI, casts serious doubt upon the reasonableness of an agency's conclusions. NEPA then places the burden on the agency to come forward with a well-reasoned explanation demonstrating why those responses disputing the EA's conclusions do not suffice to create a public controversy based on potential environmental consequences.

241 F.3d at 736 (internal citations omitted). In the course of this analysis, "a court should not take sides in a battle of the experts, [but rather] it must decide whether the agency considered conflicting expert testimony in preparing its FONSI, and whether the agency's methodology indicates that it took a hard look at the proposed action by reasonably and fully informing itself of the

appropriate facts." Id. at 736 n. 14. (internal citations omitted). As used in this standard, "the term 'well reasoned explanation' is simply a less direct way of saying that the explanation must be convincing." Id. at 736. (internal citations omitted).

i. Quantity and Quality of Comments Received regarding the EA

The comments received by the DOE after its issuance of the EA, but prior to its issuance of the FONSI, meet both the quantitative and qualitative legs of the substantial question test.

The DOE received a total of sixteen oral comments and sixty-three written comments. See AR-264 at 10932. Plaintiffs state, and Defendants do not refute, that all of these comments were negative. See Pls' Opp. at 7, n. 4; Defs' Reply. Commentators included: the EPA, see AR-80; the DTSC, a division of the California state equivalent to the EPA, see AR-81; the City of Los Angeles, see AR-109; United States Senators Barbara Boxer and Dianne Feinstein, see AR-275; California State Assembly Member Fran Pavely, see id.; large numbers of neighboring community members, see AR-60; and local community groups and national environmental organizations, see AR-60; AR-78; AR-119; AR-336.

This easily meets the "outpouring of public protest" quantitative standard. NPCA, 241 F.3d at 736 (internal quotation omitted).

It also meets the qualitative standard. Not only does the list of commentators contain several very prominent elected

officials and entities, but also the EPA and the DTSC, respectively the federal and California state agencies specifically tasked to deal with environmental issues like the remediation of Area IV. The DOE argues that the EPA is not an expert on the remediation on the ground that "EPA has no jurisdiction over cleanup at ETEC." Cross-Mot. at 17. Setting aside the fact that jurisdiction and expertise are two totally different things, this argument is laughable in light of the nature of authority which Congress has granted the EPA. See, e.g., Reorganization Plan No. 3 of 1970, reprinted in 5 U.S.C. App. 1 at 397 (listing among the principal functions to be transferred to the EPA, "Environmental radiation standards programs" formerly held by the DOE's predecessor, the Atomic Energy Commission), 399 (listing among the "[r]oles and functions of EPA . . . [t]he establishment and enforcement of environmental standards and enforcement of environmental protection standards consistent with national environmental goals."). Indeed, the Final EA admits these expertises. See AR-264 at 10937. The DTSC is similarly well qualified to comment on the potential human environmental effects of the DOE's actions. See Cal. Health & Safety Code § 58004.5. The comments of these agencies thus carry additional weight in the Court's conclusion that the DOE's decision raised substantial questions. See FNAWS, 681 F.2d at 1182; California, 260 F. Supp. 2d at 973.

Finally, as previously discussed, the concerns raised by the EPA, the DTSC, and others were lengthy, detailed, particular, and

based on well-articulated, firm, scientific basis. Thus, the Court, has no hesitation in concluding that substantial questions were raised by the EA. See, California, 260 F. Supp. 2d at 973.

ii. Substantial Dispute Exists

Following the issuance of the FONSI, there remains "substantial dispute about the size, nature, or effect" of the planned remediation of EA. NPCA, 241 F.3d at 736. The DOE's attempt to characterize the dispute as simply a "policy divide" between it and the EPA over NEPA requirements is unavailing. See Cross-Mot. at 16, 18.

Evidence contained in comments received by the DOE before issuing the FONSI, particularly comments from the EPA and DTSC, "casts serious doubt upon the reasonableness of [the DOE's] conclusions." NPCA, 241 F.3d at 736. This includes, inter alia, evidence that: the Rocketdyne Survey, on which most of the soil radioactivity information in the Final EA was based, was riddled with problems, see AR-80 at 5923; the 15 mrem/yr, 3 x 10^{-4} cleanup exposure standard improperly placed future residents of the site at an increased cancer risk many times higher than CERCLA allows, see id. at 5921-22; the EA had not examined locations in Area IV in which radiological contamination might exist, see id. at 5923-24; the EA had not examined possible non-radiological contamination and the possible effects such contamination could have in combination with radioactive contamination, see id.; and the EA had not examined possible radiological contamination of groundwater, see id. at 5924-25.

Faced with this evidence, the DOE did not meet its burden "to come forward with a well-reasoned explanation demonstrating why those responses disputing the EA's conclusions do not suffice to create a public controversy based on potential environmental consequences." NPCA, 241 F.3d at 736. Rather, it left many concerns raised by commentators unaddressed or only cursorily addressed. See AR-264. The DOE's response regarding the Rocketdyne Survey was that the survey wasn't designed to be as sensitive as the EPA suggested it should have been and that it had some problems, but was adequate; the DOE does not explain how it reached that conclusion, but suggests any problems with the survey can be remedied by an unexplained post hoc survey. See id, at 11018-11025. Regarding the 15 mrem/yr, 3 x 10^{-4} cleanup exposure standard, the DOE responded that because it planned to apply an ALAR standard, in all likelihood the level would be lower. See id. at 10096. Regarding possible cumulative effects of radioactive contamination and contamination from other sources, the EA states that the chemical contamination is being dealt with independently and that cumulative effects of chemical and radioactive contamination need not be addressed because the EA assumes that no single specific location could contain both and thus no person could be simultaneously exposed to both. See id. at 10998. Of course, this fails to deal with the reality that potential site residents and visitors would be mobile. The DOE's responses to other concerns were a combination of unjustified assumptions, refusals of responsibility, and promises of undefined

post hoc evaluations. See supra.

This indicates that the DOE did not take a hard look at the evidence offered by commentators, and falls far short of a well reasoned explanation. See NPCA, 241 F.3d at 736. The strongly negative and detailed criticism which greeted the DOE's decision to issue a FONSI, see supra, supports this conclusion. See, Earth Island Inst. v. United States Forest Serv., 442 F.3d 1147, 1162 (9th Cir. 2006).

The Court, therefore, has no problem concluding that the DOE's remediation decision was highly controversial. On this basis alone, the Court would feel comfortable ordering the DOE to prepare an EIS.

c. Uncertainty and Unknown Risks of the DOE's Remediation Decision

The DOE's remediation decision also presents "possible effects on the human environment [which] are highly uncertain or involve unique or unknown risks." 40 C.F.R. § 1508.27(b)(5).

The Ninth Circuit has stated bluntly: "An agency must generally prepare an EIS if the environmental effects of a proposed action . . . are highly uncertain or involve unique or unknown risks." N.P.C.A, 241 F.3d at 731-32. The potential efficacy of further study indicates that the effects of a proposed action are highly uncertain or involve unique risks. Id. "Preparation of an EIS is mandated where uncertainty may be resolved by further collection of data, or where the collection of such data may prevent speculation on potential effects. The purpose of an EIS is to obviate the need for speculation by

insuring that available data are gathered and analyzed prior to the implementation of the proposed action." Id. (internal quotations, citations, and modifications omitted).

As discussed above, the EPA and others have raised substantial questions regarding, inter alia: the efficacy of the survey used to determine the radioactivity of the site's soil; the geographic scope of the EA; the exclusion from study of non-radiological contamination and its possible interaction with radiological contamination; and the failure to address radiological ground water contamination. See supra. These questions regarding the sufficiency of information on which the EA was based, as well as questions regarding the manner in which the EA evaluated that data, creates high levels of uncertainty regarding what environmental effects the remediation will ultimately have. As a result, it leaves those living, working, and recreating in areas surrounding the site, not to mention the site's potential residential occupants, subject to the possibility of as yet undiscovered, unknown risks.

The Court, therefore, would also feel comfortable ordering the DOE to prepare an EIS exclusively on the basis of the uncertainty and unknown risks caused by the inadequacy of the data and analyses on which the EA is based.

d. Additional Significance Factors

Plaintiffs' showing regarding each of the two Section 1508.27 significance factors just discussed provide sufficient basis for the Court to order the DOE to prepare an EIS. The Court notes,

nonetheless, that several other significance factors support this conclusion.

First, the DOE's decision deals with a site that is known to be radioactively contaminated, was the location of nuclear accidents in the past, is not far from current population centers, and is likely to be developed for residential purposes in the future. See supra. Thus, the remediation decision carries the possibility of negatively affecting "public health or safety." 40 C.F.R. § 1508.27(b)(2).

Second, as discussed above, the EA does not address contamination from other non-radiological sources--though it admits their existence--and the possible combined health effects of such contamination with radioactive contamination. See supra. Thus, the remediation decision regarding radiological contamination potentially will have a "cumulatively significant impact" in combination with other related actions regarding nonradiological contamination. 40 C.F.R. § 1508.27(b)(7).

The DOE has stated that whatever cleanup level is chosen "at the ETEC could set a precedent for other DOE sites across the nation." AR-24 at 2999. Thus, the DOE's remediation decision has, in the DOE's own words, the potential to "establish a precedent for future actions with significant effects." 40 C.F.R. § 1508.27(b)(6).[6]

[6]In light of the Court's holding regarding the CERCLA and ESA based claims, the Court declines to address Plaintiffs' argument regarding "[w]hether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment." 40 C.F.R. § 1508.27(b)(10)

3. NEPA Conclusion

In conclusion, the Court finds overwhelming support for Plaintiffs' argument that the DOE's decision to prepare a FONSI and conduct the remediation of Area IV on the basis of the Final EA, rather than prepare an EIS, is in violation of NEPA. The Section 1508.27 significance factors just discussed, which go to the intensity of the action, point strongly in favor of this conclusion. However, in addition, the context in which this decision has been taken strongly favors this conclusion. Area IV is known to be radiologically contaminated and, in fact, was the location of at least one well-known nuclear meltdown. See supra. It is located only miles away from one of the largest population centers in the world and, in all probability, will become a part of that center. Among the primary purposes of NEPA, and the EIS process more specifically, is assuring that the public is informed and aware of the potential environmental impacts of government actions. See Douglas County, 48 F.3d at 1498. It is difficult to imagine a situation where the need for such an assurance could be greater.

B. CERCLA and ESA

Having found that the DOE is in violation of NEPA and must prepare an EIS, the Court finds no value in addressing Plaintiffs' CERCLA and ESA claims, which address the process that the Court has now ordered redone. Should Plaintiffs come to believe that a future action or actions by the DOE give rise to a claim or claims based on the ESA, CERCLA, or both, they are free to bring such a

claim or claims before the Court at that time.

V. CONCLUSION

For the reasons stated herein, the Court GRANTS Plaintiffs' Motion for Summary Judgment as it relates to Plaintiffs' NEPA claim, and hereby DECLARES that the DOE has violated and continues to violate NEPA. The Court further PERMANENTLY ENJOINS the Department of Energy from transferring ownership or possession, or otherwise relinquishing control over, any portion of Area IV until the Department of Energy has completed an EIS and issued a Record of Decision pursuant to NEPA. The Court further AWARDS Plaintiffs costs, disbursements, and attorneys' fees reasonably expended in their work up to this date which has caused in the instant result. The Court will retain jurisdiction over this matter until it is satisfied that the DOE has met its legal obligations as they relate to the remediation of Area IV.

IT IS SO ORDERED.

Dated: May 2, 2007

UNITED STATES DISTRICT JUDGE