UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

OFFICE OF THE
SECRETARY

April 3, 1998

IN RESPONSE, PLEASE
REFER TO: M980403B

MEMORANDUM FOR: L. Joseph Callan
Executive Director for Operations

John F. Cordes, Acting Director
Office of Commission Appellate Adjudication

FROM: Annette L. Vietti-Cook, Acting Secretary

SUBJECT: STAFF REQUIREMENTS - AFFIRMATION SESSION, 10:30 A.M., FRIDAY, APRIL 3, 1998, COMMISSIONERS' CONFERENCE ROOM, ONE WHITE FLINT NORTH, ROCKVILLE, MARYLAND (OPEN TO PUBLIC ATTENDANCE)

I. SECY-98-024- Final Amendments to 10 CFR Parts 60, 72, 73, 74, and 75, "Physical Protection for Spent Nuclear Fuel and High-Level Radioactive Waste

The Commission approved a final rule which provides amendments to 10 CFR Parts 60, 72, 73, 74, and 75 to clarify and make consistent physical protection requirements for independent storage of spent nuclear fuel and high-level radioactive waste, subject to the modifications and clarifications in attachment 1.

Following incorporation of the changes, the Federal Register notice should be reviewed by the Rules Review and Directives Branch in the Office of Administration and forwarded to the Office of the Secretary for signature and publication.
(EDO) (SECY Suspense: 5/29/98)

In addition, the staff should report when it will be able to proceed with physical protection rulemaking for Part 50 licensees who have ceased operations and are storing the spent fuel in the pool, and who remain under the physical protection requirements of 10 CFR 73.55 with exemptions on a case by case basis. The staff should explain the criteria for granting exemptions to 10 CFR 73.55 requirements in the interim period before the rulemaking is completed.
(EDO) (SECY Suspense: 5/1/98)

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II. SECY-98-021 - Louisiana Energy Services -- Review of LBP-96-25 (NEPA Issues); Review of LBP-97-8 (Environmental Justice)

The Commission approved an order addressing the environmental questions raised in these two Atomic Safety and Licensing Board (Board) decisions regarding the proposed Claiborne Enrichment Center (CEC) that Louisiana Energy Services (LES) plans to build near Homer, Louisiana. The Commission granted petitions for review by LES and by the NRC staff to consider first the issue of whether the Final Environmental Impact Statement (FEIS) failed to discuss adequately the need for the CEC, the alternative of no action, and the CEC's secondary benefits and second, whether the FEIS failed to address adequately the "environmental justice" issues.

The Commission (with all Commissioners agreeing and one exception, as noted below) approved the attached order affirming in part, reversing in part, and remanding for further proceedings the Board's NEPA rulings in LBP-96-25 and LBP-97-8. Specifically, the Memorandum and Order affirms the Board's finding regarding the likely price effects of the CEC but provides additional guidance to the Board that in performing ultimate cost-benefit balancing under NEPA, the Board must consider, in addition to the price effects, the other benefits of the CEC. It also affirms the Board's decision to require the NRC staff to revise the current FEIS "no action" discussion to reflect an evaluation of both the costs and the benefits of not building the CEC and to reconsider the FEIS's current discussion of resumed logging. It reverses the Board's decision to invalidate the FEIS's reliance on the CEC's secondary benefits and reverses the Board's decision to require a thorough NRC inquiry into possible racial discrimination in the siting of the CEC. It affirms the Board's decision that the NRC staff should revise the FEIS to provide more analysis of the CEC's effect on pedestrian traffic between the nearby communities and to analyze local property value effects more thoroughly.

Chairman Jackson disapproved only section 5.a. of the Commission order (with respect to LBP-97-8), titled racial discrimination in siting. She would have affirmed in part and reversed in part the Board's requirement of a further NRC staff investigation into the Claiborne Enrichment Center's siting. In light of the alleged irregularities, gaps, and inconsistencies in the siting process, it was her preference that the NRC staff should further investigate the siting process, without focussing on LES's alleged intentional racial motives, to ensure that the siting criteria were reasonable and applied equitably.

(Subsequently, on April 3, 1998, the Acting Secretary signed the Order.)

Attachments:
1. Comments and Clarifications to SECY-98-024
2. Memorandum and Order in LES matter

cc: Chairman Jackson
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
EDO
OGC
CIO
CFO
OCAA
OCA
OIG
Office Directors, Regions, ACRS, ACNW, ASLBP (via E-Mail)
PDR - Advance
DCS - P1-17

Attachment 1

Comments and Clarifications to SECY-98-024

1. The staff should clarify that the requirements in 10 CFR 73.51(d)(1) through (13) provide one method acceptable to the NRC for meeting performance capabilities of 10 CFR 73.51(b)(2) and to add language (similar to 10 CFR 61.58) to the effect that the Commission may authorize other methods for meeting these performance capabilities.

2. In a number of places throughout the final rulemaking package, it is stated that this final rule will codify standards for protecting spent fuel at the various storage facilities licensed under Part 72. This and similar statements in the Federal Register notice, the regulatory analysis, the Congressional letters, and other places should be modified to mention protecting materials licensed under Part 60.

3. The cost estimates in Tables 2 and 3 should reflect more up to date cost figures, or at a minimum, should be adjusted for inflation.

4. In the letters to Representative Schaefer and Senator Inhofe, paragraph 2, line 2, insert 'Part 60 or' after 'under.'

5. In the letters to GAO, Vice President Gore, and Speaker Gingrich; paragraph 1, line 5, insert 'Part 60 or' after 'under.' In paragraph 3, revise sentence 1 to read 'Enclosure 1 contains a copy of the final rule, which is being ....' Revise sentence 3 to read 'Enclosure 2 contains a copy of NUREG-1619 and Enclosure 3 contains the "Regulatory Analysis" that was prepared for this final rule, which contains ....'

ATTACHMENT 2

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Shirley Ann Jackson, Chairman
Greta J. Dicus
Nils J. Diaz
Edward McGaffigan, Jr.

In the Matter of	)	
Louisiana Energy Services	)	Docket No. 70-3070-ML
(Claiborne Enrichment Center)	)	

CLI-98-

MEMORANDUM AND ORDER
(ADDRESSING NEPA CONTENTIONS)

This proceeding involves an application by Louisiana Energy Services (LES) for a license to construct and operate the Claiborne Enrichment Center (CEC) near Homer, Louisiana. The NRC staff and an amicus curiae, the Nuclear Energy Institute (NEI), support issuance of the license. A local group, the Citizens Against Nuclear Trash (CANT), opposes it on environmental and safety grounds.

On May 1, 1997, the Atomic Safety and Licensing Board issued a decision in CANT's favor on several "environmental justice" issues and denied the license, "albeit without prejudice." See LBP-97-8, 45 NRC 367, 412 (1997). In denying the license, the Board pointed not only to its environmental justice ruling but also to two earlier Board decisions finding "insufficiencies" in the Final Environmental Impact Statement (FEIS) for the CEC. See id., citing

LBP-96-25, 44 NRC 331 (1996),[1] and LBP-97-3, 45 NRC 99 (1997). We granted review to consider the environmental justice question. See CLI-97-7, 45 NRC 437 (1997). We previously had granted review to consider three other environmental issues concerning the adequacy of the FEIS: the "need" for the CEC, the CEC's "secondary benefits," and the "no action alternative." See CLI-97-3, 45 NRC 49 (1997).

For the reasons we give below, we reverse in part and affirm in part the various Board environmental rulings now before us on previously-granted petitions for review. In a forthcoming separate decision, we will address three still-pending petitions for review (one by LES and two by CANT) attacking Board environmental decisions on waste disposal costs. See LBP-97-3, 45 NRC 99 (1997), and LBP-97-22, 46 NRC 275 (1997).

BACKGROUND

1. Facts.

LES seeks an NRC license to construct and operate the CEC, which would be the first privately owned uranium enrichment facility in the United States. The 30-year license sought by LES would authorize it to possess and use byproduct, source, and special nuclear material to enrich uranium using a gas centrifuge process. At full production, the CEC would annually possess approximately 4700 metric tons of UF_6, and generate 870 metric tons of enriched uranium and 3800 metric tons of depleted uranium tails.

If licensed, the CEC would be constructed on the central 70 acres of a wooded 442-acre site juxtaposed between two unincorporated African-American communities in Louisiana, Center Springs and Forest Grove. The site, referred to by the parties as LeSage, is located

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[1]The Commission has already considered, and reversed, the Licensing Board's ruling in LBP-96-25 that LES lacked sufficient financial qualifications to build the CEC. See CLI-97-15, 46 NRC 294 (1997). In this decision the Commission will review the environmental aspects of LBP-96-25.

approximately 5 miles north of the town of Homer, in Claiborne Parish. Construction of the CEC would necessitate the closing and relocation of Parish Road 39, which currently bisects the LeSage site from North to South.

At the time the Commission received the LES application (in 1991), Congress had recently enacted legislation that modified the licensing procedures for uranium enrichment facilities. The new legislation provided that enrichment facilities would be licensed pursuant to NRC regulations applicable to special nuclear materials, and not pursuant to NRC reactor regulations, as would have been required without the legislation. See CLI-97-15, 46 NRC at 296-97. The Commission did not have in place regulations specifically addressing the licensing of enrichment facilities in accordance with this new legislation. Therefore, the Commission published a Notice of Hearing and a Commission Order setting forth standards to evaluate LES's application and instructions for the hearing. See 56 Fed. Reg. 23,310 (May 21, 1991). The hearing order directed the Board to conduct the LES licensing proceeding pursuant to the adjudicatory procedures set out in 10 C.F.R. Part 2, Subparts G and I. See id.

The hearing order also instructed the Licensing Board to apply various regulations, including 10 C.F.R. Part 51, which addresses the NRC's duties under the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 et seq. (1994). See 56 Fed. Reg. at 23,310. The order required the Board to make findings of fact and conclusions of law on all admitted contentions, including NEPA contentions under Part 51. See id. As for NEPA issues not covered by admitted contentions, the order directed the Board not to conduct "a de novo evaluation of the application," but to determine whether "the review conducted by the NRC staff under 10 C.F.R. part 51 has been adequate." Id.

Part 51 sets forth a two-step process for meeting NEPA's mandate. First, it requires a license applicant to file a detailed Environmental Report (ER) containing specific information to

aid the NRC in preparing its independent analysis of the environmental effects of the proposed licensing action. See 10 C.F.R. §§ 51.60 and 51.45. Second, it requires the NRC staff to issue its own FEIS based on a review of information provided by the applicant, information provided by commenters on the staff's draft EIS, and information and analysis that the staff itself obtains. See 10 C.F.R. § 51.97(c).

2. The Licensing Board's NEPA Decisions.

In this proceeding CANT filed most of its environmental contentions on the basis of LES's ER. But by the time the various NEPA issues came before the Board on the merits, the NRC staff had issued its FEIS. In LBP-96-25 and LBP-97-8, therefore, the Board appropriately deemed all of CANT's environmental contentions to be challenges to the FEIS. On this appeal the Commission considers Contentions J.4, K, and J.9, all of which relate to whether the NRC has adequately considered the environmental costs and benefits of constructing and operating the CEC.

a. Licensing Board Decision in LBP-96-25.

1. LBP-96-25 first considered contention J.4, where CANT alleged that the costs of the CEC "far outweigh" its benefits. 44 NRC at 336. In particular, CANT challenged the FEIS's claim of a need for an "additional market competitor in the U.S." The Board began its analysis by stating that the asserted "need" for a facility is "merely a shorthand expression" for the principal benefit expected from the facility. Id. at 348. Here, according to the Board, "the central benefit of the CEC identified by the Applicant in its ER and the Staff in the FEIS is that LES will bring real price competition to the enrichment market as a domestic supplier." Id. at 366. "[P]rice competition," stressed the Board, is the "quintessence of economic competition and ... that asserted benefit is quantifiable." Id.

Citing NRC regulations that require NEPA reviews to quantify cost-benefit analyses

when possible, the Board next concluded that the FEIS must quantify the benefit of "price competition," to permit it to be weighed against the costs of the facility in a cost-benefit analysis. Id. at 366-67. The Board found the original FEIS deficient for failure to quantify the CEC's likely effect on the price of enrichment services. After reviewing the parties' various economic analyses projecting supply, demand, and prices, the Board in effect performed its own quantitative analysis and concluded that instead of bringing "the benefit of significant price competition to the enrichment services market as an additional domestic supplier ... the CEC will have little, if any, effect on price competition." Id. at 369. The Board deemed "not credible" any claim of a price differential "greater than $2 to $3" per separative work unit (SWU). Id. at 368. Lastly, the Board ordered that its discussion of the CEC's market price effect be added as a supplement to the FEIS's section on need for the facility. Id. (citing 10 C.F.R. § 51.102).

2. LBP-96-25 then turned to CANT's contention K, which the Board deemed a challenge to the adequacy of the FEIS discussion of the no-action alternative. The Board found the five-paragraph "no action" description "sparse" and "minimal" overall, and specifically deficient on several grounds. In particular, the Board found that the section fails to "even mention, much less address, the numerous avoided environmental impacts to, inter alia, surface and groundwater and air quality from not building the facility." 44 NRC at 372. Instead, the Board stressed, the FEIS discussion of "no action" speaks only of the "supposed negative environmental and socioeconomic consequences of not building the project." Id. at 373 (emphasis added). By not specifically "identifying and analyzing" the environmental costs of building the facility, the Board concluded, the "no action" section did not permit a proper comparison of the effects of having the facility with the effects of not having it. Id. The Board ordered the NRC staff to supplement the FEIS or otherwise remedy the various identified deficiencies. See id. at 375.

3. Finally, LBP-96-25 found the FEIS's discussion of the CEC's so-called "secondary benefits," such as new jobs and increased tax revenues, inconsistent with Commission precedent refusing to consider such benefits in reactor licensing cases. See id. 374-75. The Board stated that the NRC staff should either delete consideration of secondary benefits from its cost-benefit analysis, or explain why it was departing from past precedent. See id. at 375. The Board ordered the staff to supplement the FEIS accordingly. See id.

b. Licensing Board Decision in LBP-97-8.

LBP-97-8 considered CANT's contention J.9, its "environmental justice" contention. CANT's contention (filed after LES's ER but before the NRC staff's FEIS) alleged that LES's discussion of the impacts of the CEC was deficient because it failed to fully assess the disproportionate socioeconomic impacts of the proposed CEC on the adjacent African-American communities of Forest Grove and Center Springs. See 45 NRC at 372-73; see also LBP-91-41, 34 NRC 332, 353 (1991) (admitting contention J.9). In 1994, well after admission of contention J.9, President Clinton issued Executive Order 12898, which addressed environmental justice. See 59 Fed. Reg. 7629 (Feb. 16, 1994), codified at 3 C.F.R. 859 (1995). The Executive Order directs each federal agency to "identif[y] and address[] disproportionately high and adverse human health and environmental effects of its programs, policies, or activities on minority populations and low-income populations" in the United States. In a March 31, 1994, letter to President Clinton from the then Chairman of the NRC, Ivan Selin, the Commission stated that the NRC would carry out the measures in the Executive Order. See LBP-97-8, 45 NRC at 375.

The NRC staff issued the FEIS for the CEC some months later, in August 1994. It contains a section entitled "Environmental Justice," in which the staff found "'no specific evidence that racial considerations were a factor'" in the CEC site selection process. Id. at 390

(quoting the FEIS). The FEIS also found (as described by the Licensing Board) that "because the impacts of the CEC will be relatively small and there will not be a disproportionate adverse impact on minority or low-income populations, operating the LES facility will not promote environmental injustice." Id. at 398. In LBP-97-8, the Board disagreed with these environmental justice findings.

The Board first held that to give "real meaning" to the President's "nondiscrimination directive," the NRC staff cannot limit its inquiry to a facial review of LES's ER -- which is what the staff said it did in the FEIS -- but must conduct "a thorough and in-depth investigation." Id. at 390. Here, according to the Board, CANT's "evidence, the most significant portions of which are largely unrebutted or ineffectively rebutted, is more than sufficient to raise a reasonable inference that racial considerations played some part in the site selection process." Id. at 391. While making no "specific findings on the current record that racial discrimination did or did not" occur, the Board stated that the NRC staff must "lift some rocks and look under them." Id. The Board emphasized "statistical evidence" suggesting possible racial bias in the siting process (i.e., the increasing percentage of African-Americans in affected populations as the site selection process progressed), id. at 392, and LES's decision to reject the largely white "Emerson" site near a lake, id. at 395-96. The Board concluded that "a thorough Staff investigation of the CEC site selection process is essential to determine whether racial discrimination played a role in that process, thereby ensuring compliance with the nondiscrimination directive contained in Executive Order 12898." Id. at 412.

In addition to its ruling on racial discrimination, the Board questioned two aspects of the FEIS's analysis of "disparate impacts." First, according to the Board, the FEIS did not deal adequately with the impact on those "who must regularly make the trip by foot" of relocating Parish Road 39 and "[a]dding 0.38 mile to the distance between the Forest Grove and Center

Springs communities." Id. at 406. Second, the Board criticized the FEIS's failure to "identify the location, extent, or significance" of property value impacts on the local community. Id. at 409. The Board ordered the NRC staff to revise the FEIS to deal with the road closure and property value issues adequately. Id. at 412.

DISCUSSION

1. NEPA Overview.

NEPA establishes a "broad national commitment to protecting and promoting environmental quality." Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 348 (1989), citing 42 U.S.C. § 4331. To assure that this commitment is "infused into" the actions of the federal government, NEPA mandates particular "action-forcing" procedures. Id., quoting 115 Cong. Rec. 40,416 (1970) (remarks of Sen. Jackson). Chief among these procedures is the environmental impact statement (EIS), which NEPA requires federal agencies to prepare for all proposals that would "significantly affect[] the quality of the human environment." 42 U.S.C. § 4332(2)(C). The EIS must describe the potential environmental impact of a proposed action and discuss any reasonable alternatives. See 42 U.S.C. § 4332.

The principal goals of an FEIS are two-fold: to force agencies to take a "hard look" at the environmental consequences of a proposed project, and, by making relevant analyses openly available, to permit the public a role in the agency's decision-making process. See Robertson, 490 U.S. at 349-50; Hughes River Watershed Conservancy v. Glickman, 81 F.3d 437, 443 (4th Cir. 1996). This latter information disclosure function of the EIS "gives the public the assurance that the agency has indeed considered environmental concerns ... and perhaps more significantly, provides a springboard for public comment." Robertson, 490 U.S. at 349 (citation omitted). The EIS, then, should provide "sufficient discussion of the relevant issues and opposing viewpoints to enable the decisionmaker to take a `hard look' at environmental

factors and to make a reasoned decision." Tongass Conservation Soc'y v. Cheney, 924 F.2d 1137, 1140 (D.C. Cir. 1991) (quoting Natural Resources Defense Council, Inc. v. Hodel, 865 F.2d 288, 294 (D.C. Cir. 1988)). It is intended to "foster both informed decision-making and informed public participation,"[2] and thus assure that the agency does not act upon "incomplete information, only to regret its decision after it is too late to correct." Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 371 (1989).

As the Licensing Board emphasized repeatedly in LBP-96-25, NEPA does not require agencies to select the most environmentally benign option. See, e.g., 44 NRC at 341-42. "If the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental costs." Robertson, 490 U.S. at 350.

Although the statute itself does not mandate a cost-benefit analysis, NEPA is generally regarded as calling for some sort of a weighing of the environmental costs against the economic, technical, or other public benefits of a proposal. See, e.g., Idaho By and Through Idaho Public Utils. Comm'n v. ICC, 35 F.3d 585, 595 (D.C. Cir. 1994); Calvert Cliffs' Coordinating Committee, Inc. v. AEC, 449 F.2d 1109 (D.C. Cir. 1971). The EIS need not, however, always contain a formal or mathematical cost-benefit analysis. See, e.g., Sierra Club v. Lynn, 502 F.2d 43, 61 (5th Cir. 1974) ("NEPA does not demand that every federal decision be verified by reduction to mathematical absolutes for insertion into a precise formula"), cert. denied, 422 U.S. 1049 (1975). See also Council on Environmental Quality (CEQ) Regulations, 40 C.F.R. § 1502.23. NRC regulations direct the staff to consider and weigh the environmental, technical, and other costs and benefits of a proposed action and alternatives,

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[2] City of Carmel-By-the-Sea v. DOT, 123 F.3d 1142, 1150-51 (9th Cir. 1997) (quoting California v. Block, 690 F.2d 753, 761 (9th Cir. 1982)).

and, "to the fullest extent practicable, quantify the various factors considered." 10 C.F.R. § 51.71. If important factors cannot be quantified, they may be discussed qualitatively. Id.

The appeals currently before us involve the proposed CEC's social and economic costs and benefits. It bears mention, therefore, that NEPA's "theme ... is sounded by the adjective 'environmental': NEPA does not require the agency to assess every impact or effect of its proposed action, but only the impact or effect on the environment." Metropolitan Edison Co. v. People Against Nuclear Energy, 460 U.S. 766, 772 (1983). An agency's "primary duty" under NEPA is to take a "hard look" at environmental impacts. See Public Utilities Comm'n v. FERC, 900 F.2d 269, 282 (D.C. Cir. 1990). "Determination of economic benefits and costs that are tangential to environmental consequences are within [a] wide area of agency discretion." South Louisiana Environmental Council, Inc. v. Sand, 629 F.2d 1005, 1011 (5th Cir. 1980).

Necessarily, however, agencies frequently do consider proposed projects' social and economic effects, even if only to a limited extent, given that NEPA generally calls for at least a broad and informal balancing of the environmental costs of a project against its technical, economic or other public benefits. Misleading information on the economic benefits of a project, therefore, could skew an agency's overall assessment of a project's costs and benefits, and potentially "result in approval of a project that otherwise would not have been approved because of its adverse environmental effects." See, e.g., Hughes River Watershed Conservancy v. Glickman, 81 F.3d at 446. In assessing how economic benefits are portrayed, a key consideration of several courts has been whether the economic assumptions of the FEIS "'were so distorted as to impair fair consideration of the' project's adverse environmental effects." Id. at 466 (citing Louisiana Environmental Council, 629 F.2d at 1011).

In NRC licensing adjudications, both generally (10 C.F.R. §§ 51.102, 51.103) and in this particular case (Hearing Order, 56 Fed. Reg. at 23,310), it is the Licensing Board that compiles

the final environmental "record of decision," balances a proposed facility's benefits against its costs, and ultimately decides whether to license the facility. The adjudicatory record and Board decision (and, of course, any Commission appellate decisions) become, in effect, part of the FEIS. See, e.g., Philadelphia Electric Co. (Limerick Generating Station, Units 1 & 2), ALAB-819, 22 NRC 681, 705-07 (1985). Intervenors are free to litigate the adequacy of the discussion of environmental issues in the FEIS. See 10 C.F.R. § 51.104(a)(2). Although the NRC staff bears the ultimate burden of demonstrating that environmental issues have been adequately considered, intervenors must file their environmental contentions as soon as possible, even before issuance of the draft EIS, if the contested issue is addressed in the applicant's ER. See 10 C.F.R. § 2.714(b)(2)(iii). To the extent that the FEIS may differ from the ER, an intervenor is provided a second opportunity to file contentions on environmental issues. Id.

With this NEPA background in mind, we now turn to the particular environmental issues in dispute on this appeal.

2. Need for CEC.

To assist the NEPA cost-benefit analysis, the NRC ordinarily examines the need a facility will meet and the benefits it will create. See 44 NRC at 346-47 n.5 (and cases cited therein). In this case, the Board found that the CEC would not bring "the benefit of significant price competition," but instead would have "little, if any, effect" on prices. Id. at 369. LES and the NRC staff request the Commission to reverse the Board's ruling. They raise three principal arguments: (1) the Board inappropriately focused upon the "benefit" of significantly lower prices, a benefit which was never actually claimed in the FEIS or by LES; (2) in discounting the CEC's likely effects on price, the Board made incorrect assumptions about the uranium enrichment market; and (3) the Board improperly ignored or minimized other benefits of the CEC that were

claimed in the FEIS. We agree with these arguments in part, but do not disturb the Board's core factual finding that the CEC is unlikely to have a major beneficial price effect.

1. LES and the NRC staff first argue that the Licensing Board, by focusing only upon significant price effects, simply mischaracterized the FEIS's statement on need for the facility. LES states that "nowhere did [it] assert that its competition with domestic or international suppliers would result in substantially lower prices, or even that minor LES price reductions constitute the principal benefit of licensing the CEC." LES Appeal Brief on LBP-96-25 (3/13/97) at 10. According to LES, the Board "created a 'straw man' by postulating a benefit never advanced by LES or the NRC staff, and then found the benefit unrealized because neither LES nor the Staff tried to prove the posited benefit." Id. at 14. The NRC staff also maintains that the Board mischaracterized the FEIS by laying such heavy stress on the possibility of lower prices. See NRC Staff Appeal Brief on LBP-96-25 (3/13/97) at 4, 7.

We frankly confess some puzzlement over the Board's exclusive focus upon the CEC's potential price effects as the sole possible benefit of the project. See, e.g., 44 NRC at 369-70. The FEIS on its face discusses other benefits, never addressed by the Board in LBP-96-25, including, for example, creation of a reliable American supplier of enriched uranium in addition to the United States Enrichment Corporation (USEC).[3] We will return to this point later in this opinion.

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[3] CANT filed its contention on the need for the CEC well before the FEIS was issued, and therefore initially addressed only LES's ER and later supplemental responses. The Board perhaps set out to scrutinize LES's own optimistic claims on price benefits and, in doing so, may have failed to note that the FEIS did not simply adopt all LES claims part and parcel. The Board repeatedly equates the FEIS discussion of "need" with LES's earlier treatment of need in its ER and related documents. See, e.g, 44 NRC at 350 ("[i]n the FEIS, the NRC staff adopts the Applicant's assertion of need for the CEC"); see also id. at 346, 352. Not surprisingly, then, the Board's emphasis on "real price competition" may be more rooted in the language of LES's letters supplementing its ER than in the FEIS itself.

Nonetheless, it was appropriate for the Board to inquire into economic benefits, i.e., price effects, that were suggested by the FEIS. Although the FEIS never actually uses terms considered by the Board, such as "price" or "real price competition," the FEIS does imply that the CEC will have a beneficial effect on market prices. By stating that the CEC as an "additional market competitor" will put "pressure on other enrichment suppliers to maintain a competitive position in the world enrichment market," the FEIS suggests a beneficial marketplace impact, which the Board was not out of line in seeking to clarify. See FEIS at 4-77.

Moreover, the record before the Board included numerous specific claims of beneficial market price effects, although they were made by LES, not directly in the FEIS. In letters supplementing its ER, and in its adjudicatory pleadings and testimony, LES has maintained that the CEC's presence in the market would help moderate or suppress future price increases, perhaps to a significant degree. See, e.g., Transcript at 387, 442 (testimony of LES expert witness Michael H. Schwartz). On appeal, LES continues to offer price moderation as one benefit of establishing an additional market competitor, despite an already oversupplied market. See, e.g., LES Appeal Brief on LBP-96-25 at 15 ("avoiding or moderating price increases that would otherwise take place is beneficial, independent of price reduction").

With LES having repeatedly advanced in this proceeding the argument that the CEC would act to "suppress" or "moderate" future SWU price increases, perhaps significantly, and with the FEIS at least implying a beneficial effect on prices, it was legitimate for the Board to evaluate this claimed economic benefit against CANT's vigorous challenge. Although the language in the Board's decision is frequently ambiguous, the Board appears to have recognized that LES's basic price claim was not that prices would significantly decrease upon LES's entry into the market, but that the additional supply and competition from the CEC would

help forestall or moderate price increases. See 44 NRC at 362, 364.

2. After conducting a pricing analysis, the Board found that any beneficial price effect, whether in the form of price reductions or avoided price increases, would be "little, if any." 44 NRC at 369. LES urges the Commission to reexamine the factual evidence presented and to reach a different conclusion about LES's potential to "stabilize world-wide prices." See LES Appeal Brief on LBP-96-25 at 14-15, 17-19. LES cites as an historical example the "moderating effect" that European uranium enrichment suppliers had on the prices of the only existing American supplier, the United States Enrichment Corporation (USEC). Id. at 14. "USEC might raise its prices in the absence of a domestic competitor," LES emphasizes, particularly "[g]iven the escalating costs of power [for the gaseous diffusion plants] and the possible retirement of [USEC's] older plants as well as the concern for reliable supplies that may limit foreign competition in the United States." Id. at 15.

Before addressing LES's request that we reassess evidence on the uranium enrichment market, it may be helpful at this point to clarify the numerous "economics" or "market" issues upon which the parties apparently agree. The parties agree, for example, that the market for uranium enrichment services is, and likely will remain for the foreseeable future, both international and highly competitive. They acknowledge that the worldwide supply of enrichment services exceeds demand. They also agree that because the supply of enrichment services outstrips demand, LES would need to take away business from other competitors to obtain its targeted 15% to 17% share of the U.S. market. The parties further agree that the market has become increasingly international as European suppliers gradually have obtained ever greater portions of USEC's American and world market share. In addition, they agree that the competition from the European suppliers, which broke USEC's former monopoly position, has led overall to reduced prices and more flexible contract terms. And they agree that even

without LES, the worldwide market likely will remain intensely competitive.

Where the parties continue to disagree is on how LES's entry into the market would affect prices. At the Board hearing, CANT's counsel asked LES's expert witness to quantify the amount by which the CEC might suppress prices. In response, the LES expert witness predicted that without the additional supply from the CEC, market prices after the year 2000 would be "at a minimum" $2 to $3 higher per SWU, but could be "substantially higher." Transcript at 442. LES adheres to that position on appeal. See LES Appeal Brief on LBP-96-25 at 11, 15.

The Board rejected the possibility of the CEC having any market price effect over $2 to $3 per SWU. See 44 NRC at 368. LES's basic disagreement with the Board's price-effects finding, then, is that the Board accepted at most a possible price-moderating effect of $2 to $3 per SWU, while LES argued that the effect would be at least $2 to $3 per SWU, but could be "even higher." This $2 to $3 figure, the LES expert explained, represents what "[m]athematically one would come up with," if "one simply took an approach which said that production costs and supply and demand lead algebraically to a result." Transcript at 387, 442.

The LES expert added, however, that this "algebraic" or "mathematical" calculation does not take into account potential enhanced price effects from competition -- from other suppliers seeking to retain their market share in light of added competition from the CEC. Such competitive reactions could result "in prices that go beyond what the mathematics dictate," he claimed, and therefore might lead to an "even higher" price-moderating effect than merely $2 to $3. Transcript at 442; see also Transcript at 387. He stressed that "each increment of competition is very important, and it is the willingness of individual suppliers to go after enrichment services that is what keeps prices from rising." Transcript at 416; see also LES Proposed Findings of Fact at 107-08 (lack of competition from the CEC "could allow existing

suppliers to include more profit in their pricing").

Pointing to the "fiercely competitive" market, the Board found "not ... credible the Applicant's assertions that the market price differential could be greater than $2 or $3 because of the lack of competition without the CEC." See 44 NRC at 368. In the Board's view, the CEC's advantage of newer, more cost-efficient technology -- compared with, for example, USEC's older and more energy-intensive gaseous diffusion plants -- would not prove a significant competitive advantage, because the CEC's "total costs of producing SWUs, which includes operating and capital cost, [are] comparable with gaseous diffusion enrichers." Id. at 367. Given the abundant oversupply of enrichment services, reasoned the Board, the proposed facility poses "substantial investment risks," which will "raise[] the investment return (i.e., interest rate) the project must provide to attract financing." Id. These high interest rates "in turn, raise[] the proposed project's costs, thereby lessening the likelihood that the CEC will bring real price competition to the enrichment market," the Board concluded. Id.

Although the Commission has the authority to reject or modify a Licensing Board's factual findings,[4] it will not do so lightly.[5] The Commission in this instance is not inclined to second-guess the Board's complex findings on supply, demand, and pricing. The hearing record contains extensive and detailed arguments on pricing and hypothesized world market scenarios. At bottom, the Board's view -- that LES at most might impact SWU prices by $2 to $3 -- does not fall beyond the possibilities presented to the Board. LES itself put forward the potential $2 to $3 effect ultimately embraced by the Board (although LES also maintains that

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[4] See Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-422, 6 NRC 33, 42 (1977); Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), ALAB-355, 4 NRC 397, 403-05 (1976).

[5] See Catawba, 4 NRC at 403.

the effect could be "even higher"[6]). See LES Appeal Brief on LBP-96-25 at 11. None of the parties has challenged on appeal the Board's acceptance of up to a possible $2 to $3 price moderating effect, although they continue to disagree on whether the price effect might be more significant.

It is no doubt possible to analyze the record here differently, and to argue that significant price effects are possible or even likely. But the Board's analysis led it to a more modest finding. "[W]e attach significance to a licensing board's evaluation of the evidence and to its disposition of the issues." Catawba, 4 NRC at 404. "[W]e will not overturn the hearing judges' findings simply because we might have reached a different result." General Public Utilities Nuclear Corporation (Three Mile Island Nuclear Station, Unit 1), ALAB-881, 26 NRC 465, 473 (1987). Therefore, we will not disturb the Board's core price effects finding, and accede to the Board's decision to add its pricing analysis as a supplement to the FEIS. See 44 NRC at 369-70. This makes the Board's finding part of the environmental "record of decision" and a factor in the Board's ultimate cost-benefit accounting. Our holding is consistent with NEPA's "full disclosure" purpose. See NEPA Overview, supra, at 8.

We are concerned, though, that the Board not give excessive weight to its price effects finding when it comes time to balance the cost-benefit ledger for the CEC. The Board's discussion on occasion takes on a categorical tone that may suggest more certainty about price effects than the record warrants. See, e.g., 44 NRC at 369 ("the evidence ... clearly shows that,

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[6] LES, though, has never suggested how much "higher" it believes the price effect might be. In fact, LES has made clear that it expects to compete "in the same price range" as USEC and the foreign suppliers. LES Appeal Brief at 13. LES also has stressed that for the CEC to remain a viable enterprise, SWU prices generally should fall within the price range the LES expert has forecast for after the year 200 -- a range of $100 to $115 per SWU. It stands to reason, therefore, that LES neither desires nor expects its competitors to respond to the CEC by slashing prices. Plummeting market prices seemingly are not in LES's own best interests.

when quantified, the CEC will have little, if any, effect on price competition"). In actuality, much testimony in the record, particularly the testimony of CANT's expert, David E. Osterberg, stresses the inherent unpredictability of future market conditions and prices. See, e.g., Transcript at 486-87, 494-95, 530-34, 541-42. In addition, the Board appears to discount LES's prospects in the marketplace, in part on the ground that its principal competitor, USEC, has fixed (and comparatively low) capital costs. See 44 NRC at 365, 367-68. But the Board does not address record evidence suggesting that USEC's capital costs, including the costs of seismic and other upgrades, electricity, and bringing new technology on line, may increase substantially in the future.[7] Whether such costs would be borne by a privatized USEC and might bear on LES's competitive posture is left unclear by the Board's analysis, which focuses upon current market conditions.

In short, the Board's price projections reflect not ineluctable truth, but rather a plausible scenario that in the Board's view, with which we agree, should be added to the environmental record of decision. Giving disproportionate significance to the Board's numerical price projections could prove misleading. "[T]he appearance of precision ... tends to divert scrutiny from the difficult judgmental decisions involved in performing an accurate cost-benefit analysis and, specifically, in determining whether a genuine need for the facility exists." Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-179, 7 AEC 159, 172 (1974).

3. Although we agree that the Board's price effects finding should be added to the

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[7]See, e.g., FEIS at 1-5; Written Testimony of James T. Doudiet and W. Howard Arnold (2/24/95) at 33-34; Written Testimony of Michael Schwartz and Peter LeRoy (2/24/95) at 12-13, 18-19; Hearing Transcript at 426-27 (Michael Schwartz for LES), 503-04 (Merri Horn for NRC staff); CANT Exhibit I-DO-33, Attachment D, at D-5 through D-8; LES Exhibit 10, Letter from Peter LeRoy, LES, to Charles Haughney, NRC (4/30/92) Attachment A at A-3 through A-7.

environmental record of this case, we do not accept the Board's view that "the benefit of competition as we have described it," i.e., the Board's price effects finding, "is the benefit that must be weighed against the various costs of the project in the NEPA-mandated cost-benefit analysis." See 44 NRC at 370 (emphasis added). We think that LES and the NRC staff are right in pointing out that the Board's price-driven approach entirely overlooks other benefits of the CEC discussed in the FEIS and elsewhere in the record.

The FEIS asserts, indeed features, several benefits of the CEC in addition to possible price effects. These include helping to offset dependence upon foreign suppliers, lessening reliance upon USEC's older and more energy-intensive gaseous diffusion plants, providing the United States with a more technologically advanced and more energy efficient uranium enrichment technology, and creating an alternative technology should the atomic vapor laser isotope separation (AVLIS) technology, to which USEC owns exclusive rights, run into technical problems as it is scaled up. The FEIS itself and the adjudicatory record are replete with references to these non-price benefits of the CEC.[8]

Indeed, it might fairly be said that not only the FEIS, but also national policy, establish a need for "a reliable and economical domestic source of enrichment services." See USEC Privatization Act, 42 U.S.C. § 2243(f)(2)(B) (1996 & Supp. 1997) (emphasis added).[9] Over

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[8] See, e.g., FEIS at xviii, 1-5, 2-1, 4-77; Written Testimony of Michael Schwartz and Peter LeRoy on "Need" (Feb. 24, 1997) at 13-14, 28-29 (CEC will add to security of supply and be more energy "efficient" and "environmentally benign"); Hearing Transcript at 426, 437 (Schwartz for LES); LES Exhibit 10, Letter from Peter LeRoy, LES, to Charles Haughney, NRC (Apr. 30, 1992) Attachment A at A-5 through A-7 (energy efficiency and environmental advantages); LES Exhibit 11, Letter from Peter LeRoy, LES, to John Hickey, NRC (July 23, 1992), Attachment A at A-2 through A-5 (energy efficiency and environmental advantages); LES Exhibit 17, Attachment B, "Responses to DEIS Comments" at B-4 (citing not only price, but also technological, environmental, and security of domestic supply considerations).

[9] See also Pub.L. 102-486, 106 Stat. 2924, Energy Policy Act of 1992, 42 U.S.C. §

(continued...)

recent years, Congress, its committees, and key legislators have referred to uranium enrichment as a "strategically important domestic industry" of "vital national interest,"[10] "essential to the national security and energy security of the United States,"[11] and necessary "to avoid dependence on imports."[12] Congress also has promoted the identification and study of "alternative" enrichment technologies -- defined as "methods other than the gaseous diffusion process"[13] -- under the assumption that "[t]he ultimate success of the domestic uranium enrichment industry could hinge on the decision to build a new plant using a more economical technology."[14] Although these Congressional and NRC policy statements have come in a variety of contexts, they bear, in our view, on any evaluation of the "need" for the CEC and its potential benefits.[15]

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[9](...continued)
2297a(8); H.R. Rep. No. 102-474, 102d Cong., 2d Sess. Part 1 at 144 (1992) ("a valuable objective of this legislation" is to maintain a domestic source of enriched uranium, which would "contribute jobs and balance of trade benefits directly to the American economy").

[10] S. Rep. No. 101-60, 101st Cong., 1st Sess. 8, 43 (1989), see also id. at 20 ("some domestic enrichment capability is essential for purposes of maintaining energy security").

[11] S. Rep. No. 101-470, 101st Cong. 2d Sess. 2 (1990).

[12] Energy Policy Act of 1992, 42 U.S.C. § 2296b-6. See also, e.g, S. Rep. No. 102-72, 102d Cong., 1st Sess. 144-45 (1991) (national security and defense interests require assurance that "the nuclear energy industry in the United States does not become unduly dependent on foreign sources of uranium or uranium enrichment services"); 101 Cong. Rec. S8321, S8323 (daily ed. July 20, 1989) (statement of Sen. Domenici) ("[t]o the extent that utilities go abroad for enrichment services, they are more likely to buy foreign uranium as well," which could in turn devastate domestic uranium industry).

[13] See, e.g., Energy Policy Act, 42 U.S.C. §§ 2297, 2297a, 2297e (1992).

[14] H.R. Rep. No. 102-474, 102d Cong., 2d Sess., Part 1 at 144 (1992).

[15] The fact that USEC already exists to serve national security interests does not entirely obviate a role for LES in helping to assure a reliable and efficient domestic uranium enrichment industry, particularly when USEC currently is the only domestic supplier. See H.R. Rep. No. 102-474, 102nd Cong., 2d Sess., Part 1 at 143 (1992) (acknowledging that reliable sources of
(continued...)

CANT argues that the various benefits claimed for the CEC -- energy efficiency, additional domestic supply, etc. -- will never materialize and therefore are "illusory" because LES will be unable even to enter the uranium enrichment market. See CANT Appeal Brief on LBP 96-25 (4/30/97) at 16. "It is unnecessary to examine the environmental benefits of a facility that has no hope of competing," states CANT. Id. But the Commission does not understand the Board's decision as altogether rejecting the possibility that LES will enter the market. Although ambiguous in places, the Board decision ultimately finds that the CEC will become a "fifth producer" in the enrichment services market. See 44 NRC at 369.

In any event, we find that the record demonstrates a potential for LES entering the market, even without the "significantly lower prices" that CANT believes necessary. LES has provided a strategy for capturing market share. Those plans include, among other things, obtaining a large percentage of its sales contracts through exploiting existing relationships in the industry (i.e., from its partners and affiliates, both domestic and European), a strategy that is not exclusively dependent upon significantly lower prices. Moreover, in our recent "financial qualifications" decision, CLI-97-15, 46 NRC 294 (1997), we required that LES obtain advance funding commitments, including sales contracts, prior to building or operating the CEC. Thus, "if the market does not allow LES to raise sufficient capital for construction or to obtain the promised advance purchase contracts, LES will not build or operate the CEC," in which case

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[15](...continued)
enrichment services "are already available from longtime allies of the United States and could become increasingly available from former Soviet republics," yet affirming that "facilities located in the U.S., such as the Louisiana Energy Services (LES) project, could offer additional, secure possibilities"); see also Final Rule, Certification of Gaseous Diffusion Plants, 59 Fed. Reg. 48,944, 48,951 (Sept. 23, 1994)(citing USEC's concern that a denial of a certificate of compliance for the gaseous diffusion plants "may have potential implications for national and public policy" because the gaseous diffusion plants "are currently the sole domestic source of enrichment services").

neither adverse nor beneficial effects would ensue. See id. at 308. But at this stage the Commission is unable to find, as a factual matter, that LES lacks the potential even to enter the enrichment services market.

In sum, we hold that the Board had sufficient reason to examine the likely competitive price effects of the CEC, that the Board's price effects finding should be added to the environmental record of decision, and that the Board, in performing its ultimate cost-benefit balancing under NEPA, must consider, in addition to price effects, the other benefits of the CEC.

3. No Action Alternative.

Under NEPA, the FEIS must include a statement on the alternatives to the proposed action. See 42 U.S.C. § 4332(2)(C)(iii). Generally, this includes a discussion of the agency alternative of taking "no action." See 40 C.F.R. § 1502.14(d). The "no action" alternative is most easily viewed as simply maintaining the status quo. Association of Public Agency Customers v. Bonneville Power Admin., 126 F.3d 1158, 1188 (9th Cir. 1997). In this case, then, "no action" would mean denial of the license to construct and operate the CEC.

The Board found the "no action" discussion in the FEIS inadequate. The Board pointed out that the discussion was "set forth on three-quarters of a page in five brief paragraphs" (44 NRC at 370) and discussed the costs but not the benefits of not building the project. This omission, said the Board, "fatally undermin[ed] the very purpose of the no-action alternative." See 44 NRC at 373. LES and the NRC staff argue that it was legitimate for the FEIS to take that approach, because the benefits of not building the CEC are obvious: inaction would avoid the environmental costs of building the CEC, costs that the FEIS already discusses at length. The "no-action" discussion need not, according to LES and the NRC staff, recite the mirror-image of information contained elsewhere in the FEIS.

The extent of the "no-action" discussion is governed by a "rule of reason." See Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 195 (D.C. Cir.), cert. denied, 502 U.S. 994 (1991). It is clear that the discussion "need not be exhaustive or inordinately detailed." Farmland Preservation Ass'n v. Goldschmidt, 611 F.2d 233, 239 (8th Cir. 1979). Overall length, therefore, is not of special significance, and such discussions frequently are relatively short. See, e.g., id. (two paragraph discussion adequate because "[t]here was not much to say about that alternative....adoption of the alternative would simply have left things as they were"); Headwaters, Inc. v. Bureau of Land Management, 914 F.2d 1174, 1181 (9th Cir. 1990) (brevity of "no action" section may reveal only that agency thought "concept of no-action plan was self-evident").

Here, the "no action" discussion does acknowledge, albeit in broad-brush fashion, the benefit of avoiding the environmental costs associated with the CEC. Instead of re-enumerating the CEC's environmental costs, and labeling them "benefits of no-action," the "no-action" discussion simply cross-references an earlier FEIS chapter on environmental consequences, and declares that all of the impacts described there would not occur if the license were denied. The referenced chapter, in turn, details the expected adverse environmental impacts of the CEC's construction and operation, including anticipated effects on area hydrology, biotic resources, traffic, and air pollution. The chapter also describes potential accident scenarios, atmospheric releases, and the radiological impacts from facility operation and from tails disposal.

We do not find the FEIS's incorporation by reference approach unreasonable as such. We agree with LES and the NRC staff that it was not necessary for the "no action" discussion to repeat lengthy assessments of adverse environmental impacts contained elsewhere in the FEIS. See CEQ's "Memorandum to Agencies: Answers to 40 Most Asked Questions on NEPA

Regulations," 46 Fed. Reg. 18,026 (Mar. 1, 1981) (question no. 7).

The Board's primary concern, however, was not merely a lack of detail in the "no action" discussion, but a lack of evenhandedness; that is, the discussion included an extensive description of the benefits of building the CEC, but was virtually silent on the benefits of not building it. We think the Board's criticisms were well-founded. An FEIS should "briefly discuss" the reasons why an alternative was rejected and not further studied. See Tongass Conservation Soc'y v. Cheney, 924 F.2d at 1141. These reasons "shall be written in plain language... so that decisionmakers and the public can readily understand them." Id. at 1142. The "no-action" discussion should contain a comparative analysis, "a concise, descriptive summary" comparing the advantages and disadvantages of the no action alternative to the proposed action. See CEQ "Memorandum to Agencies," supra, 46 Fed. Reg. 18,026; see also 40 C.F.R. § 1502.14 (CEQ guidance).

The "no-action" discussion at issue in this case does not measure up to these standards. Lacking balance and analysis, it merely lists various benefits of the project without delineating the principal reasons why the "no action" option was eliminated from consideration. While directing the reader to another FEIS chapter for any information on the CEC's costs, it meticulously identifies virtually all of the CEC's expected benefits, from positive local environmental effects, to the creation of jobs and generation of new tax revenues, to various national policy goals. It offers no comparative reasoning whatever. By merely reciting all of the benefits expected from the CEC, the "no action" section does not indicate how the agency evaluated the relative significance of these individually-cited benefits. In short, the reader cannot readily discern how the agency weighed the various benefits and costs of not building the facility. As the Board held, the "no action" discussion requires reworking to provide a fair accounting of the costs and benefits of no-action and how the NRC staff evaluates them.

The Board also found that the "no action" discussion inaccurately depicted the adverse environmental effects predicted to occur if the CEC site were returned to its former use, logging. See 44 NRC at 373 n.9. The Board suggested that the discussion accorded undue weight to the environmental consequences of potential logging at the site, considering that much of the site was already clear-cut in 1990. Neither the staff nor LES address this issue in their briefs. In the absence of an appellate challenge, the NRC staff accordingly must comply with the Board decision and reassess the significance and accuracy of what the original "no-action" discussion stated about logging.[16] See Louisiana Energy Services (Claiborne Enrichment Center), CLI-97-2, 45 NRC 3, 4 (1997).

In sum, we hold that the NRC staff must revise the current FEIS "no-action" discussion to reflect an evaluation of both the costs and the benefits of not building the CEC and that the staff must reconsider the FEIS's current discussion of resumed logging.

4. Secondary Benefits.

The Board concluded that the FEIS for the CEC inappropriately considered the facility's so-called "secondary benefits;" i.e., the jobs, tax revenues, and related economic benefits the

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[16] The Board also questioned the FEIS's failure to specifically discuss "the avoided impact of not generating depleted uranium tails." 44 NRC at 372. The Board faults the FEIS for "assuming that tails not generated by the CEC would be produced by some other facility" in the United States. Id. The Commission, however, does not understand where the Board found such an "assumption." The FEIS provides repeated descriptions relating to tails accumulation and disposal. And the logical understanding gleaned from the "no action" discussion is that all of the adverse environmental effects the facility is expected to generate -- including the tails -- would be "eliminated" if the CEC were not built. See FEIS at 4-77. The FEIS suggests no additional scenarios about another domestic facility producing the same amount of tails. The Board's desire to see further discussion, to include, presumably, rather speculative predictions of how much of the CEC's potential share of the market would -- in the event of no action -- be provided instead by foreign suppliers or domestic suppliers using blended down HEU, seems excessive. The FEIS need not document every problem "from every angle." Anson v. Eastburn, 582 F. Supp. 18, 21 (S.D. Ind. 1983). We therefore do not believe that the NRC staff need undertake a further inquiry into the tails question.

CEC is expected to generate. See 44 NRC at 374-75 LES and the NRC staff argue on appeal that it is entirely proper for the FEIS to take secondary benefits into account. We agree, and reverse the Board decision on this point.

Socioeconomic benefits such as added jobs and tax revenues are frequently termed "secondary" benefits because they ordinarily are not the primary reason cited to justify a project. Nevertheless, it has become commonplace for NEPA statements and reviewing courts to consider the socioeconomic benefits expected from a project. See, e.g., Citizens Against Burlington, 938 F.2d at 197-98 (reasons for cargo hub included creation of jobs and stimulation of local economy). NEPA does not bar an examination of secondary benefits. Indeed, a CEQ guideline suggests their consideration, as do our own regulations. See 40 C.F.R. § 1508.8(b) (CEQ guideline); 10 C.F.R. § 51.71 (NRC regulation). We do not think it logical or balanced for an FEIS to catalogue and weigh likely socioeconomic costs (in this case, for example, adverse effects on pedestrian traffic and local property values), but to ignore expected socioeconomic benefits.

The Board does not seriously contend otherwise, but felt bound by a series of reactor decisions issued by our Appeal Board in the 1970s that arguably disclaimed authority to consider secondary benefits under NEPA. See 44 NRC at 374 (citing cases). These cases apparently rested on the proposition that an agency ought not find that a nuclear power reactor's benefits outweigh its environmental costs on the sole ground that it would create local jobs and tax revenues. See Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), ALAB-179, 7 AEC 159, 177 (1974). But the Appeal Board at the same time recognized that "such factors can certainly be taken into account in weighing the potential extent of the socioeconomic impact which the plant might have upon local communities." Public Service Company of New Hampshire (Seabrook Station Units 1 and 2), ALAB-471, 7 NRC 477,

509 n.58 (1978). In recent years several NRC environmental impact statements for materials facilities have included discussion of socioeconomic benefits, particularly when a particular project also involves socioeconomic costs.[17] Insofar as some early Appeal Board cases might suggest a blanket prohibition against considering such benefits, we hereby overrule them.

In sum, we hold that a NEPA cost-benefit analysis, for either reactor or non-reactor facilities, appropriately may consider and balance socioeconomic effects, both negative and positive.

5. Environmental Justice.

We turn now to the portion of our decision that presents the thorniest and most sensitive issues, with profound implications of both a legal and a policy nature: environmental justice. Resting its decision largely on President Clinton's executive order on environmental justice, E.O. 12898, 3 C.F.R. 859 (1995), the Board in LBP-97-8 found the NRC staff's environmental review of the CEC inadequate on two grounds: (1) it failed to investigate thoroughly the possibility that "racial considerations" affected the facility's siting; and (2) it failed to account fully for the CEC's "disparate impact" on two nearby African-American communities. See 45 NRC at 390-412. The Board called for a new and complete NRC staff investigation into the racial discrimination issue and for a revised NEPA discussion of the CEC's disparate impact on the local communities. Id. We reverse the Board's requirement of an inquiry into racial discrimination in siting, but affirm its disparate impact ruling. "Disparate impact" analysis is our principal tool for advancing environmental justice under NEPA. The NRC's goal is to identify

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[17]For example, the cost-benefit analysis in the recent FEIS for the Crownpoint Uranium Solution Mining Project, NUREG-1508 (Feb. 1997) at 5-1 through 5-6, details expected effects on employment, income, and tax revenues. See also NUREG 1476, FEIS to Construct and Operate a Facility to Receive, Store, and Dispose of 11e.(2) Byproduct Material Near Clive, Utah (Aug. 1993) at 6-1; NUREG-0925, FEIS, Teton Uranium ISL Project (Aug. 1983) at 4-57.

and adequately weigh, or mitigate, effects on low income and minority communities that become apparent only by considering factors peculiar to those communities.

a. Racial Discrimination In Siting.

The Board decision reflects an earnest effort to apply and give meaning to the executive order in the case of the proposed LES facility. It declared, in words we fully endorse, that "racial discrimination [is] a persistent and enduring problem in American society." 45 NRC at 391. It therefore directed the NRC staff to conduct an "objective, thorough and professional investigation" of the site selection process that led to the choice of the LeSage site, an area with a population more than 97% African-American, to permit a determination whether "the selection process was tainted by racial bias." Id. The Board made no finding one way or the other on whether intentional racism in fact had tainted the decisional process, nor did it make clear the legal basis for its decision to order an investigation of possible racism in the selection of the site.

As the Board itself implicitly recognized, a search for evidence of racial motivation would likely prove an exercise in futility. See 45 NRC at 391 ("direct evidence of racial discrimination is seldom found"). We note, moreover, that in the present case, the testimony of CANT's expert, Dr. Robert Bullard, does not hinge on claims of a deliberate and conscious intent to discriminate against African-Americans in the site-selection process, but rather on the claim that the result of the process and the siting criteria were discriminatory. Special impacts of the CEC on the local African-American communities will be considered, to the extent that NEPA requires it, in the evaluation of the environmental and socioeconomic impacts of the siting decision in this case. (We will address below the nature of the evaluation of socioeconomic impacts. See section 5.b., infra.)

What the Board in this case seems to envision is a free-ranging NRC staff inquiry into

the motives of LES (and perhaps state and local) decisionmakers,[18] with only the broad instruction that the staff should "lift some rocks and look under them." 45 NRC at 391. With no clear legal basis or clearly discernible objective, the Board's approach cannot in our view be sustained, notwithstanding the worthy intentions that motivated it.

Under NEPA, agencies are required to consider not only strictly environmental impacts, but also social and economic impacts ancillary to them. But nothing in NEPA or in the cases interpreting it indicates that the statute is a tool for addressing problems of racial discrimination. Our view is fortified by the position taken by the agency with the greatest expertise in interpreting NEPA, the Council on Environmental Quality (CEQ). In recently-issued draft "Guidance for Considering Environmental Justice under NEPA," CEQ calls for a close NEPA examination of a proposed project's impacts on minority and disadvantaged communities, but neither states nor implies that if adverse impacts are found, an investigation into possible racial bias is the appropriate next step.

For these and other reasons, which we detail below, we reverse the Board's requirement of a further NRC staff investigation into racial discrimination.

1. The Board apparently felt bound by President Clinton's executive order, and by a former NRC Chairman's commitment to abide by that order, to inquire on its own into racial discrimination, so as to "give meaning" to the executive order. See 45 NRC at 374-76. But the Board's effort to enforce what it saw as a "non-discrimination directive" in the executive order (e.g, id. at 396) was misplaced. The executive order, by its own terms, established no new rights or remedies. See E.O. 12898, § 6-609. Its purpose was merely to "underscore certain

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[18] LES, with the assistance of the Louisiana Department of Environmental Quality, solicited community leaders across northern Louisiana to determine whether the communities had an interest in the CEC. In answer to the solicitation, "21 communities in 19 parishes with over 100 sites responded and expressed an interest in hosting the project." 45 NRC at 382.

provision[s] of existing law that can help ensure that all communities and persons across this Nation live in a safe and healthful environment" (emphasis added). See Memorandum for the Heads of All Departments and Agencies, 30 Weekly Comp. Pres. Doc. 279 (Feb. 14, 1994).[19]

The only "existing law" conceivably pertinent here is NEPA, a statute that centers on environmental impacts. The Board's proposed racial discrimination inquiry goes well beyond what NEPA has traditionally been interpreted to require. Despite nearly thirty years of extensive NEPA litigation on countless putative impacts and effects of federal actions we are unaware of a single judicial or agency decision that has invoked NEPA to consider a claim of racial discrimination. Moreover, the Board's approach is incompatible with the directives in the CEQ's recently-issued draft guidance for implementing the President's environmental justice executive order. The draft guidance focuses exclusively on identifying and adequately assessing the impacts of the proposed actions on minority populations, low-income populations, and Indian Tribes. It makes no mention of a NEPA-based inquiry into racial discrimination. An agency's environmental impact statement "must be evaluated for what it is, not for why the drafter may have made it so." City of Grapevine v. DOT, 17 F.3d 1502, 1507 (D.C. Cir. 1994), cert. denied, 513 U.S. 1043 (1994).

An agency inquiry into a license applicant's supposed discriminatory motives or acts would be far removed from NEPA's core interest: "the physical environment -- the world around

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[19] The Environmental Protection Agency (EPA) agrees with the view we express today that the executive order establishes no new legal rights or remedies. The EPA has held in a series of cases that the executive order grants the agency no independent authority to act, but is to be implemented within the constraints of EPA's existing enabling statutes and associated regulations. See In re Shintech Inc., Petition on Permit Nos. 2466-VO, 2467-VO, 2468-VO (EPA Sept. 10, 1997) (Clean Air Act); In re: Envotech, L.C., UIC Appeal Nos. 95-2 through 95-37 (EAB Feb. 15, 1996) (Underground Injection Control Act); and In re: Chemical Waste Management of Indiana, Inc., RCRA Appeal Nos. 95-2 & 95-3 (EAB June 29, 1995) (Resource Conservation and Recovery Act).

us, so to speak." Metropolitan Edison Co., 460 U.S. at 772. Were NEPA construed broadly to require a full examination of every conceivable aspect of federally-licensed projects, "available resources may be spread so thin that agencies are unable adequately to pursue protection of the physical environment and natural resources." Id. at 776.[20] See also Public Utilities Comm'n v. FERC, 900 F.2d at 282. NEPA gives agencies broad discretion to keep their inquiries within appropriate and manageable boundaries. See South Louisiana Environmental Council, Inc. v. Sand, 629 F.2d at 1011. "[T]here must be an end to the process somewhere." Providence Road Community Ass'n v. EPA, 683 F.2d 80, 83 (4th Cir. 1982).

Here, the Board would have the NRC staff engage in a highly complex racial bias study with no obvious stopping point. To perform what the Board requires -- an "objective, thorough, and professional investigation that looks beneath the surface" (45 NRC at 391) -- the staff (among other tasks) presumably would have to retrace the CEC's entire history and determine, largely through inference and indirect evidence, whether an invidious racial animus infected the siting process or motivated any of the numerous federal, state, local or corporate officials involved in it. The Board-ordered racial inquiry, in short, might in the end dwarf the core NEPA environmental inquiry. The effort would come with no guaranty of an accurate or useful result and would consume enormous NRC staff resources.

The Commission process would not end with the new NRC staff investigation. In this contested proceeding, resolving the racial discrimination issue fully and fairly, and completing the record, presumably would require the Commission to authorize a reopened discovery and

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[20] Similarly, devoting substantial resources to racial discrimination would divert funds away from the Commission's primary function under the Atomic Energy Act (AEA) to protect the public health and safety. Intervenors do not contend, nor do we find, that the allegations of discrimination here are related to the NRC's responsibilities pursuant to the AEA. We best serve the public good by devoting our efforts to areas where Congress has assigned us responsibilities and where our agency has developed expertise.

hearing process on the results of the staff study. This would lead ultimately to renewed Board proceedings to resolve what are likely to be disputed racial discrimination findings. In a nutshell, we would be embarking upon a second major litigation, possibly taking months or years to resolve, on an issue well outside NEPA's principal concern, the "physical environment," and far afield from the NRC's experience and expertise.[21]

2. The Board's contemplated free-ranging inquiry into the site selection process would go well beyond what the CEQ has stated is required of an agency considering a license application. The site screening process is used by a license applicant to identify sites that may meet the stated goals of the proposed action. It is not uncommon for only one of many possible sites to be deemed reasonable. See, e.g., Tongass Conservation Soc. v. Cheney, 924 F.2d at 1141-42. CEQ's implementing guidance provides that an EIS must "[r]igorously explore ... all reasonable alternatives." 40 C.F.R. §1502.14(a) (emphasis added). For those alternatives which have been eliminated from detailed study, the EIS is required merely to "briefly discuss" why they were ruled out. Id. Where (as here) "a federal agency is not the sponsor of a project, the federal government's consideration of alternatives may accord substantial weight to the preferences of the applicant and/or sponsor in the siting and design of the project." City of Grapevine v. DOT, 17 F.3d at 1506 (internal quotation marks omitted).

Here, the only site identified by the licensee as suiting its stated goals was the LeSage

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[21] Under a variety of state and national civil rights laws, local communities can (and frequently do) bring court actions challenging land use decisions alleged to be racially discriminatory. See, e.g., Chester Residents Concerned for Quality Living v. Seif, 132 F.3d 925 (3d Cir. 1997); R.I.S.E. v. Kay, 977 F.2d 573 (4th Cir. 1992), aff'g 768 F.Supp 1144 (E.D. Va. 1991); East-Bibb Twiggs Neighborhood Ass'n v. Macon Bibb Planning & Zoning Comm'n, 896 F.2d 1264 (11th Cir. 1989); Dailey v. City of Lawton, 425 F.2d 1037 (10th Cir. 1970); Bean v. Southwestern Waste Management Corp., 482 F.Supp. 673 (S.D. Tex. 1979), aff'd mem., 782 F.2d 1038 (5th Cir. 1986). We are aware of no lawsuit of this type, however, that invokes NEPA as a cause of action.

site, and as a result, it was the only site rigorously examined by the NRC staff in the FEIS. See FEIS at page 2-3. In accordance with NEPA, the staff discussed the process used by LES to select a suitable site, and found it reasonable. Though required to do no more than "briefly discuss" why other sites were not chosen, the staff in this case provided a detailed discussion, occupying 17 pages in the FEIS. See FEIS at pages 2-3 through 2-20. It identified more than twenty-five facility and site characteristics used by LES. The Board did not find, and CANT did not contend, that the criteria discussed in the FEIS showed overt signs of racism. Nor did CANT "offer tangible evidence" of an "obviously superior site" sufficient to call for a more thorough site-by-site NEPA review. See Roosevelt Campobello Internat'l Park Comm'n v. EPA, 684 F.2d 1041, 1047 (1st Cir. 1982).

Exploring whether the LES siting criteria might perpetuate institutional racism, as CANT has contended, or might have been manipulated purposefully to discriminate, as the Board suggests, would require the NRC staff to do much more than "briefly discuss" the reasons for eliminating the many other sites (79) initially considered. We are aware of no NEPA principle, and the Board cites none, requiring an elaborate comparative site study to resolve allegations of racial discrimination.

3. The Board's decision to address the racial discrimination issue not only stretches NEPA to its breaking point, but also is questionable from a procedural standpoint. CANT's original (and never amended) environmental justice contention (J.9) relied on NEPA and pointed simply to LES's failure "to avoid or mitigate the disparate impact of the proposed plant on this minority community" (emphasis added). See 45 NRC at 372-73. It stressed the pernicious environmental effects of society-wide institutional racism. Similarly, pre-hearing discovery centered on the CEC's allegedly disproportionate environmental and socioeconomic effects, not on racial discrimination as such. CANT's pleadings before the Board developed no

comprehensive legal theory of racial discrimination and did not advert to the seminal Supreme Court cases establishing the form and quality of proof necessary to sustain such a charge.[22]

As the Board quite correctly noted, racial discrimination has proved "a persistent and enduring problem in American society," "is rarely, if ever, admitted," and is "difficult to ferret out." See 45 NRC at 391. For these reasons, Congress and the Supreme Court have crafted a carefully-woven system of legal remedies, and modes of proof and rebuttal, for the fair and equitable resolution of racial discrimination claims. See note 22, supra. Here, the Board gleaned from the record various pieces of evidence that it viewed as creating an "inference" of racial discrimination (e.g., 45 NRC at 494, 395), but did not consider or even mention the customary allocation of burdens or standards of proof for such claims. No effort was made prior to the hearing to direct the parties' attention to the issue or to the established means for adjudicating it. It therefore is hardly surprising that the evidence relied on by the Board entered the record "largely unrebutted or ineffectively rebutted." See 45 NRC at 391.

Under these circumstances, we would not sustain the Board's decisional process, even if (contrary to our view) NEPA did countenance an inquiry into racial discrimination in siting. Agency adjudications require advance notice of claims and a reasonable opportunity to rebut

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[22] The Board appeared most concerned with the possibility of racially-motivated decisions, an area where the Supreme Court frequently has spoken. See, e.g., St. Mary's Honor Center v. Hicks, 509 U.S. 502 (1993); Village of Arlington Heights v. Metropolitan Housing Development, 429 U.S. 252 (1977); Washington v. Davis, 426 U.S. 229 (1976). Intentional racial discrimination requires a showing that the decisionmaker took action "at least in part 'because of,' not merely 'in spite of,' its adverse effects on an identifiable group." Personnel Administrator of Mass. v. Feeney, 442 U.S. 256, 279 (1979). In some statutory settings, the Supreme Court has considered a different racial discrimination question: whether seemingly neutral selection criteria may have discriminatory effects. See, e.g., Griggs v. Duke Power Co., 401 U.S. 424 (1971). Again, however, the Court has carefully set out the means for evaluating such claims (concentrating largely on the necessity for the particular selection criteria). See id. Here, whether viewed from the perspective of discriminatory motives or from the perspective of discriminatory effects, neither the Board nor CANT made any pretense of meeting the Supreme Court standards.

them. See, e.g., Brock v. Roadway Express, Inc., 481 U.S. 252, 264-65 (1987) (plurality opinion of Marshall, J.); Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, 435 U.S. 519, 553-54 (1978). Our own longstanding practice requires adjudicatory boards to adhere to the terms of admitted contentions, which in this case focused on mitigating impacts, not on uncovering racial discrimination. See, e.g., Public Service Co. of New Hampshire (Seabrook Station, Units 1 & 2), ALAB-899, 28 NRC 93, 97 & n.11 (1988), petition for review denied sub nom. Commonwealth of Massachusetts v. NRC, 924 F.2d 311, 332-33 (D.C. Cir.), cert. denied, 502 U.S. 899 (1991). We think that the Board decision here, insofar as it addressed racial discrimination, departs from these hallmarks of fair decisionmaking.[23]

4. *Our decision today does not reduce our commitment to the environmental justice* goals set out in President Clinton's executive order. We hold only that NEPA is not a civil rights law calling for full scale racial discrimination litigation in NRC licensing proceedings. We are aware from the record of this proceeding that the community surrounding the proposed CEC is

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[23] The Board justified its racial discrimination inquiry, in part, as a means "to avoid the constitutional ramifications of the agency becoming a participant in any discriminatory conduct through its grant of a license." 45 NRC at 391. "However, it is well established that a licensing relationship is insufficient in itself to give rise to wholesale governmental responsibility for the actions taken by a private licensee." Gannett Satellite Information Network, Inc. v. Berger, 894 F.2d 61, 67 (3d Cir. 1990), citing Moose Lodge No. 107 v. Irvis, 407 U.S. 163 (1972). Under Washington v. Davis, supra, and its progeny, a federal agency must itself engage in intentional racial discrimination to trigger constitutional responsibility.

A more plausible reason, perhaps, for approving the Board's requirement of a further investigation into racial discrimination is to ensure a full review of the accuracy of the NRC staff's own FEIS, which found "no specific evidence that racial considerations were a factor" in the CEC siting process. But the Board itself found no direct evidence of racial discrimination. See, e.g., 45 NRC at 392, 394, 395, 396. The Board explicitly declined to "make specific findings on the current record that racial discrimination did or did not influence the site selection process." Id. at 391. Thus, in our view, the FEIS's "no specific evidence" statement does not demand reopening the agency's NEPA review for a new investigation into racial discrimination and a new round of litigation on it.

97% African-American and lives in poverty. The Board's decision outlines the unique burdens faced by this community: e.g., 31% of the population have no motor vehicles, over 10% of the houses lack complete plumbing, and 58% of the population lacks a high school education. See 45 NRC at 371. These communities also face housing barriers that white residents in Claiborne Parish do not. Id. at 409-10. We are confident that the Board, having identified these facts in the first place, will remain cognizant of them when it finally reviews the staff's discussion of the impacts of the CEC, as well as mitigation measures, and arrives at the ultimate decision on the cost/benefit balance.

b. Disparate Impact.

We turn now to an issue that lies close to the heart of NEPA: whether the CEC will have significant special impacts on the two nearby, overwhelmingly African-American, communities of Center Springs and Forest Grove. As President Clinton's executive order on environmental justice reminds us, adverse impacts that fall heavily on minority and impoverished citizens call for particularly close scrutiny.

The Board determined that the FEIS adequately considered all but two of the claimed local impacts: the need to relocate Parish Road 39 and diminution of property values. See 45 NRC at 397-411. As to the former, it found that the discussion of relocating the road did not consider the interference with pedestrian traffic between Center Springs and Forest Grove. The Board also found that the FEIS failed to consider particularized adverse effects on property values in Forest Grove and Center Springs. We affirm the Board's findings.

I. Relocation of Parish Road 39

The FEIS states that closing and relocating Parish Road 39 will increase the length of the road between the two communities by .38 miles. See 45 NRC at 403. The FEIS found that this extra distance will increase driving time and therefore "inconvenience" community residents

traveling by car between the two communities. See id. The FEIS does not mention the impact that the increased distance will have on pedestrians.

Despite LES's argument to the contrary, the record supports the Board's finding that Parish Road 39 is frequently used by pedestrians who would be adversely impacted by its relocation. CANT's expert witness, Dr. Bullard, testified that he interviewed residents of Forest Grove and Center Springs and was informed that Parish Road 39 is a vital and frequently used pedestrian link between the two communities. See 45 NRC at 405-6. The Board found Dr. Bullard's testimony on this point to be supported by Bureau of Census statistics and unrebutted by other parties. Id. at 406. The Board pointed out that many residents of the two impoverished communities have no choice but to travel by foot. Id. Further, some of the residents whom Dr. Bullard interviewed are elderly.[24] In these circumstances, the Board reasonably found that adding an extra .38 miles each way to a pedestrian commute would be more than a mere inconvenience, especially for elderly or infirm residents. Id.

The NRC staff and LES argue that the Board erred in even considering the issue of impacts on pedestrian traffic from relocating the existing Parish Road 39. We disagree. From the outset of this proceeding CANT has contended that the communities of Forest Grove and Center Springs rely on Parish Road 39 and that closing the existing road would result in larger impacts on these communities than are reflected in the ER and FEIS. Relocation of the road arose as an issue only because the road as it exists today would be closed if the CEC were built. Thus, the impacts from relocation may fairly be said to be within the impacts of closing the existing road, and within the terms of CANT's Contention J.9, which alleged impacts on "families who use the road" and listed numerous joint community activities including "sports

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[24] See Transcript of Hearing (March 16, 1995) at 860 (Dr. Bullard remarked that he interviewed two community residents who were 75 and 84 years old).

related activities that involve children living in both communities, and church services that are divided between the two communities." See CANT's Contentions on the Construction Permit/Operating License Application for the CEC (October 3, 1991) at 40-41. Although CANT never stated or implied that all travel between the two communities would be by car, the FEIS inexplicably focused exclusively on car traffic. Under these circumstances, the Board sensibly concluded that the FEIS should also consider the impacts on pedestrian travelers.

ii. **Impact on Property Values**

We also agree with the Board that the NRC staff should revise the FEIS to analyze local property value effects more thoroughly.

The current FEIS gives only cursory attention to the property values issue. It recognizes that "to the extent the CEC affects the environment, those living closest will be the most affected," FEIS at 4-35, and that the CEC will have "some negative" impact on property values. FEIS at 4-86. But it does not specify where, why, or to what extent the impacts on property values would be likely felt. Because Forest Grove and Center Springs are adjacent to the CEC's proposed site, the negative impact on property values predicted by the staff would presumably fall heaviest on these two communities. CANT's expert witness, Dr. Bullard, whom the Board found "both credible and convincing" (45 NRC at 410), presented what the Board characterized as "a reasoned, persuasive, and unchallenged explanation why the CEC will negatively affect property values in these minority communities." Id. In these circumstances, we defer to the Board's view that the NRC staff should explain its conclusion in the current FEIS that property values will be negatively impacted.

To be sure, the Board also found that two or three parcels of property near the CEC may increase in value, as possible sites for new business ventures supporting LES (e.g., food service and equipment vendors). It found, however, that the new business ventures would not

create an overall increase in property values in the adjacent communities. See 45 NRC at 410-11. We believe the Board's finding was reasonable. Moreover, since Forest Grove and Center Springs receive almost no parish services, their property values would not necessarily benefit from the influx of new tax money into the parish from the CEC. See id. at 409-10. In short, nothing we have identified in the record undermines the Board's finding that the CEC would likely affect property values in Forest Grove and Center Springs adversely.

LES argues on appeal that property values in Center Springs and Forest Grove may actually increase. This argument is wholly untenable. In support of its position, LES points to testimony by its experts that the value of property adjacent to certain nuclear power plants had increased after siting of the facility. But the sites of the two nuclear power plants LES offered as examples could not be more different in terms of demographics from Forest Grove and Center Springs. The allegedly analogous nuclear power plants lie adjacent to prestigious resort communities. See LBP-97-8, 45 NRC at 411. Forest Grove and Center Springs, on the other hand, "receive almost no parish services, ... and are inhabited by some of the most economically disadvantaged people in the United States." Id. at 409. Factors that may tend to increase the value of property near nuclear facilities, such as increased demand for homes by migrating employees, do not apply to Forest Grove and Center Springs, because new employees probably would choose to live in communities with more amenities.[25]

LES and the NRC staff argue on appeal that the Board never should have inquired into property values, because earlier in the proceeding the Board had turned down, for lack of "facts

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[25] See FEIS at 4-19 (During construction, "the ultimate residence of incoming migrants within the 24-parish region [surrounding the CEC] is likely to depend on amenities. A review of the amenities in the region suggests that workers are likely to migrate to one of the large parishes and commute to Claiborne Parish"); FEIS at 4-34 (during operation "most immigrants are expected to reside throughout the area, not just Claiborne Parish").

or expert opinion," property value as a "basis" for CANT's general NEPA contention (Contention J). See LBP-91-41, 34 NRC 332, 352 (1991). While the Board's unexplained decision to allow CANT to revive and litigate its previously rejected property value claim was questionable at best, we do not set aside the Board's decision to require a fresh analysis of adverse property value effects.[26] The Commission's hearing order gave the Board independent responsibility to determine whether the NRC staff's NEPA review was "adequate." See 56 Fed. Reg. 23,310 (May 21, 1991). Here, the FEIS was issued well after the Board's original property values ruling. As discussed above, the FEIS's property value discussion is deficient on its face. It offers merely a conclusory statement on "some negative" impact on property values, without explanation or analysis. In these circumstances, it was no abuse of discretion for the Board to require the NRC staff to take the simple step of adding a more thoroughgoing analysis to the FEIS.[27]

3. **Mitigating Impacts**

The Board directed the NRC staff to consider whether actions can be taken to mitigate

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[26] Consideration of the CEC's negative impacts on local property values does not conflict with NRC case law or with Metropolitan Edison Co. v. People Against Nuclear Energy, supra. There, the Supreme Court upheld the NRC's position that NEPA did not require consideration of the psychological effects resulting from fear of resuming operation at the Three Mile Island Unit 1 nuclear power plant. Here, the Board decision does not turn on psychological effects stemming from a fear of nuclear power. According to the Board, property devaluation will flow directly from radiological and environmental impacts associated with a "heavy industrial facility nearby, making them [the communities of Forest Grove and Center Springs] even more undesirable." See 45 NRC at 409. The FEIS itself recognized impacts such as "possible increased crime, changes in quality of life" and "minimal" radiological and chemical impacts. See FEIS at 4-86.

[27] The NRC staff need not prepare an elaborate or lengthy analysis. Cf. Tongass Conservation Society v. Cheney, 924 F.2d at 1143-44 (reasonable for the Navy to refuse to conduct survey to determine the seriousness of the effects of a submarine testing range on local tourism where EIS discussed likely effects); Enos v. Marsh, 769 F.2d 1363, 1373 (9th Cir. 1985) (extended discussion of secondary impacts not necessary).

the impacts of relocating Parish Road 39. See 45 NRC at 406. We concur in that direction, and also direct the NRC staff to consider whether actions can be taken to mitigate the impacts on property values. Dr. Bullard describes roads in Forest Grove and Center Springs as generally "either unpaved or poorly maintained." See Bullard prefiled testimony, dated Feb. 24, 1995, at 18. There may well be simple and relatively inexpensive measures that could be taken to improve existing driving and walking conditions (e.g., improving current roads and footpaths). This in turn could mitigate property devaluation in these communities by improving overall living conditions. It is also possible that enhancing other community amenities or addressing a general housing concern may be appropriate to mitigate further any devaluation in property values. The FEIS must be revised to include a discussion of possible mitigating measures. We encourage LES and the NRC staff to discuss these matters with CANT in an attempt to put these issues to rest prior to the staff completing the revised FEIS.

CONCLUSION

For the foregoing reasons, the Board decisions in LBP-96-25 and LBP-97-8 are affirmed in part, reversed in part, and remanded for further proceedings consistent with this opinion.

Chairman Jackson disapproved section 5.a. of the Commission order, titled Racial Discrimination in Siting. She would have affirmed in part and reversed in part the Board's requirement of a further NRC staff investigation into the CEC's siting. In light of the alleged irregularities, gaps, and inconsistencies in the siting process, it was her preference that the NRC staff should further investigate the siting process, without focusing on LES's alleged intentional racial motives, to ensure that the siting criteria were reasonable and were applied equitably.

IT IS SO ORDERED.

For the Commission

John C. Hoyle
Secretary of the Commission

Dated at Rockville, Maryland,
this ___ day of April, 1998.