

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

**ATOMIC SAFETY AND LICENSING BOARD PANEL
BEFORE THE LICENSING BOARD**

In the Matter of)	
)	
Tennessee Valley Authority)	Docket Nos. 52-014, 52-015
)	
Bellefonte Nuclear Power Plant)	ASLBP No. 08-864-02-COL-BD01
Units 3 and 4)	September 11, 2008
)	

**PETITIONERS' LATE-FILED CONTENTION REGARDING
TENNESSEE VALLEY AUTHORITY'S FAILURE TO COMPLY WITH
THE NATIONAL ENVIRONMENTAL POLICY ACT**

In accordance with 10 CFR § 2.309(c), the Blue Ridge Environmental Defense League, its chapter Bellefonte Efficiency and Sustainability Team and the Southern Alliance for Clean Energy ("Petitioners") hereby submit a late-filed contention regarding the failure of the application for a combined construction and operation license for Bellefonte Units 3 and 4 to comply with the National Environmental Policy Act. As petitioners will demonstrate below, this contention satisfies the balance of the Nuclear Regulatory Commission's criteria for late-filed contentions; therefore, petitioners respectfully request that the contention be admitted.

CONTENTION 20: FAILURE OF TVA TO COMPLY WITH THE NATIONAL ENVIRONMENTAL POLICY ACT

TVA's application for a combined construction and operation license for the Bellefonte site fails to include the potential public safety and environmental impacts of two additional nuclear reactors designated Units 1 and 2. TVA's August 26th letter¹ requesting reinstatement of NRC construction permits for Units 1 and 2 is an improper attempt to circumvent the requirements of the National Environmental Policy Act. .

BACKGROUND

An application for a combined construction and operation license ("COLA") for Bellefonte Units 3 and 4 was filed by the Tennessee Valley Authority ("TVA") on October 30, 2007. On June 6, 2008, Petitioners filed their petition to intervene in Tennessee Valley Authority's request for a construction and operation license at Bellefonte Nuclear Power Plant Units 3 and 4. On July 30, 2008, the Atomic Safety and Licensing Board held an initial prehearing conference in Scottsboro, Alabama for the purpose of hearing oral arguments on petitioners' proposed contentions one through nineteen in the above matter. On August 26, 2008, the Tennessee Valley Authority submitted to the Nuclear Regulatory Commission a request to reinstate construction permits CPPR-122 and CPPR-123 for Bellefonte Nuclear Plant Units 1 and 2 ("TVA Request"). Previously, on September 4, 2006, the Nuclear Regulatory Commission had granted the Tennessee Valley Authority's request to withdraw construction permits for Bellefonte Units 1 and 2.

¹ Ashok S. Bhatnagar, Senior Vice President Nuclear Generation Development and Construction, TVA to Eric J. Leeds, US Nuclear Regulatory Commission, Re: Tennessee Valley Authority (TVA)—Bellefonte Nuclear Plant Units 1 and 2—Request to Reinstate Construction Permits CPPR-122 (Unit 1) and CPPR-123 (Unit 2), August 26, 2008

DISCUSSION

The issues regarding environmental impacts fall into two general categories. The COLA environmental report 1) forms the basis for the Commission's licensing decision and 2) provides the basis for the Commission's environmental impacts statement.

Therefore, Petitioner's proposed Contention Twenty asks the ASLB to consider: (1) the failure of the ER to discuss and analyze four nuclear reactors and (2) the failure of the ER to provide critical information for the NRC's environmental impact statement ("EIS").

TVA's Environmental Report

TVA's announcement of the re-instatement of Bellefonte Units 1 and 2 following on the heels of the licensing request for Bellefonte Units 3 and 4 was widely greeted as a possibility of building four units rather than two at the Bellefonte site. A perusal of the public statements by TVA officials and media reports support this possibility.² The COLA ER does not contain any discussion of environmental impact or options regarding Bellefonte Units 1 and 2, therefore it is fatally deficient. Further, as presented *infra*, the

² Contemporaneous news stories published at the time of TVA's request reflect the view that four reactors are under consideration:

- "TVA is also pursuing a partnership with private companies and others to possibly build two other reactors at the site." *Tennessean*, August 28, 2008
- "Mr. McCollum said that it makes good business sense to look at existing TVA assets at Bellefonte and evaluate them along with other power supply alternatives." *Chattanooga*, August 27, 2008
- "Tennessee Valley Authority has requested that the US Nuclear Regulatory Commission reinstates the construction permits for two unfinished reactors at its Bellefonte site in Alabama. It continues to pursue regulatory approval for two further units at the site." *World Nuclear News*, August 29, 2008
- "If TVA were to finish the two original reactors and build the two new nuclear units, the agency would spend up to \$20 billion at Bellefonte over the next two decades...." *Chattanooga Times Free Press*, August 21, 2008
- "'First and foremost we do feel like we need baseload generation about every 5 to 7 years,' [Bhatnagar] said." *Knoxville News Sentinel*, August 28, 2008
- "4 Bellefonte reactors possible" *The Huntsville Times* headline, August 2, 2008

deficient ER does not provide the NRC with sufficient information upon which to base its EIS.

An application for a combined construction and operating license (“COLA”) must include an environmental report. *See* 10 CFR § 51.45, 10 CFR § 51.50 and 10 CFR § 2.101. TVA submitted a COLA for a Class 103 license for a commercial nuclear power facility. *See* 10 CFR § 50.22. Pursuant to 10 CFR § 51.50, the COLA must include “a separate document, entitled ‘Applicant's Environmental Report—Combined License Stage.’ Each environmental report shall contain the information specified in §§ 51.45, 51.51, and 51.52, as modified in this paragraph.”³ Pursuant to 10 CFR § 51.45, the environmental report must include, *inter alia*, a discussion of alternatives sufficient to aid the Commission to meet requirements of the National Environmental Policy Act (“NEPA”); specifically, to “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.”⁴ Pursuant to 10 CFR § 51.51, “every environmental report prepared for the...combined license stage of a light-water-cooled nuclear power reactor...shall take Table S-3, Table of Uranium Fuel Cycle Environmental Data, as the basis for evaluating the contribution of the environmental effects of uranium mining and milling, the production of uranium hexafluoride, isotopic enrichment, fuel fabrication, reprocessing of irradiated fuel, transportation of radioactive materials and management of low-level wastes and high-level wastes related to uranium

³ 10 CFR § 51.50(c) Combined license stage

⁴ NEPA section 102(2)(E)

fuel cycle activities to the environmental costs of licensing the nuclear power reactor.”⁵

Pursuant to 10 CFR § 51.52, a COLA “shall contain a statement concerning transportation of fuel and radioactive wastes to and from the reactor.”⁶ Pursuant to 10 CFR § 2.101, a COLA and its associated environmental report may be submitted in two parts, but the two parts must be submitted within six months of each other.⁷

The COLA provided by TVA describes only the impacts of prospective Units 3 and 4 at the Bellefonte site. Although the Bellefonte location is also the site of Units 1 and 2 and the COLA refers to certain components of Units 1 and 2, the COLA describes and analyzes only the impacts of Units 3 and 4, omitting impacts from Units 1 and 2. TVA states that it will provide additional information about Units 1 and 2 in Revision 1 to the COLA Environmental Report in October 2008. *See* TVA Request at 7. Accession to the TVA Request by the NRC would prevent due consideration of the environmental factors relevant to Units 3 and 4.

National Environmental Policy Act (NEPA)

Regulatory actions which require an environmental impact statement (“EIS”) include major federal actions, specifically, issuance of “a combined license under part 52 of this chapter.” *See* 10 CFR § 51.20(b)(2). NEPA requires that before undertaking a major federal action, an agency must take a “hard look” at the environmental

⁵ 10 CFR § 51.51(a)

⁶ 10 CFR § 51.52 Environmental effects of transportation of fuel and waste--Table S-4

⁷ 10 CFR § 2.101(a)(5)

consequences of the action.⁸ Where an agency has not yet taken the major federal action, it must consider “new and significant information” that bears on the environmental impacts of the proposed action.⁹ Also, federal regulations require supplementation where the proposed action has not been completed, if: “(1) there are substantial changes in the proposed action that are relevant to environmental concerns; or (2) there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” 10 C.F.R. § 51.92(a).

TVA’s request to reinstate raises the issues of omission of cumulative impacts and segmentation of NEPA, both of which are prohibited by law. TVA asserts that its request does not affect its plans for Units 3 and 4, adding, “Nor should TVA’s request for NRC’s reinstatement of the Construction Permits be construed as a determination that Bellefonte Units 1 and 2 represent a viable generating alternative.” TVA Request at 7. Here TVA cites 40 CFR 1502.14 in support of this assertion. However, the regulation cited requires a *rigorous* exploration of alternatives and the side-by-side presentation of the options to decision makers and the public.¹⁰ The TVA Request, if approved, would hinder the required hard look at environmental impacts and alternatives required by NEPA.

⁸ *Baltimore Gas and Elec. Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 97 (1983).

⁹ *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 371-72 (1989)

¹⁰ 40 CFR 1502.14 Alternatives including the proposed action.

This section is the heart of the environmental impact statement. Based on the information and analysis presented in the sections on the Affected Environment (Sec. 1502.15) and the Environmental Consequences (Sec. 1502.16), it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public. In this section agencies shall:

(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.

Moreover, CEQ regulations call for an early incorporation and disposition of environmental factors relevant to the project.¹¹

Segmentation

Federal regulations require the Commission to develop an environmental impact statement before approving a license to operate and construct a power plant. 10 CFR § 51.20. It is well settled that the requirements of NEPA may not be avoided by segmentation of a project.¹² Segmentation arises when the comprehensive environmental impact of a project is not given full consideration or that analysis of the impact is done after permitting agency decisions are made and the project is underway.¹³

The principal criteria for the determination segmentation are whether the parts of a project are interdependent, the original intent and whether the parts may be considered alone. Petitioners believe the segmentation criteria are met. First, Units 1, 2, 3 and 4 are all located at the Bellefonte site. Major plant components would be shared by the four units. Second, in 2005 TVA and NuStart Energy Development determined that the Bellefonte site could serve as a location for a new nuclear plant licensed under the provisions of 10 CFR Part 52. *See* TVA Request at 4. Subsequently, TVA requested withdrawal of permits for Units 1 and 2. *Id.* Throughout, TVA maintained the Bellefonte site's environmental permits, including NPDES, RCRA and Clean Air Act. Third, the

¹¹ 1501.2 Apply NEPA early in the process. Agencies shall integrate the NEPA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts

¹² *River v. Richmond Metropolitan Authority*, 481 F.2d 1280 (4th Cir. 1973)

¹³ Daniel R. Mandelker, *NEPA Law and Litigation*, 9-25 (2nd ed. 2004).

impacts of components which would be shared—water intake and discharge facilities, transmission switchyards and cooling towers—may not be considered apart or alone with respect to Units 1-2 and Units 3-4.

Case law is clear regarding the requirement to complete an EIS before final approval is given for a project. Otherwise the description of the project, the analysis of its impacts and consideration of alternatives become a meaningless paper exercise.

We are committed to the proposition that when a major federal action is undertaken, no part may be constructed without an EIS. In *Arlington Coalition on Transportation v. Volpe*, 458 F.2d 1323 (4 Cir.1972), where we concluded that an EIS was required before a road known as Arlington I-66 could be located and constructed, we considered whether construction which had already begun could continue pending completion of the EIS. We held that it could not, observing that when the Secretary of Transportation acted on the completed EIS and determined the location of the road, he could consider previous investment: "[i]f investment in the proposed route were to continue prior to and during the Secretary's consideration of the environmental report, the options open to the Secretary would diminish, and at some point his consideration would become a meaningless formality." *Id.* at 1333. For this reason we held that an injunction against further construction should issue until the Secretary took final action on the EIS. *Id.* at 1334.¹⁴

In a letter to the ASLB judges,¹⁵ counsel for TVA states that, "The combined license (COL) application for Bellefonte Units 3 and 4 states that the units will be located at the site of Bellefonte Units 1 and 2." Co-location of Units 1 and 2 with Units 3 and 4 indicates interdependence. The four units would share some systems, structures and components. The letter also states, "TVA is not planning to revise its COL application for Units 3 and 4 to address the impacts of construction and operation of Unites 1 and 2."

Counsel for TVA cites Commission decision CLI-02-14 which holds that a license

¹⁴ 808 F.2d 1039, 25 ERC 1571, 17 *Env'tl. L. Rep.* 20499, *MARYLAND CONSERVATION COUNCIL, INC. v. Charles GILCHRIST, as County Executive of Montgomery County*, No. 86-3967, United States Court of Appeals, Fourth Circuit, 1986, 12

¹⁵ Letter from Steven P. Franz to G. Paul Bollwerk, III, Re: Notification of Development related to Bellefonte, August 27, 2008.

application need only consider other projects for which a proposal has been submitted. However, Petitioners note that TVA did submit an application to construct and operate Units 1 and 2 at the Bellefonte site on May 14, 1973. In the letter to the ASLB, TVA's counsel continues," [I]f TVA were to determine that completion of Units 1 and 2 represents a viable...alternative, TVA would further amend the COL application for Units 3 and 4." The reinstatement of the construction permits for Bellefonte Units 1 and 2 next to Units 3 and 4 is the very situation contemplated in *Maryland Conservation Council v. Gilchrist*. Approval by NRC of TVA's request to reinstate construction permits for Units 1 and 2 would render the NEPA process a mere formality done after the fact.

Cumulative Impacts

Cumulative actions are those which have significantly greater impacts when viewed with other actions or which have increasing effect caused by successive additions. Council of Environmental Quality Regulations Implementing NEPA¹⁶ provide that reasonably foreseeable future actions are to be considered in a cumulative impact analysis. A survey of relevant case law indicates that many government agency decisions successfully challenged for failure to consider cumulative impacts were won because the agency either left out critically important actions which were reasonably foreseeable or

¹⁶ **Sec. 1508.7 Cumulative impact.**

"Cumulative impact" is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

included no cumulative impact analysis at all.¹⁷ In a case involving an oil refinery dock, the court rejected the argument that market forces would be the proximate cause of greater impacts, rather than the adjacent dock project.¹⁸ *Ocean Advocates v. US Army Corps of Engineers*, 2004, 361 F.3d 1108. The TVA Request has several references to outstanding and pending economic decisions which depend on market forces.¹⁹ As demonstrated *supra*, the construction of Units 1 and 2 at the Bellefonte site is reasonably foreseeable and therefore must be included in the NRC's environmental documents for Units 3 and 4.

NON-TIMELY FILING

Construction and operation of nuclear reactors at Bellefonte would (1) present a tangible and particular harm to the health and well-being of our members living within 50 miles of the site, (2) the NRC has initiated proceedings for a combined license, the

¹⁷ *Recent Trends in Cumulative Impact Case Law*, Michael D. Smith, PhD, paper presented to the National Association of Environmental Professionals Annual Conference, April 2005

¹⁸ In *Ocean Advocates v. U.S. Army Corps of Engineers* (2004; 361 F.3d 1108) plaintiffs challenged the Corps' EA analyzing a permit application from British Petroleum to build an addition to an existing oil refinery dock in Cherry Point, Washington. The Court ruled that cumulative impacts analysis in the EA was inadequate because it did not properly consider other reasonably foreseeable future actions. The Corps concluded that any increase in crude oil tanker traffic would result from "market forces," not the dock addition or other projects. The Court ruled this conclusion was incorrect since it relied solely on a letter from British Petroleum "claiming that it had many options other than sea travel for transporting crude and refined oil to and from the refinery." According to the Court: "This finding fails to convince us that the Corps took a 'hard look' at the cumulative effects of the project, excludes the requisite quantified or detailed information necessary to support this finding, and neglects to explain why the Corps could not provide better or more specific information." *Id.*

¹⁹ Among the "market forces" justifications included in the TVA Request dated August 26, 2008: "One of the major factors taken into account in examining future use of the Bellefonte site was the estimated cost per kilowatt of installed capacity associated with the various advanced reactor designs when compared to the estimated costs of completing Units 1 and 2," "TVA decided that the Bellefonte Unit 1 and 2 Project could no longer be economically justified." and "TVA's Board would take into account the full range of...considerations associated with such a project, including the associated cost and need for power considerations."

granting of which would directly affect our members, and (3) accession to the TVA Request by the NRC would delay due consideration of the environmental factors relevant to Units 3 and 4 until after the decision by the ASLB on Petitioners' request to intervene.

Late-filed contentions must meet requirements listed in 10 CFR § 2.309(c) Non-timely filings. The following discussion demonstrates Petitioners meet the requirements.

(i) Good cause, if any, for the failure to file on time: The letter from TVA to the NRC requesting reinstatement of construction permits for Units 1 and 2 is dated August 26, 2008; it is accompanied by a cover letter dated August 27, 2008 from TVA counsel Steven P. Franz of Morgan Lewis. In his letter, Mr. Franz states, "The purpose of this letter is to notify the Licensing Board and the parties of a *recent development* related to Bellefonte." (emphasis added) These are the first official communications regarding the new state of affairs at Bellefonte and this is plainly stated in the letter to the ASLB.

(ii) The nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding: Petitioners filed a request to intervene in the Bellefonte proceedings on June 6, 2008. Although the ASLB has yet to make its ruling on the request, Petitioners standing in this matter is uncontested by both TVA and NRC Staff.

(iii) The nature and extent of the requestor's/petitioner's property, financial or other interest in the proceeding: As demonstrated by the 45 declarations submitted on June 6th, 2001, Petitioners' members live within 50 miles of the Bellefonte site.

(iv) The possible effect of any order that may be entered in the proceeding on the requestor's/petitioner's interest: The possible effects include the submission of a new COLA Environmental Report which would either account for four reactors at TVA's

Bellefonte site or a presentation of the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the Commission and the public.

(v) The availability of other means whereby the requestor's/petitioner's interest will be protected: The Commission is the sole agency with the power to approve, to deny or to modify a license to construct and operate a commercial nuclear power plant. The NRC has approved the TVA COLA for docketing, an ASLB Panel has been appointed and a preliminary hearing has been held. The admission of this late-filed contention would be the most efficient means of considering this matter.

(vi) The extent to which the requestor's/petitioner's interests will be represented by existing parties: Petitioners' interests will not be represented by other parties. TVA's letter of request indicates that its principal interest in this matter is reinstatement of construction permits for Bellefonte Units 1 and 2. As stated by counsel, "TVA is not planning to revise its COL application for Units 3 and 4 to address the impacts of construction and operation of Units 1 and 2."²⁰

(vii) The extent to which the requestor's/petitioner's participation will broaden the issues or delay the proceeding: TVA's request to reinstate Units 1 and 2 has broadened the issues of public safety and environmental impact. Petitioners' Contention 20 itself would not unnecessarily delay the extant proceeding on the COLA for Bellefonte Units 3 and 4. An ASLB Panel has already been appointed; Petitioners have raised 19 other contentions; a ruling has not yet been issued.

²⁰ Letter from Steven P Franz to the Atomic Safety and Licensing Board, Re: Notification of Developments related to Bellefonte, August 27, 2008

(viii) The extent to which the requestor's/petitioner's participation may reasonably be expected to assist in developing a sound record: Without due consideration of the issues raised in Contention 20, the Commission's record on Bellefonte Units 1 and 2 and Bellefonte Units 3 and 4 would not be comprehensive. The potential co-location of four reactor units would be the largest nuclear power station in the United States. The reinstatement of a construction permit for Bellefonte Units 1 and 2 and a parallel but unrelated proceeding on the COLA for Units 2 and 4 would not account for the combined impacts of four units.

CONCLUSION

For the foregoing reasons, Petitioners' late-filed contention should be admitted.

Respectfully submitted,

A handwritten signature in black ink that reads "Louis A. Zeller". The signature is written in a cursive style and is followed by a horizontal line.

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September 11, 2008

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

**ATOMIC SAFETY AND LICENSING BOARD PANEL
BEFORE THE LICENSING BOARD**

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Tennessee Valley Authority)	Docket Nos. 52-014, 52-015
Bellefonte Nuclear Power Plant)	ASLBP No. 08-864-02-COL-BD01
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_____)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the PETITIONERS' LATE-FILED CONTENTION REGARDING TENNESSEE VALLEY AUTHORITY'S FAILURE TO COMPLY WITH THE NATIONAL ENVIRONMENTAL POLICY ACT was served this day on the following persons via Electronic Information Exchange.

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September 11, 2008



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August 26, 2008

10 CFR Part 50

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TENNESSEE VALLEY AUTHORITY (TVA) - BELLEFONTE NUCLEAR PLANT UNITS 1
AND 2 - REQUEST TO REINSTATE CONSTRUCTION PERMITS CPPR-122 (UNIT 1)
AND CPPR-123 (UNIT 2)

TVA requests that Construction Permits CPPR-122 and CPPR-123 for Bellefonte Nuclear Plant, Units 1 and 2, respectively, be reinstated.¹ On September 14, 2006, the U.S. Nuclear Regulatory Commission (NRC) granted TVA's request to withdraw the Construction Permits and considered them terminated.

As explained below, good cause exists to support TVA's request. TVA's Bellefonte plant was substantially complete and, prior to withdrawal of the Construction Permits, was being maintained in a deferred construction status, consistent with NRC's definition for deferred nuclear plant units as described in Generic Letter 87-15, "Policy Statement on Deferred Plants." Reinstatement of the permits would allow TVA to (1) return the units to deferred status and resume preservation and maintenance activities as appropriate under the Deferred Plant Policy and (2) determine, with a relative degree of certainty, whether completion of construction and operation of the units is a viable option. In accomplishing the latter, TVA would, among other things, seek to establish the regulatory framework and licensing basis upon which the units could be completed should TVA later determine to do so.

¹ CPPR-122 was amended to include a latest date for completion of construction of October 1, 2011, and CPPR-123 to include a latest date for completion of construction of October 1, 2014.

Historical Overview of the Bellefonte Construction Permits

TVA submitted an application to construct and operate two Babcock and Wilcox pressurized water reactors at its Bellefonte site near Scottsboro, Alabama, on May 14, 1973.² TVA's application was docketed on June 21, 1973, and docket numbers 50-438 and 50-439 were assigned.

Pursuant to a Notice of Hearing on Application for Construction Permits published in the *Federal Register* on August 3, 1973 (38 Fed. Reg. 20932), separate evidentiary hearings before an Atomic Safety and Licensing Board were held on environmental matters, as well as health and safety issues, in Scottsboro, Alabama, in July and October 1974, respectively. Pursuant to the National Environmental Policy Act (NEPA), TVA issued a Final Environmental Statement addressing the construction and operation of the Bellefonte units in May 1974 and the U. S. Atomic Energy Commission issued its Final Environmental Statement in June 1974. On December 24, 1974, the day after the Atomic Safety and Licensing Board issued its Initial Decision on site suitability and environmental matters,³ the NRC issued CPPR-122 and CPPR-123.

On February 1, 1978, TVA filed an application for operating licenses for Bellefonte Units 1 and 2, which included an Operating License Final Safety Analysis Report (FSAR) and an Operating License Environmental Report. NRC docketed TVA's Operating License Application on June 6, 1978, and published a Notice of Hearing Opportunity on TVA's Operating License Application on July 17, 1978 (43 Fed. Reg. 30628). There were no requests for hearing or petitions to intervene filed in response.

Construction of Units 1 and 2 continued until the mid-1980s when forecasted load growth began to decrease. Given the additional generating capabilities from other generating facilities that were completed, this diminished demand was cited, along with financial reasons and the goal of holding electric rates constant, as bases for TVA's decision to defer completion of the Bellefonte units. By letter dated July 29, 1988, TVA formally notified NRC of its deferral of construction activities and the layup program it would implement during the deferral period. NRC agreed with TVA's layup approach on October 31, 1988, stating that it was consistent with the Commission's Deferred Plant Policy. By this time, Unit 1 was approximately 90 percent complete and Unit 2 was approximately 58 percent complete with the FSAR progressing through Amendment 29.

In the early 1990s, TVA instituted a series of detailed engineering, construction, and licensing studies and strategies which concluded that Bellefonte's completion as a nuclear

² While the Bellefonte design is similar to earlier Babcock and Wilcox designs, the Bellefonte reactors are 205FA models, which are larger and include improvements over earlier designs.

³ Tennessee Valley Authority (Bellefonte Nuclear Plant, Units 1 and 2), LPB-74-66, 8 AEC 472 (Sept. 6, 1974) (Partial Initial Decision on Environmental Matters and Site Suitability); Tennessee Valley Authority (Bellefonte Nuclear Plant, Units 1 and 2), LPB-74-91, 8 AEC 1124 (Dec. 23, 1974) (Initial Decision).

plant was viable. This effort included the submittal of 14 position papers to the NRC describing licensing positions on key issues important to the completion of the plant. The NRC subsequently released regulatory positions on these issues in a series of ten letters dated from August 23, 1991, to October 31, 1991.⁴ On March 23, 1993, TVA notified NRC of its plans to resume construction of both units within 120 days, noting that NRC had conducted 18 inspections at the facility since deferral, with 10 specifically pertaining to layup and maintenance.

In a letter dated April 19, 1994, TVA requested that the Construction Permits for Bellefonte Units 1 and 2 be extended to October 1, 2001, and October 1, 2004, respectively. The NRC approved these extensions on June 27, 1994. In December 1994, TVA decided that Bellefonte Units 1 and 2 would not be completed without additional financial support. Further construction activities were suspended pending completion of a comprehensive evaluation of TVA's power needs.

On July 11, 2001, TVA requested that the completion dates for Unit 1 and Unit 2 be extended to October 1, 2011, and October 1, 2014, respectively. TVA cited the need to maintain a robust and flexible range of generating options for future base load power supplies and competitive energy production choices as providing good cause for extending the construction permits. The permit extensions were approved by the NRC on March 4, 2003.

Given the deferred status of Bellefonte Units 1 and 2, and recognizing that equipment age would be an important factor in determining suitability for any eventual use, TVA decided that it would be best to terminate layup preventative maintenance on certain equipment at the site. The decision was made with the realization that should TVA later decide to complete the plant, in many cases it would be beneficial to upgrade certain obsolete pieces of equipment, and in other cases it would be more economical to replace or possibly restore equipment rather than to continue resource-intensive preventative maintenance activities. TVA submitted Appendix F to Revision 13 to TVA's Nuclear Quality Assurance Plan on August 28, 2003, reflecting this decision (ADAMS Accession Number ML032460719). NRC approved the plan on May 28, 2004 (ADAMS Accession Number ML041550303). For those structures, systems, and components that were determined to remain viable if and when a decision to restart construction was made, an active layup program was continued through the end of fiscal year 2005.

Throughout the years that Bellefonte Units 1 and 2 were maintained in deferred status, NRC performed regular reviews of the Bellefonte layup program. From 1995 through 2005 and over the course of 15 inspections documented in corresponding inspection reports,

⁴ NRC's responses addressed the following licensing issues: Integrated Control System; Cable Pullby/Sidewall Bearing Pressure/Jamming/Bend Radius; Fire Protection; Environmental Qualification of Electrical Equipment; FSAR Accident Analysis; Safe Shutdown Condition; Seismic Ground Motion Design; Seismic Design of Category I Structures; Seismic Qualification of Equipment; Structural Analysis Methods and Criteria for (1) Piping Tubing and Supports and (2) Distributive Systems and Supports; and Seismic Spatial Interactions Review.

NRC found that TVA had adequately maintained Bellefonte's layup and preservation program and that such program had been effective.⁵ In many instances, NRC stated that, "Site personnel have made a dedicated effort toward supporting the PM [Preventative Maintenance] Program," and that, "The knowledge and pride of ownership exhibited by plant personnel continued to remain a strength." Over the course of those 11 years of NRC inspections, only one non-cited Severity Level IV violation was documented in connection with Bellefonte Units 1 and 2.

From the above overview of Construction Permit-related activities, it is clear that Bellefonte Units 1 and 2 share a history of regulatory oversight and compliance which reflects the hard work and dedication of both NRC and TVA staffs.

TVA's Decision to Withdraw the Bellefonte Construction Permits

In 2005, TVA determined that the Bellefonte site could serve as a location for an advanced technology nuclear plant to be licensed utilizing the improved combined licensing process described in 10 CFR Part 52.⁶ It was recognized that some of the existing Unit 1 and Unit 2 equipment and structures could be used to support a new facility (e.g., cooling towers, intake structure, transmission switch yards), and that their use could reduce new construction costs.

One of the major factors taken into account in examining the future use of the Bellefonte site was the estimated cost per kilowatt of installed capacity associated with the various advanced reactor designs when compared to the estimated cost of completing Units 1 and 2. Based on the 2005 studies and projections, and even taking into account the uncertainties associated with the advanced reactor construction projections, completing construction of Units 1 and 2 was not seen as cost-effective a generating option. In light of circumstances at that time, and the fact that funds and staffing resources remained dedicated to maintaining the site and the Construction Permits, TVA decided that the Bellefonte Unit 1 and 2 Project could no longer be economically justified.

TVA discontinued Bellefonte Unit 1 and 2 project completion activities as of October 1, 2005, and TVA's Board of Directors (TVA Board) approved the cancellation of Units 1 and 2 on November 23, 2005. By letter dated April 6, 2006, TVA requested that the NRC

⁵ NRC Inspection Report Nos. 50-438/95-01 and 50-439/95-01; Nos. 50-438/96-01 and 50-439/96-01; Nos. 50-438/96-02 and 50-439/96-02; Nos. 50-438/96-03 and 50-439/96-03; Nos. 50-438/97-01 and 50-439/97-01; Nos. 50-438/98-01 and 50-439/98-01; Nos. 50-438/98-02 and 50-439/98-02; Nos. 50-438/99-01 and 50-439/99-01; Nos. 50-438/99-02 and 50-439/99-02; Nos. 50-438/00-01 and 50-439/00-01; Nos. 50-438/01-01 and 50-439/01-01; Nos. 50-438/02-01 and 50-439/02-01; Nos. 50-438/03-01 and 50-439/03-01; Nos. 50-438/04-01 and 50-439/04-01; Nos. 50-438/05-01 and 50-439/05-01.

⁶ TVA joined NuStart Energy Development, LLC, a consortium consisting of nine member utility companies and two reactor vendors to demonstrate the Part 52 combined license process and complete the design engineering for two selected reactor technologies, including the Westinghouse AP 1000 advanced reactor design to be located at TVA's Bellefonte site should TVA elect to construct the plant.

withdraw CPPR-122 and CPPR-123, and submitted a Site Redress Plan to the NRC along with the withdrawal request. The permits were withdrawn by the NRC on September 14, 2006.

Deciding Whether Bellefonte Units 1 and 2 Should be a Potential Generating Option

TVA is taking preliminary steps to consider whether Bellefonte Units 1 and 2 should again be regarded as a potential base load generating option. A major factor driving this effort is the change in power generation economics since 2005 and the possible effects of constraints on the availability of the worldwide supply of components necessary for new generation development since TVA submitted its request to withdraw the Unit 1 and 2 Construction Permits.

As explained above, at the time the Construction Permits were withdrawn, maintaining them was not viewed to be as beneficial as the generation alternatives then under consideration. Since that decision was made in 2005, however, the cost per kilowatt of installed capacity among generation alternatives has continued to increase. In addition, the worldwide decrease in the number of suppliers available for providing necessary reactor components and the significant expression of interest in developing new nuclear generation capacity in the past two years creates potential additional cost and schedule impacts on new construction. These considerations alone provide good cause to grant this request for reinstatement.

However, there are additional sound bases for TVA's request. Many major Unit 1 and 2 structures, systems, and components are near completion, including the containment buildings, cooling towers, circulation water buildings, most major and minor Unit 1 systems, and some Unit 2 systems. In terms of commodities alone, these structures, systems, and components represent considerable amounts of installed concrete, steel, piping and cable, all of which have significantly increased in cost over the past few years. As a result, the existing plant may now offer the potential of a significantly lower cost per installed kilowatt as well as a shorter schedule to start major safety-related construction and avoid procurement bottlenecks for heavy forging and other large components.

In view of the above, TVA has determined that it is prudent and worthwhile to examine the possibility of adding Bellefonte Units 1 and 2 to its mix of base load generating options. However, this determination will, in part, depend upon the results of a licensing assessment that would be performed if and when the Construction Permits are reinstated and TVA returns the units to deferred status. Having the Construction Permits in place once again would allow TVA to establish, with a relative degree of certainty, the regulatory framework and licensing basis that would be used in considering the viability of completing the units. TVA anticipates using the same approach in establishing this regulatory framework and licensing basis as that used in connection with its Watts Bar Unit 2 project. Thus, TVA will communicate with the NRC Staff in establishing the key regulatory assumptions underlying the potential completion of the units as well as the regulatory framework for completing any subsequent construction and licensing activities. It has been TVA's experience that the absence of such certainty can ultimately serve as a basis for

deciding not to proceed with a license-related project. And while the licensing assessment is critically important in determining the viability of Unit 1 and 2, it is also important to understand that other engineering, design, and equipment reviews will need to be conducted in order to fully determine the potential viability of completing the units.

Current Status of Activities at the Bellefonte Site

At present, TVA is performing site clean-up and preservation activities designed to maintain the site and protect the integrity of site structures and equipment. For example, TVA is performing repairs to site structures to eliminate water intrusion, and is instituting temperature and humidity controls in the records vault to protect site documents. TVA is also continuing to maintain the intake and discharge facilities, cooling towers, wastewater system, and transmission switch yards.

TVA has maintained the site's National Pollutant Discharge Elimination System (NPDES) permit, the Air Permit for Synthetic Minor Source Operation for two 7,000 kW diesel generators, and the applicable Resource Conservation and Recovery Act permit.

In the time since the Construction Permits were withdrawn, some investment recovery activities have taken place at the site; including, for instance, the removal of the tubing from the steam generators for both units and sections of the reactor coolant piping attached to the steam generators. In the plant yard, various storage tanks and a number of the original construction storage buildings have also been removed. In November 2007, directions were given to halt investment recovery activities at the Bellefonte site and all further dismantlement activities have ceased. Work is currently underway to inspect, clean, cap off, and stabilize those systems and components affected by previous investment recovery activities.

TVA's Plans Should NRC Reinstate Bellefonte Units 1 and 2 Construction Permits

Should NRC reinstate CPPR-122 and CPPR-123, TVA would resume preservation and maintenance activities as appropriate under NRC regulations and the Deferred Plant Policy. TVA would maintain the units in the same deferred status as when TVA elected to withdraw the Construction Permits. Upon reinstatement of the permits, a deferred plant equipment plan, as described in Appendix F of Revisions 13 through 16 of TVA's Nuclear Quality Assurance Plan,⁷ would be reinstated for Bellefonte Units 1 and 2. Equipment not subject to preventative maintenance under a layup program would be entered into TVA's Corrective Action Program and prohibited from being placed in service without further evaluation and having been fully restored or replaced. Systems and components (equipment) that may have been affected in the course of investment recovery activities would likewise be entered into TVA's Corrective Action Program and prohibited from being placed in service without a full evaluation, or having been restored or replaced as well.

⁷ ADAMS Accession Numbers ML032460719 (Rev. 13), ML042470056 (Rev. 14), ML052450178 (Rev. 15), and ML062480198 (Rev. 16).

It is important to understand that in making the subject request for reinstatement of the Construction Permits, TVA is in no way indicating any preference or prejudgment in favor of completing the existing Bellefonte units. Should NRC reinstate the Construction Permits, any future decision to resume Unit 1 and 2 construction and completion activities would require approval by the TVA Board. TVA's Board would take into account the full range of engineering, construction, environmental, and regulatory/licensing considerations associated with such a project, including the associated cost and need for power considerations. Insofar as the decision making process is concerned, the approach would be similar to that recently employed by TVA and its Board in connection with the Browns Ferry Unit 1 and Watts Bar Unit 2 projects. In addition, should the TVA Board later decide to move forward with the completion of Bellefonte Units 1 and 2, TVA would follow the notice of resumption of construction directions included in NRC's Deferred Plant Policy.

TVA's Combined License Application (COLA) for Bellefonte Units 3 and 4

Neither TVA's request nor NRC's approval of TVA's request to reinstate the Construction Permits for Bellefonte Units 1 and 2 affects, in any way, TVA's ability or current plans to pursue a Combined License for Bellefonte Units 3 and 4 under 10 CFR Part 52. Because reinstatement would not represent a decision to actually proceed with the continued construction of Units 1 and 2, the licensing information previously submitted to the NRC for the purpose of supporting the COLA for Bellefonte Units 3 and 4 would remain valid. Nor should TVA's request for or NRC's reinstatement of the Construction Permits be construed as a determination that Bellefonte Units 1 and 2 represent a viable generating alternative. The entire purpose for reinstating the Construction Permits for Units 1 and 2 would be to assist TVA in determining whether these units should once again constitute a viable, or in terms of NEPA requirements, whether they should represent a "reasonable" power generating alternative.⁸ Nonetheless, TVA will provide additional information about Units 1 and 2 as a potential power generating alternative in Revision 1 to the COLA Environmental Report which is scheduled to be submitted to NRC in October 2008.

Legal Bases for Reinstatement of the Bellefonte Construction Permits

The Commission is authorized to reinstate the withdrawn Bellefonte Units 1 and 2 Construction Permits as such action is consistent with the Atomic Energy Act of 1954, as amended, and 10 CFR Part 50 of the Commission's regulations. An issue similar to the one presented here was that associated with the extension of the construction permit for Comanche Peak Unit 1 following its expiration. There, the Commission determined that issuance of a new Construction Permit was not required. *Texas Utils. Elec. Co.*, CLI-86-4, 23 NRC 113 (1986), *aff'd* 821 F.2d 725 (DC Cir. 1987). Relying on the DC Circuit's decision in *Mass Communicators, Inc. v. FCC*, 266 F.2d 681 (DC Cir. 1959), *cert. denied*, 361 U.S. 828 (1959), a decision on a provision of the Communications Act of 1934 analogous to section 185 of the Atomic Energy Act, the NRC determined that,

⁸ Both 10 CFR Part 51, Subpart A, Appendix A, Section 5 of NRC's NEPA implementing regulations and 40 CFR § 1502.14(a) of the Council on Environmental Quality's NEPA regulations require the evaluation of only "reasonable alternatives."

notwithstanding that the latest date for completion of construction had passed and the applicant had failed to seek timely renewal of its construction permit, the permit was not automatically forfeited. Significantly, the Commission concluded that a full-scale *de novo* construction permit hearing was not needed, and that the renewal could be accomplished as it was in situations in which timely application for renewal was sought, through issuance of a license amendment.

Unlike the applicant in *Comanche Peak*, TVA, after many years of retaining its Construction Permits for Bellefonte Units 1 and 2 in accordance with the NRC's Deferred Plant Policy, affirmatively asked the Commission to withdraw said permits, and the Commission did so. But the ultimate legal consequence of TVA's request that the NRC withdraw the Bellefonte Construction Permits, and the Commission's action to grant TVA's request, is not materially different from action taken in *Comanche Peak*. The immediate effect of the Commission's withdrawal of the Bellefonte Construction Permits was that TVA was no longer lawfully permitted to continue activities for which construction permits were needed. TVA complied and is maintaining the site in a stable condition. In many respects, the actions, in substance, parallel those in *Comanche Peak*.

The environmental impacts associated with the construction and operation of Bellefonte Units 1 and 2 have been previously discussed and evaluated by TVA in accordance with its NEPA obligations as a federal agency, as well as by the NRC consistent with its domestic licensing and related regulatory authority. As mentioned above, TVA published a Final Environmental Statement in May 1974 and NRC's Final Environmental Statement was published in June 1974. On August 26, 2002, TVA responded to a request for additional updated information to address the impact of resumption of construction activities in connection with TVA's request for Construction Permit extension dates (to October 2011 for CPPR-122 and October 2014 for CPPR-123). The NRC found that the conclusions regarding environmental impacts reached in its 1974 FES remained valid and its environmental assessment concluded that there was no significant effect on the quality of the human environment associated with continued construction activities up to those extended dates (16 Fed. Reg. 3571 (Jan. 24, 2003)).⁹

TVA also recently conducted an Environmental Assessment in connection with the subject request for NRC to reinstate the Bellefonte Construction Permits and TVA returning the plant to deferred status. The assessment considered the environmental effects of returning the plant to deferred status, performing basic maintenance of key equipment, and refurbishing certain buildings to provide space support for the above-mentioned licensing, engineering, design, and equipment reviews that will be conducted in order to determine the potential viability of completing the units. The assessment concluded that, in light of the limited consequences of the proposed action and the fact that the proposed activities would occur on the Bellefonte site which has been permanently altered and the

⁹ TVA and the NRC also conducted separate Environmental Assessments under NEPA in connection with TVA's request for withdrawal of CPPR-122 and CPPR-123, and Site Stabilization Plan. The NRC found TVA's Site Stabilization Plan to be acceptable, and TVA has maintained the Bellefonte site in accordance with that plan.

construction impacts addressed by previous environmental reviews, the granting of such request will not have a significant effect on the quality of the human environment.

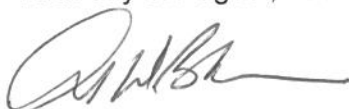
Conclusion

TVA requests that Construction Permits CPPR-122 and CPPR-123 for Bellefonte Nuclear Plant, Units 1 and 2, respectively, be reinstated. Such reinstatement of the Construction Permits is essential to TVA's ability to adequately evaluate and determine whether these units may be considered as a cost-effective base load generating option. Granting the request and reinstating the Construction Permits would allow TVA to restore the units to the same deferred status as they were when TVA elected to withdraw the permits, within the same Construction Permit expiration dates (2011 and 2014) previously approved by the NRC. Reinstatement of Bellefonte Units 1 and 2 Construction Permits is legally permissible, consistent with the Atomic Energy Act and the Commission's regulations. Should the Construction Permits be reinstated, TVA will once again comply with all of the terms and conditions of the permits as required by NRC's regulations, including NRC's Deferred Plant Policy. TVA's history of past actions in conformance with the terms and conditions of these permits also provides the NRC with a high level of assurance that public health and safety will continue to be protected.

For all of the reasons discussed above, TVA submits that good cause exists for NRC to reinstate CPPR-122 and CPPR-123.

If you have any questions, or need any further information, please call Jack Bailey at 423-751-3922.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 26th day of August, 2008.



Ashok S. Bhatnagar