Environmental Impact Statement Scoping Process

Summary Report

Bellefonte Combined License
Jackson County, Alabama

July 2008

U.S. Nuclear Regulatory Commission
Rockville, Maryland

Introduction

On October 30, 2007, the Tennessee Valley Authority (TVA) submitted to the U.S. Nuclear Regulatory Commission (NRC) an application for a combined construction permit and operating license (COL) for Bellefonte Nuclear Plant Units 3 and 4, to be located adjacent to the not-completed Bellefonte Units 1 and 2. The Bellefonte site is located in Jackson County, Alabama, approximately 38 mi east of Huntsville.

As part of the application, TVA submitted an environmental report (ER) prepared in accordance with the requirements of Title 10 of the Code of Federal Register (CFR) Part 51 and 10 CFR Part 52. The ER focuses on potential environmental effects from the construction and operation of two new nuclear units at the Bellefonte site. It also includes an evaluation of the environmental consequences of alternatives, including the proposed actions and any mitigating actions that may be taken. NRC regulations implementing the National Environmental Policy Act (NEPA) of 1969, as amended, are contained in 10 CFR Part 51, Subpart A. In addition, the NRC follows the Council on Environmental Quality regulations to the extent set forth in 10 CFR 51.10 and 10 CFR 51.14(b). NRC regulations related to the environmental review of COL applications are contained in 10 CFR Part 51 and 10 CFR 52, Subpart C.

The NRC staff is preparing an environmental impact statement (EIS) in conjunction with the TVA application. The proposed action is NRC approval of the TVA application to build and operate two new base-load nuclear power generation facilities (new units), Bellefonte Units 3 and 4 (BLN), to be located within the existing Bellefonte site. The EIS will include an evaluation of the environmental impacts of the proposed action, the environmental impacts of alternatives to the proposed action, including the no-action alternative; alternatives related to the facility cooling and circulating water systems; and alternatives available for reducing or avoiding adverse environmental effects. It also will address alternative energy options. Finally, the EIS will include an evaluation of alternative sites to determine if there is an obviously superior alternative to the proposed site.

In addition, the staff is conducting a safety review of the TVA combined license application in accordance with NUREG-0800, *Standard Review Plans for the Review of Safety Analysis for Nuclear Power Plants*, and NUREG-1555, *Standard Review Plans for Environmental Reviews for Nuclear Power Plants*.

On February 21, 2008, in accordance with 10 CFR 51.26, the NRC initiated the scoping process by publishing a Notice of Intent to Prepare an Environmental Impact Statement and Conduct Scoping Process in the *Federal Register* (73 FR 9604). The Notice of Intent notified the public of the staff's intent to prepare an EIS and conduct scoping for the COL application. Through the notice, the NRC also invited the applicant; Federal, Tribal, State, and local government agencies; local organizations; and individuals to participate in the scoping process by providing oral comments at the public meetings and/or submitting written suggestions and comments no later than April 25, 2008.

The scoping process provides an opportunity for public participation to identify issues to be addressed in the EIS and highlight public concerns and issues. The Notice of Intent identified the following objectives of the scoping process:

- Define the proposed action that is to be the subject of the EIS.
- Determine the scope of the EIS and identify significant issues to be analyzed in depth.
- Identify and eliminate from detailed study those issues that are peripheral or that are not significant.
- Identify any environmental assessments and other EISs that are being prepared or will be prepared that are related to, but not part of the scope of the EIS being considered.
- Identify other environmental review and consultation requirements related to the proposed action.
- Indicate the relationship between the timing of the preparation of the environmental analyses and the Commission's tentative planning and decision-making schedule.
- Identify any cooperating agencies.
- Describe how the EIS will be prepared, and identify any contractor assistance to be used.

At the conclusion of the scoping period, the NRC staff and its contractor reviewed the transcripts of the scoping meetings and all written material received, and identified individual comments. The transcripts can be found under accession numbers ML081230355 and ML081230370 in the NRC's Agency Document Access and Management System (ADAMS), which is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room) (Note that the URL is case-sensitive). In addition, one letter, 14 emails, and 45 public meeting written documents containing comments were received during the scoping period. All comments and suggestions received orally during the scoping meeting or in writing were considered by the staff.

The public scoping meetings were held at the Scottsboro Goosepond Civic Center in Scottsboro, Alabama, on April 3, 2008. The NRC announced the meeting in local newspapers (Chattanooga Free Times, Daily Sentinel [Scottsboro], Huntsville Times, Fort Payne Times-Journal, and the Advertiser Gleam [Guntersville]), issued press releases, and distributed flyers locally. Approximately 150 members of the public attended the afternoon scoping meeting and approximately 70 attended the evening session. The scoping meetings began with NRC staff members providing a brief overview of NRC's review process for COL applications and the NEPA process. After the NRC's prepared statements, the meeting was opened for public comments. Twenty-nine (29) afternoon scoping meeting attendees and 23 evening scoping meeting attendees provided either written statements or oral comments that were recorded and transcribed by a certified court reporter. The transcripts of the meetings can be found as an attachment to the meeting summary, which was issued on May 9, 2008. The meeting summary and transcripts are available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of ADAMS under accession number ML081210479.

Table 1 identifies the individuals providing comments in alphabetical order, their affiliation, if given, and the ADAMS accession number that can be used to locate the correspondence. Accession numbers indicate the location of the written comments in ADAMS.

Comments were consolidated and categorized according to topic within the proposed EIS or according to the general topic if outside the scope of the EIS. Comments with similar specific objectives were combined to capture the common essential issues that had been raised in the source comments. Once comments were grouped according to subject area, the staff determined the appropriate response for the comment. The comment categories are listed in Table 2 in the order that they are presented in this document.

Table 3 lists the comment categories in alphabetical order and commenter names and numbers for comments that were binned into each category. The rest of this document presents the comments with NRC staff responses organized by topic category.

Table 1. Individuals Providing Comments During the Comment Period

Commenter	Affiliation (if stated)	Comment Source and ADAMS Accession #
Anderson, Philip	TARCOG	Letter (ML081130156)
Bailey, Jack	TVA	Meeting Transcript (ML081210479)
Bailey, Ron	Scottsboro, AL	Letter (ML081130185)
Barczak, Sara	Southern Alliance for Clean Energy	Meeting Transcript (ML081210479)
Barczak, Sara	Southern Alliance for Clean Energy	Letter (ML081130179)
Barczak, Sara	Southern Alliance for Clean Energy	Email (ML081230599)
Bennett, Liz	Self	Letter (ML081130123)
Bennett, Liz	Self	Letter (ML081130125)
Bennett, Liz	Self	Letter (ML081130181)
Bille, Finn	Self	Meeting Transcript (ML081210479)
Carter, Zella	Greater Jackson Chamber of Commerce	Letter (ML081130343)
Collins, Judy	Self	Letter (ML081420613)
Cook, Faye	Town of Woodville	Letter (ML081130271)
Couch, Terry	Jackson County Chamber of Commerce	Meeting Transcript (ML081210479)
Couch, Terry	Jackson County Chamber of Commerce	Letter (ML081130134)
Counts, Michael	Town of Paint Rock	Letter (ML081130269)
Cramer, Bud	5th Congressional District	Meeting Transcript (ML081210479)

Commenter	Affiliation (if stated)	Comment Source and ADAMS Accession #
Cramer, Bud	5th Congressional District	Letter (ML081130164)
D'Arrigo, Diane	Nuclear Information & Resource Service	Meeting Transcript (ML081210479)
D'Arrigo, Diane	Nuclear Information & Resource Service	Email (ML081230544)
D'Arrigo Diane and Michael Mariotte,	Nuclear Information & Resource Service	Meeting Transcript (ML081210479)
Dawson, Stuart	Scottsboro Kiwanis Club	Letter (ML081130154)
Deason, Dan	Self	Meeting Transcript (ML081210479)
Deason, Dan	Self	Letter (ML081130170)
Deason, Dan	Scottsboro City Council	Letter (ML081130307)
Fitzgerald, Sara	Self	Email (ML081230541)
Flowers, R. D.	Self	Meeting Transcript (ML081210479)
Fossett, Ron	Town of Section	Letter (ML081130289)
Fuerst, Paul	Self	Email (ML081130136)
Gibson, Dr. Thomas A.	Jackson County	Meeting Transcript (ML081210479)
Gibson, Dr. Thomas A.	Jackson County	Letter (ML081130186)
Gorenflo, Louise	Bellefonte Efficiency and Sustainability Team	Meeting Transcript (ML081210479)
Gorenflo, Louise	BEST	Email (ML081230534)
Gottfried, Yolande	Self	Meeting Transcript (ML081210479)
Hacker-Cerulean, Jeannie	Self	Meeting Transcript (ML081210479)
Hall, April	Alabama Rivers Alliance	Email (ML081230542)
Hamilton, Darryl	Jackson County Shrine Club	Letter (ML081130305)
Harrison, Ann	Sierra Club	Meeting Transcript (ML081210479)
Hodges, Glenda	Self	Meeting Transcript (ML081210479)
Houseton, Kate	Clean and Safe Energy Coalition	Meeting Transcript (ML081210479)
Kapadia, Ragini	Energy Action Coalition	Meeting Transcript (ML081210479)
Keele, Rickey	Hollywood, AL	Letter (ML081130301)

Commenter	Affiliation (if stated)	Comment Source and ADAMS Accession #
Kitchens, George	Joe Wheeler Electric Membership Corp.	Meeting Transcript (ML081210479)
Kitchens, George	Joe Wheeler Electric Membership Corp.	Letter (ML081130160)
Kitchens, George	North Alabama Public Power Association	Letter (ML081130237)
Kurtz, Sandy	Self	Meeting Transcript (ML081210479)
Lackey, Thomas	Highlands Medical Center	Letter (ML081130144)
Lee, Wanza	Tri-State Regional Workforce Alliance	Letter (ML081130163)
Lovelady, Bunn	Jackson County Economic Development Authority	Letter (ML081130235)
McBride, Faye	Greater Jackson County Chamber of Commerce	Letter (ML081130159)
McCamy, Jim	Self	Meeting Transcript (ML081210479)
McCluney, Dr. Ross	Self	Meeting Transcript (ML081210479)
McCluney, Dr. Ross	Self	Letter (ML081130172)
McCluney, Dr. Ross	Self	Email (ML081230544)
McCormick, Lillie	Jena Band of Choctaw Indians	Letter (ML081000409)
Morgan, Garry	Self	Meeting Transcript (ML081210479)
Morgan, Garry	Self	Letter (ML081130176)
Moss, Tom	Self	Meeting Transcript (ML081210479)
Moss, Tom	Self	Letter (ML081130177)
O'Connor, Ellen	Self	Meeting Transcript (ML081210479)
O'Donohue, Kathleen	Self	Letter (ML081290571)
Plumlee, Jon	Self	Meeting Transcript (ML081210479)
Rad, Zachary	North American Young Generation in Nuclear	Meeting Transcript (ML081210479)
Reid, Jim	Self	Email (ML081130141)
Reynolds, Bill	Self	Meeting Transcript (ML081210479)
Roden, Rick	Greater Jackson County Chamber of Commerce	Meeting Transcript (ML081210479)

Commenter	Affiliation (if stated)	Comment Source and ADAMS Accession #
Roden, Rick	Greater Jackson County Chamber of Commerce	Letter (ML081130341)
Rogers, Goodrich	Jackson County Economic Development Authority and Industrial Development Boards	Meeting Transcript (ML081210479)
Rogers, Goodrich	Jackson County Economic Development Authority and Industrial Development Boards	Letter (ML081130130)
Safer, Don	Self	Meeting Transcript (ML081210479)
Sandlin, Jimmy	Scottsboro Electric Power Board	Meeting Transcript (ML081210479)
Sandlin, Jimmy	Scottsboro Electric Power Board	Letter (ML081130180)
Shepard, Sheila	Jackson County Economic Development Authority	Meeting Transcript (ML081210479)
Shepard, Sheila	Jackson County Economic Development Authority	Letter (ML081130183)
Shett, Billy	Town of Skyline	Letter (ML081130288)
Smith, Keith	Scottsboro City Council	Letter (ML081130138)
Smith, Nathan	Self	Email (ML081230536)
Sondheim, Steven	Sierra Club	Letter (ML081130129)
Sondheim, Steven	Sierra Club	Email (ML081230537)
Steiner, William	Coosa Valley Regional Development Center	Email (ML081230535)
Stewart, Bryan	Town of Dutton	Letter (ML081130337)
Thackerson, Leslie	Hytop, AL	Letter (ML081130151)
Tidmore, James	Jackson County Commission	Meeting Transcript (ML081210479)
Tidmore, James	Jackson County Commission	Letter (ML081130168)
Timberlake, Ralph	Self	Meeting Transcript (ML081210479)
Tipton, Katye	City of Stevenson	Letter (ML081130340)
Vaught, Butch	Town of Langston	Letter (ML081130294)
Wheeler, Bill	Flat Rock Ruritan Club	Letter (ML081130303)
White, Debbie	Jackson County Board of Realtors	Letter (ML081130306)
Williams, Rudder	Skyline Oil	Letter (ML081130230)
Woods, Christopher	Town of Pisgah	Letter (ML081130291)
Zeller, Lou	Blue Ridge Environmental Defense League	Meeting Transcript (ML081210479)

Table 2. Comment Categories in Order as Presented in this Report

1.	Comments Concerning the COL Process
2.	Comments Concerning Process – NEPA
3.	Comments Concerning Meteorology and Air Quality
4.	Comments Concerning Geology and Seismology
5.	Comments Concerning Hydrology – Surface Water
6.	Comments Concerning Ecology – Terrestrial
7.	Comments Concerning Ecology – Aquatic
8.	Comments Concerning Socioeconomics
9.	Comments Concerning Historic and Cultural Resources
10.	Comments Concerning Environmental Justice
11.	Comments Concerning Health – Nonradiological
12.	Comments Concerning Health – Radiological
13.	Comments Concerning Accidents – Design Basis
14.	Comments Concerning Accidents – Severe
15.	Comments Concerning the Uranium Fuel Cycle
16.	Comments Concerning Transportation
17.	Comments Concerning Decommissioning
18.	Comments Concerning Cumulative Impacts
19.	Comments Concerning Need for Power
20.	Comments Concerning Alternatives – Energy
21.	Comments Concerning Benefit – Cost Balance
22.	General Comments in Support of the Licensing Action
23.	General Comments in Support of the Licensing Process
24.	General Comments in Support of Nuclear Power
25.	General Comments in Opposition to the Licensing Action
26.	General Comments in Opposition to the Licensing Process
27.	General Comments in Opposition to Nuclear Power
28.	Comments Concerning Issues Out of Scope – Emergency Preparedness
29.	Comments Concerning Issues Out of Scope – Miscellaneous
30.	Comments Concerning Issues Out of Scope – NRC Oversight
31.	Comments Concerning Issues Out of Scope – Safety
32.	Comments Concerning Issues Out of Scope – Security and Terrorism
33.	General Editorial Comments

Table 3. Comment Categories Alphabetically with Associated Commenters and Comments

Comment Category	Commenter (Comment ID Number)
Accidents-Design Basis	• Bennett, Liz (0005-3) • Collins, Judy (0058-6) (0058-7) • Fitzgerald, Sara (0052-11) • Gorenflo, Louise (0048-13) • Kapadia, Ragini (0001-99) • O'Donohue, Kathleen (0055-13) • Timberlake, Ralph (0001-87)
Accidents-Severe	• Moss, Tom (0002-86)
Alternatives-Energy	• Bailey, Jack (0001-95) • Bailey, Jack (0002-44) • Barczak, Sara (0001-42) • Barczak, Sara (0002-57) • Barczak, Sara (0023-1) • Barczak, Sara (0057-1) • Bennett, Liz (0017-18) (0005-7) • Bennett, Liz (0015-7) • Collins, Judy (0058-2) • Couch, Terry (0002-11) • Couch, Terry (0008-2) • D'Arrigo, Diane (0054-2) • D'Arrigo, Diane (0054-12) • Fitzgerald, Sara (0052-2) • Fuerst, Paul (0046-1) • Gibson, Dr. Thomas A. (0001-17) • Gibson, Dr. Thomas A. (0026-2) • Gorenflo, Louise (0048-2) • Gottfried, Yolande (0001-70) • Hacker-Cerulean, Jeannie (0002-76) • Houseton, Kate (0001-55) • Kapadia, Ragini (0001-97) • Kapadia, Ragini (0001-102) • Kurtz, Sandy (0001-63) • Kurtz, Sandy (0002-37) • McCluney, Dr. Ross (0001-52) (0001-53) • McCluney, Dr. Ross (0002-71) (0002-73) (0013-1) (0013-2) (0056-4) (0056-5) • Moss, Tom (0001-76)

Comment Category	Commenter (Comment ID Number)
	• Moss, Tom (0002-87) • Moss, Tom (0014-4) • O'Donohue, Kathleen (0055-2) • Plumlee, Jon (0001-90) • Rad, Zachary (0002-41) • Safer, Don (0001-36) • Smith, Keith (0008-2) • Sondheim, Steven (0006-3) • Sondheim, Steven (0006-5) (0051-5) (0051-7) • Sondheim, Steven (0051-14) • Steiner, William (0049-2) • Zeller, Lou (0001-59)
Benefit-Cost Balance	• Barczak, Sara (0001-38) (0001-44) • Barczak, Sara (0002-56) (0002-58) (0023-3) • Barczak, Sara (0057-3) • Bennett, Liz (0005-6) • Bennett, Liz (0015-6) • Collins, Judy (0058-3) • D'Arrigo, Diane (0054-1) • Fitzgerald, Sara (0052-3) • Gorenflo, Louise (0002-20) (0002-27) • Gorenflo, Louise (0048-3) • Kapadia, Ragini (0001-101) • Kitchens, George (0001-82) (0018-1) • McCluney, Dr. Ross (0002-74) • O'Donohue, Kathleen (0055-3) • Safer, Don (0001-29) • Sondheim, Steven (0006-4) • Sondheim, Steven (0006-6) • Sondheim, Steven (0051-12) (0051-13)
Cumulative Impacts	• Barczak, Sara (0002-60) (0002-62) (0023-5) (0023-8) • Barczak, Sara (0057-5) (0057-8) • D'Arrigo, Diane (0054-10) • Fitzgerald, Sara (0052-10) • Gorenflo, Louise (0048-8) • Kurtz, Sandy (0002-38) • McCluney, Dr. Ross (0056-3) • O'Donohue, Kathleen (0055-12)
Decommissioning	• Safer, Don (0001-31)
Ecology-Aquatic	• Barczak, Sara (0001-46)

Comment Category	Commenter (Comment ID Number)
	• Barczak, Sara (0002-61) (0023-6) (0023-7) (0057-6) (0057-7) • Gorenflo, Louise (0048-6) • O'Donohue, Kathleen (0055-6) • Plumlee, Jon (0001-91) • Reid, Jim (0047-3) • Kurtz, Sandy (0001-62c)
Ecology-Terrestrial	• Bennett, Liz (0017-8) (0015-5) • Kurtz, Sandy (0001-62b)
Editorial Comments	• Barczak, Sara (0002-65) (0023-11) (0057-11)
Environmental Justice	• Safer, Don (0001-28) • Timberlake, Ralph (0001-86) (0001-89)
Geology and Seismology	• Flowers, R. D. (0002-80) • McCluney, Dr. Ross (0056-1) • Morgan, Garry (0002-54) • Morgan, Garry (0022-1) • Reid, Jim (0047-4)
Health-Nonradiological	• Kurtz, Sandy (0002-34) (0002-36) • Sondheim, Steven (0051-10)
Health-Radiological	• Bennett, Liz (0017-3) • Bennett, Liz (0017-6) • Bennett, Liz (0017-7) • Bennett, Liz (0017-9) • Bennett, Liz (0017-10) • Bennett, Liz (0005-4) (0005-8) • Collins, Judy (0058-5) • Couch, Terry (0002-10) • Couch, Terry (0008-1) • D'Arrigo, Diane (0002-53) • D'Arrigo, Diane (0054-6) • D'Arrigo, Diane (0054-7) • Fitzgerald, Sara (0052-6) • Flowers, R. D. (0002-78) • Gibson, Dr. Thomas A. (0001-16) (0026-1) • Gorenflo, Louise (0001-48) • Gorenflo, Louise (0048-7) • Kapadia, Ragini (0001-98) • Kapadia, Ragini (0001-100) • O'Connor, Ellen (0001-66)

Comment Category	Commenter (Comment ID Number)
	• O'Connor, Ellen (0001-67) • O'Donohue, Kathleen (0055-7) • Plumlee, Jon (0001-92) • Reynolds, Bill (0001-78) • Safer, Don (0001-25) • Safer, Don (0001-33) • Safer, Don (0001-35) • Smith, Keith (0008-1)
Historic and Cultural Resources	• Bennett, Liz (0015-4) • McCormick, Lillie (0003-1)
Hydrology-Surface Water	• Bailey, Jack (0001-96) • Barczak, Sara (0001-45) • Barczak, Sara (0002-59) • Barczak, Sara (0023-4) • Barczak, Sara (0057-4) • Bennett, Liz (0017-12) • Bennett, Liz (0015-3) • Collins, Judy (0058-4) • Fitzgerald, Sara (0052-4) • Fitzgerald, Sara (0052-5) • Flowers, R. D. (0002-81) • Gorenflo, Louise (0002-19) • Gorenflo, Louise (0048-4) • Gorenflo, Louise (0048-5) • Gottfried, Yolande (0001-71) • Hall, April (0053-2) • Hall, April (0053-3) • Kitchens, George (0001-81) • Kurtz, Sandy (0001-61) • Kurtz, Sandy (0001-62a) • Kurtz, Sandy (0002-35) • Moss, Tom (0001-75) • Moss, Tom (0014-3) • O'Donohue, Kathleen (0055-4) • O'Donohue, Kathleen (0055-5) • Plumlee, Jon (0001-93) • Reid, Jim (0047-2) • Safer, Don (0001-26) • Sondheim, Steven (0051-3) (0051-8)
Meteorology and Air Quality	• Barczak, Sara (0002-63)

Comment Category	Commenter (Comment ID Number)
	• Barczak, Sara (0023-9) • Barczak, Sara (0057-9) • D'Arrigo, Diane (0054-13) • Flowers, R. D. (0002-77) • Gorenflo, Louise (0002-18) • Houseton, Kate (0002-47) • Kitchens, George (0001-84) • Kitchens, George (0018-2) • Kurtz, Sandy (0001-60) • McCluney, Dr. Ross (0056-2) • Moss, Tom (0002-85)
Need for Power	• Bailey, Jack (0001-94) • Bailey, Jack (0002-43) • Barczak, Sara (0001-43) • Barczak, Sara (0023-2) • Barczak, Sara (0057-2) • Couch, Terry (0002-12) • Couch, Terry (0008-3) • Fitzgerald, Sara (0052-1) • Gorenflo, Louise (0048-1) • Houseton, Kate (0002-46) (0002-50) • Kitchens, George (0001-83) • McCluney, Dr. Ross (0002-70) • O'Donohue, Kathleen (0055-1) • Roden, Rick (0001-19) • Rogers, Goodrich (0001-15) • Rogers, Goodrich (0045-4) • Sandlin, Jimmy (0002-30) • Sandlin, Jimmy (0024-2) • Smith, Keith (0007-3) • Smith, Keith (0008-3) • Sondheim, Steven (0006-2) • Sondheim, Steven (0051-4) • Sondheim, Steven (0051-6)
Opposition-Licensing Action	• Barczak, Sara (0001-40) • Barczak, Sara (0002-66) • Barczak, Sara (0023-12) • Barczak, Sara (0057-12) • Bennett, Liz (0017-15) (0017-17) (0005-1) (0005-9) • Bennett, Liz (0015-1) • Collins, Judy (0058-1)

Comment Category	Commenter (Comment ID Number)
	• Flowers, R. D. (0002-79) (0002-83) • Gottfried, Yolande (0001-69) • Kurtz, Sandy (0001-64) • McCluney, Dr. Ross (0002-67) • Moss, Tom (0001-73) • Moss, Tom (0014-1) • Reynolds, Bill (0001-79) • Smith, Nathan (0050-1) • Sondheim, Steven (0006-1) • Sondheim, Steven (0051-2)
Opposition-Licensing Process	• Barczak, Sara (0001-41)
Opposition-Nuclear Power	• Bille, Finn (0001-68) • Flowers, R. D. (0002-84) • Safer, Don (0001-34) (0001-37) • Smith, Nathan (0050-2) • Zeller, Lou (0001-57)
Outside Scope-Emergency Preparedness	• D'Arrigo, Diane (0054-11)
Outside Scope-Miscellaneous	• Fitzgerald, Sara (0052-13) • Gorenflo, Louise (0048-15) • O'Donohue, Kathleen (0055-15) • Bennett, Liz (0017-1)
Outside Scope-NRC Oversight	• Bailey, Ron (0016-3) • Fitzgerald, Sara (0052-14) • Gorenflo, Louise (0048-16) • O'Donohue, Kathleen (0055-16) • Safer, Don (0001-24)
Outside Scope-Safety	• Bennett, Liz (0017-11) (0017-16) (0005-5) • Couch, Terry (0002-13) (0054-8) • D'Arrigo, Diane (0054-15) • Deason, Dan (0001-22) • Deason, Dan (0021-2) • Fitzgerald, Sara (0052-7) (0048-9) • Gorenflo, Louise (0048-10) • Kitchens, George (0018-3) • Morgan, Garry (0001-50) • Morgan, Garry (0022-2) • Moss, Tom (0001-74) • Moss, Tom (0014-2)

Comment Category	Commenter (Comment ID Number)
	• O'Donohue, Kathleen (0055-8) (0055-9) • Rad, Zachary (0002-42) • Safer, Don (0001-27) • Shepard, Sheila (0002-17) • Shepard, Sheila (0025-3) • Sondheim, Steven (0051-9)
Outside Scope-Security and Terrorism	• Bennett, Liz (0017-5) • Collins, Judy (0058-9) (0054-9) • D'Arrigo, Diane (0054-14) • Fitzgerald, Sara (0052-12) • Gorenflo, Louise (0048-14) • Harrison, Ann (0002-28) • McCluney, Dr. Ross (0002-67c) • McCluney, Dr. Ross (0002-68) • O'Donohue, Kathleen (0055-14) • Safer, Don (0001-32)
Process-COL	• Barczak, Sara (0001-3) • Barczak, Sara (0002-2) (0002-64) (0023-10) • Barczak, Sara (0057-10) (0057-13) • Gorenflo, Louise (0001-1) • Gottfried, Yolande (0001-5) • Hall, April (0002-1) • Hall, April (0053-1) • Harrison, Ann (0001-4) • McCluney, Dr. Ross (0002-3) • Zeller, Lou (0001-58)
Process-NEPA	• Gorenflo, Louise (0001-2) • Sondheim, Steven (0051-1)
Socioeconomics	• Carter, Zella (0044-2) • Flowers, R. D. (0002-82) • Gorenflo, Louise (0001-47) • Gorenflo, Louise (0002-21) • Gorenflo, Louise (0002-22) (0002-23) (0002-24) (0002-25) (0002-26) • Houseton, Kate (0002-48) • Rogers, Goodrich (0001-13) (0001-14) • Rogers, Goodrich (0045-2) • Rogers, Goodrich (0045-3) • Shepard, Sheila (0002-15) • Shepard, Sheila (0002-16) (0025-2)

Comment Category	Commenter (Comment ID Number)
	• Smith, Keith (0002-8) (0007-2) • Tidmore, James (0001-11) • Tidmore, James (0012-2) • Timberlake, Ralph (0001-88)
Support-Licensing Action	• Anderson, Philip (0011-1) • Bailey, Ron (0016-1) • Carter, Zella (0044-1) • Cook, Faye (0032-1) • Couch, Terry (0002-9) • Couch, Terry (0008-4) • Counts, Michael (0031-1) • Cramer, Bud (0001-8) • Cramer, Bud (0002-6) • Cramer, Bud (0020-1) • Dawson, Stuart (0059-1) • Deason, Dan (0001-21) (0001-23) • Deason, Dan (0021-1) (0021-3) • Deason, Dan (0040-1) • Fossett, Ron (0038-1) • Gibson, Dr. Thomas A. (0001-18) • Gibson, Dr. Thomas A. (0026-3) • Hamilton, Darryl (0039-1) • Hodges, Glenda (0001-80) • Houseton, Kate (0001-56) • Houseton, Kate (0002-49) • Houseton, Kate (0002-51) • Keele, Rickey (0036-1) • Kitchens, George (0001-85) • Kitchens, George (0030-1) • Lackey, Thomas (0009-1) • Lee, Wanza (0019-2) • Lovelady, Bunn (0029-1) • McBride, Faye (0060-1) • McCamy, Jim (0002-5) • Rad, Zachary (0002-39) • Roden, Rick (0001-20) • Roden, Rick (0043-1) • Rogers, Goodrich (0045-1) • Sandlin, Jimmy (0002-29) (0002-33) • Sandlin, Jimmy (0024-1) (0024-5) • Shepard, Sheila (0002-14)

Comment Category	Commenter (Comment ID Number)
	• Shepard, Sheila (0025-1) • Shett, Billy (0033-1) • Smith, Keith (0002-7) • Smith, Keith (0007-1) (0008-4) • Steiner, William (0049-1) • Stewart, Bryan (0041-1) • Thackerson, Leslie (0010-1) • Tidmore, James (0001-10) (0001-12) • Tidmore, James (0012-1) • Tipton, Katye (0042-1) • Vaught, Butch (0035-1) • Wheeler, Bill (0037-1) • White, Debbie (0061-1) • Williams, Rudder (0027-1) • Woods, Christopher (0034-1)
Support-Licensing Process	• Barczak, Sara (0001-39) • Barczak, Sara (0002-55) • Gottfried, Yolande (0001-72) • Houseton, Kate (0001-54) • Houseton, Kate (0002-45) • McCamy, Jim (0001-6) (0001-7) • McCamy, Jim (0002-4) • McCluney, Dr. Ross (0001-51) • Morgan, Garry (0001-49) • Reynolds, Bill (0001-77)
Support-Nuclear Power	• Bailey, Ron (0016-2) • Cramer, Bud (0001-9) • Lee, Wanza (0019-1) • Rad, Zachary (0002-40) • Sandlin, Jimmy (0002-31) • Sandlin, Jimmy (0024-3) • Steiner, William (0049-3)
Transportation	• Bennett, Liz (0017-4) • Bennett, Liz (0017-14) (0015-8) (0015-8) • Collins, Judy (0058-8) • D'Arrigo, Diane (0054-4) • Fitzgerald, Sara (0052-8) • Gorenflo, Louise (0048-11) • O'Donohue, Kathleen (0055-10)
Uranium Fuel Cycle	• Bennett, Liz (0017-13) (0005-2) (0015-2)

Comment Category	Commenter (Comment ID Number)
	• Collins, Judy (0058-10) • D'Arrigo, Diane (0001-65) • D'Arrigo, Diane (0054-3) (0054-5) • D'Arrigo, Diane and Mariotte, Michael (0002-52) • Fitzgerald, Sara (0052-9) • Gorenflo, Louise (0048-12) • McCluney, Dr. Ross (0002-69) • McCluney, Dr. Ross (0002-72) (0002-75) • O'Donohue, Kathleen (0055-11) • Reid, Jim (0047-1) • Safer, Don (0001-30) • Sandlin, Jimmy (0002-32) • Sandlin, Jimmy (0024-4) • Sondheim, Steven (0051-11)

Bellefonte Combined Construction and Operating License
Public Scoping Meeting
Comments and Responses

The comments and suggestions received as part of the scoping process are summarized and discussed below. Parenthetical numbers after each comment refer to the Comment Identification (ID) number (document number-comment number) and the commenter name. Comments are grouped by category.

The draft EIS will take into account the relevant issues raised during the scoping process, and it will be made available for public comment.

The comment period for the draft EIS will offer the next opportunity for the applicant; interested Federal, Tribal, State, and local government agencies; local organizations; and members of the public to provide input to the NRC's environmental review process. The comments received on the draft EIS will be considered in the preparation of the final EIS. The final EIS, along with the staff's Safety Evaluation Report (SER), will be considered in the NRC's decision on TVA's COL application for the Bellefonte site.

1. Comments Concerning the COL Process

Comment: How do you get from the EIS to the decision of whether or not to grant this license? How likely is it that after going through all this process is there a probability that the license would not be granted? And do you ever not grant licenses in these cases? (**0001-5** [Gottfried, Yolande])

Response: *The licensing process for COL applications is specified in Title 10 of the Code of Federal Regulations (CFR) Part 52. The environmental review process associated with new reactor licensing includes a detailed review of an applicant's combined license application to determine the environmental effects of building and operating the nuclear power facility for up to 40 years. After review of the application against the regulations and regulatory guidance, a hearing will be held on uncontested issues (and, if necessary, contested issues) to determine whether it is appropriate to grant the license. NRC approval of an application for a COL is not a foregone conclusion. Safety issues as well as the environmental ones will be evaluated before a decision on an application is reached. As the Bellefonte application is one of the first to go through the COL process, data about the number of new licenses that have been denied during this process are not available at this time. As described in the regulations, based on the finding of its review, the NRC can deny an application.*

Comment: Blue Ridge Environmental Defense League and the Bellefonte Efficiency and Sustainability Team filed a supplemental motion to suspend the license process or ask for a 60-day delay in filing of documents. ... There are documents lacking, not posted to the NRC website, which we need for our review at this time. It is unfair to ask the public or a public interest organization to review an incomplete application, an application which TVA has had since October to get right. (**0001-58** [Zeller, Lou])

Comment: Is it too late to get the digital certificate to file electronically? And can you all explain the differences in benefits between intervening and just commenting? (**0002-1** [Hall, April])

Comment: We really appreciate the NRC having an Environmental Scoping Meeting. But given what just occurred, it's probably a good idea to have the Environmental Scoping Meeting not five days in advance of the deadline when you now need a digital ID that takes a five-day process. (**0002-2** [Barczak, Sara])

Comment: We would like to comment on the difficulty with reviewing the application. Though we appreciate having the resources available online, and we truly do, it is a very cumbersome process to do so. Regular citizens and policy makers do not have the time to wade through these thousands of pages that have to be downloaded, at times individually. Some pages in this thing are more than 13 megabytes, which takes a long time. ... This is very time consuming. (**0002-64** [Barczak, Sara])

Comment: Lastly, we would like to comment on the difficulty with reviewing the application. Though we appreciate having the resources available on-line, it is a very cumbersome process to do so. Regular citizens and policymakers do not have the time to wade through these thousands of pages that have to be downloaded at times individually. (**0023-10** [Barczak, Sara])

Comment: We request that NRC extend the public comment period an additional 60 days to allow stakeholders to review the volumes of information contained in the application. (**0053-1** [Hall, April])

Comment: Public Participation Concerns Lastly, we would like to comment on the difficulty with reviewing the application. Though we appreciate having the resources available on-line, it is a very cumbersome process to do so. Regular citizens, policymakers, and regulators likely do not have the time to wade through these thousands of pages that have to be downloaded at times individually. For instance, the tables and figures and even acronyms have to be downloaded separately even though they are mentioned within the chapters. This is very time consuming. (**0057-10** [Barczak, Sara])

Response: *Commenters at the April 3, 2008 public scoping meeting in Scottsboro, Alabama, expressed concern that they would not have enough time to review the staff's SER and EIS before filing their petitions to intervene in the hearing on the Bellefonte COL application. The Commission's rules of practice in 10 CFR Part 2 require that petitions to intervene be submitted within a specified period after a Notice of Hearing for the application is published in the Federal Register. Any petition to intervene needs to be based on the information provided in the COL application. The application was accepted on January 18, 2008 and the Notice of Hearing was published in the Federal Register (73 FR 07613) on February 8, 2008. Petitions to intervene must be filed no later than 60 days from the date of publication of the Notice of Hearing. In response to requests by members of the public at the scoping meeting, the Commission granted an extension of 60 days.*

Comment: [E]verything in the Environmental Review that was submitted by TVA is that open for --is that part of the EIS comments? Is that game for the comments? ... Everything that's in the Environmental Review would be captured by your EIS? (**0001-1** [Gorenflo, Louise])

Comment: Are you going to do a totally from ground zero EIS, or are you going to reach back into history 30 years ago and pull up that? Because the world changed 30 years in five years just here in this community. I wonder where you're going to start with the EIS. How much are you going to use of current information? And at what point will the public be aware of where you're going to start from? (**0001-4** [Harrison, Ann])

Response: *The NRC staff will prepare an EIS in accordance with the requirements of 10 CFR 52.18 and 10 CFR Part 51. In its review, the staff will focus on the environmental effects of construction and operation of two reactors as presented in the ER submitted by TVA. Additional sources are consulted, as needed to conduct an independent review. During the scoping process, the public is invited to participate by submitting comments. The information presented in the applicant's ER is open for comment during the scoping process. If a member of the public is aware of something missing from the ER, or newer information is available that the NRC needs to be aware of for its review, that is what the NRC is looking for during the scoping process. These two comments do not provide specific information relating to the environmental effects of the proposed action and will not be evaluated in the EIS.*

Comment: If someone happens to live just outside the 50-mile radius but they have what they believe is a very serious contention, can they still get standing even though they may be 55 or 60 miles out? (**0002-3** [McCluney, Dr. Ross])

Response: *A 50-mile radius is not mentioned in the requirements for standing as defined in 10 CFR 2.309(d). Legal standing in the filing of a petition to intervene in the COL process is determined by the Commission, presiding officer, or Atomic Safety and Licensing Board, designated to rule on the request. The request is required to include the name, address, and telephone number of the requestor or petitioner, the nature of the requestor's/petitioner's right under the Atomic Energy Act to be made a party to the proceeding, the nature and extent of the requestor's property, financial or other interest in the proceeding, and the possible effect of any decision or order that may be issued in the proceeding on the requestor's/petitioner's interest. This comment does not provide specific information relating to the environmental effects of the proposed action and will not be evaluated in the EIS.*

Comment: A question on the process of NRC's review of the generic change to the AP 1000 certified design. How is that rolled into the development of the Draft EIS and how are citizens supposed to follow that part of the process? (**0001-3** [Barczak, Sara])

Response: *10 CFR 52.79(b) states that the final safety analysis report for a COL may incorporate by reference the final safety analysis report for a certified standard design, as TVA has done in the Bellefonte ER referencing the certified AP 1000 design. Currently, the AP 1000 design is certified, but a proposed amendment is under NRC staff review. That process is going on in parallel to the Bellefonte COL review. Before a COL license could be issued for Bellefonte, the changes to the AP 1000 design would have to be codified in the regulations. This comment does not provide specific information relating to the environmental effects of the proposed action and will not be evaluated in the EIS.*

Comment: We also request that the NRC develop a new format for applicants to use that increases the ease at which online reviews can occur. In fact, given the large numbers of applications currently under review and soon to be filed, this is of paramount importance if increasing public participation is truly a goal of the NRC. (**0057-13** [Barczak, Sara])

Response: *The COL review process is being conducted under NRC's environmental protection regulations in 10 CFR Part 51, which includes the format for the public participation process. This comment relates to the overall COL process. The adequacy of the process is not within the scope of the environmental review related to Bellefonte; however, this comment has been forwarded to the applicable department within the NRC. This comment does not provide specific information relating to the environmental effects of the proposed action and will not be evaluated in the EIS.*

2. Comments Concerning Process – NEPA

Comment: I assume that TVA is also working on an Environmental Impact Statement parallel to this process and that --who can we contact within TVA to learn the progress of that report? ... Who is right now working on the Environmental Impact Statement? (**0001-2** [Gorenflo, Louise])

Response: *TVA stated that it is not writing a parallel EIS at this time. It is currently working on the environmental input to the Combined License. For more information on the TVA process, contact Jack Bailey or Jim Chardos of TVA.*

Comment: NEPA-in general .....I. We challenge that the Need for Bellefonte not established II. Better Alternatives analysis needs to be done III. Analysis of a variety of issues needs to be done (**0051-1** [Sondheim, Steven])

Response: *The NRC's EIS will discuss the need for power and alternatives to the proposed facility in Chapters 8 and 9 of the EIS. As it is unclear specifically what is meant in the comment by "analysis of a variety of issues needs to be done," the comment will not be evaluated in the EIS.*

3. Comments Concerning Meteorology and Air Quality

Comment: I live downwind from Sequoyah, Browns Ferry, Widow's Creek Coal Burning Plant, and Watts Bar, and perhaps the proposed Bellefonte Plant. I am concerned about that. (**0001-60** [Kurtz, Sandy])

Response: *The NRC staff will evaluate the impacts of operation of the proposed plant in its evaluation of the COL application, and a discussion of both radiological and nonradiological impacts will be presented in Chapter 5 in the EIS.*

Comment: Nuclear power is clean in that it produces no airborne emissions or greenhouse gases. (**0001-84** [Kitchens, George])

Comment: [N]uclear produces none of the airborne emissions associated with poor air quality, smog, and climate change. (**0002-47** [Houseton, Kate])

Comment: Nuclear power is clean, in that it produces no airborne emissions. (**0018-2** [Kitchens, George])

Response: *The airborne emissions from proposed nuclear plants, although normally sufficiently small as to not degrade air quality or be important in climate change, will be considered in the evaluation of potential impacts. The impacts on air quality resulting from construction and operation of proposed units will be discussed in Chapters 4 and 5 of the environmental impact statement. The impacts of nuclear power generation on climate change and global warming will be addressed in the environmental impact statement in the chapter on the environmental impacts of the nuclear fuel cycle.*

Comment: I just wanted to go over a couple of graphics. ...This is the 50 mile perimeter. And this is from the TVA Environmental Report and so that shows the territory of everyone who is defined as having standing. This is what is called a wind rose and it shows the prevailing winds from the Bellefonte site. And you know that over time how the wind is blowing different ways. So if you put --you really can't -but you get the sense --well, I guess you can. There we go. Something --where is Bellefonte? Right there. You can get a sense of if for the atmospheric releases the direction that the wind will be going. (**0002-18** [Gorenflo, Louise])

Comment: [W]e live in Chattanooga. You saw Louise Gorenflo's wind rose. The fatter tubes are where the wind blows mostly, okay? And the fatter tubes blow mostly toward me and my daughter, okay. Chattanooga, in other words. We're well within the 50 mile ring of that thing. And I'm concerned about our safety. (**0002-77** [Flowers, R. D.])

Response: *NRC staff will evaluate the implications of the local climatology on the proposed action during its evaluation of the COL application and a discussion of the pertinent aspects of the local climatology will be presented in Chapter 2 in the EIS. The wind rose plots provide both wind speed (thickness) and wind frequency (length) for each of sixteen wind directions. Potential downwind impacts from construction and operation will be considered in Chapters 4 and 5 of the EIS.*

Comment: The predicted effects of global warming in the region, such as summer heat waves or droughts, could negatively impact the ability for the proposed reactors at Bellefonte to generate electricity under those conditions if the Tennessee River is impacted. This deficiency was demonstrated by the 2006 summer heat wave when nuclear power plants across Europe and, yes, even in France, had to shut down because the water temperatures were too high. This happened in the TVA region. Beginning in the summer of 2006, extreme heat forced TVA to interrupt power to some industrial customers for the first time since 2003. TVA also had to lower levels in its Tennessee River reservoirs to generate power and provide cooling water for plants. The application has no mention of the predicted impacts of global warming in terms of temperature and drought on the Tennessee River and how that could impact the operation of Bellefonte reactors. The NRC should evaluate these concerns in the Draft EIS. (**0002-63** [Barczak, Sara])

Comment: A number of people who are in support of the TVA proposal have acknowledged that climate change and global warming is an issue here. And some claim that nuclear power can be used to mitigate the effects of climate change. There's a big problem with that view. ... the extreme weather, floods, droughts, and other climate effects brought on by the increasing levels of carbon in our atmosphere should be a concern. In fact, we don't know what the effects of climate change and global warming will be. Historical climate data does not apply, as we are traveling into new territory. (**0002-85** [Moss, Tom])

Comment: The predicted effects of global warming in the region, such as summer heat waves or droughts, could negatively impact the ability for the proposed reactors at Bellefonte to generate electricity under those conditions if the Tennessee River is impacted. This deficiency was demonstrated by the 2006 summer heat wave, when nuclear power plants in France, Germany, and across Europe, and in the U.S., had to shut down because the water temperatures were too high. These effects also happened in the TVA region. During the summer of 2006, extreme heat forced TVA to begin interrupting power to some industrial customers for the first time since 2003. TVA also had also been forced to lower levels in its Tennessee River reservoirs to generate power and provide cooling water for plants. The application has no mention of the predicted impacts of global warming in terms of temperature and drought on the Tennessee River and how that could impact the operation of Bellefonte reactors. The NRC should evaluate these concerns in the draft EIS. (**0023-9** [Barczak, Sara])

Comment: The predicted effects of global warming in the region, such as summer heat waves or droughts, could negatively impact the ability for the proposed reactors at Bellefonte to generate electricity under those conditions if the Tennessee River is impacted. This deficiency was demonstrated by the 2006 summer heat wave, when nuclear power plants in France, Germany, and across Europe, and in the United States, even this past year, had to shut down because the water temperatures were too high. These effects also happened in the TVA region. During the summer of 2006, extreme heat forced TVA to begin interrupting power to some industrial customers for the first time since 2003. TVA also had also been forced to lower levels in its Tennessee River reservoirs to generate power and provide cooling water for plants." The application has no mention of the predicted impacts of global warming in terms of temperature and drought on the Tennessee River and how that could impact the operation of Bellefonte reactors. The NRC should evaluate these concerns in the draft EIS. (**0057-9** [Barczak, Sara])

Comment: The EIS should fully examine the potential effects of climate change on the Bellefonte 3 and 4 facilities, including the possibility of severe weather-induced accidents. ... The EIS should consider the effect of stronger and more frequent tornados hitting the reactors and waste storage areas of the site directly. Hurricanes should also be considered. The EIS should address the effects of larger and more frequent hurricanes directly hitting the Bellefonte site. ... The EIS should address the possible impacts of climate change on the Tennessee River, the aquifers, and the water supply for Bellefonte and the region. (**0054-13** [D'Arrigo, Diane])

Response: *The NRC evaluation will address climate change in the EIS. Safety related aspects will be evaluated in the safety evaluation report.*

Comment: I refer you to the paper and PowerPoint slide presentation "Preliminary Dispersion Modeling for the NuStart Plant at Bellefonte" by TVA scientists Doyle E. Pittman and Kenneth G. Wastrack found at http://hps.ne.uiuc.edu/numug/archive/2OO6/presentations/pittman doc.pdf. It refers to met data obtained fairly recently and seems to urge a relocation of the reactors, further away from the southern site boundary. ... All I can do is urge your scientists to look closely at what TVA has said about dispersion, in the light of the changing climatological conditions in our region, some attributable to global warming effects. Living northeast of the site, in the direction of the peak fluke in the wind rose for wind speed and direction probability at the Bellefonte site, my wife and I are personally concerned about our safety. (**0056-2** [McCluney, Dr. Ross])

Response: *NRC staff will evaluate the implications of the local climatology on the proposed action during its evaluation of the COL application and a discussion of the pertinent aspects of the local climatology will be presented in Chapter 2 in the EIS. Potential downwind impacts from construction and operation for the proposed site will be considered in Chapters 4 and 5 of the EIS.*

4. Comments Concerning Geology and Seismology

Comment: [W]hat I'd like to talk about now is another subject related to the karst terrain and what I believe is unstable ground out where the current plant is. And of course, we're fixing to build two more plants in that ground. It is a sinkhole area. ... Out in that area not only is it karst terrain or sinkhole terrain, there's also a minor seismic fault which runs basically north and south directly east of the plant. And that is, I believe, that's part of the Brevard Fault System. And that's east of the nuclear plant is a ridge called River Ridge. And on that ridge we have certain rocks and stuff kind of like this. This is chert. And they have some slate rocks. We also have hard limestone rocks and we also have a little bit below River Ridge into the karst terrain, where the nuclear plant will be located, some rocks that are limestone. But they're not hard like this limestone here. These rocks --and I'll demonstrate for you. (Uses hands to show how rocks crumble.) They come apart and the reason they come apart is because they are dried out. This is what we have when we have drought. Now I did not notice in the COL that the TVA submitted in their application where there's any mention about the seismic problem with this area. ... And I would ask that the NRC consider this, consider these rocks, and the terrain that we have in this area when they review the application. I do not believe it is a stable area. And as I'm asking that the NRC look at this very carefully in the TVA's application. (**0002-54** [Morgan, Garry])

Comment: They [TVA] didn't adequately deal with the earthquakes or the possibility of earthquakes, the geology. (**0002-80** [Flowers, R. D.])

Comment: TVA's Environmental Report, Part 3, Hydrogeology, fails to consider historical maps of the area which clearly reflect sinkhole formation on and near the plant site, Inclosures 3-1 thru 4. The word Bellefonte means beautiful spring. The Environmental Report on page 2.3-24 states, No springs were observed in the vicinity of BLN with the exception of small, seasonal and wet weather seeps with no measurable flow. On Inclosure 3-1 the historical Bellefonte Spring may be seen about 100 yards west southwest of the Hansbrough Cemetery and outlined in blue on Inclosure.3-1 and 3-3, less than 1 mile from the plant site. On page 2.3-23, Regional Hydrogeology, the Environmental Report states the aquifer systems of the area

reflect a flow which yields 10-50 gallons per minute, gpm, of water. Inclosure 4, 1989 Geological Survey of Alabama, Groundwater Availability Map of Jackson County reflects yields of 50-500 gpm. ...The application does not discover or consider the effects of drought ... on the karst terrain, of the area which the proposed Nuclear Plant will be built. This terrain area displays physical characteristics which are unsuitable for a Nuclear Power Plant as it creates an unacceptable level of risk not discussed in the application. On this basis I am requesting TVA's COL Application be denied for the Bellefonte site. (**0022-1** [Morgan, Garry])

Comment: [H]ow thorough, if any, have the studies been to determine the strength of the sub-structure in this portion of the valley? (**0047-4** [Reid, Jim])

Comment: I have become concerned about the karst topology of the region, the numerous caves and sinkholes near the site, and the sinkhole that appears as a pond, but is very deep, on a topo map that includes the site. Coupling this with the earthquake that occurred in southern Illinois recently, with aftershocks that appear to have had an even higher reading on the Richter scale, I think you must take a very careful look at TVA's work on the combined geology, hydrology, seismic, and other safety issues at the Bellefonte site. None of these should be considered in isolation from the others. (**0056-1** [McCluney, Dr. Ross])

Response: *The integrity of the rock and seismic features at the proposed Bellefonte site are matters that will be reviewed by the staff. However, these are safety issues and not within the scope of the Environmental Impact Statement. Safety issues including, but not limited to, seismic concerns, soil and rock static and dynamic strength, and soil and rock stability are all addressed in the applicants Final Safety Analysis Report (FSAR), which is Part 2 of the application. These and other safety topics are reviewed by the NRC staff, and that review is documented in the Safety Evaluation Report (SER) issued by the NRC. Hydrology resource issues, as they relate to the geology and climate, will be evaluated in Chapters 2, 4, 5, and 7 in the EIS.*

5. <u>Comments Concerning Hydrology – Surface Water</u>

Comment: I quickly wanted to show you is this drawing here, the Bellefonte site and downstream from that site is Scottsboro water intake.
(**0002-19** [Gorenflo, Louise])

Comment: Our water intake pipe is downstream from Bellefonte at the B.B. Comer Bridge. (**0015-3** [Bennett, Liz])

Comment: [W]hat is the estimated water temperature increase in the Tenn River/Guntersville Reservoir at various down-stream points. (**0047-2** [Reid, Jim])

Comment: Thermal Pollution: The water withdrawn from the Tennessee River will be used to cool the coolant that passes through the nuclear core. (Remember, the nuclear reactor is being used to boil water to create steam.) The water returned to the Tennessee River will have a temperature of 91 degrees. Brown's Ferry and Sequoyah both had serious problems with the discharge being too close to the intake, preventing full operation during the hottest months. Both had to be shut down this summer because of high intake water temperature. NPDES Permit - cannot discharge water warmer than 86.9 degrees F. (**0052-5** [Fitzgerald, Sara])

Comment: The ER inaccurately reports that none of the waters in the vicinity of the site are water-quality impaired (page 2.3-40). While Guntersville reservoir and Town Creek do not appear on the recent Alabama 303(d) list, a total maximum daily load (TMDL) has been prepared for Town Creek for ammonia and low dissolved oxygen. Please instruct TVA to update the ER to reflect the current water quality conditions and TMDL in Town Creek. The TMDL can be found on the Water Division page of ADEM's website, www.adem.state.al.us. (**0053-3** [Hall, April])

Comment: Thermal Pollution: The water withdrawn from the Tennessee River will be used to cool the coolant that passes through the nuclear core. (Remember, the nuclear reactor is being used to boil water to create steam.) The water-returned to the Tennessee River will have a temperature of 91 degrees. ... According to the State of TN, TVA cannot discharge water warmer than 86.9 degrees F. (**0055-5** [O'Donohue, Kathleen])

Comment: The Tennessee River and the water supply would need to be monitored for radioactive tritium, and who would do it? (**0017-12** [Bennett, Liz])

Comment: Thermal Pollution: The water withdrawn from the Tennessee River will be used to cool the coolant that passes through the nuclear core. ... According to the State of TN, TVA cannot discharge water warmer than 86.9 degrees F. (**0048-5** [Gorenflo, Louise])

Response: *The construction and operation of a nuclear plant involves some discharges to nearby water bodies. The Clean Water Act designated the EPA as the Federal agency with responsibility for effluent discharges to the nation's waters. While the NRC does not regulate effluents other than radiological effluents, it does have the responsibility under NEPA to assess and disclose the expected impacts of the proposed action on water quality throughout the plant's life. The staff's assessment will determine if the designated uses of the local and regional water supplies are jeopardized by the construction or operation of a nuclear plant at the proposed site. The staff's assessment of the nonradiological impacts to water quality will be presented in Chapters 4 and 5 of the EIS for construction and operation, respectively.*

Comment: Which environmental issue should the NRC consider during its review of the Combined Licensing. Environmental issues, water, volume and temperature, quality. The number of nuclear facilities above and below Bellefonte on the Tennessee River, the number of coal fired plants. The drought, floods. Last summer Browns Ferry Nuclear Plant had to shut down because the water temperature was too high to use it at time of peak demand. Hydrologic issues. (**0001-26** [Safer, Don])

Comment: In terms of water impacts, nuclear power plants have a large impact on water quantity and quality. They release radioactive contaminants and hazardous chemicals into the surrounding water resources. They contribute to thermal pollution, negatively impact aquatic life, and require enormous volumes of water. They require more water use than other traditional forms of energy production and significantly more water than energy efficiency measures and clean energy technologies, such as solar and wind. This reality is not mentioned in the application. According to TVA's application, the two Bellefonte reactors will withdraw over 71 million gallons of water per day from the Tennessee River, via the Guntersville Reservoir, and consume or lose over 46 million gallons per day, returning only about a third. This

represents more water consumption than all public water systems in the Guntersville Watershed combined. ... The plant will be competing with other important water users in Alabama and the region. Yet the application does not acknowledge the impacts this may have, nor does it ponder the impacts this could have during severe drought conditions, such as we have experienced recently. The NRC needs to address this in the Draft EIS. The Tennessee River upon which Bellefonte is located is already stressed from a variety of industrial and municipal users. The full extent of this degradation is not discussed in the application. (**0001-45** [Barczak, Sara])

Comment: These two Bellefonte nuclear reactors will draw 71 million gallons of water per day. Seventy-one million gallons per day from the Guntersville Reservoir. The withdrawal of such massive amounts of water, given the increased development upstream and around Guntersville Reservoir, cannot be sustained and still protect the riverine ecosystem or allow for ample drinking water and other business and industrial needs of municipalities in the future. We heard about the new industrial park. They will need water. Bear in mind that there are already the existing Widow's Creek Steam Plant withdrawals and the upstream withdrawals from existing nuclear plants. In fact, the amount of water that will be required by Bellefonte as we heard earlier is more than that taken by all the municipalities' existing water systems now drawing their drinking water from the Guntersville Reservoir. I think a reassessment is needed of this information. (**0001-61** [Kurtz, Sandy])

Comment: Not to mention the drought in this area which has been mentioned. In Sewanee where I live, we've looked at the national drought maps over the summer. That big dark red spot of exceptional drought was sitting right over our area here all summer. And we're going to take this amount of water which has been referred to out of our rivers at this time? There's no guarantee that this drought is over. (**0001-71** [Gottfried, Yolande])

Comment: Here's another concern about water consumption. And I have a personal interest in this because I live downstream. TVA proposes building a thirsty monster which will consume as much water from the Tennessee River as the people who live along it take from the river now. Yes, the amount of water taken from the river will double. And I'm not talking about the hot water that is returned to the river to wreck the ecology. I'm talking about the river water that is lost. Maybe TVA doesn't know it. But we're in exceptional drought conditions here in the Tennessee Valley. We've been in a drought for years. Communities are considering new water treatment plants that will take additional water from the Tennessee River. Millions of thirsty residents of Atlanta have their eyes on that water too. Building a nuclear power plant that will consume millions of gallons of water every day is just not sustainable. (**0001-75** [Moss, Tom])

Comment: [L]ast summer—several of you had mentioned droughts—TVA reduced power output at several of its power plants, nuclear and fossil, to maintain water quality in the Tennessee River. (**0001-81** [Kitchens, George])

Comment: I think the most important concern is that the Bellefonte facility is within an area that is in extreme drought. With the facilities releasing or using over 70 million gallons of water a day with over 40 million gallons going into the atmosphere, this cannot be good for the people within the area or the environment. And this fact alone should be enough to stop the feasibility of this project. (**0001-93** [Plumlee, Jon])

Comment: We have looked at how much water is withdrawn for these units. Even though it is a lot in gallons per minute, it's equivalent to about point two percent of the water that flows past the plant. That's not a large amount of water in terms of the Tennessee River and what flows by there. Doesn't mean that we're not doing everything we can to look for ways to reduce that even further. And I think as we go forward and build plants, this plant or other plants, we'll continue to look for ways to minimize the use of water if we can. (**0001-96** [Bailey, Jack])

Comment: [T]here is concern about the water usage, temperature, and availability. For example, we know that these two proposed nuclear reactors will require 71 million gallons of water per day to cool them in order to stay in operation. And you think, well, that water, it's used to cool and then it goes back into the river. But I have learned that only a third of it goes back into the river and the rest is evaporated away. So there is a significant loss of that water. And given all of the other pressures and the other uses of water, I think this is a serious problem just as to how much water is going to be left in the reservoir after all is said and done given the uses of the other nuclear plants and Widow's Creek Fossil Fuel Plant B-Steam Plant as well. Climate change scientists indicate that there will be ongoing water shortages, such as those that caused Browns Ferry and Sequoyah Nuclear Plants to shut down this past summer. If we are dependent on additional nuclear power that adds to the massive amounts of water already drawn from the Tennessee River System it places stress on the availability of drinking water supplied by the existing public water systems, not to mention the health of the aquatic eco-systems already under severe pressure. (**0002-35** [Kurtz, Sandy])

Comment: In terms of water ... According to TVA's application, the two Bellefonte reactors will withdraw over 71 million gallons of water per day from the Tennessee River via the Guntersville Reservoir and consume or lose over 46 million gallons per day returning only about one third. This represents more water consumption than all public water systems in the Guntersville Watershed combined. The plants will be competing with other important water users in Alabama and the region. The NRC needs to address this in the Draft EIS. (**0002-59** [Barczak, Sara])

Comment: They [TVA] didn't deal with the realistic projections on the water flow. (**0002-81** [Flowers, R. D.])

Comment: TVA proposes building a thirsty monster that will consume as much water from the Tennessee river as the people who live along it take from the river now. Yes, the amount of water taken from the river will double, and I'm not talking about the hot water that is returned to the river to wreck the ecology. I'm talking about the river water that is lost. Maybe TVA doesn't know it, but we're in exceptional drought conditions here in the Tennessee Valley. We've been in a drought for years. Communities are considering new water treatment plants that will take additional water from the Tennessee River. Millions of thirsty residents of Atlanta have their eyes on that water, too. Building a nuclear power plant that will consume millions of gallons of water every day is just not sustainable. (**0014-3** [Moss, Tom])

Comment: Nuclear power plants have a large impact on water quantity and quality. Nuclear power plants release radioactive contaminants and hazardous chemicals into surrounding water resources, contribute greatly to thermal pollution, negatively impact aquatic life, and require enormous volumes of water in order to operate—requiring more water use than other traditional

forms of energy production, and significantly more water than energy efficiency measures and clean energy technologies such as solar and wind. This reality is not mentioned in the application. According to TVA's application, the two Bellefonte reactors will withdraw over 71 million gallons of water per day (mgd) from the Tennessee River (via the Guntersville reservoir) and consume, or lose, over 46 mgd, returning only about one third. This represents more water consumption than all public water systems in the Guntersville watershed combined.' The plant will be competing with other important water users in Alabama and the region. Yet, the application does not acknowledge the impacts this may have, nor does it ponder the impacts this could have during severe drought conditions, such as we have experienced recently. The NRC needs to address this in the draft EIS. (**0023-4** [Barczak, Sara])

Comment: Bellefonte Water Concerns Drought: The Bellefonte area has experienced an exceptional drought, one of the worst droughts the Southeast has ever experienced. According to TVA's application to the NRC, the two reactors will withdraw over 71 million gallons of water per day (mgd) from the Tennessee River (via the Guntersville Reservoir) and evaporate two-thirds of that through its cooling towers. Only one-third of the water withdrawn will return to the river. The amount of water evaporated to cool the nuclear core is more than the water used by all the public water systems in the Guntersville watershed combined. (**0048-4** [Gorenflo, Louise])

Comment: Drought: The Bellefonte area is experiencing an exceptional drought, one of the worst droughts the Southeast has ever experienced. According to TVA's application to the NRC, the two reactors will withdraw over 71 million gallons of water per day (mgd) from the Tennessee River (via the Guntersville reservoir) and evaporate two-thirds of that through its cooling towers. Only one-third of the water withdrawn will return to the river. The amount, of water evaporated to cool the nuclear core is more than the water used by all the public water systems in the Guntersville watershed combined. (**0052-4** [Fitzgerald, Sara]) (**0055-4** [O'Donohue, Kathleen])

Comment: The continuing drought is a special concern in the light of the anticipated high water uses of the proposed power plant. (**0051-3** [Sondheim, Steven])

Comment: 7. Under what minimal conditions can the plants operate and how much of the time would they be shut down. Water, temperature, etc. (**0051-8** [Sondheim, Steven])

Comment: During the drought of 2007, TVA was forced to shut down Brown's Ferry nuclear plant due to low flows and high water temperatures in the Tennessee River. As the proposed Bellefonte site is well upstream of the Brown's Ferry plant, similar shutdowns are likely as flows are less at the proposed site. We urge NRC to require a robust drought management and monitoring plan to ensure withdrawals and discharges are not adversely affecting the in-stream and downstream uses of the River. (**0053-2** [Hall, April])

Comment: Nuclear power plants have a large impact on water quantity and quality. Nuclear power plants release radioactive contaminants and hazardous chemicals into surrounding water resources, contribute greatly to thermal pollution, negatively impact aquatic life, and require enormous volumes of water in order to operate--requiring more water use than other traditional forms of energy production and significantly more water than energy efficiency measures and clean energy technologies such as solar and wind. This reality is not mentioned in the

application. According to TVA's application, the two Bellefonte reactors will withdraw over 71 million gallons of water per day (mgd) from the Tennessee River (via the Guntersville reservoir) and consume, or lose, over 46 mgd, returning only about one third. This represents more water consumption than all public water systems in the Guntersville watershed combined. The plant will be competing with other important water users in Alabama and the region. Yet, the application does not acknowledge the impacts this may have, nor does it ponder the impacts this could have during severe drought conditions, such as we have experienced recently. The NRC needs to address this in the draft EIS. (**0057-4** [Barczak, Sara])

Comment: Concerns about these plants: Heating the TN River, using more water than is returned--a terrible problem we cannot afford as water becomes increasingly scarce. (**0058-4** [Collins, Judy])

Response: *The construction and operation of a nuclear plant involves the consumption of water. The staff will independently assess the impact of these consumptive water losses on the sustainability of both the local and regional water resources. This assessment will consider both current and future conditions, including changes in water demands to serve the needs of the future population and changes in water supply resulting from climate variability and climate change. While NRC does not regulate or manage water resources, it does have the responsibility under NEPA to assess and disclose the impacts of the proposed action on water resources. The staff's assessment of the impacts on the sustainability of water resources will be presented in Chapters 4 and 5 of the EIS for construction and operation, respectively.*

Comment: [T]he data and studies in this application are old. It appears that NuStart on this application has done a cut and paste job for TVA. Much of the data appears to come from the original application with studies on water flow and water quantity done between 1992 and 1998. Given climate change concerns, the drought, and population growth, the data needs updating before licensing can be properly considered. … The old data was not thorough or complete. (**0001-62a** [Kurtz, Sandy])

Response: *The Environmental Report did make use of historic data in the analysis presented; however, recent data were also used. The NRC staff's evaluation in the EIS will rely on data presented in the ER as well as on recent field studies performed by the applicant. The staff's assessment of the impacts of construction and operation of BLN Units 3 and 4 on water resources will be presented in Chapters 4 and 5 of the EIS.*

6. Comments Concerning Ecology – Terrestrial

Comment: Tritium in the water would affect ... the waterfowl, the wildlife, and their offspring. (**0017-8** [Bennett, Liz])

Comment: Jackson County is blessed with abundant natural beauty and rich resources, let us not contaminate what we have. (**0015-5** [Bennett, Liz])

Response: *A discussion of the impacts of construction and operation of the proposed units and their impact on the terrestrial environment will be discussed in Chapters 4 and 5 respectively of the EIS).*

Comment: [T]he data and studies in this application are old. It appears that NuStart on this application has done a cut and paste job for TVA. Much of the data appears to come from the original application …. Given climate change concerns, the drought, and population growth, the data needs updating before licensing can be properly considered. Wild life officials have recommended a full biological inventory as there are endangered species --endangered and threatened species --in this area. The old data was not thorough or complete. (**0001-62b** [Kurtz, Sandy])

Response: *The EIS will consider the impact of construction and operation of the proposed BLN units on terrestrial biota that occur on and around the Bellefonte site. The NRC staff's evaluation presented in the EIS will rely on floral and faunal data presented in the ER, data gathered during recent surveys of the BLN site, published distribution and life history information, and information provided by local and regional biologists. The impact of the proposed BLN units, including cumulative impacts on the terrestrial ecology, will be addressed in the EIS.*

7. Comments Concerning Ecology – Aquatic

Comment: [T]he NRC should be aware that the Tennessee River basin as a whole is considered to be the single most biologically diverse river system for aquatic organisms in the United States. And harbors the highest number of imperiled species of any large river basin in North America with 57 species and 4 mussel species considered to be right now "at risk." Many fish and mussel populations throughout the entire Tennessee River Basin including the Middle Tennessee River, which encompasses Guntersville Reservoir site of Bellefonte, are greatly reduced from the historical numbers. The decline cited by fisheries and aquatic invertebrate experts are due to the incremental impacts from dams, urbanization, industrialization, and nuclear power facilities. The application itself even states that within the Guntersville Reservoir alone there has been a 44 percent decline of fresh water fish captured in TVA sampling since 1984. Yet it fails to fully analyze the important ecosystem and evaluate properly the cumulative impacts to the basin. (**0001-46** [Barczak, Sara])

Comment: The Tennessee River, upon which Bellefonte is located, is already stressed from a variety of industrial and municipal users. The full extent of this degradation is not discussed in the application. For instance, the NRC should be aware that the Tennessee River Basin as a whole is considered to be the single most biologically diverse river system for aquatic organisms in the United States, and harbors the highest number of imperiled species of any large river basin in North America with 57 fish species and 47 mussel species considered to be "at-risk." Many fish and mussel populations throughout the entire Tennessee River Basin including the middle Tennessee River, which encompasses Guntersville Reservoir, site of Bellefonte, are greatly reduced from their historical numbers. The declines cited by fisheries and aquatic invertebrate experts are due to the incremental impacts from dams, urbanization, industrialization, and nuclear power facilities. The application even states that within the Guntersville Reservoir alone, there has been a 44% decline of freshwater fish captured in TVA sampling since 1984 (ER § 2.4.2.4). (**0023-6** [Barczak, Sara]) (**0057-6** [Barczak, Sara])

Response: *The EIS will consider the aquatic biota in the Guntersville Reservoir and in other areas of the Tennessee River basin that could be impacted by the construction and operation of the proposed BLN units. The impact of the proposed BLN units, including cumulative impacts, on the aquatic biota in Guntersville Reservoir, including fish and mussels, will be addressed in the EIS.*

Comment: I'll talk a little bit about the environmental concerns I have with Bellefonte. The first being the thermal discharge from the nuclear facilities on the Tennessee River. It's basic knowledge that the aquatic plant and animal life that is in the river is used to living in a certain degree and a certain temperature. And any increase in this temperature will harm that life in the river system. (**0001-91** [Plumlee, Jon])

Comment: [W]hat, if any, are the anticipated effects on plant and animal/fish [of potential water temperature increase in the Tennessee River/Guntersville Reservoir]? (**0047-3** [Reid, Jim])

Comment: Thermal plumes stress aquatic life, affecting species survival. (**0048-6** [Gorenflo, Louise])

Comment: Thermal plumes stress on aquatic life, affecting species survival. (**0055-6** [O'Donohue, Kathleen])

Response: *The NRC staff will assess potential impacts from the thermal discharge of the proposed BLN units on the aquatic biota in the Tennessee River.*

Comment: Another problem with water discharge from nuclear power plants is its temperature. This water is warmer than the water into which it is discharged and the resulting "thermal plumes" cause stress on aquatic life which can include commercially important fish and shellfish. For instance, nuclear power plants aggravate the problem of low dissolved oxygen levels through its heated discharge to lakes and rivers. The State of Tennessee voiced concerns to the NRC about this impact on mussel beds downstream from the Sequoyah Nuclear Plant, which suffered from even lower oxygen levels as it is also downstream from the Watts Bar Nuclear Plant. What about the impacts even further downstream, such as the Bellefonte location? (**0002-61** [Barczak, Sara])

Comment: Another problem with water discharged from nuclear power plants is its temperature. This water is warmer than the water into which it is discharged, and the resulting "thermal plumes" cause stress on aquatic life, which can include commercially important fish and shellfish. Warmer water temperatures proximate to a nuclear power plant result in conditions that effect the feeding and breeding patterns of various species. For instance, nuclear power plants aggravate the problem of low dissolved oxygen levels through its heated discharge to lakes and rivers. The state of Tennessee voiced concerns to the NRC about this impact on mussel beds downstream from the Sequoyah nuclear plant, which suffered from even lower oxygen levels as it is also downstream from the Watts Bar nuclear plant. What about the impacts even further down stream, such as the Bellefonte location? There is no mention of this in the application. (**0023-7** [Barczak, Sara]) (**0057-7** [Barczak, Sara])

Response: *The NRC staff will assess the impact to the aquatic biota in the Tennessee River from thermal discharges and any changes to dissolved oxygen levels that are aggravated by the thermal impacts from the proposed BLN units.*

Comment: [T]he data and studies in this application are old. It appears that NuStart on this application has done a cut and paste job for TVA. … Wild life officials have recommended a full biological inventory as there are endangered species --endangered and threatened species --in this area. The old data was not thorough or complete. (**0001-62c** [Kurtz, Sandy])

Response: *The EIS will provide a description of the site and the existing data available from TVA and resource agencies related to endangered and threatened species, including the data from surveys recommended by the U.S. FWS. The EIS will consider the impact of construction and operation of the proposed BLN units on threatened and endangered terrestrial and aquatic biota.*

8. Comments Concerning Socioeconomics

Comment: The economic impact for Jackson County alone clearly justifies the Commission's position. The number of construction jobs, plus the number of permanent positions created would revolutionize the economic picture in Jackson County. Our county traditionally lags behind other counties in the Tennessee Valley area. This could be completely reversed by this TVA project. Another economic benefit for the county and the whole Tennessee Valley area would be a significant increase in TVA in lieu of taxes. These funds for our county support schools, town and municipal governments, hospitals, ambulance service, county government, fire departments, and rescue squads. (**0001-11** [Tidmore, James])

Comment: [I]t will be the largest economic development project ever in Jackson County. And we would like to have many of our people work in the construction business and also in the plants once it is constructed. We know that that there will be approximately 2,500 construction jobs and 800 permanent jobs. We also know that these jobs will be high paying jobs and highly skilled jobs. We are optimistic that many of the 7,752 people who leave Jackson County every day to work in surrounding counties will be able to save time and money by working here in their home county. We know too that these jobs can really enhance the quality of life for these families. (**0001-13** [Rogers, Goodrich])

Response: *These comments cite some of the projected favorable socioeconomic impacts on the community of plant construction and operation. Socioeconomic impacts of construction and operation of the proposed plants will be addressed in Chapters 4 and 5 of the EIS.*

Comment: [W]e have a corps of workers across North Alabama and Tennessee who are experienced and skilled workers for both the construction trades and the actual operation of a power plant. In fact, Jackson County is within 12 miles of three TVA operating nuclear power plants. We feel like the Tennessee Valley corridor between Oakridge, Tennessee and Huntsville, Alabama is a high tech corridor. And having a new nuclear power plant will enhance this. (**0001-14** [Rogers, Goodrich])

Comment: [I]t [Bellefonte project] will be the largest economic development project in Jackson County which would mean quality jobs for our people. There would be approximately 2,500 construction jobs and 800 permanent jobs. Even though our unemployment rate is 4.4 percent right now and we are doing well economically, there are approximately 7,000 who drive out of our county to the surrounding areas to work every day. These people would be glad to be able to find quality jobs where they could stay at home. Secondly, we have a corps of worker across North Alabama and Tennessee who are very experienced in the construction field and in the actual operation of power plants. As a matter of fact, Jackson County is already within 75 to 125 miles of three operating plants as we speak. Thirdly, North Alabama is one of the fastest growing areas in the state of Alabama. The land area only covers about 16 percent of the state, but this area has accounted for over 35 percent of the new jobs that have been created and investments in Alabama over the past several years. We need this base load of power generated by these two reactors to help sustain growth here. Low cost, reliable electricity is a huge factor in economic growth of our area. And number four, our primary mission at the Economic Development Authority is to assist industries, both our existing industries and new industries that choose to locate in our area. We have a huge industrial base in our area. Even though nationwide manufacturing jobs have dropped off to eight or nine percent in several areas, here in North Alabama we are still at about 16 percent of our workforce is employed in manufacturing. So we must continue to provide a competitive, reliable source of electricity in order to retain these jobs and to stay competitive. (**0002-15** [Shepard, Sheila])

Response: *These comments discuss community responses designed to take advantage of expected economic opportunities as a result of the proposed facility construction and operation. Such activities are part of the context for economic impact and will be discussed in the EIS.*

Comment: Planned construction will increase traffic on local roads by 3,100 vehicles daily. TVA states County Roads 33 and 113 and Bellefonte Road may need expansion. TVA does not offer to pay for these upgrades. This bill will be picked up by the taxpayers of Jackson County and the State of Alabama. TVA expects at least half of the construction force, 1,500 -- this is all in their document --will migrate to Scottsboro and the other half living outside the country. Assuming they bring their families, TVA estimates that the county population will increase by 6,000. But remember this is a transient work force that will migrate to the next construction site once finished here. TVA is not talking about local jobs. They're talking about folks coming in and then leaving. Be aware, TVA makes no promise in its Environmental Review about hiring local people for any position. While a temporary population boom will increase new service jobs in the area, it is critical to remember that the workers will leave when the work is done. And the economic boomlet will decline. Scottsboro and Jackson County will need to pay for an increase in police and fire protection to provide the same level of coverage you enjoy today. Certainly some individuals in the county will profit from the boom in temporary housing. Currently the county does not have enough housing for the peak construction phase according to TVA. And after the construction phase, who will live in these vacant units? TVA estimates that the 1,500 migrant workers will bring with them 1,080 school age children. How many portable classroom and teachers for them will the county have to buy for this temporary student influx? TVA says, "In the long run, the cost of providing education for additional students should be offset by the increase in local government revenues generated by the

plant." Thus the county will spend whatever tax money it gets to provide for the temporary services needed. And then afterwards, you know who will be left holding the bag. Finally after everyone is gone, Bellefonte will have 800 plant operators who may not all choose to live in this county. (**0001-47** [Gorenflo, Louise])

Comment: I personally have suffered all kinds of health and so has my family because of the lack of viable health care facilities in this area. Health care and living in such a pristine area as Jackson County is need to be addressed. (**0001-88** [Timberlake, Ralph])

Comment: The planned construction will increase traffic on local roads by 3,100 vehicles daily. TVA states County Road 33 and 113 and Bellefonte Road may need expansion. TVA does not offer to pay for these upgrades. This bill will be picked up by the taxpayers of Jackson County and the State of Alabama. (**0002-21** [Gorenflo, Louise])

Response: *Socioeconomic impacts such as impacts on transportation and local infrastructure associated with the construction and operation of the Bellefonte Nuclear Station will be considered in Chapters 4 and 5 of the EIS.*

Comment: When Bellefonte project first began years ago, the economy here was booming. The community as a whole supported this project during that time and we were growing by leaps and bounds. Even after the decision was made to close the project, many of the people who worked there chose to stay with us and let Scottsboro become their home. It is no secret that this area as well as the nation will have the need for additional energy resources in the near future. The construction of these two reactors will supply many of those needs, not only for us in this area but also for the country. Our area has experienced a tremendous growth in recent years. And due to BRAC, the Base Realignment and Closure Procedure, that will be impacting our area for the next four years, we will continue to see that growth. This project will be an asset to our community and those endeavors. (**0002-8** [Smith, Keith])

Comment: When the Bellefonte project began many years ago, the economy in our area was booming. The community as a whole supported the project during that time and we grew by leaps and bounds. Even after the decision was made by TVA to stop the construction of the nuclear plant, many of those who worked there chose to stay in Scottsboro and made our city their home. (**0007-2** [Smith, Keith])

Response: *These comments generally express support for the Bellefonte Nuclear Station, based on the potential positive socioeconomic impacts it would be expected to bring to the region. Socioeconomic impacts of construction and operation are discussed in Chapters 4 and 5 of the EIS.*

Comment: [M]y husband is an Assistant Unit Operator at the Browns Ferry Plant in Athens working for TVA. ... since he's been gone to work there, it has enhanced our lifestyle, our quality of life very much. He has a good paying job now. (**0002-16** [Shepard, Sheila])

Comment: It [Bellefonte Project] will be the largest economic development project ever in Jackson County and would mean quality jobs for many of our people who work in the construction business and also in the plant once it is constructed. We know that there will be approximately 2500 construction jobs and 800 permanent jobs. We also know that these jobs

will be high paying jobs and highly skilled jobs. There are currently approximately 7000 people who leave Jackson County every day commute to work in the surrounding area. They will be glad to save time and money by working in their home county. ... We have a corps of workers across North Alabama and Tennessee who are experienced and skilled workers for both the construction trades and the actual operation of a power plant. ... North Alabama is the fastest growing area of this state. The land area is 16% of Alabama and this area accounted for 35% of the new jobs in the last several years. We need the base load power generated by two new reactors to sustain this growth. Low-cost reliable electricity is a very large factor in this economic growth. ... One of our primary missions in Economic Development is to assist local industries. ... We must continue to provide a competitive and reliable source of electricity to retain these existing industries and remain competitive. (**0025-2** [Shepard, Sheila])

Comment: The Tennessee Valley Region is a growing area and I hope that it will continue to grow. I believe that the completion of Bellefonte as a Nuclear Plant will be a great opportunity to bring in jobs to the area. (**0044-2** [Carter, Zella])

Comment: It will be the largest economic development project ever in Jackson County and we would like to have many of our people work there in the construction business and also in the plant once it is constructed. We know that there will be approximately 2500 construction jobs and 800 permanent jobs. We also know that these jobs will be high paying jobs and highly skilled jobs. We are optimistic that many of the people who leave Jackson County every day to work in the surrounding area will be glad to save time and money by working in their home county. We know too that these jobs can really enhance the quality of life for these families. (**0045-2** [Rogers, Goodrich])

Response: *These comments generally expresses support for the Bellefonte Nuclear Station, based on the potential positive socioeconomic impacts it would be expected to bring to the region. Socioeconomic impacts of construction and operation will be discussed in Chapters 4 and 5 of the EIS.*

Comment: TVA expects at least half of the construction force, 1,500, will migrate into Scottsboro. So even though 3,000 people are going to be working here, TVA estimates that only 1,500 will actually be living in Jackson County. The other half will be living in some other county. ... But remember this is a transient workforce that will migrate to the next construction site once finished here. (**0002-22** [Gorenflo, Louise])

Response: *Socioeconomic impacts such as impacts from temporary population increases due to the construction of the Bellefonte Nuclear Station will be considered in Chapter 4 of the EIS.*

Comment: Scottsboro and Jackson County will need to pay for an increase in police and fire protection to provide the same level of coverage you enjoy today. That will come out of your tax dollars. (**0002-23** [Gorenflo, Louise])

Response: *Socioeconomic impacts such as impacts on police and fire protection and other local infrastructure associated with the construction and operation of the Bellefonte Nuclear Station will be considered in Chapters 4 and 5 of the EIS.*

Comment: Currently, the county does not have enough housing for the peak construction

phase. And after the construction phase, who will live in these vacant units? So we're talking about trailer parks. (**0002-24** [Gorenflo, Louise])

Response: *Socioeconomic impacts such as impacts on population and housing associated with the construction and operation of the Bellefonte Nuclear Station will be considered in Chapters 4 and 5 of the EIS.*

Comment: TVA estimates that the 1,500 migrant workers will bring with them 1,080 school age children. That's the ones 1,500 times four; they'll have 1,080 school age children. How many portable classroom and teachers for them will the county have to buy for this temporary student influx? TVA says in the long run the cost of providing education for additional students should be offset by the increase in local government revenues generated by the plant. (**0002-25** [Gorenflo, Louise])

Response: *Socioeconomic impacts such as impacts on schools and other local infrastructure associated with the construction and operation of the Bellefonte Nuclear Station will be considered in Chapters 4 and 5 of the EIS.*

Comment: So you're saying you're going to get a bonus for these in lieu of taxes type. But you're going to be spending it on providing the services for this boomlet for police, fire, schools, and roads. Thus the county will spend whatever extra tax money it gets to provide for the temporary services needed. And then afterwards, you know who will be left holding the bag. You probably will have to borrow money especially for the portable buildings, school buildings, and so you'll have to pay for the debt for that. (**0002-26** [Gorenflo, Louise])

Response: *Socioeconomic impacts such as impacts on local infrastructure associated with the construction and operation of the Bellefonte Nuclear Station will be considered in Chapters 4 and 5 of the EIS.*

Comment: Nuclear energy already provides essential highly skilled and well-paying jobs to Alabama, as well as valuable tax revenue that is beneficial to the local communities in the short-term as well as the long-term. We need to preserve benefits like these for future generations. (**0002-48** [Houseton, Kate])

Response: *The comment cites some of the projected favorable socioeconomic impacts on the community of plant construction and operation that will be covered in Chapters 4 and 5 of the EIS.*

Comment: When they [TVA] brought Sequoyah in, that was supposed to make a huge boom in everything and tons and tons and tons of jobs. You know, Chattanooga is ten miles from Sequoyah. I grew up a few miles the other side of Sequoyah. Also not real far from Watts Bar. And I know that it didn't --there was no boom that was made. (**0002-82** [Flowers, R. D.])

Response: *Socioeconomic impacts such as impacts on jobs associated with the construction and operation of the Bellefonte Nuclear Station will be considered in Chapters 4 and 5 of the EIS.*

Comment: The economic impact for Jackson County alone clearly justifies the Commission's

position. The number of construction jobs plus the number of permanent position created would revolutionize the economic picture for Jackson County. Our county traditionally lags behind other counties in the Tennessee Valley Area. This could be completely reversed by this TVA project. Another economic benefit for the county and the whole Tennessee Valley area would be a significant increase in TVA In -lieu-of taxes. These funds for our county support schools, town and municipal governments, hospitals, ambulance service, county government, fire departments and rescue squads. (**0012-2** [Tidmore, James])

Comment: We have a corps of workers across North Alabama and Tennessee who are experienced and skilled workers for both the construction trades and the actual operation of a power plant. In fact, Jackson County is within 125 miles of three TVA operating nuclear power plants. We feel like the Tennessee Valley Corridor between Oak Ridge, TN and Huntsville, AL is a high tech corridor and having a new nuclear power plant will enhance this. (**0045-3** [Rogers, Goodrich])

Response: *These comments generally express support for the Bellefonte Nuclear Station, based on the potential positive socioeconomic impacts it would be expected to bring to the region. Socioeconomic impacts of construction and operation will be discussed in Chapters 4 and 5 of the EIS.*

9. Comments Concerning Historic and Cultural Resources

Comment: After thorough review of the documents submitted, it has been determined that there will be no significant impact in regards to the Jena Band of Choctaw Indians. (**0003-1** [McCormick, Lillie])

Response: *Jena Band of Choctaw Indians have indicated that they do not believe that there is a significant impact to cultural and historic resources. Impacts to historic and cultural resources will be addressed in Chapters 4 and 5 of the EIS.*

Comment: Northeast Alabama is steeped in history. ...let us not contaminate what we have. (**0015-4** [Bennett, Liz])

Response: *Evaluation of historical and archaeological resources is part of the staff's evaluation for the EIS.*

10. Comments Concerning Environmental Justice

Comment: On environmental justice, the proposed placement of this plant in an area with high unemployment is no accident. It is a high-risk technology that you are not as likely to be critical of as a more prosperous area. And that's one of the key issues of environmental justice. The most risky technologies and the most damaging technologies go to the areas that don't have the economic freedom to say no. And you have to realize that. That's why they want to put it here and that's why—that's just a base. And I hope that's considered by the NRC in the environmental justice. (**0001-28** [Safer, Don])

Comment: I come here to talk about the misinformation that Tennessee Valley Authority has given out about its job potential. I and the rest of my family was forced to leave the area in

which we grew up in because of the lack of honesty in dealing with us in getting jobs and opportunities at the Bellefonte Plant. I personally because I was wounded in serving my country in Vietnam was denied a job at TVA for no just reason 30 something years ago. I would have to leave my own hometown, the place where I grew up at. And all I've heard all these glowing terms about how wonderful jobs economics would be. That cannot be sustained in my personal view by the friends and relatives I know here in the Jackson County area. Most of my friends and relatives still suffer the scourge of poverty to which we grew up with and the lack of honesty to dealing with such a monopoly as TVA. (**0001-86** [Timberlake, Ralph])

Comment: [I]n the 30 years I have observed the building of Bellefonte, there has been very few people of my friends that I know personally that has made any significant progress above their poverty level. They and their children are still in the same positions of poverty that they were when we was growing up. They're still on some type of government assistance. They're not sustaining themselves. This is what we have been told that this would do for us would make us self-sufficient. But I beg to differ. ... TVA has not proven itself to be a good steward. They have taken advantage of our desperate need because we are poor. (**0001-89** [Timberlake, Ralph])

Response: *Environmental justice analysis in an NRC EIS deals with disproportionate environmental impact on low-income and minority communities, including socioeconomic impact. NRC staff will analyze socioeconomic impacts from both a regional and an environmental justice perspective in Chapters 4 and 5 of the EIS.*

11. <u>Comments Concerning Health – Nonradiological</u>

Comment: [Consider] Health Treatment Plans (**0051-10** [Sondheim, Steven])

Response: *This comment concerns "health treatment plans," which are outside the scope of the EIS. This comment will not be addressed in the EIS.*

Comment: [T]here is also something that's not spoken about that does give off carbon dioxide emissions, greenhouse gases, and that is the mining, the transportation, and the use of nuclear fuel and the production thereof. The radiation as it's processed and delivered to the nuclear power plant before it ever gets to the containment building. Further, low radiation waste requires removal and transportation or adequate storage on site. All of these are energy intense as well and use fossil fuels to get them there. So you still have this greenhouse gas emissions. Information as to what methods are used and any associated health impacts are measurement of a carbon footprint are not in the licensing application and I'd like to see that looked into. (**0002-34** [Kurtz, Sandy])

Response: *The comments are related to the uranium fuel cycle and waste management issues. Production of radioactive waste is described in the AP1000 Design Control Document. The NRC staff will assess the environmental impacts of the uranium fuel cycle, including the impacts of fuel manufacturing, transportation, and the onsite storage and eventual disposal of spent fuel. Results of this analysis will be presented in Chapter 6 of the EIS.*

Comment: If in the future we come to depend on nuclear power plants that shut down in the summer, power availability will be reduced leading to extensive loss of air conditioning. Our

elderly will be the most likely to die due to heat stress. You may think that is far-fetched, but in fact, I am describing a scenario that actually happened during a recent summer drought in Western Europe. (**0002-36** [Kurtz, Sandy])

Response: *This comment concerns the human health impact of electric power's unavailability in the summer. This topic is outside the scope of the EIS and will not be addressed.*

12. <u>Comments Concerning Health – Radiological</u>

Comment: It was about this time [1970] that the Bellefonte site for a nuclear powered electricity generating plant was first proposed. In the next couple of years acting as the Radiation Safety Officer for the Jackson County Health Department, I examined the proposal, its details, and the possibility of risks for the people of my county. It was my conclusion then as it is today that there is virtually no risk and that the benefits for our area and for the country as a whole are substantial. ... there is no problem that could occur with such a facility that would threaten the lives or the genetics of us or our progeny. (**0001-16; 0026-1** [Gibson, Dr. Thomas A.])

Response: *This comment is supportive of the licensing action at Bellefonte and is general and historical in nature. The comment provides no new information; therefore, the comments will not be evaluated further.*

Comment: Tritium is extremely dangerous in water and can assimilate into it very easily since it is part of the hydrogen family. Our water supply could be affected with the radioactive tritium. Since our bodies are made up of 70% water, the tritiated water (water with tritium) would enter a cell in our body and as a result a form of cancer would be produced. In fetuses, it could change the DNA causing mutations and producing abnormal babies. Down's Syndrome is an example. It is not a published figure, but people with long-term exposure like working 10 years or more with tritium develop leukemia. (**0017-6** [Bennett, Liz])

Response: *This comment concerns emissions of tritium and health effects that may result from such emissions. Emission estimates will be based on the approved AP-1000 Design Control Document; these emission estimates are anticipated to be conservative (that is, to overestimate emissions). The NRC will evaluate human health and environmental impacts of the emissions in the EIS. The results of this analysis will be presented in Chapter 5 of the EIS.*

Comment: The scientific community has largely agreed on the effects of the Three Mile Island accident. The consensus is that no member of the public was injured by the accident. The average radiation dose to people living within 10 miles of the plant was 8 millirem and no more than 100 millirem to any single individual. Eight millirem is about equal to a chest X-ray and 100 millirem is about one third of the average background level of radiation received by U.S. residents in a year. Although 25,000 lived within five miles, eight kilometers, of the site at the time of the accident, no identifiable injuries due to radiation occurred. (**0002-10** [Couch, Terry])

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and 100 millirem is about a third of the average background level of radiation received by US residents in a year. Although 25,000 people lived within five miles (8 km) of the site at the time of the accident, no identifiable injuries due to radiation occurred, and a government report concluded that there will either be no case of cancer or the number of cases will be so small that it will never be possible to detect them. The same conclusion applies to the other possible health effects. (**0008-1** [Couch, Terry] [Smith, Keith]))

Response: *These comments provide only general information in support of nuclear power. They do not provide any specific information relating to the environmental effects of the proposed action and will not be evaluated in the EIS.*

Comment: [T]here is no safe dose of radiation. And that's just a fact. The background radiation that we normally get we're used to it. Any increase in that is going to cause cancer and mutations. And it's just a scientific fact. It can't be changed. (**0001-25** [Safer, Don])

Comment: So the NRC has historically, traditionally minimized the health effects of radiation. The reality is that there is no safe dose ... So it's something that those who will be affected that will be exposed need to demand that be done more realistically. (**0002-53** [D'Arrigo, Diane])

Comment: Chernobyl: Since the accident on April 26, 1986, 4000 rescue workers have died from exposure to radioactivity, the cattle in Scandinavian countries are producing deformed cattle generation after generation, because of the radioactivity from Chernobyl, and people hiking in the Alps today have to be careful because some parts of the Alps are still radioactive from that meltdown. (**0005-4** [Bennett, Liz])

Comment: Bellefonte Health Safety Concerns: 1. Population Centers within the 50 Mile Perimeter Huntsville (due west) 38 miles Scottsboro (SW) 7 miles Chattanooga (NE) 44 miles Gadsen (S) 48 miles Sewanee (N) 40 miles 2. Health Risks: Each new exposure to radiation adds to the risk of genetic mutations and cancer, damage to the immune system, spontaneous abortion, mental retardation, spina bifida, heart disease, leukemia, and more. A Texas study found increased cancer rates in north central Texas since the Comanche Peak nuclear plant went online in 1992. (**0048-7** [Gorenflo, Louise]) (**0055-7** [O'Donohue, Kathleen])

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Response: *The NRC will evaluate human health and environmental impacts of radioactive emissions in the EIS. The results of this analysis will be presented in Chapter 5 of the EIS.*

Comment: The wastes these plants create is going to be toxic and cause mutations for 250,000 years. (**0001-35** [Safer, Don])

Comment: Deerfield River Valley Project (Western Massachusetts) for 31 years had been a dumping ground for low-level radioactive waste. During the 1960s and early 1970s, Yankee Rowe had problems with fuel rods and dumped large amounts of tritium into the river. During

the time of operation, the estimated concentrations of tritium were 1000 times greater than outside the valley. The citizens would fish, swim, and go boating in the river unaware that the river was radioactive. The increase in disease was noted in the 1980s and throughout the 1990s like Down's Syndrome and chromosomally-damaged children. There was a 50% increase in five different cancers, a 400% increase in heart disease, and a 100% increase in infectious disease leading to mortality, plus an increase in miscarriages and mental retardation. Do we want this? (**0017-10** [Bennett, Liz])

Response: *These comments concern health impacts of radioactive waste. The NRC staff will assess the environmental impacts of the uranium fuel cycle, including the impacts of solid radioactive waste management. Results of this analysis will be presented in Chapter 6 of the EIS.*

Comment: And if the wind's blowing the right way, no telling where the radiation is going to go. Weather patterns for drift of radioactive releases need to be considered. (**0001-33** [Safer, Don])

Response: *This comment concerns airborne radioactive effluents from the plant. The NRC staff will address the patterns of wind and weather in Chapter 2 of the EIS. Based on that information, the NRC Staff will address the environmental impacts of airborne radioactive effluents of the plant in Chapters 4 and 5 of the EIS.*

Comment: Concerns about these plants: Required mining of uranium which has caused severe lung damage and deaths--these also resulting from the use of tailings in building materials. (**0058-5** [Collins, Judy])

Response: *This comment is related to the uranium fuel cycle. The NRC staff will assess the environmental impacts of the uranium fuel cycle, including the impacts of fuel manufacturing, transportation, and the onsite storage and eventual disposal of spent fuel. Results of this analysis will be presented in Chapter 6 of the EIS.*

Comment: [T]hough it [nuclear energy] may not be releasing emissions in the air, it's poisoning the communities that we're in. It's breaking down the building blocks of our body. (**0001-100** [Kapadia, Ragini])

Comment: I do have a few concerns about the by-product which can be a radiation leak or whatever you want to call it. And if you've never seen someone who has been burned by radiation, let me tell you it's not pretty and usually die. ... But I do hope that in the future before this license is granted that people will look at the health as well as the safety of the residents of Jackson County. ... I just want people to understand that health wise this is --can be very dangerous to people. (**0001-66** [O'Connor, Ellen])

Comment: So even though there is no critical accident at a plant like this, it is harmful day in, day out, year by year in every aspect of its life. It's harmful economically, also, but I'm talking mostly radiation and chemicals. The people say that there's nobody killed by Three Mile Island. Well, and they say there was very little radiation. Well, there's other things which have been pointed out that was wrong with the radiation measurements. But another main thing wrong with those measurements is they always only want to talk about direct gamma because

that's the radiation people always think about. But that's not what is most dangerous about these plants. What's most dangerous is the alpha and beta that, you know, for the most part can't go through a piece of paper. But they don't go through a piece of paper because they dump their energy quickly. And if they're inside your body which is not as easy to measure just how much gamma radiation is coming from a particular point. You can do a just little physics and geometry and deal with that pretty easy. But you can't so easily measure whether this particular radioactive chemical gets mistaken by the body for something else that it needs. Like strontium gets mistaken for calcium taken into your body where it's far less than a piece of paper away from your cells, okay. As a matter of fact, there's a tremendous increase in cancer deaths from --in the area of Three Mile Island. There's nobody that I know of that was killed by direct gamma radiation at the time of the accident. (**0002-78** [Flowers, R. D.])

Comment: [T]he people of Scottsboro and Jackson County, especially the children, should be able to face the future without the possibility of harmful exposure to radiation, pollutants, and contaminated water due to unforeseen accidents. (**0017-3** [Bennett, Liz])

Comment: Most importantly, the future of Scottsboro and Jackson County (our students) go to school probably within five miles of Bellefonte. A study which has been done by the "Nashville Tennessean" found that people living near Oak Ridge Nuclear Plant and other nuclear plants have come down with certain unexplained illnesses. (**0005-8** [Bennett, Liz])

Response: *These comments refer to health impacts. As required by 10 CFR 52.17(a)(1), the impact analysis will contain an analysis and evaluation of components of the facility relating to the potential radiological consequences. Chapters 4 and 5 of the EIS will address health impacts.*

Comment: The wind we get in Chattanooga comes mostly out of the southwest, often very nearly in a straight line from the Bellefonte site. Having nuclear reactors there concerns me an awful lot because I know that nuclear reactors leak radioactivity into the environment even under daily normal operating conditions. I do not want my hometown to be subjected to a rise in levels of carcinogenic radioactivity. I know that a lot of effort goes into designing and building nuclear reactors to reduce as much as possible the amount of radioactivity they leak. But I also know there has never been so far a reactor that kept every bit of its radioactivity from leaking out. ... Dr. Helen Condocott is one of the world's top leading medical experts regarding causative effects of radioactivity on human diseases. She writes, "Mutagenic radioactive materials will migrate to and concentrate --that is meaning build up --more and more to higher levels in specific bodily organs. Iodine 131, radioactive isotope of iodine, builds up in the thyroid. Cesium 137 builds up in brain and muscle. Strontium 90 in bone. And plutonium 239 builds up in lung, liver, bone, fetus, and testicle." She also writes about how these radioactive atomic isotopes eventually cause cancers in the human body. I am especially concerned about the cancer causing effects of radioactivity in the last two of the body organs Dr. Callicott wrote in this list, that is fetuses and testicles, because I and my wife are hoping our son and his wife will be ready to start a new family in just a few years. We want those grandchildren to be perfectly healthy and not have any cancer or other deformities or physical impairments. (**0001-78** [Reynolds, Bill])

Response: *This comment concerns airborne radioactive effluents from the proposed Bellefonte Nuclear Plants and their impacts on human health. These topics will be addressed*

in Chapter 5 of the EIS.

Comment: It's come to my attention that under normal operating conditions, radioactivity is released from these nuclear facilities. That's put into the water. That's put into the air. That's dangerous. It causes cancer. It's no good. (**0001-92** [Plumlee, Jon])

Response: *This comment concerns airborne and liquid radioactive effluents from the proposed Bellefonte nuclear plants, and their impacts on human health. These topics are addressed in Chapter 5 of the EIS.*

Comment: I grew up in Netters, Pennsylvania. And from my high school, I could see the cooling towers for Three Mile Island. And in the area surrounding Three Mile Island, it has some of the highest rates of radon in the country. And also interestingly there's an increase of lung cancer in that area. (**0001-98** [Kapadia, Ragini])

Response: *This comment concerns radon and lung cancer. In Chapter 7, the EIS will consider exposures to naturally occurring radioactive materials or technologically enhanced naturally occurring radioactive materials for comparison with radiological impacts of the proposed nuclear power plants.*

Comment: [A]lthough I do know we have Highland Medical Center as our hospital in Jackson County, it'd be a little hard to believe that they could cope with a major breach if it were to happen. Much less a little leak that no one would hear of, but somebody might show up in the ER with a radiation burn. (**0001-67** [O'Connor, Ellen])

Response: *The adequacy of medical response to accidents at Bellefonte nuclear plants is outside the scope of the EIS, but will be covered in the Bellefonte Emergency Plan. This comment will not be addressed in the EIS.*

Comment: The EIS should evaluate the impact on the river and watershed of radioactive releases when water volumes are reduced due to climate changes. (**0054-7** [D'Arrigo, Diane])

Response: *This comment concerns the environmental impacts of liquid radioactive effluents under drought conditions. The environmental impacts of liquid radioactive effluents from normal operation are addressed in Chapter 5 of the EIS. Addressing releases other than from normal operation is outside the scope of the EIS. However, the staff does evaluate accidental liquid effluent releases as part of the safety evaluation in Section 2.4.13 of the SER. This is a conservative analysis (that is, the analysis errs on the side of overestimating concentrations and doses) and does reflect assumed plausible drought conditions.*

Comment: Tritium in the water would affect the fish, aquatic life ...and their offspring. (**0017-7** [Bennett, Liz])

Comment: The EIS must fully address the impact on flora and fauna in the Tennessee River caused by Bellefonte's planned release of hundreds of thousands of gallons per year of radioactive waste in routine effluent emissions. (**0054-6** [D'Arrigo, Diane])

Response: *This comment concerns the environmental impacts of liquid radioactive effluents during normal operations. The NRC staff will discuss such impacts in Chapter 5 of the EIS.*

Comment: The Savannah River Project had a leak in 1988, and the radioactive tritium got into the Augusta, Georgia, water supply and the radioactive tritium traveled 124 miles downstream to Savannah, Georgia, and killed all the fish in the fish hatcheries. (**0017-9** [Bennett, Liz])

Response: *This comment concerns radioactive liquid effluents from the Savannah River Site, which are outside the scope of the EIS. The environmental impacts of radioactive liquid effluents from the proposed Bellefonte Nuclear Plant will be discussed in Chapter 5 of the EIS.*

Comment: [S]hould Bellefonte ever come online, Jackson County will now and forever pay the costs of constant vigilance over a radioactive contaminating and contaminated site. Five short years of an economic boomlet compared to a forever contaminated and contaminating site. How inexpensive is that? (**0001-48** [Gorenflo, Louise])

Response: *The cost of decommissioning is addressed in Chapter 6 of the EIS.*

13. <u>Comments Concerning Accidents – Design Basis</u>

Comment: The question is now, as TVA will allow this dangerous nuclear generation of power to be built here. They're making this request. What will they do to protect us? How would they do when there are melt down like Three Mile Island? How is the health in this area dealt with? (**0001-87** [Timberlake, Ralph])

Comment: I grew up in Netters, Pennsylvania. ... They evacuated the schools I went to in 1979 out of fear and panic of a meltdown. My sixth grade science teacher was on the cover of Time magazine with a school bus load of students because they were forced to leave due to the nuclear accident. And it was an accident. And it was the most serious nuclear accident we've had in this country. (**0001-99** [Kapadia, Ragini])

Comment: The end result of a meltdown is devastating, and is the same whether you have better built plants like in the United States, or not as well built plants like Chernobyl. ... Three Mile Island had a partial meltdown, but it was only 30 minutes away from a complete meltdown. (**0005-3** [Bennett, Liz])

Comment: Nuclear Accidents: The Chernobyl disaster forced the evacuation and resettlement of nearly 400,000 people and poisoned thousands with radiation. The 1979 partial meltdown at Three Mile Island triggered a 15-year cleanup effort, which cost more than $1 billion. (**0048-13** [Gorenflo, Louise]) (**0052-11** [Fitzgerald, Sara]) (**0055-13** [O'Donohue, Kathleen])

Comment: Concerns about these plants: Possibility of lethal accidents affecting millions. (**0058-6** [Collins, Judy])

Comment: Concerns about these plants: on-site accidents. (**0058-7** [Collins, Judy])

Response: *These comments refer to nuclear accidents and their consequences. The*

environmental impacts of postulated accidents will be evaluated, and the results of this analysis will be presented in Chapter 5 of the EIS.

14. Comments Concerning Accidents – Severe

Comment: The effects of unstable terrain or unstable weather on a nuclear plant could be disastrous. (**0002-86** [Moss, Tom])

Response: *The NRC is concerned with the integrity of the rock and seismic issues at the proposed Bellefonte site. The NRC is also concerned about the potential for severe weather conditions being adequately covered by the facility design. However, these are safety issues and not in the scope of the EIS. Safety issues including, but not limited to, seismic concerns, soil and rock static and dynamic strength, soil and rock stability, winds, floods, and other external events are all addressed in the applicant's Final Safety Analysis Report (FSAR), which is Part 2 of the application. These and other safety topics are reviewed by the NRC staff, and that review is documented in the SER issued by the NRC. These issues, as they relate to the geology and climate, will be evaluated in Chapters 2, 4, 5, and 7 in the EIS.*

15. Comments Concerning the Uranium Fuel Cycle

Comment: I do want to encourage the NRC and all operators of nuclear power plants, including TVA, to work collectively in solving the nuclear waste problem. Reprocessing of spent nuclear fuel is used throughout the world and should be pursued on a national basis or in a federal program so that the unused portion of the fuel can be reused without having to be stored permanently. (**0002-32** and **0024-4** [Sandlin, Jimmy])

Response: *This comment provides general information on the nuclear fuel cycle. It does not provide specific information relating to the environmental effects of the proposed action and will not be evaluated in the EIS.*

Comment: There's no solution to the waste problem. The Yucca Mountain facility is so far behind schedule. It's supposed to receive waste years ago. And it's not supposed to receive waste until I think 2017 is the projected time now. So in the meanwhile at Browns Ferry and at Watts Bar and at Sequoyah, the nuclear waste is piling up in spent fuel that just sits there. And so far we've been fortunate. It's not been leaking. But those facilities were not designed for long-term storage and there is no long term storage answer that has been found because there is no answer. It's been 50 years, 60 years, and nobody has come up with an answer. (**0001-30** [Safer, Don])

Comment: I would want the EIS to encompass the fact that there is nowhere for the so-called low low-level radioactive waste from this facility to go. There's nowhere for this waste after June 30th. The hottest of the so-called low level waste. There's not one repository in the United States to take it. ... The one dump that can now take this waste is going to close to all but three states' generators at the end of June, the Barnwell, South Carolina site. And there's a hope by the industry that a dump in Texas will open. There's a hope that maybe a dump in Utah will expand and take more hotter waste than it currently can take. There's a hope that processors in the state of Tennessee will continue to take the material and chop it up or burn it and try to put it into piles so they can dilute it and send it to either regular garbage dumps,

recycle it into commerce or send it to one of these lower concentration dumps. But the truth is that there's nowhere for this waste to go. We all know about the irradiated fuel, the high level waste that comes from the reactor and that there's a hope that Yucca Mountain will take that. But I'm talking about the reactor itself and the resins and filters from cleaning the cooling water and the activated pipes and the radioactive elements all the same as high level waste that are in the low-level waste and the fact that this site will be a defacto permanent storage or disposal site for the material. ... I believe that the site should be licensed as a permanent radioactive waste disposal site if it is going to be a nuclear reactor site because there is no permanent disposal site for this material. And that ought to be included in the Environmental Impact Statement. ... Because as of June 30th of this year, even the existing reactor has nowhere to send its class B, C, and greater than C radioactive waste. (**0001-65** [D'Arrigo, Diane])

Comment: [N]uclear power generates radioactive waste that is hazardous for literally millions of years and it needs to be isolated from the environment for a long, long time. And that the requirements for disposal are not really adequate for some of the material and that there is no permanent repository for either high-level radioactive waste or for the so-called low-level radioactive waste that would be generated by these facilities. In fact, at the end of June of this year those reactors that are operating around the country will have nowhere to send their so-called low-level radioactive waste unless they are in a few of the states that do have access to some operating dumps. ... these two reactors don't have anywhere to send their waste. Thus, we'll have to store it potentially indefinitely on this site. The reactor itself will become waste. ... So as far as the Environmental Impact Statement, it needs to admit and face the costs of managing radioactive waste indefinitely. It needs to look at the risks and hazards from routine radioactive releases --this was mentioned earlier--into the air and water and the environment. And to look at the multiple costs of that when you have waste as well as an operating reactor indefinitely at the site. And then I would also mention on the high-level radioactive waste that there's hope by the nuclear industry that the Yucca Mountain Nuclear Waste Site in Nevada would open. That is a somewhat unlikely possibility. But even if it were to open, there's not enough room at that reactor for all the waste that will be generated by the current generation of reactors that are operating. And so even if that dump were to open, there's no where to send the irradiated fuel. And we're talking about intensely radioactive material that needs to be monitored and actively controlled for a very long time. (**0002-52** [D'Arrigo, Diane and Mariotte, Michael])

Comment: We are particularly concerned about the nation's lack of an acceptable plan for long-lived radioactive waste disposal. (**0002-69** [McCluney, Dr. Ross])

Comment: My physics teacher in Austin, Texas, taught me about half-lives and how long. And when I lived in New Mexico they put it in the Carlsbad Salt Mines. And we would see those trucks coming through and everybody just watched those trucks coming through. And there it goes into a hole in the ground in New Mexico. Nevada is also taking some of it. When they quit, it's going to cost a lot of money to put it somewhere. (**0002-75** [McCluney, Dr. Ross])

Comment: Nuclear or radioactive waste would have to be hauled away and to where? If not and if it stays on location, it can get into the ground water. (**0017-13** [Bennett, Liz])

Comment: Fuel generally used in nuclear plants is radioactive uranium 235 (half-life is 700 million years) and radioactive plutonium 239 (half-life is 24,600 years). A half-life is the time it

takes for half of the nucleus to become non-radioactive. ... Most important: Storage of nuclear waste is a major and hazardous problem. (**0005-2** [Bennett, Liz])

Comment: Nuclear waste is more powerful and cannot be stored here because of the ground water. ... Germany will be shutting down all of their nuclear facilities by 2020 because they have no place to put the nuclear waste. Where are our dumping grounds???? (**0015-2** [Bennett, Liz])

Comment: [W]hat is the short- and long-term plan for removal/disposition of the contaminated wastes? (**0047-1** [Reid, Jim])

Comment: Nuclear High-Level Waste Storage: No long term storage for high level nuclear waste is available. No structure can be engineered to isolate the lethal radiation from life for the needed 250,000 years. (**0048-12** [Gorenflo, Louise])

Comment: Nuclear High-Level Waste Storage: No long term storage unavailable. No structure can isolate the lethal radiation from life for the 100,000 years needed. (**0052-9** [Fitzgerald, Sara]) (**0055-11** [O'Donohue, Kathleen])

Comment: [Consider] waste disposal and safety and levels of confidence. (**0051-11** [Sondheim, Steven])

Comment: Concerns about these plants: No guaranteed safe method of safely disposing of storing the wastes which have a half life of tens of thousands of years. (**0058-10** [Collins, Judy])

Response: *These comments concern health impacts of radioactive waste. The NRC staff will assess the environmental impacts of the uranium fuel cycle, including the impacts of solid radioactive waste management. Results of this analysis will be presented in Chapter 6 of the EIS.*

Comment: The EIS should fully consider the effects of radioactive waste on Alabama and the watershed, including but not limited to: High-Level Radioactive Waste. The EIS must fully address the potential consequences of permanent storage of high level radioactive waste adjacent to the river. There is currently no permanent storage facility for high-level radioactive waste. Even if the proposed Yucca Mountain site opens during the operating lifetime of Bellefonte reactors, these reactors will, by law, not be eligible to have their high-level waste stored there. Thus, the EIS must assume that there will be no available high-level radioactive waste repository for the full operating lifetime (plus possible license extension) of these units, and the EIS must fully address how and where all of the high-level radioactive waste generated by Bellefonte 3 and 4 will be stored on-site, and what measures will be taken to ensure that the radioactivity from this waste remains permanently isolated from the environment. The EIS must address potential consequences (on the river and the watershed, on people, on flora and fauna in the region) of a serious accident in the irradiated fuel pool at Bellefonte, and in other potential high-level radioactive waste storage facilities. The EIS must address possible consequences to the Bellefonte reactors and irradiated fuel pools and storage areas of an accident in the Unit 3 or 4 and/or at their potential dry cask storage units. The EIS must address the possible effects of Bellefonte on the potential dry cask irradiated fuel storage units at the site, including their potential degradation over time as well as the potential impacts of extended storage of high-level radioactive waste. (**0054-3** [D'Arrigo, Diane])

Response: *This comment concerns the health impacts of radioactive waste and of accidents. The NRC staff will assess the environmental impacts of the uranium fuel cycle, including the impacts of solid radioactive waste management in Chapter 6 of the EIS. The NRC staff will assess the environmental impacts of accidents in Chapter 5 of the EIS.*

Comment: The EIS should fully consider the effects of radioactive waste on Alabama and the watershed, including but not limited to: The EIS must address how and where all of the so-called "low-level" radioactive waste Bellefonte-3 and 4 can be expected to generate during their operational and decommissioning years will be stored. ... Further, the EIS should report the amount of "low-level" nuclear waste, in volume and isotope-specific radioactivity, which Bellefonte operators plan to treat as if not radioactive. ... The EIS should identify the amount and type of waste that could go to facilities such as the hazardous waste site at Emelle, AL. Since radioactive waste could remain onsite forever, the site should be evaluated under 10 CFR 61, which include NRC's regulations for the disposal of radioactive waste. (**0054-5** [D'Arrigo, Diane])

Response: *This comment is related to the uranium fuel cycle and waste management issues. Production of radioactive waste and of mixed waste is described in the AP-1000 Design Control Document. The NRC staff will assess the environmental impacts of the uranium fuel cycle, including the impacts of fuel manufacturing, transportation, and the onsite storage and eventual disposal of spent fuel. Results of this analysis will be presented in Chapter 6 of the EIS.*

Comment: We believe that a re-analysis of this -of the real cost of nuclear option should be performed and it should take into account all costs, including subsidies, mining of the ore, processing the fuel, transportation of fuel, waste and other construction materials, legal and insurance fees, the cost of operation --direct and indirect --that means taxpayer born, waste disposal, inflation, securing the plant from both accidental and terrorist radiation leaks, and fuel cost increases due to the rising scarcity of uranium. (**0002-72** [McCluney, Dr. Ross])

Response: *This comment concerns the overall costs of the proposed nuclear power plants. The environmental impacts of the uranium fuel cycle will be addressed in Chapter 6 of the EIS. The cost of decommissioning will be addressed in Chapter 6 of the EIS. The capital cost of constructing a nuclear plant will be considered in the Benefit-Cost Balance section of the EIS, which will also cover operations expenses, including the cost of waste disposal and fuel expenses. The NRC is not involved in establishing national energy policy; issues related to subsidizing nuclear power are outside the scope of the NRC's mission and authority and will not be addressed in the EIS.*

16. <u>Comments Concerning Transportation</u>

Comment: Trucks carrying radioactive material would be on the highways throughout the county. (**0017-4** [Bennett, Liz])

Comment: [T]here could be problems with the nuclear waste shipped to a disposal destination.

(**0015-8** [Bennett, Liz])

Comment: Transportation ... If a shipping container breaks open, those exposed would receive a lethal dose of radiation. (**0048-11** [Gorenflo, Louise]) (**0052-8** [Fitzgerald, Sara]) (**0055-10** [O'Donohue, Kathleen])

Comment: The EIS must address the possible effects of transportation of radioactive waste generated at Bellefonte, in the unlikely event a waste repository ever will be built. This should include road, rail, and barge transportation in the region. An accident or attack that sinks a barge carrying high-level radioactive waste would spell unprecedented catastrophe. If barges are not used, then trucks or trains would be. (**0054-4** [D'Arrigo, Diane])

Comment: Concerns about these plants: transportation accidents. (**0058-8** [Collins, Judy])

Response: *A detailed analysis of the impacts of transporting fuel and waste by truck to and from the proposed Bellefonte nuclear plant site will be conducted and included in Chapter 6 of the EIS.*

Comment: The steel rods filled with lithium would be filled at the Savannah River project and would be transported to Bellefonte plant approximately 302 miles, and then when the radioactive tritium was produced in them, the rods would have to be transported back to the Savannah River project. (**0017-14** [Bennett, Liz])

Response: *The proposed action in this EIS is to construct and operate a nuclear power plant at the Bellefonte Nuclear Plant Units 3 and 4 site. The proposed reactors would use uranium-dioxide pellets encased in zircaloy rods to fuel the plant. The tritium production activities referred to by the commenter are not within the scope of the licensing action before the NRC and therefore those transportation impacts will not be addressed in the EIS. However, a detailed analysis of the impacts of transporting fuel and waste by truck to and from the proposed Bellefonte Nuclear Plant site will be conducted and included in Chapter 6 of the EIS.*

17. <u>Comments Concerning Decommissioning</u>

Comment: Decommissioning: There's no provision for the funding of the decommissioning in that four billion dollars. They say they're putting bonds up for it or whatever. But the decommissioning costs are going to be huge. And if they don't decommission it, you're going to have a fence around that plant. It may be 50 years from now. It may 60 years from now. Most of us probably will not be alive. But the children and the grandchildren and those beyond will be looking at that facility if it's not decommissioned properly. (**0001-31** [Safer, Don])

Response: *The comment concerns decommissioning. 10 CFR Section 50.75 requires the applicant to provide reasonable assurance that funding will be available for decommissioning activities at the time they are needed. The environmental impact from decommissioning a permanently shutdown commercial nuclear power reactor will be discussed in Chapter 6 of the EIS. In addition, the staff may consider information from Supplement 1 to NUREG-0586, Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities, which was published in 2002, when analyzing the expected impacts from decommissioning.*

18. Comments Concerning Cumulative Impacts

Comment: As part of this licensing application, I urge NRC to ask for a more comprehensive study of the cumulative health impacts that may derive from the addition of two nuclear reactors in the Tennessee Valley. (**0002-38** [Kurtz, Sandy])

Comment: As the NRC is aware, TVA already operates the two Sequoyah reactors about 10 miles from Chattanooga, the Watts Bar reactor with plans to build one more, as Jack Bailey stated, and three reactors at the Browns Ferry Plant, which is downstream of Bellefonte all along the Tennessee River. Nowhere in the application does it discuss the cumulative impact of having possibly nine reactors operating on one river basin, let alone all of the other industrial facilities and municipal users in the basin. Nor does it discuss the cumulative impacts to the Chattanooga area that will be within 50 miles of six nuclear reactors. The NRC must address these cumulative impacts to water resources and human health in the Draft EIS.(**0002-60** [Barczak, Sara])

Comment: As the NRC is aware, TVA already operates the two Sequoyah reactors about 10 miles from Chattanooga, the Watts Bar reactor (with plans to build one more), and three reactors at the Browns Ferry plant, which is downstream of Bellefonte, all along the Tennessee River. Nowhere in the application does it discuss the cumulative impact of having possibly nine nuclear reactors operating on one river basin; let alone all of the other facilities in the basin. Nor does it discuss the cumulative impacts to the Chattanooga area that will be within 50 miles of six nuclear reactors. The NRC must address these cumulative impacts to water resource and human health in the draft EIS. (**0023-5** [Barczak, Sara]) (**0057-5** [Barczak, Sara])

Comment: Drought conditions forced Browns Ferry Reactors to shut down due to high temperatures in the Tennessee River. That plant is downstream of the proposed Bellefonte reactors, yet there is no discussion in the application of the impact Bellefonte operation may have on the ability for Browns Ferry to operate. The NRC must evaluate this in the Draft EIS. (**0002-62** [Barczak, Sara])

Comment: Nuclear power plants are vulnerable to the effects of heat and drought. Drought conditions forced one of Browns Ferry's reactors to shut down due to high temperatures in the Tennessee River. That plant is downstream of the proposed Bellefonte reactors. Yet there is no discussion in the application of the impacts Bellefonte operation may have on the ability for Browns Ferry to operate. The NRC must evaluate this in the draft EIS. (**0023-8** [Barczak, Sara]) (**0057-8** [Barczak, Sara])

Comment: Cumulative Impacts: If the Bellefonte units are built, six nuclear reactors will be within 50 miles of downtown Chattanooga and four units within 50 miles of Huntsville. TVA does not address in its NRC application the cumulative impact of having possibly nine nuclear reactors operating on one river basin, let alone all of the other coal plants and industrial plants in the Tennessee River basin. The cities and region will experience accumulated risks from radioactive air emissions, radioactive water leaks, thermal pollution, diminished water supply, and nuclear accidents. (**0048-8** [Gorenflo, Louise]) (**0055-12** [O'Donohue, Kathleen])

Comment: Cumulative Impacts: If the Bellefonte units are built, six nuclear reactors will be within 50 miles of downtown Chattanooga and four units within 50 miles of Huntsville. The cities and region will experience accumulated risks from radioactive air emissions, radioactive water leaks, thermal pollution, diminished water supply, and nuclear accidents. (**0052-10** [Fitzgerald, Sara])

Comment: The EIS should address the additional cumulative effects of routine radiation releases on nearby populations and on aquatic life in and around the Tennessee River from Bellefonte 3 & 4, given existing and additional proposed nuclear reactors are already releasing radiation into waters, air, biosystems, and the region. (**0054-10** [D'Arrigo, Diane])

Comment: [T]he Bellefonte site is not the only one of concern to us in Chattanooga. There are numerous additional coal-and nuclear-powered electrical generating stations in our region. I worry about the clustering of these, and the combined risk to us of radioactive and other toxic emissions from all these plants. Perhaps there is a magnification effect that increases the risk, magnitude, and potential toxicities of radioactive and other emissions due to the presence of all these plants. Bellefonte should not be considered in isolation from all the other sources of radioactive and other toxic emissions in the area, including Oak Ridge National Laboratory. Any NEPA or radiological safety report will be inadequate if the clustering effect is not considered. (**0056-3** [McCluney, Dr. Ross])

Response: *The cumulative impacts associated with the construction and operation of the proposed nuclear power facility will be evaluated and the results of this analysis will be presented in Chapter 7 of the EIS.*

19. <u>Comments Concerning the Need for Power</u>

Comment: [T]he North Alabama Industrial Development Association, which is NAIDA, Territory in North Alabama—this is the TVA territory --it is the fastest growing area of this state. This land comprises 16 percent of Alabama and has accounted for 35 percent of the new jobs in the last several years. We need the base load power generated by two nuclear reactors to sustain this growth. Low cost reliable electricity is a very large factor in this economic growth. We also know that the Base Realignment and Closure, BRAC, is locating approximately 4,500 new jobs and approximately 4,500 new contractor jobs bringing many more families to the valley. One of our primary missions in economic development is to assist our local industries. Jackson County and North Alabama still have a strong industrial base. Approximately 16 percent of our workers are involved with manufacturing as opposed to eight or nine percent nationwide. We must continue to provide a competitive and reliable source of electricity to retain these existing industries and remain competitive. Our power distributors will tell you that we need the additional base load power right now. (**0001-15** [Rogers, Goodrich])

Comment: [W]hereas the Tennessee Valley region is one of the fastest growing regions in the entire United States. And whereas BRAC, Base Realignment and Closure, will be bringing close to 10,000 jobs to North Alabama in the next four years. ...Board of Directors of the Greater Jackson County Chamber of Commerce fully supports TVA in the completion of

Bellefonte as a nuclear plant. (**0001-19** [Roden, Rick])

Comment: TVA's proposal to build a new nuclear plant at the Bellefonte site is essential to the continuation of our diverse power supply at reasonable prices. (**0001-83** [Kitchens, George])

Comment: [T]he demand of energy in the Valley is growing. It has been growing ever since TVA was created. And it's continuing to grow. There seems to be some doubt about whether that was happening or not. I came here 10 years ago. And at the time we had a peak load of 26,000 to 27,000 megawatts. Those folks that pay attention to that know that today we have a peak load of 32,000 to 33,000 megawatts. That's a lot of megawatt growth in just 10 years. The purpose of TVA, of course, is to continue to meet that obligation for demand in the Valley. So whether it's growing at one percent or two percent or three percent, whatever it turns out to be, we have to do our best to forecast that and make sure that there's sufficient power in this Valley when we get there. ... But our forecast and those forecasts of other people that do forecasts besides TVA all say we're going to need more power in the future. So the real question is where do we get that power from that's reliable and low-cost and can meet the needs of the Valley. (**0001-94** [Bailey, Jack])

Comment: Why the need for nuclear power? The United States continues to grow. ... With growth electricity is required. (**0002-12** [Couch, Terry])

Comment: From a power supply point of view, TVA currently does not have enough capacity to meet all its needs. ... TVA needs more low-cost power supply and construction of the new units at Bellefonte will help tremendously. Even with the Energy Efficiency Programs and demand management, TVA will experience load growth greater that one and a half percent a year. In North Alabama 600 new electric customers are added each month by the distributors of TVA power. Energy use in North Alabama alone grew by six percent in 2006 and has averaged more than two percent a year over the last 10 years. With the military complex at Redstone Arsenal increasing its size due to the Base Realignment and Closure Act, known as BRAC, Huntsville and all of North Alabama will continue to grow at a faster rate than the rest of the South. (**0002-30** [Sandlin, Jimmy])

Response: *These comments express agreement with the application's assertion that the area needs additional base load power. The need for power analysis will be addressed in Chapter 8 of the EIS.*

Comment: The NRC needs to fully evaluate TVA's need for power along with alternative supply options, including energy efficiency and demand side measurement --management measures. TVA, as we all know, has had a history of overestimating capacity needs. And the application continues that trend. It fails to show that TVA needs the additional generating capacity by building reactors at Bellefonte. (**0001-43** [Barczak, Sara])

Response: *The NRC staff will review the need for power analysis to determine if it is (1) systematic, (2) comprehensive, (3) subject to confirmation, and (4) responsive to forecasting uncertainty. The need for power analysis will be included in Chapter 8 of the EIS.*

Comment: We of TVA are in the position of having to meet the obligation of energy demand in

the Valley. And we try to do that with the best options and availability of choices we can make at the time the decisions need to be made. And we try to do that by bringing in the input from our customers. Most of you know that we serve distributors. They have the in-use customers that they sell their power to. And we heard from one of them earlier. And so ultimately we have to try to meet the needs of both them and the energy demand in the Valley itself. (**0002-43** [Bailey, Jack])

Comment: The demand for electricity in this country is on the rise and it's expected to increase 25 percent by 2030. The United States must continue to provide the electricity that all of us with all of our gadgets and technologies demand. And we must responsibly plan now to provide enough base load power, base load power for the future. It's nuclear plants like Bellefonte that will help this country meet its demand for energy. (**0002-46** [Houseton, Kate])

Comment: The bottom line is that nuclear safely and efficiently provides base load power which we need without producing any of the emissions that we don't. (**0002-50** [Houseton, Kate])

Comment: It is no secret that this areas as well as our nation will have the need for additional energy resources in the coming years. The construction of these two reactors will supply many of the needs in our area and in an environmentally friendly setting. (**0007-3** [Smith, Keith])

Response: *These comments express agreement with the applicant's assertion that the area needs additional base load power. The need for power analysis will be addressed in Chapter 8 of the EIS.*

Comment: The need for new generating capacity also has not really been established. Energy usage has already been trending down in most of the TVA's service region. Peak demand may be going up, but a substantial percentage of this peak demand can be handled by demand side management. (**0002-70** [McCluney, Dr. Ross])

Comment: [T]he need for new generating capacity has not really been established. Energy usage is already trending down in most of the TVA service region, necessitating a 12% rate increase, effective two days ago. (**0006-2** [Sondheim, Steven])

Response: *These comments state that the need for new generating capacity has not been established. The need for power analysis will be addressed in Chapter 8 of the EIS.*

Comment: The United States continues to grow: ... With growth electricity is required! (**0008-3** [Couch, Terry] [Smith, Keith])

Response: *This comment states that electricity is required as the United States continues to grow. The need for power analysis will be addressed in Chapter 8 of the EIS.*

Comment: The NRC needs to fully evaluate TVA's need for power along with alternative supply options, including energy efficiency and demand side management measures. TVA has had a history of overestimating capacity needs and the application continues that trend; it fails to show that TVA needs the additional generating capacity by building reactors at Bellefonte. (**0023-2** [Barczak, Sara]) (**0057-2** [Barczak, Sara])

Response: *The need for power analysis will be addressed in Chapter 8 of the EIS. Energy alternatives, including those that do not involve new generating capacity, will be evaluated in Chapter 9 of the EIS.*

Comment: From a power supply point of view, TVA does not currently have enough capacity to meet all of its current needs. ... TVA needs more low-cost base-load power supply and construction of new units at Bellefonte will help tremendously. Even with energy efficiency and demand-side management, TVA will experience load growth greater than 1.5% per year. 600 new electric customers are added each month by power systems in North Alabama. Energy use in North Alabama alone grew by 6% in 2006 and has averaged more than 2% per year over the last ten years. With the military complex at the Redstone Arsenal increasing in size due the Base Realignment and Closure Act (BRAC), Huntsville and all of North Alabama will continue to grow at a rate faster than the rest of the South. (**0024-2** [Sandlin, Jimmy])

Comment: The North Alabama Industrial Development Association (NAIDA) territory in North Alabama is the fastest growing area of this state. The land area is 16% of Alabama and this area accounted for 3 5% of the new jobs in the last several years. We need the base load power generated by two new reactors to sustain this growth. Low cost reliable electricity is a very large factor in this economic growth. We also know that Base Realignment And Closure (BRAC) is locating approximately 4,500 new jobs and approximately 4,500 new contractor jobs; bringing many more families to the valley. One of our primary missions in Economic Development is to assist local industries. Jackson County and North Alabama still has a strong industrial base. Approximately 16% of our workforce is involved with manufacturing as apposed to 8-9% nationwide. We must continue to provide a competitive and reliable source of electricity to retain these existing industries and remain competitive. Our power distributors will tell you that we need the additional base load power right now. (**0045-4** [Rogers, Goodrich])

Response: *These comments state that the Northern Alabama area needs new base-load generating capacity. The need for power analysis will be addressed in Chapter 8 of the EIS.*

Comment: TVA Energy Projections are Unrealistic. (**0048-1** [Gorenflo, Louise]) (**0052-1** [Fitzgerald, Sara]) (**0055-1** [O'Donohue, Kathleen))

Comment: [T]he need for new generating capacity has not really been established. Energy usage is already trending down in most of the TVA service region, necessitating 12% cost increases. (**0051-4** [Sondheim, Steven])

Comment: 1. Analyze the effects of peak oil upon our energy use—costs will go up...usage down. 2. Look at the alternative of implementing plans for energy efficiency and demand response to meet all new demand and reduce existing energy use. 4. Audit TVA's own energy efficiency-evaluate what improvements could be made and how much power saved. Add this to the analysis for the need of this power plant. (**0051-6** [Sondheim, Steven])

Response: *The NRC staff will review the need for power analysis in Chapter 8 of the EIS.*

20. Comments Concerning Alternatives – Energy

Comment: I think it's the height of human arrogance to leave that kind of a legacy to our future generations just so we can have electricity. There are clean alternatives that are out there. Solar power is coming on. The cost of solar is reducing. And this would be a perfect area to have a solar factory. And we're not the highest value. I mean, you know, the desert southwest is a better place to boil water to create solar energy. But we do --solar photovoltaic is very appropriate here. And it comes at a time when our peak demand is. (**0001-36** [Safer, Don])

Comment: I wish to argue against TVA's dismissal of solar as a viable alternative to nuclear at the Bellefonte site. ...solar cell efficiency has also grown substantially from around 14 percent for a conventional crystalline silicone cells to 18.6 percent for a new built Mitsubishi multi-crystalline silicone cell. ... There is a misperception that in the southern Southeastern U.S. we have too low a solar resource for economic viability. So I used the Department of Energy Solar calculation method to find that the annual average solar radiation availability in Phoenix, Arizona, where one of my son's lives, is only 33 percent greater than that in Huntsville. So to collect the same annual amount of power from the sun, you only need to expand a Huntsville solar array by 33 percent in area to get the same solar energy in a year. Well, I also looked at the time profiles of solar availability at the two cities. In summer months, the electricity demand is highest during the afternoon and early evening when air conditioning systems are working hardest. But the cooling demand lags into the early evening hours as the sun sets. So there's a need for short term storage of the solar energy collected during the peak hours, releasing it as the sun goes down. We only need a few hours to cover that decline. (**0001-52** [McCluney, Dr. Ross])

Comment: Investment by TVA into distributed solar electricity in this case makes a lot of sense as an alternative to the nuclear option. Solar technology can be applied now on small scales. That means with low initial capital cost, using a distributed power approach. This may be more feasible than larger scale solar and suffers smaller line losses since the energy is stored and used near where it is generated. (**0001-53** [McCluney, Dr. Ross])

Comment: I argue against the dismissal in TVA's Environmental Report for the Bellefonte nuclear reactors that solar is a viable alternative to nuclear at the Bellefonte site. A recent revolution in photovoltaic solar electric cell manufacturing is producing dramatic decreases in the costs to manufacture and install solar electric generating arrays. ... Along with these improvements, solar cell energy conversion efficiency has also grown from around 14% for conventional crystalline silicon cells to 18.6% for a new Mitsubishi multi-crystalline silicon solar cell. ... There is a perception that the southeastern United States has too low a solar resource for economic viability. This is a misconception. ... the Phoenix resource is only 33% greater than that in Huntsville, so that to collect the same annual amount of power from the sun, one only needs to expand a Huntsville solar array area by 33% for equivalency. ... In summer months, the electricity demand is highest during the afternoon and early evening when air conditioning systems are working hardest. There is a slight phase shift, however, with the cooling demand lagging into the early evening hours as the sun is setting and solar output is diminished. Thus, there is a need for storage of the solar energy collected during the peak hours following solar noon and releasing it several hours later as the sun sets but the electric

demand remains strong. (**0013-1** [McCluney, Dr. Ross]) (**0056-4** [McCluney, Dr. Ross])

Comment: TVA is well-suited for utilization of a variety of methods of short (and even longer-term) storage of electrical energy. ... Solar energy, with short-term electrical storage, can be applied on smaller scales using a distributed power approach. Smaller-scale distributed energy storage may be more feasible and suffers smaller line losses, since the energy is stored and used near where it is generated. ... Investment by TVA into distributed solar electricity in this case makes a lot of sense as an alternative to the nuclear option. (**0013-2** [McCluney, Dr. Ross]) (**0056-5** [McCluney, Dr. Ross])

Response: *The EIS will be prepared in accordance with 10 CFR 51.75(c). Alternative energy sources, including solar power, will be considered in Chapter 9 of the EIS.*

Comment: Nuclear power is cleaner, greener, less polluting, less space occupying, and generally less expensive than any of the alternatives that will be shrilly advocated at this or other public meetings. (**0001-17** [Gibson, Dr. Thomas A.]) (**0026-2** [Gibson, Dr. Thomas A.])

Comment: There are safer, more healthy ways of generating power. (**0001-76** [Moss, Tom]) (**0014-4** [Moss, Tom])

Comment: TVA continues to look at wind and solar, gas, as you know. But in terms of a readiness today, to be able to meet the needs of power that we have over the next 10, 15, 20 years, we don't have a lot of those things that are mature enough, as was implied by some of the comments we've got, or cheap enough or mature enough right now to meet the needs without drastically raising rates of the people in the Valley. It doesn't mean that we're not going to keep looking at it in trying ways to factor it in. For example, the interesting thing I wasn't always in charge of nuclear. I built or I helped build the wind project that TVA has up near Knoxville right now. And so we were doing that a few years ago when there wasn't a lot of that going on in the Valley or in the Southeast. It turns out though, you can go to one of those meetings as we were trying to build wind, and we would have just as many people coming and complaining about having to build wind as a source of generation as we would have people coming to talk about nuclear power. They're different people. But everybody has their own interests and their own needs on what they think is important. So the value of this process though is to hear those comments from everybody. And there are those that would talk against wind or maybe even talk against solar as much as those that would talk against nuclear and those that would talk in favor of all those sources. (**0001-95** [Bailey, Jack])

Comment: I'm with the Energy Action Coalition. We're a coalition of organizations in over 600 campuses across the country and Canada. And we are working on campuses starting investment in clean energy. Shift away from coal and nuclear and other dirty forms of energy. Both our money and our support and just on April 1st we had about 100 actions internationally to stop energy from coal and nuclear. (**0001-97** [Kapadia, Ragini])

Comment: What about the environment? Global fossil carbon emissions. Since the early 1900s, the carbon emissions from fossil fuels has exponentially increased. And by no means I'm not against fossil fuel plants. I'm just stating the facts here. Petroleum just over 3 million metric tons of carbon per year. Coal just under 3 million metric tons of carbon per year. Natural gas at half that at about million metric tons of carbon per year. This totals over 8 million

metric tons of carbon a year going into the environment. In addition, the combustion of fossil fuels contributes to acid rain, global warming, and air pollution. The world's power demands are expected to rise 60 percent by 2030 with the worldwide total of active coal plants over 50,000 and rising, the International Energy Agency estimates that fossil fuels will still account for over 85 percent of energy marketed by 2030. World organizations and international agencies like the IEA are concerned about the environmental impact of burning fossil fuels. Are you? (**0002-11** [Couch, Terry])

Comment: Today there are not as many choices as we would like to have. Certainly solar is on the rise. We heard earlier this afternoon wind can generate electricity. But when it comes to large amounts of power that have to be used or generated to meet the needs of the Valley, there are probably only three real choices today. One is gas. The other is coal. And the other is nuclear. And right now nuclear seems to have more environmental benefits than those other two choices do to us. (**0002-44** [[Bailey, Jack])

Comment: Since the early 1900s, the Carbon Emissions form Fossil fuels have exponentially increased. Petroleum just over 3000 million metric tons of carbon/year Coal just under 3000 million metric tons of carbon/year. Natural Gas at approximately 1500 million metric tons of carbon/year. For a total of over 8000 million metric tons of carbon/year. In addition, the combustion of fossil fuels contributes to acid rain, global warming, and air pollution. The world's power demands are expected to rise 60% by 2030. With the world-wide total of active coal plants over 50,000 and rising, the International Energy Agency (IEA) estimates that fossil fuels will still account for 85% of the energy market by 2030. World organizations, and international agencies like the IEA are concerned about the environmental impact of burning fossil fuels. Are you? (**0008-2** [Couch, Terry] [Smith, Keith])

Comment: The Coosa Valley Region recognizes that the nation's past and future economic growth is directly attributable to an abundant supply of energy resources. However, as our dependence on foreign oil has grown and the need for "greener" air and water quality has become necessary due to the world's population growth, nuclear power has become recognized as the most viable alternative to address both our energy and environmental needs. It is becoming increasingly apparent that fully utilizing wind, solar, and bio-fuels will only satisfy a small portion of the world's energy demand. Although our coal resources are plentiful, the air quality impacts of coal burning power plants are ever in question. Moreover, as the demand for oil grows, the need to convert coal to refinery-ready oil might be an economical alternative to the importation of foreign oil. (**0049-2** [Steiner, William])

Comment: We know that TVA has better ways to meet the region's increasing demand for energy, protect our water resources, and combat global warming. Investing more resources in the region's wind, solar, and bio-energy industries and promoting energy efficiency measures instead of costly nuclear power would benefit TVA and offer local economic development opportunities for the region without draining our water resources or our pocketbooks. Unfortunately, the Bellefonte application does not adequately address these other energy options. (**0001-42** [(Barczak, Sara])

Response: *The EIS will be prepared in accordance with 10 CFR 51.75(c). Alternative energy sources will be considered in the EIS (Chapter 9) as well as their relative impacts on the environment, including with respect to air quality impacts from plant emissions.*

Comment: I for one enjoy the benefits of electricity. ... The demand for electricity in this country is on the rise, expecting to increase 25 percent by 2030. ... It's nuclear plants like Bellefonte that will help this country meet its demand for energy while also being kind to the environment since nuclear produces none of the emissions associated with poor air quality, smog, and climate change. Nuclear energy already provides essential highly skilled and well paying jobs to Alabama as well as valuable tax revenue. We need to preserve benefits like these for future generations. ... Helps us to ensure that we're planning responsibly for the future in terms of both meeting energy demand and how we're affecting the environment with energy production to meet that demand. (**0001-55** [Houseton, Kate])

Response: *The socioeconomic impacts of constructing and operating a nuclear plant on the Bellefonte site, including economic and tax revenue impacts, and cumulative impacts will be included in Chapters 4, 5, and 7 of the EIS. Benefits and costs of constructing and operating a nuclear plant on the Bellefonte site will be described in Chapter 11 of the EIS.*

Comment: I think we haven't really talked a lot about what opportunities are at hand if we shift to clean energy sources and energy efficiency. The cleanest and cheapest energy we have is the energy we don't use. And by investing in energy efficiency, we can offset a lot of our demand, up to about 30 percent nationally. And we wouldn't have to build a new generation plant for this area. But what about the jobs? Well, we desperately need these good, family-sustaining manufacturing jobs. And according to report by the Apollo Alliance, for every million dollars you invest in energy-efficiency projects, you get 21.5 jobs out of every million dollars. So imagine what we could have done with the four billion dollars we invested in this plant already and how many jobs could have already been created for this area. And so I think it's really clear. There's a better way and we deserve more. And we shouldn't accept nuclear. And we shouldn't accept coal. And we shouldn't accept natural gas. (**0001-102** [Kapadia, Ragini])

Comment: For a similar sized power station, 2,200 megawatts would cost about $14 billion dollars. Fourteen billion dollars would buy an enormous amount of efficient electricity sources, sustainable electricity sources, electricity devices which could be manufactured here in Jackson County, sir, or anywhere in the Tennessee Valley. We want the best for the Tennessee Valley. (**0001-59** (Zeller, Lou))

Comment: In most federal applications, ... it is required that one give alternatives solutions to the problem. That is indeed the core of the NEPA process. While this application is clearly for NRC, whose job it is to approve or deny nuclear power plant applications, I still think alternatives should be considered. In the January 2008 edition of Scientific America, ... there is a viable, doable energy plan that has been described that would switch us from coal, oil, natural gas, and nuclear power to solar power plants that would supply 69 percent of all U.S. electricity and 35 percent of our total energy by 2050. The technology is available. This is the kind of thinking that TVA can and should be doing. Here are where new jobs are to be had without the negative health and environmental impacts and risks associated with nuclear power. (**0001-63** [Kurtz, Sandy])

Comment: I think we need to continue the calm discussion of that [nuclear power] as a possible part of the solution to energy needs in our nation. But the costs and risk that people have been presenting are so great that we need to take a very strong look at alternatives first

before we would go in that direction. ... I'm concerned that we are not looking at the situation creatively. I am concerned that these plants are being proposed because it's what we know how to do. It's available. And all you have to do is buy it. ... I think that TVA is proceeding with a business-as-usual mentality because that's what they know how to do. That's what we know how to do as a nation. ...I believe that the energy needs that TVA is projecting ... can be met through energy efficiency, through demand-side management and through looking at alternative energy as various other people have said. ...Why should we end up with huge cost overruns for a technology that might be obsolete by the time it goes online with advances in alternative technology? (**0001-70** [Gottfried, Yolande])

Comment: Campuses all across the state, students of those campuses, are starting to vote to increase their tuition to support green power projects and energy efficiency projects and to assure that a portion of their electricity does not come from nuclear and coal power. Over 150,000 students have voted in support of these initiatives which raise over $ 2 million annually to ensure that their electricity does not come from coal and nuclear power. Those campuses include Sewanee and UT Chattanooga which are in the 50-mile radius of this proposed Bellefonte facility. ... So I think this is definitely a financially viable option to install solar instead of nuclear. And it will bring jobs and economic prosperity to the community as well. I find it unfortunate that TVA has not looked at other alternatives to the Bellefonte proposal in their Application Process. I see that there are four alternatives that are possible, including wind power, solar power, bio-mass, and energy efficiency. (**0001-90** [Plumlee, Jon])

Comment: Clearly, nuclear power is not a future survival technology. Solar power, wind power, conservation, demand side management and energy efficiency all put together are a survival technology. (**0002-37** [Kurtz, Sandy])

Comment: [T]here's a lot of good things about a lot of technologies out there. (**0002-41** [Rad, Zachary])

Comment: Renewable energy --we have serious concerns about TVA's push to build two new reactors here at the Bellefonte site. Renewable energy technology is like bio-energy, solar and winds, which are not likely to be targeted by terrorists nor have the capacity in terms of accidents to kill thousands of people or permanently contaminate large land areas --should not be ignored by TVA. Energy efficiency measures also pose no health or safety risks to the public and the TVA region has significant resources to tap in this arena. TVA has excellent wind resources within its service area. TVA should be encouraged to invest more in developing this clean, safe energy resource instead of spending billions more dollars on Bellefonte.... There is also potential for bio-energy production in Alabama and TVA's service territory. Clean forms of bio-energy can represent a homegrown energy source that can provide local jobs to rural areas that would also support farmers and the region's economy while helping expand clean energy technologies. The use of solar technologies and other clean energy choices were summarily dismissed in the application. The Draft EIS must include a more thorough analysis of energy alternatives. (**0002-57** [Barczak, Sara])

Comment: [W]e think TVA should take a closer look at this and develop plans for energy efficiency to meet all new demands and reduce existing energy use by its customers. Nationally, the overall median achievable potential for electricity savings by this means is 1.2 percent annually. Utilities in other parts of the country have implemented plans for energy

efficiency and demand management efforts are being implemented to meet all new demand and reduce existing energy use. Through energy efficiency TVA can avoid construction of this power plant. ... Even if TVA really did need new capacities, there are alternative means of obtaining that that are safer, cheaper, bring new power production online much faster than nuclear reactors. And they're inherently more benign environmentally. We refer to a variety of solar and other renewable energy options which are safer, quicker to construct, and well-matched to summertime AC driven peak loads. (**0002-71** [McCluney, Dr. Ross])

Comment: A more in-depth analysis should be performed of how power needs could be met without the Bellefonte plant, using energy efficiency investments, energy conservation, and investments in renewable energy supplies. The nation and the TVA region are on the cusp of a change in energy policy. There will be incentives for using less energy, for employing more energy efficiency, for building and operating green. New infrastructure will be developed that allows needs to be met with less travel, more efficient distribution systems, localized power, less transmission, and all of this with greater energy security and lower threats of terrorist attacks. TVA planning should include these changes in its planning studies. (**0002-73** [McCluney, Dr. Ross])

Comment: I'm a real believer in sustainability. I know that there's some sort of new category of people called Bright Greens. ... I think that we are ready for a change. And I know that building --when you build like a southwest face, when you stop the energy leaving your house, when you buy energy efficient appliances, you don't need more energy. ...I'd like to know what is that energy efficient house that we can build so that we don't need more energy.(**0002-76** [Hacker-Cerulean, Jeannie])

Comment: Let me point out that no public health danger is likely or even possible when solar, wind power plants are damaged and no effects - no known effects of severe weather can exist on conservation techniques. Nuclear power is not a sustainable option no matter where you site it. (**0002-87** [Moss, Tom])

Comment: A substantial percentage of, if not all, peak demand can be handled by Demand Side Management (DSM), reducing the need for any new peaking capacity. TVA should take a closer look at this and develop plans for energy efficiency and appropriate demand response to meet all new demand and reduce existing energy use by its customers. Better Alternatives Are Available. Even if TVA really did need new capacity, there are alternative means of obtaining it that are safer, cheaper, bring new power production online much faster than nuclear reactors, and are inherently more benign environmentally. We refer to a variety of solar and other renewable energy options which are safer, quicker to construct, and well-matched to summertime A/C driven peak loads. Energy efficiency is another strategy well proven elsewhere. (**0006-3** [Sondheim, Steven])

Comment: More utilities are building coal gasification plants. This is changing dirty coal into clean hydrogen. The Syngas is burned and drives a gas turbine, which produces electricity. The exhaust heat passes to a heat recovery steam generator where it's used to boil water, creating steam for a steam turbine generator that also produces electricity. This makes gasification plants more efficient. This would cut down or cut out the $C0_2$ and sulfur. New - inventions for electric power are ongoing. Listed below are some: 1. Wind Power, 2. Solar Power, 3. Hydro-power, 4. Geothermal Energy, 5. Biomass-derived fuels, 6. Municipal Solid

Waste, 7. Petroleum Liquids, 8. Fuel Cells, 9. Pulverized Coal, 10. Intregated Gasification Combined Cycle (LGCC). I would like to say there are choices other than nuclear power. (**0015-7** [Bennett, Liz])

Comment: We know that TVA has better ways to meet the region's increasing demand for energy, protect our water resources, and combat global warming. Investing more resources in the region's wind, solar, and bio-energy industries and promoting energy efficiency measures instead of costly nuclear power would benefit TVA and offer economic development opportunities for the region, without draining our water resources or our pocketbooks. Unfortunately, the Bellefonte application does not adequately address these other energy options. Renewable energy technologies, like bioenergy, solar, and wind, which are not likely to be targeted by terrorists nor have the capacity, in terms of accidents, to kill thousands of people or permanently contaminate large land areas, should not be ignored by TVA. Energy efficiency measures also pose no health or safety risks to the public and the TVA region has significant resources to tap in this arena. TVA has excellent wind resources within its service area. TVA should be encouraged to invest more in developing this clean, safe energy resource instead of spending billions more dollars on Bellefonte. There is also potential for bioenergy production in Alabama and TVA's service territory. Clean forms of bioenergy represent a 'homegrown' energy source that can provide local jobs to rural areas that would also support farmers and the region's economy, while helping expand clean energy technologies. The use of solar technologies and other clean energy choices were summarily dismissed in the application. The draft EIS must include a more thorough analysis of energy alternatives. (**0023-1** [Barczak, Sara])

Comment: You should reconsider your investment of nuclear power and instead invest in solar, wind, and bio-energy. These renewable energies will help businesses, farmers, and rural communities in the Tennessee Valley region. (**0046-1** [Fuerst, Paul])

Comment: A more in-depth analysis should be performed of how power needs could be met without the Bellefonte power plant, using energy efficiency investments, energy conservation, and investment in renewable energy supplies. ... The nation and the TVA region are on the cusp of a change in energy policy. There will be incentives for using less energy, for employing more energy efficiency, for building and operating greener, and new infrastructure will be developed that allows needs to be met with less travel, more efficient distribution systems, localized power, less transmission, and all of this with greater energy security and lower threats to terrorist attack. TVA planning should include these changes in its planning studies. (**0051-14** [Sondheim, Steven])

Comment: A substantial percentage of, if not all, peak demand can be handled by Demand Side Management (DSM), reducing the need for any new peaking capacity. ... Even if TVA really did need new capacity, there are alternative means of obtaining it that are safer, cheaper, bring new power production online much faster than nuclear reactors, and are inherently more benign environmentally. (**0051-5** [Sondheim, Steven])

Comment: The scientific community is in agreement that we are entering a period of climate change (a period, by the way, that this reactor would make worse since it would divert resources that could be used for genuinely carbon-free technologies like solar and wind power and increased energy efficiency). (**0054-12** [D'Arrigo, Diane])

Comment: Benefits of Energy Efficiency, Demand Side Management, and Renewables - 1. Energy Efficiency (EE) is the First Fuel 2. Energy efficiency reduces a carbon footprint 3. Energy Efficiency makes jobs and new industries 4. Demand Side Management (DSM) Works 5. TVA states that renewable energy will not be effective through 2020 within the TN Valley, 6. How Much Energy Efficiency will $20 Billion Buy? (**0048-2** [Gorenflo, Louise])

Comment: Benefits of Energy Efficiency, Demand Side Management, and Renewables 1 Energy Efficiency is the First Fuel 2. Energy efficiency reduces a carbon footprint 3. Energy Efficiency makes jobs and new industries. 4. Demand Side Management (DSM) Works 5. TVA states that renewable energy will not be effective through 2020 within the TN Valley 6. How Much Energy Efficiency will $20 Billion Buy? 7. EE can more than meet demand for more power. (**0055-2** [O'Donohue, Kathleen]) (**0052-2** [Fitzgerald, Sara])

Comment: We know that TVA has better ways to meet the region's increasing demand for energy, protect our water resources, and combat global warming. Investing more resources in the region's wind, solar, and bio-energy industries and promoting energy efficiency measures instead of costly nuclear power would benefit TVA and offer economic development opportunities for the region, without draining the region's water resources or taxpayers and ratepayers' pocketbooks. Unfortunately, the Bellefonte application does not adequately address these other energy options. (**0057-1** [Barczak, Sara])

Comment: It is imperative that we turn away from our old ways of quick answers to problems, instead we must seek sustainable solutions, ones that will not harm the future. Manhattan type projects focused on conservation and safe alternative energies are essential--in Scottsboro, AL and around the world.(**0058-2** [Collins, Judy])

Response: *Alternative energy sources, including renewable energy sources as well as energy conservation and efficiency programs, will be considered in Chapter 9 of the EIS. Energy conservation will also be considered as part of the need for power analysis in the EIS.*

Comment: With Bellefonte producing only electricity by means of gas will have a very positive and permanent effect on the economy. Let's strive for better job availability without introducing the hazardous uncertainties mentioned above. ((**0017-18**) [Bennett, Liz])

Comment: Bellefonte should be used to produce electricity by means of natural gas; it is much safer for the people of Jackson County. (**0017-2** [Bennett, Liz])

Response: *The EIS will be prepared in accordance with 10 CFR 51.75(c). Alternative energy sources, including gas-fired generation, will be considered in Chapter 9 of the EIS.*

Comment: Alternatives to Nuclear Power: 1. Bellefonte should be completed as a non-radioactive plant. TVA did an Environmental Impact Study in 1997, and came up with five alternatives to nuclear power: (1.) Pulverized Coal (PC), (2.) Natural Gas Combined Cycle (NGCC), (3.) Integrated Gasification Combined Cycle (IGCC), (4.) IGCC with Chemical Co-production (IGCC/C), (5.) Combination of NGCC (No. 2), and IGCC (No. 4). TVA preferred No. 2, the natural gas combined cycle, in 1997. 2. Hydrogen Fuel Cells. This is the cleanest. ... 3. Natural Gas, 4. Coal-gasification. ... 5. Hydro-electric power 6. Wind Power ... 7. Solar ...Power

8. Geo-thermal Energy 9. And, there are new alternatives being discovered to produce energy. We should not rely on any single source, but a combination of the alternative sources of power. The United States has coal equal to the rest of world, enough to last for the next 250 years, according to Jack Gerard, the head of the National Mining Association. Canada and Mexico are great sources for oil, natural gas, and coal. So there are a number of alternatives to nuclear power. (**0005-7** [Bennett, Liz])

Response: *Alternative energy sources, including a combination of alternatives, will be considered in Chapter 9 of the EIS.*

Comment: A more in-depth analysis should be performed of how power needs could be met without the Bellefonte power plant, using energy efficiency investments, energy conservation, and investment in renewable energy supplies. The study should include costs, methods, and possible scheduling of these alternative strategies. The study should include a more up-to-date financial analysis not relying on old data, considering new projected costs, debt service, rising scarcity of uranium vs cost/benefit of other sources including renewables over at least a 20 year period. ... The nation and the TVA region are on the cusp of a change in energy policy. There will be incentives for using less energy, for employing more energy efficiency, for building and operating greener, and new infrastructure will be developed that allows needs to be met with less travel, more efficient distribution systems, localized power, less transmission, and all of this with greater energy security and lower threats to terrorist attack. TVA planning should include these changes in its planning studies. (**0006-5** [Sondheim, Steven])

Response: *Alternatives to the proposed action, including alternative energy sources, will be considered in Chapter 9 of the EIS. The need for power analysis will be evaluated in Chapter 8 of the EIS. Benefits and costs of constructing and operating a nuclear plant on the Bellefonte site will be described in Chapter 11 of the EIS.*

Comment: Consider meeting peak demand by purchasing power. Do a cost comparison of this versus the build option. (**0051-7** [Sondheim, Steven])

Response: *Alternatives to the proposed action, including purchasing power from other sources, will be considered in Chapter 9 of the EIS.*

Comment: The EIS should fully and transparently consider alternatives to nuclear reactors at Bellefonte, including but not limited to: use of renewable energy to meet electricity demand and/or equivalent output of Bellefonte nuclear reactors; use of energy efficiency to reduce electricity demand to equivalent output of Bellefonte reactors, including various and aggressive energy efficiency program scenarios; use of a combination of renewable energy and energy efficiency to meet electricity demand and obtain an equivalent output of Bellefonte nuclear reactors, the "no action" alternative. (**0054-2** [D'Arrigo, Diane])

Response: *Alternative energy sources, including renewable energy sources as well as energy conservation and efficiency programs and the "no action" alternative, will be considered in Chapter 9 of the EIS.*

21. Comments Concerning Benefit – Cost Balance

Comment: 30 years and billions of dollars after TVA's disastrous rush into its first round of nuclear power plant construction. And we still have 25 billion dollars of debt that TVA is carrying from the construction program in the `70s. It's still on there. And we're still paying for it. And now we're starting to build a whole new round. These plants as best I can figure out the estimate today is four billion dollars for each plant. That's a lot of money. (**0001-29** [Safer, Don])

Response: *This comment expresses concern regarding the cost of building nuclear power plants. Chapter 11 of the EIS will discuss the estimated overall costs and environmental impacts of the proposed project. The benefit-cost balance for the project will rely on the best available estimate of project timing and duration, while noting possible uncertainties that may effect those estimates.*

Comment: [W]e have to remember that every U.S. taxpayer is subsidizing this process. So all of us have a say in this decision that's going to be coming up in the next few years. (**0001-38** [Barczak, Sara])

Response: *Chapter 11 of the EIS will discuss the estimated overall costs and environmental impacts of the proposed project. The public will have an opportunity to comment on the draft EIS.*

Comment: Further since the price tag for Bellefonte is already sitting at over four billion dollars for reactors that were abandoned decades ago, we feel that the NRC should consider that investment when comparing it to other energy options, such as energy efficiency and conservation. Where could we have been if four billion dollars had been spent on energy efficiency rather than the abandoned site. (**0001-44** [Barczak, Sara])

Comment: And we've already spent over four billion dollars for the TVA Bellefonte project. And we haven't even gotten a single kilowatt of energy. And from what I've read, each additional reactor would cost about at least six billion dollars more. (**0001-101** [Kapadia, Ragini])

Response: *This comment expresses concern regarding the cost already expended on the Bellefonte units that have not been completed. Issues related to costs associated with previous projects are outside the scope of the proposed action and will not be addressed in the EIS. Chapter 11 of the EIS will discuss the estimated overall costs and environmental impacts of the proposed project. The benefit-cost balance for the project will rely on the best available estimate of project timing and duration, while noting possible uncertainties that may effect those estimates.*

Comment: Reliable, reasonably priced electricity is the lifeblood of this country's economy and also of North Alabama. All of the distributors and the communities that we serve have come to rely on this very reliable, reasonably priced source of energy to make our economy strong and vibrant. As a result, North Alabama has very competitive power rates, low unemployment, and we're growing. (**0001-82** [Kitchens, George])

Comment: Reliable, reasonably priced electricity is the lifeblood of this country's economy. All

of the distributors and the communities that we serve have come to rely on this very reliable reasonably priced energy source to make our economies strong and vibrant. As a result North Alabama has very competitive power rates, low unemployment and is growing. TVA's proposal to build a new nuclear plant at the Bellefonte site is essential to the continuation of our diverse power supply at reasonable prices. (**0018-1** [Kitchens, George])

Response: *The comment expresses support for the development of reasonably priced electricity generating capacity in the region. Chapter 11 of the EIS will discuss the estimated overall costs and environmental impacts of the proposed project.*

Comment: I'd just like to go over some of the effects, the costs for this boom town project on Jackson County and to help you decide if this is really inexpensive for you. (**0002-20** [Gorenflo, Louise])

Response: *This comment appears to express concern regarding the socioeconomic impacts of the proposed project on the local area. Socioeconomic impacts will be addressed in Chapters 4 and 5 of the EIS. Issues related to costs associated with previous projects are outside the scope of the proposed action and will not be addressed in the EIS. Chapter 11 of the EIS will discuss the estimated overall costs and environmental impacts of the proposed project. The benefit-cost balance for the project will rely on the best available estimate of project timing and duration, while noting possible uncertainties that may effect those estimates.*

Comment: [S]hould Bellefonte ever come online, Jackson County will now and forever pay the costs of constant vigilance over a radioactive contaminating and contaminated site. Five short years of an economic boomlet compared to a forever contaminated and contaminating site. How inexpensive is that? (**0002-27** [Gorenflo, Louise])

Response: *The comment expresses concern about the cost and the health impacts of the proposed nuclear power plant. NRC will evaluate human health and socioeconomic impacts of the proposed action in the EIS. The results of this analysis will be presented in Chapters 4 and 5 of the EIS. Chapter 11 of the EIS will discuss the estimated overall costs and environmental impacts of the proposed project. The benefit-cost balance for the project will rely on the best available estimate of project timing and duration, while noting possible uncertainties that may effect those estimates.*

Comment: [E]very tax payer is subsidizing this process. The U.S. taxpayer is subsidizing this application process because we put money forward to NuStart to do that. And then in addition, we've got a lot of subsidies going to the development of this power plant. (**0002-56** [Barczak, Sara])

Response: *The NRC is not involved in establishing national energy policy. Rather, it regulates the nuclear industry to protect the public health and safety within existing policy. Issues related to the subsidization of nuclear power are outside the scope of the NRC's mission and authority and will not be addressed in the EIS.*

Comment: The high cost of nuclear power plants will likely lead to cost overruns and rate increases. This is not mentioned in the application. The price for new reactors such as Westinghouse's AP 1000 design that TVA intends to use has skyrocketed. For example,

utilities in Florida pursuing the same reactor design have stated cost to the Florida Public Service Commission just recently of 6 to 8.5 billion dollars per reactor, nearly tripling their estimates from just one year ago. Further, TVA remains very close to exceeding its Congressionally mandated debt ceiling of $30 billion. Yet there is no mention of TVA's debt ceiling in the application. The NRC must evaluate this in the Draft EIS. (**0002-58** [Barczak, Sara])

Comment: [S]ince the price tag for Bellefonte is already sitting at over $4 billion for reactors that were abandoned, we feel that the NRC should consider that investment when comparing it to other energy options such as efficiency and conservation. Where could we have been if $4 billion had been spent on energy efficiency rather than the abandoned site? The high cost of nuclear power plants will likely lead to cost overruns and rate increases; this is not mentioned in the application. The price for new reactors, such as Westinghouse's AP1000 design that TVA intends to use, has skyrocketed. For example, in Florida the cost for new nuclear plants has risen by two to three times the estimates from just one year ago. Utilities in Florida pursuing the same reactor design have stated costs of $6 to $8.5 billion per reactor, nearly tripling their estimates from just one year ago. Further, TVA remains very close to exceeding its congressionally mandated debt ceiling of $30 billion. Yet there was no mention of TVA's debt ceiling in the application. The NRC must evaluate this in the draft EIS. (**0023-3** (Barczak, Sara))

Comment: Environmentally speaking nuclear is a bad move risk wise. The utilities economics are not viable. Its finances should be evaluated in the absence of heavy government subsidies. We consider nuclear unnecessary and foolhardy. Its safety, risk factors, waste handling, environmental impacts, and cost are all questionable at best. We actually think it is a poor investment and evidenced by Wall Street's unwillingness to back it without huge government guarantees and subsidies. On cost alone, the nuclear options seem implausible. (**0002-74** [McCluney, Dr. Ross]) (**0006-6** [Sondheim, Steven])

Response: *These comments express concern about cost overruns and rate increases associated with escalating costs of new reactors as well as concern about TVA's debt. The purpose of the EIS is to disclose potential environmental impacts of building and operating the proposed nuclear power plant. Issues related to costs associated with previous projects are outside the scope of the proposed action and will not be addressed in the EIS. Chapter 11 of the EIS will discuss the estimated overall costs and environmental impacts of the proposed project. The benefit-cost balance for the project will rely on the best available estimate of project timing and duration, while noting possible uncertainties that may effect those estimates.*

Comment: [I]n 1998, with a partner it would take 4.8 billion dollars to complete Bellefonte, and now, three years later, Senator Sessions says, "it will only take 2.8 billion to complete". The figures just don't jive. (**0005-6** [Bennett, Liz])

Response: *Issues related to costs associated with previous projects are outside the scope of the proposed action and will not be addressed in the EIS. Chapter 11 of the EIS will discuss the estimated overall costs and environmental impacts of the proposed project.*

Comment: We believe that a re-analysis of the real costs of the nuclear option should be performed. It should take into account all costs including subsidies, mining of ore, processing to fuel, transportation of fuel, wastes, and other construction materials, legal and insurance fees, costs of operation, direct and indirect (taxpayer borne) waste disposal, inflation, securing the plant from both accidental and terrorist radiation leaks, and fuel cost increases due to the rising scarcity of uranium. (**0006-4** [Sondheim, Steven]) (**0051-12** [Sondheim, Steven])

Comment: Nuclear plants are so astronomically expensive to build, 5.9 billion+ for one plant. Brown's Ferry went on line and has been down four times or more and more monies are being put into that facility. (**0015-6** [Bennett, Liz])

Comment: Cost of Bellefonte Nuclear Plants Are High and Climbing. 1. Cost The construction of Bellefonte 3 and 4, if built today, would cost at least $20 billion, nearly doubling TVA's existing debt of $25 billion. 2. Cost of Uranium Soars. The price of uranium has increased tenfold since its low in 2000. 3. TVA Low Cost" Mandate TVA has a statutory mission to provide electric power to the TN Valley "at rates as low as feasible," (TVA Authorizing, Act of 1933.). (**0055-3** [O'Donohue, Kathleen]) (**0048-3** [Gorenflo, Louise]) (**0052-3** [Fitzgerald, Sara])

Response: *The NRC is not involved in establishing national energy policy nor does it have the authority to ensure that the proposed plant is the least costly alternative to provide energy services. Rather, it regulates the nuclear industry to protect the public health and safety within existing policy. The purpose of the EIS is to disclose potential environmental impacts of building and operating the proposed nuclear power plant. The EIS will discuss alternative energy sources and describe potential impacts from these sources in comparison with the proposed action. Issues related to costs associated with previous projects are outside the scope of the proposed action and will not be addressed in the EIS. Chapter 11 of the EIS will discuss the estimated overall costs and environmental impacts of the proposed project. The benefit-cost balance for the project will rely on the best available estimate of project timing and duration, while noting possible uncertainties that may effect those estimates.*

Comment: The study should include a more up-to-date financial analysis not relying on old data, considering new projected costs, debt service, rising scarcity of uranium vs cost/benefit of other sources including renewables over at least a 20 year period. ... The good news is that there are already available ways to maintain and even increase the amounts of work performed by the generated power, but with reduced power output. The better news is that as our nation changes its infrastructure for a viable future, more will be done with less energy and environmental impact. The TVA environmental analysis and other projections should include this fact. ... The utility's economics are not viable. It's finances should be evaluated in the absence of heavy government subsidies. ...We actually think it is a poor investment, evidenced by Wall Street's unwillingness to back it without huge government guarantees and subsidies. On cost alone, the nuclear option seems implausible. (**0051-13** [Sondheim, Steven])

Response: *Issues related to costs associated with previous projects are outside the scope of the proposed action and will not be addressed in the EIS. Chapter 11 of the EIS will discuss the estimated overall costs and environmental impacts of the proposed project. The benefit-cost balance for the project will rely on the best available estimate of project timing and duration, while noting possible uncertainties that may effect those estimates. Issues related to the subsidization of nuclear power are outside the scope of NRC's mission and authority and*

will not be addressed in the EIS. The EIS will include a comparison of alternative energy technologies in Chapter 9.

Comment: [A]bsent fundamental information on the cost of this project, no cost/benefit analysis can be prepared or reviewed and the EIS would be an illegal document of no value and would only serve to undermine public credibility of both TVA and the NRC. The NRC must avoid this outcome by including in the EIS information on the estimated costs of this project. Moreover, given the wide range of cost estimates already reported by other U.S. utility projects (for example, Florida Power & Light testimony before the Florida Public Service Commission estimates construction costs for a single new nuclear unit running from $6 to $12 billion-a huge range), the EIS should not limit itself to a single cost figure, but rather must conduct its cost/benefit analysis on a range of foreseeable construction costs. (**0054-1** [D'Arrigo, Diane])

Comment: [S]ince the price tag for Bellefonte is already sitting at over $4 billion for reactors that were abandoned, we feel that the NRC should consider that investment in addition to the current estimates for new reactors when comparing it to other energy options such as efficiency and conservation. (**0057-3** [Barczak, Sara])

Comment: Concerns about these plants: Millions of dollars to build--and then decommission. (**0058-3** [Collins, Judy])

Response: *Issues related to costs associated with previous projects are outside the scope of the proposed action and will not be addressed in the EIS. Chapter 11 of the EIS will discuss the estimated overall costs and environmental impacts of the proposed project. The benefit-cost balance for the project will rely on the best available estimate of project timing and duration, while noting possible uncertainties that may effect those estimates.*

22. <u>General Comments in Support of the Licensing Action</u>

Comment: Make no mistake about it, the Jackson County Commission is unequivocally in support of TVA in its endeavor to secure a Combined License to build Units 3 and 4 at its Bellefonte Nuclear site in Hollywood. (**0001-10** [Tidmore, James])

Comment: I am here today representing the Jackson County Economic Development Authority and Industrial Development Boards. And these boards have unanimously passed resolutions encouraging the construction of a new nuclear power plant at the Bellefonte site. We're here today to encourage the NRC to grant TVA a COL to build two new Westinghouse AP 1000 reactors on this TVA site. And we are in favor of this for several reasons. (**0001-12** [Tidmore, James])

Comment: I hope that the decision makers involved will encourage completion of the Bellefonte Nuclear Power Plant. (**0001-18** [Gibson, Dr. Thomas A.])

Comment: [W]hereas Jackson County has always supported the completion of Bellefonte, Now therefore be it resolved that the Board of Directors of the Greater Jackson County Chamber of Commerce fully supports TVA in the completion of Bellefonte as a nuclear plant. This is signed by all 24 Board Members who represent all business all over Jackson County.

(**0001-20** [Roden, Rick])

Comment: Today we find ourselves with a unique opportunity to watch the city of Scottsboro, Jackson County, and the surrounding Tri-State area, and the United States greatly prosper with its proposal by TVA. Not through being imitators but by being innovators in the production of energy through the new generation nuclear reactor process and lead the way for others to emulate. (**0001-21** [Deason, Dan])

Comment: It is after careful consideration of related factors that, as the Mayor of the City of Scottsboro, I firmly feel that we need to proceed with conviction and steadfast commitment, working hand in hand with TVA on the development and final completion of the Bellefonte facility as a nuclear site with two new generation safe and highly productive Westinghouse nuclear reactors. I have every confidence that if we are fortunate enough to be successful in TVA's quest for energy improvement at Bellefonte, that in years to come that we will proudly look back on this event as one of the most dynamic to help our people and our economy grow and prosper in a safe and fruitful Jackson County. (**0001-23** [Deason, Dan])

Comment: I applaud TVA for moving ahead with Bellefonte project. (**0001-56** [Houseton, Kate])

Comment: I'm pleased that the NRC is taking the next step in reviewing the Tennessee Valley Authority and NuStart Energy Consortium's Combined Construction and Operating License application. I strongly support the application. And it is my hope that the NRC will evaluate the EIS and complete the application process in a thorough and timely manner. ... Thank you for your time and consideration of NuStart and TVA's pursuit of a C.O.L. for a nuclear plant at Bellefonte. And I look forward to hearing of its success. (**0001-8** [Cramer, Bud])

Comment: I'd like to commend the TVA for submitting an application for the two new reactors. And also I feel that with the checks and balances that we have in place, the NRC, the TVA, and the research they do and public input that we can be provided with a safe nuclear facility, environmental safe. And I feel that that will help Jackson County provide the power that is needed for businesses. It will bring in new businesses. And I think it is very important that we proceed with that. (**0001-80** [Hodges, Glenda])

Comment: "Now therefore, be it resolved by the North Alabama Public Power Association Board of Directors that we support the licensing of construction and operation of the Bellefonte Nuclear Plant in Hollywood, Alabama to: Number one, allow TVA to meet the growth needs of North Alabama and the Tennessee Valley by providing low cost, reliable power. Number two, rejuvenate nuclear power as a viable option to meet the nation's power needs. And three, acknowledge that nuclear power is a part of the solution to reduce electric power's impact on climate change. This resolution was approved and adopted by the North Alabama Public Power Association, March 28, 2008." (**0001-85** [Kitchens, George])

Comment: I am here tonight representing the Jackson County EDA and the Industrial Development Board. These boards have unanimously passed resolutions encouraging the construction of the new power plant at Bellefonte and to encourage the NRC to grant the C.O.L. to TVA. (**0002-14** [Shepard, Sheila])

Comment: TVA's proposal to construct two new pressurized water reactors at the Bellefonte site is a good proposal and deserves careful and prudent consideration by the Nuclear Regulatory Commission. (**0002-29** [Sandlin, Jimmy])

Comment: I support the Bellefonte Project and encourage Nuclear Regulatory Commission to proceed thoroughly and quickly in processing TVA's application for this project. (**0002-33** [Sandlin, Jimmy])

Comment: I am here in support of TVA's Combined Construction and Operating License for the Bellefonte Unit 3 and 4. (**0002-39** [Rad, Zachary])

Comment: [T]he C.O.L. process, which helps streamline efforts and includes all of this valuable input from the public, helps to insure that we are planning responsibly for the future in terms of both meeting energy demands and how we are affecting the environment with energy production to meet that demand. (**0002-49** [Houseton, Kate])

Comment: [H]e [Congressman Bud Cramer] asked that I extend his appreciation ... to TVA for the application. (**0002-5** [McCamy, Jim])

Comment: I applaud TVA for moving ahead with the Bellefonte Project. (**0002-51** [Houseton, Kate])

Comment: I am pleased that the NRC is taking the next step in reviewing the Tennessee Valley Authority and NuStart Energy Consortium's Combined Construction and Operating License application. I strongly support the application and it is my hope that the NRC will evaluate the EIS and complete the application process in a thorough and timely manner. ... Thank you for your time and consideration of NuStart and TVA's pursuit of a C.O.L. for a nuclear plant at Bellefonte. And I look forward to hearing of its success. (**0002-6** [Cramer, Bud])

Comment: That we the members of the Scottsboro City Council would like to go on record as supporting the construction of Unit 3 and Unit 4 nuclear reactors at Bellefonte Nuclear Plant site in Jackson County, Alabama. The two main reasons for our support is the economic impact on our community and the ever increasing need for affordable energy. (**0002-7** [Smith, Keith])

Comment: [W]e as the Chamber of Commerce in Jackson County support the construction of the Bellefonte facility. (**0002-9** [Couch, Terry])

Comment: We, the members of the Scottsboro City Council would like to go on record as supporting the construction of Unit 3 and Unit 4, Nuclear Reactors of the Bellefonte Nuclear Plant site in Jackson County, Alabama. ... This project will be an asset to our community. This request is made by a unanimous support of the Scottsboro City Council. (**0007-1** [Smith, Keith])

Comment: I am in support of the construction of the Bellefonte Nuclear plant 7 miles North of Scottsboro, AL. The Jackson County Area is a great location with many highly skilled professionals. The addition of the Nuclear Plant to the community will bring highly specialized jobs into the area and will be great for the local economy. (**0008-4** [Couch, Terry] [Smith, Keith])

Comment: NOW THEREFORE, be it resolved that Highlands Medical Center fully supports TVA in the completion of Bellefonte as a Nuclear Plant. (**0009-1** [Lackey, Thomas])

Comment: NOW, THEREFORE, be it resolved that The 'Town of Hytop fully supports TVA and NuStart in the completion of Bellefonte as a Nuclear Plant.
(**0010-1** [Thackerson, Leslie])

Comment: NOW, THEREFORE BE IT RESOLVED, that the Top of Alabama Regional Council of Governments Board of Directors fully supports TVA and NuStart in the completion of Bellefonte as a Nuclear Plant. (**0011-1** [Anderson, Philip])

Comment: Make no mistake about it! The Jackson County Commission is unequivocally in support of TVA in its endeavor to secure a combined license to build units 3 and 4 at its Bellefonte Nuclear Plant site in Hollywood, Alabama. (**0012-1** [Tidmore, James])

Comment: I come here today to voice my support for the efforts of TVA and their application for construction of a new generation of nuclear power generation at the Bellefonte site near here. (**0016-1** [Bailey, Ron])

Comment: The debate over nuclear power is a sensitive issue, but it is one that just makes good sense for our region both environmentally and economically. The Tri-State Regional Workforce Alliance appeals to the NRC to look with favor on the application to proceed with getting the proposed Bellefonte project on line. (**0019-2** [Lee, Wanza])

Comment: I am pleased that the NRC is taking the next step in reviewing the Tennessee Valley Authority (TVA) and NuStart Energy Consortium's combined construction and operating license application (COL). I strongly support the application, and it is my hope that the NRC will evaluate the EIS and complete the application process in a thorough and timely manner. ... Thank you for your time and consideration of NuStart and TVA's pursuit of a COL for a nuclear plant at Bellefonte, and I look forward to hearing of its success. (**0020-1** [Cramer, Bud])

Comment: Today we find ourselves with a unique opportunity to watch the City of Scottsboro, Jackson County, the surrounding tri-state area, and our United States greatly prosper with this proposal by TVA -not through being imitators, but by being innovators -in the production of energy through the new generation nuclear reactor process and lead the way for others to emulate. (**0021-1** [Deason, Dan])

Comment: It is after careful consideration of related factors that as Mayor of the City of Scottsboro, I firmly feel that we need to proceed with conviction and steadfast commitment working hand in hand with TVA on the development and final completion of the Bellefonte Facility as a nuclear site with two new generation safe and highly productive Westinghouse nuclear reactors. I have every confidence that if we are fortunate enough to be successful in TVA's quest for energy improvement at Bellefonte that in years to come that we will proudly look back on this event as one of the most dynamic to help our people and our economy grow and prosper in a safe and fruitful fashion. (**0021-3** [Deason, Dan])

Comment: TVA's proposal to construct two new advanced boiling water reactors at the Bellefonte site is a good proposal and deserves careful and prudent consideration by the

Nuclear Regulatory Commission. (**0024-1** [Sandlin, Jimmy])

Comment: I support the Bellefonte project and encourage the Nuclear Regulatory Commission to proceed thoroughly and quickly in processing TVA's application on this project. (**0024-5** [Sandlin, Jimmy])

Comment: I am here today representing the Jackson County EDA & IDB Board of directors. These boards have unanimously passed resolutions encouraging the construction of a new nuclear power plant at the Bellefonte site. We are here today to encourage the NRC to grant TVA a COL to build two new Westinghouse AP 1000 reactors on this TVA site. (**0025-1** [Shepard, Sheila])

Comment: I hope that the decision makers involved will encourage completion of the Bellefonte Nuclear Power Plant. (**0026-3** [Gibson, Dr. Thomas A.])

Comment: I am a businessman in Scottsboro, Alabama, and am in favor of TVA starting up Bellefonte Nuclear Power Plant. This area is in much need of high tech jobs and clean, efficient power. (**0027-1** [Williams, Rudder])

Comment: [T]he Jackson County Economic Development Authority respectfully requests the Nuclear Regulatory Commission to give its highest priority to approving the application for Bellefonte's Combined Construction and Operating License. (**0029-1** [Lovelady, Bunn])

Comment: NOW THEREFORE BE IT RESOLVED by the North Alabama Public Power Association Board of Directors that we support the licensing of construction and operation of Bellefonte Nuclear Plant in Hollywood, Alabama to: Number one, allow TVA to meet the growth needs of North Alabama and the Tennessee Valley by providing low cost, reliable power, Number two, rejuvenate nuclear power as a viable option to meet the nation's power needs, and three, acknowledge that nuclear power is a part of the solution to reduce electric power's impact on climate change. (**0030-1** [Kitchens, George])

Comment: NOW, THEREFORE, be it resolved that The Town of Paint Rock fully supports TVA and NuStart in the completion of Bellefonte as a Nuclear Plant. (**0031-1** [Counts, Michael])

Comment: Therefore, be it resolved that the Town of Woodville fully supports TVA and NuStart in the completion of Bellefonte and a Nuclear Plant. (**0032-1** [Cook, Faye])

Comment: THEREFORE, be it resolved that the Town of Skyline, Alabama fully supports TVA and NuStart in the completion of Bellefonte as a Nuclear Plant. (**0033-1** [Shett, Billy])

Comment: NOW, THEREFORE, *be it resolved that the* Town of Pisgah fully *supports TVA and NuStart in the completion of the Bellefonte as a Nuclear Plant.* (**0034-1** [Woods, Christopher])

Comment: THEREFORE, be it resolved that the Town of Langston fully supports TVA and NuStart in the completion of Bellefonte as a Nuclear Plant. (**0035-1** [Vaught, Butch])

Comment: THEREFORE, be it resolved that the Mayor and Hollywood Town Council fully supports TVA and NuStart in the completion of Bellefonte as a Nuclear Plant. (**0036-1** [Keele,

Rickey])

Comment: THEREFORE, be it resolved that Flat Rock Ruritan Club fully supports TVA and NuStart in the completion of Bellefonte as a Nuclear Plant. (**0037-1** [Wheeler, Bill])

Comment: THEREFORE, be it resolved that The Town Council of the Town of Section, Alabama fully supports TVA and NuStart in the completion of Bellefonte as a Nuclear Plant. (**0038-1** [Fossett, Ron])

Comment: THEREFORE, be it resolved that Jackson County Shrine Club fully supports TVA and NuStart in the completion of Bellefonte as a Nuclear Plant. (**0039-1** [Hamilton, Darryl])

Comment: THEREFORE, be it resolved that Mayor Deason, Members of the Scottsboro City Council and the City of Scottsboro fully support TVA and NuStart in the completion of Bellefonte as a Nuclear Plant. (**0040-1** [Deason, Dan])

Comment: THEREFORE, be it resolved that The Town of Dutton fully supports TVA and NuStart in the completion of Bellefonte as a Nuclear Plant. (**0041-1** [Stewart, Bryan])

Comment: At the Regular Session of the Stevenson City Council meeting on Thursday, 14 July 2005, the council voted unanimously to endorse the NuStart project at the Bellefonte Nuclear Plant near Hollywood, Alabama. The council offered support for the project and is happy to be of any assistance possible to further the plan at that site. (**0042-1** [Tipton, Katye])

Comment: THEREFORE, be it resolved that The Greater Jackson County Chamber of Commerce fully supports TVA and NuStart in the completion of Bellefonte as a Nuclear Plant. (**0043-1** [Roden, Rick])

Comment: I wish to take this time to express my support of the application that the Tennessee Valley Authority (TVA) has submitted to the Nuclear Regulatory Commission to build units 3 and 4 at the Bellefonte Nuclear Plant site. (**0044-1** [Carter, Zella])

Comment: I am here today representing the Jackson County EDA & IDB Board of directors. These boards have unanimously passed resolutions encouraging the construction of a new nuclear power plant at the Bellefonte site. We are here today to encourage the NRC to grant TVA a COL to build two new Westinghouse AP 1000 reactors on this TVA site. We are in favor of this for several reasons. (**0045-1** [Rogers, Goodrich])

Comment: The Coosa Valley Regional Development Center (CVRDC) is a Federal, State, and Local Government-supported regional planning and development organization, regional workforce development entity, and area agency on aging that serves the ten counties of Northwest Georgia. On April 17, 2008, the CVRDC Board of Directors discussed the licensing of the Bellefonte Nuclear Plant Units 3 and 4 and directed me to provide this letter of support relative to this project. (**0049-1** [Steiner, William])

Comment: THEREFORE, the Scottsboro Kiwanis Club respectfully requests the Nuclear Regulatory Commission to give its highest priority to approving the application for Bellefonte's Combined Construction and Operating License. (**0059-1** [Dawson, Stuart])

Comment: NOW THEREFORE, be it resolved that The Board of Directors of The Greater Jackson County Chamber of Commerce fully support TVA in the completion of Bellefonte as a Nuclear Plant. (**0060-1** [McBride, Faye])

Comment: NOW, THEREFORE, be it resolved that The Jackson County Board of REALTORS fully supports TVA and NuStart in the completion of Bellefonte as a Nuclear Plant (**0061-1** [White, Debbie])

Response: *These comments provide general information in support of the applicant's COL. They do not provide any specific information related to the environmental effects of the proposed action and will not be evaluated in the EIS.*

23. <u>General Comments in Support of the Licensing Process</u>

Comment: Thank you to the NRC for holding two public meetings today to address the environmental scoping issues that should be evaluated as the NRC prepares the Draft Environmental Impact Statement. (**0001-39** [Barczak, Sara])

Comment: I appreciate you all being here and allowing the citizen input. That's what our form of republic is all about. (**0001-49** [Morgan, Garry])

Comment: It's a pleasure to have an opportunity to speak about this issue in a public setting with the government listening. (**0001-51** [McCluney, Dr. Ross])

Comment: The NRC's regulatory process for new reactors, the C.O.L. process, is vital to ensuring that nuclear energy continues to provide clean, affordable electricity in this country. ... And the COL process which helps streamline efforts and includes valuable input from the public—part of which is happening today. (**0001-54** [Houseton, Kate])

Comment: [T]hank you for proceeding with this process the way you are. ...And especially to each one of you, thank you for being here today to take part in this process. (**0001-6** [McCamy, Jim])

Comment: Thanks to TVA for your application. (**0001-7** [McCamy, Jim])

Comment: [D]o we want TVA which operates as an unregulated monopoly with limited Congressional oversight and no public involvement in its decision making to be in control of all of this? So that's why we need you, the Nuclear Regulatory Commission, to review the adequacy of the TVA's claims that the Bellefonte units are needed because I personally don't trust TVA to represent my interests in this question. And I certainly hope that the Nuclear Regulatory Commission will. (**0001-72** [Gottfried, Yolande])

Comment: I feel great appreciation to the NRC staff. If there was such a competition in the Olympics, you would get gold medals for listening. (**0001-77** [Reynolds, Bill])

Comment: [H]e [Congressman Bud Cramer] asked that I extend his appreciation first to NRC for proceeding with this process ... and as importantly to each of you that are here tonight for

taking part in this process. (**0002-4** [McCamy, Jim])

Comment: The NRC's regulatory process for new reactors, part of which is happening here tonight, is vital to insuring that nuclear energy continues to provide clean, affordable electricity in this country. (**0002-45** [Houseton, Kate])

Comment: Thank you for holding the meetings to address the environmental-scoping issues. We really appreciate the NRC taking the time to do so. (**0002-55** [Barczak, Sara])

Response: *These comments provide general information in support of the NRC COL process. They do not provide any specific information related to the environmental effects of the proposed action and will not be evaluated in the EIS.*

24. <u>General Comments in Support of Nuclear Power</u>

Comment: I believe you'll find that the citizens of Jackson County and Alabama continue to share a strong support for nuclear energy and the future development of the Bellefonte facility. They understand the role that nuclear energy can play as a clean, safe, and reliable source of energy. (**0001-9** [Cramer, Bud])

Comment: Nuclear power is the best option for our nation to address global warming, energy independence, and the cost of energy to the ultimate consumer. Nuclear power is non-polluting, allows us to create and use energy right here in the United States, and can be generated for less than one and a half cents per kilowatt hour. (**0002-31** [Sandlin, Jimmy])

Comment: I'm also an advocate of the broader use of nuclear power as a portion of our nation's future energy portfolio. (**0002-40** [Rad, Zachary])

Comment: I believe the practical solution for the needed electrical generation within the next decade is nuclear power. The accompanying conflict between power generation and the environment in the short term is nuclear power. (**0016-2** [Bailey, Ron])

Comment: It is clear that nuclear power is a proven acceptable solution to greenhouse gas emissions that have been directly linked to global warming. The technology provides a safe, reliable way to generate the level of power that will be needed for our region to continue to expand and grow. Already the South is growing faster than the rest of the nation and our consumption of electricity demands that we look for production sources that are clean, safe, and efficient. (**0019-1** [Lee, Wanza])

Comment: Nuclear power is the best option for our nation to address global warming, energy independence, and the cost of energy for the ultimate consumer. Nuclear power is non-polluting, allows us to create and use energy right here in the United States, and can be generated for less than 1.5 cents/kilowatthour. (**0024-3** [Sandlin, Jimmy])

Comment: CVRDC trusts that the technologies approved by the U.S. Nuclear Regulatory Commission are effective, safe, and dependable, and we have full faith in your abilities to monitor and regulate the nuclear power industry for the benefit of all U.S. citizens. (**0049-3** [Steiner, William])

Response: *These comments provide general information in support of nuclear power. They do not provide any specific information relating to the environmental effects of the proposed action and will not be evaluated in the EIS.*

25. General Comments in Opposition to the Licensing Action

Comment: We have serious concerns about TVA's push to build two new reactors here at the Bellefonte site. The uncertainties associated with new nuclear power plants continue to escalate putting rate payers, tax payers, and the environment at increasing risks. These risks are not adequately addressed in the application. (**0001-40** [Barczak, Sara])

Comment: I urge TVA's withdrawal of the application or NRC's denial of the license to proceed. (**0001-64** [Kurtz, Sandy])

Comment: I'm speaking in opposition to building these units at this --and these plants in this place at this time. I'm not peaking just from a knee jerk not-in-my-backyard position. Because I think that if nuclear plants were necessary and if they were the best solution to an energy need, then they would have to be in somebody's backyard. And I should not exempt myself. Except that particularly in this area, we have already a number of nuclear plants in our backyards: the three units at Browns Ferry, the two at Sequoyah, which I believe are the closest. And so I would like to say in the words of the old camp song, "Don't chuck your muck in my backyard. My backyard's full." (**0001-69** [Gottfried, Yolande])

Comment: I'm opposed to the construction of the two new reactors at Bellefonte on several grounds. (**0001-73** [Moss, Tom])

Comment: I do not want the proposed Bellefonte nuclear plant licensed or built unless the Westinghouse Company, TVA, and NRC can come up with convincingly absolutely fail-safe technology that would keep absolutely every bit of radioactivity from leaking into the environment so that it would significantly reduce the risk that I would end up with physically deformed or fatally ill grandchildren. (**0001-79** [Reynolds, Bill])

Comment: Fundamentally, we believe this application is not complete and should never have been accepted by the NRC. It is frustrating that taxpayer dollars have been wasted on this document and that time and effort on the part of public citizens has also been wasted reviewing this document since it really does not seem to be complete. We request that the NRC asks TVA or rather NuStart ... to revise and resubmit their application. (**0002-66** [Barczak, Sara])

Comment: [I]t's being rushed through on the front end just like they've done dams and stuff like this. They did it with Sequoyah. They did it with the Tellico Dam. TVA always does this. They get it all front loaded and get things into a big train that becomes very difficult to stop further down the road. Now is the time to stop this train or at least to slow it down before it gets rushing to find out what's really going on here. (**0002-79** [Flowers, R. D.])

Comment: It's an incomplete document. And what needs to happen now is the NRC needs to tell TVA you must wait until you can have a less incomplete and you do it right. This stuff matters. (**0002-83** [Flowers, R. D.])

Comment: The DOE (Department of Energy) and TVA's track record for completion of projects is not that great. Even though the TVA has done some wonderful things for the Tennessee Valley, they have not completed Bellefonte, and we still have the milfoil problem. TVA has been given yearly 70 to 77 million dollars for their non-power projects by the government (courtesy of us tax payers). (**0017-15** [Bennett, Liz])

Comment: Tritium production would have a negative impact on Scottsboro and Jackson County. No one wants to be near a radioactive producing plant--especially this day when there is a choice of jobs and location. ... TVA closed Bellefonte in 1988 because they said there wasn't the demand for electricity. Someone didn't do their homework very well, because they should have realized that before they started the project. If it is too expensive to produce electricity, then they should cut their losses and get out. Use Bellefonte as a water treatment plant or a pumping station since we are sending water to other towns. Turn Bellefonte into a nuclear-type museum and restore the historical buildings in Bellefonte and make the remaining acreage into a wildlife preserve. Sell the real estate in 5-, 10-, 20-acre (or more) lots or mini farms, and turn the building into a club house with swimming tennis etc. Make into an industrial Park or High Tech Park. ... Let's keep Scottsboro and Jackson County beautiful and non-radioactive. (**0017-17** [Bennett, Liz])

Comment: How can anyone think of having nuclear power in this most beautiful and pristine county! According to a very recent survey of Alabamians, many favored nuclear power but 70% did not want it in their area, and 82% would object to construction of a nuclear waste storage facility in their area. To me that means the people of Alabama do not want nuclear power and nuclear waste storage. Trying to complete Bellefonte as a nuclear plant is too risky and too costly. A nuclear plant has not been built in the United States since the 1970's. Where are all the start up nuclear engineers? Scientists are quite concerned about finding qualified and up to date people to complete or build a plant. Some scientists say the life of a nuclear plant is 40 years, but 20 years is more like it, according to other scientists. Bellefonte will have been setting (with some maintenance) for basically 20 years and it would probably take 5 to 10 years to complete it. Putting Bellefonte on line, to me, is like buying a near complete or completed car and letting it set for about 20 years. Sure you start it up every day, put gas and oil in it, make sure the radiator has coolant, and the battery is filled with distilled water, and other maintenance. So after 20 years you decide to, drive it into town. Will you make it? Nuclear plants are far, far more complicated. (**0005-1** [Bennett, Liz])

Comment: We have so much going for us now. Let's keep Jackson County beautiful and non-radioactive. (**0005-9** [Bennett, Liz])

Comment: I am opposed to construction of Bellefonte reactors 3 and 4 on several grounds. (**0014-1** [Moss, Tom])

Comment: I still think it is not a good idea to put anything using nuclear power in our valley or any valley for that matter. Our children are our future and we are considering sending them to school less than five miles from a nuclear plant. ... Let's keep Jackson County and surrounding area nuclear free. (**0015-1** [Bennett, Liz])

Comment: Fundamentally, we believe this application is not complete and should never have been accepted by the NRC. It is frustrating that taxpayer dollars have been wasted on this document, and that time and effort on the part of public citizens has also been wasted reviewing this document, since it really does not seem to be complete. We request that the NRC ask TVA to revise and resubmit their application. (**0023-12** [Barczak, Sara])

Comment: I was just writing you this email to say I am gravely concerned with the proposed Nuclear reactor in Alabama. This is a terribly short sighted decision, and please for all our sakes do everything you can to stop this plant's construction. (**0050-1** [Smith, Nathan])

Comment: Fundamentally, we believe this application is not complete and should never have been accepted by the NRC. It is frustrating that taxpayer dollars have been wasted on this document, and that time and effort on the part of public citizens has also been wasted reviewing this document, since it really does not seem to be complete. We request that the NRC ask TVA to revise and resubmit their application. (**0057-12** [Barczak, Sara])

Comment: As I hold my precious grand daughter and think of the future, I think of the proposed nuclear plants and my heart cries out, No...No...No. ... Please in the name of ALL OUR CHILDREN, do not agree to the building of these plants. (**0058-1** [Collins, Judy])

Response: *These comments provide general information in opposition to the applicant's COL and will not be evaluated further. The NRC will carefully review the application against its regulations that are intended to protect public health and safety and the environment.*

Comment: Our primary objections to new nuclear generating capacity in the TVA system, specifically at the Bellefonte site, are based on concerns over several special and unique environmental impacts of nuclear power in areas of water, thermal pollution, and nuclear radiation hazards connected to the dangers of earthquake damage, on the radioactive wastes and fuel stored at the site, and on radioactive material transport off site. We are particularly concerned about the nation's lack of an acceptable plan for long-lived radioactive waste disposal and TVA's insufficient safeguards against terrorist attacks. The continuing drought is a special concern in the light of the anticipated high water uses of the proposed power plant. We also object on a variety of other grounds, including economics, and strongly challenge the need for new generation capacity in the TVA system. (**0006-1** [Sondheim, Steven])

Comment: Our primary objections to new nuclear generating capacity in the TVA system, specifically at the Bellefonte site, are based on concerns over several special and unique environmental impacts of nuclear power in areas of water, thermal pollution, and nuclear radiation hazards connected to the dangers of earthquake damage, terrorist attack on the reactors, on the radioactive wastes and fuel stored at the site, and on radioactive material transport off site. (**0051-2** [Sondheim, Steven])

Comment: Our primary objections to new nuclear generating capacities at the Bellefonte site are based on concerns over several special and unique environmental impacts of nuclear power in the areas of water, thermal pollution, and nuclear radiation hazards. Especially those connected to the dangers of earthquake damage and the resulting release of radioactive waste and fuel stored at the site and accidental and terrorist releases of radioactive material

transported off the site. (**0002-67** [McCluney, Dr. Ross])

Response: *These comments identify a number of topics as the basis for opposition to the proposed action. The staff's assessment of the impacts to water quality and availability will be presented in Chapters 4 and 5 of the EIS for construction and operation, respectively.*

The NRC will consider the potential for earthquake damage to the proposed Bellefonte units. However, this is a safety issue and not within the scope of the Environmental Impact Statement. Safety issues including, but not limited to, seismic concerns are addressed in the applicants Final Safety Analysis Report (FSAR), which is Part 2 of the application. These and other safety topics are reviewed by the NRC staff and that review is documented in the Safety Evaluation Report (SER) issued by the NRC.

The comments express concern with radioactive wastes and fuel stored at the site, with radioactive material transport off site and with the nation's lack of an acceptable plan for long-lived radioactive waste disposal. The NRC staff will assess the environmental impacts of the uranium fuel cycle, including the impacts of solid radioactive waste management. Results of this analysis will be presented in Chapter 6 of the EIS.

Comments related to security and terrorism are safety issues that are not within the scope of the staff's environmental review. The NRC is devoting substantial time and attention to terrorism-related matters, including coordination with the Department of Homeland Security. As part of its mission to protect public health and safety and the common defense and security pursuant to the Atomic Energy Act, the NRC staff is conducting vulnerability assessments for the domestic use of radioactive material. In the time since September 2001, the NRC has identified the need for license holders to implement compensatory measures and has issued several orders to license holders imposing enhanced security requirements. Finally, the NRC has taken actions to ensure that applicants and license holders maintain vigilance and a high degree of security awareness. Consequently, the NRC will continue to consider measures to prevent and mitigate the consequences of acts of terrorism in fulfilling its safety mission. Additional information about the NRC staff's actions regarding physical security since September 11, 2001, can be found on the NRC's public web site (www.nrc.gov).

The NRC staff will review the need for power analysis completed by TVA to determine if it is (1) systematic, (2) comprehensive, (3) subject to confirmation, and (4) responsive to forecasting uncertainty. The need for power analysis will be included in Chapter 8 of the EIS.

26. <u>General Comments in Opposition to the Licensing Process</u>

Comment: [I]t's a very burdensome document [TVA application] to go through. And I share anyone's frustration in the room who actually did read this application. In fact, I think the NRC should have rejected this application from the get go. (**0001-41** [Barczak, Sara])

Response: *These comments provide general information in opposition to the NRC's COL process and will not be evaluated in the EIS. The NRC will carefully review the application against its regulations that are intended to protect public health and safety and the environment.*

27. General Comments in Opposition to Nuclear Power

Comment: All around the world, the only countries that have developed nuclear weapons have done it from domestic nuclear power programs. And what does that mean? That means that if we continue to build nuclear power plants, then the North Koreas and the Iraqs all want and deserve nuclear power plants. But then they have the technology to build nuclear weapons. It means more nuclear weapons in the hands of countries that one day can be our friends and one day can be our enemies because of the way international politics works. You have to factor that in. It may not be an environmental impact today, but it's an environmental impact as nuclear weapons proliferate. (**0001-34** [Safer, Don])

Comment: So the choice to use nuclear power to boil water to meet our need for electricity is selfish and foolish. It's just plain wrong. Nuclear power is not part of the solution to human induced climate change. (**0001-37** [Safer, Don])

Comment: [W]e're opposed to nuclear power because of the threat that it represents to our livelihoods and our health and well-being. (**0001-57** [Zeller, Lou])

Comment: I have two visions of Scottsboro for the year 2060 that I want to present to you. In the first one I'm haunted by the vision of a grandchild in the year 2060. He's dying of radiation poisoning. No one knows whether the explosion at the Bellefonte Plant was accidental or the result of a terrorist attack. But his parents are sick. He's dying. They don't have long to live. As John, his father, looks at his wife who's lost all of her hair and is struggling to breathe, he wonders what could they have been thinking back in 2008? How could they even contemplate creating the possibility of this horror? Did they think of themselves as potential terrorists? Did they have any knowledge of alternatives? Did they know about sustainable energy generation and energy conservation? Did they care? What could have motivated them? But of course, he knew the history. And he knew that what motivated the energy company was profit and, of course, providing energy. And what motivated the community of Scottsboro was the need, the real need, for jobs. Maybe he thought the people back in 2008 could not have envisioned the advances in technology that decentralized energy generation in this century and created a whole new economy of sustainable energy production. So now we're reaping the harvest of illness and death from the seeds of good intentions and short-sightedness sowed by our leaders back in 2008. We thought we were safe. In an alternative vision, it's a fine spring day like today in Scottsboro in the year of 2060. John is walking to the cafe for lunch. A stranger stops him. He asks, "Can you tell me how to find the world headquarters of Global Solar?" "Sure," John says. "That company and a whole bunch of other manufacturers of solar and wind technology have been driving our economy since we rejected the nuclear option. The headquarters is in the green park right over there. It's that transparent building made of solar crystals. All those buildings around it are companies that use the by-products of the process that makes --and they make all kinds of other things." "Yes," the stranger said. "I've read about the prosperity of Scottsboro and how it is the sustainable energy capital of the South. I'm from a global solar factory in India. I'm here for training in the latest sustainable technology. Do you know how all this got started?" "Well, yes," John says. "It was in 2011 on September 11 when TVA, that's the Tennessee Valley Authority, opened a business incubator and research lab for renewable energy businesses." "That TVA must have had some visionary leadership," the stranger says. "And thanks for the directions." "You are welcome," says John. "And, yes, TVA has been great for Scottsboro." Year 2060. (**0001-68** [Bille, Finn])

Comment: This industry is dangerous. It barely produces more energy than it takes to mine it, transport it, and do the whole thing and at very much high cost in money and safety. ... If you accept nuclear power plants anywhere on earth, you will not deal with nuclear proliferation because you have given up your only choke point. (**0002-84** [Flowers, R. D.])

Comment: I really cannot sit by quietly while a potential nuclear bomb is built near my hometown. Why are we building easy sites to attack while at war against global terrorism. (**0050-2** [Smith, Nathan])

Response: *These comments provide general information in opposition to nuclear power. They do not provide any specific information relating to the environmental effects of the proposed action and will not be evaluated in the EIS.*

28. <u>Comments Concerning Issues Out of Scope – Emergency Preparedness</u>

Comment: The EIS should examine what the result would be of entire communities frantically attempting to exit the emergency planning zone simultaneously. The EIS should address the impact of a simultaneous and spontaneous evacuation of communities well beyond the ten mile emergency planning zone on the orderly and timely evacuation of the current ten mile planning zone. The EIS should address the plans, if they exist, to distribute protective Potassium Iodide pills to people living within 20 miles of Bellefonte. The EIS should describe Bellefonte's plans for backup power systems for emergency public notification sirens and address how the utility will ensure compliance with the requirement that it can reliably and promptly notify members of the public in the event of an accident and concurrent loss of onsite/offsite power without overburdening other first responders with time consuming mobile route alerting duties. Local police and fire departments are likely to already be tasked with traffic control, security or firefighting duties. The EIS should describe how the emergency plan for Bellefonte has or has not incorporated the likelihood of role delay and/or role abandonment by critical emergency plan personnel as the result of an attrition of an uncertain percentage of first responders due to their attending to personal and family responsibilities first. (**0054-11** [D'Arrigo, Diane])

Response: *These comments relate to the adequacy of emergency plans, which is a safety issue that is outside the scope of the staff's environmental review. As part of its site safety review, the NRC staff will determine, after consultation with the Department of Homeland Security and the Federal Emergency Management Agency, whether the emergency plans submitted by the applicant are acceptable.*

29. <u>Comments Concerning Issues Out of Scope – Miscellaneous</u>

Comment: Need for NRC to Determine Need for New TVA Capacity: TVA is a federal corporation which operates as an unregulated monopoly. TVA is responsible to no other entity for its policies, programs, forecasts for power needs, and ratemaking. Existing Congressional oversight is limited to Senate confirmation of board appointees, Congressional approval of increase in the TVA's bond capacity, removal of board members, and Congressional hearings. No state government has any regulatory control over TVA's ratemaking. TVA rates are not subject to review beyond its Board of Directors. The TVA Act does not provide for Federal Energy Regulatory Commission review, and the courts have held the rates are not subject to

judicial scrutiny. There are no statutory requirements for public involvement in the TVA decision-making process. TVA governance has no provision for the residents of the Tennessee Valley or their elected representatives to have formal control cover TVA policies and programs except through the President and Congress. TVA's current public involvement programs are at the discretion of the Board. TVA has not involved anyone outside TVA and the nuclear industry in the decision to move ahead with Bellefonte. Consequences of Lack of Oversight Severe. (**0048-15** [Gorenflo, Louise]) (**0055-15** [O'Donohue, Kathleen])

Comment: Need for NRC to Determine Need for New TVA Capacity: 1. TVA is a federal corporation which operates as an unregulated monopoly. It is responsible to no other entity for its policies, programs, forecasts for power and energy requirements, and ratemaking. 2. Existing Congressional oversight is limited to Senate confirmation of board appointees, Congressional approval of increase in the TVA's bond capacity, and the options to remove board members and to hold Congressional hearings. 3. No state government has any regulatory control over TVA's ratemaking. TVA rates are not subject to review beyond its Board of Directors. The TVA Act does not provide for FERC review, and the courts have held the rates are not subject to judicial scrutiny. 4. There are no statutory requirements for public involvement in the TVA wholesale rate process. TVA governance has no provision for the residents of the Tennessee Valley or their elected representatives to have formal control cover TVA policies and programs except through the President and Congress. TVA's current public involvement programs are voluntary and at the discretion of the Board. 5. TVA has not involved anyone outside TVA and the nuclear industry in the decision to move ahead with Bellefonte. Consequences of Lack of Oversight Severe (**0052-13** [Fitzgerald, Sara])

Response: *TVA is a Federal agency. The NRC reviews TVA's environmental report for the COL application, but the NRC is not responsible for the oversight of TVA's rates, internal decision-making process, policies, or programs. These comments are outside the scope of this review and do not provide specific information relating to the environmental effects of the proposed action; therefore, they will not be evaluated further.*

Comment: It is with very deep concern for the people of Scottsboro and Jackson County regarding the possibility of the tritium production that I address this issue. ... The House of Representatives in Washington, D.C., has restated the law that commercial reactors like Bellefonte cannot be used to produce radioactive tritium for nuclear warheads. (The Senate has to vote on the issue.) (**0017-1** [Bennett, Liz])

Response: *The tritium production activities referred to by the commenter are not within the scope of the licensing action before the NRC and therefore will not be addressed in the EIS.*

30. <u>Comments Concerning Issues Out of Scope – NRC Oversight</u>

Comment: I ask that the Nuclear Regulatory Commission do their part in protecting our citizens and the environment as this project goes from idea to reality. People of all ages are depending on you to examine this application and implementation every step of the way. (**0016-3** [Bailey, Ron])

Comment: Need for NRC Oversight of TVA Projections: As no other entity with the TN Valley or within the federal government has the responsibility to review and determine the adequacy of

TVA's power and energy requirement forecasts, it clearly becomes the responsibility of the NRC to review the adequacy of TVA's claims that the proposed Bellefonte units are needed. (**0048-16** [Gorenflo, Louise]) (**0052-14** [Fitzgerald, Sara]) (**0055-16** [O'Donohue, Kathleen])

Response: *The NRC takes seriously its statutory responsibilities to protect the public health and safety and the environment in regulating the U.S. nuclear power industry. More information on NRC's roles and responsibilities is available on the NRC's website at http://www.nrc.gov/what-we-do.html. TVA is a Federal agency. The NRC reviews TVA's environmental report for the COL application, but the NRC is not responsible for the oversight of TVA's rates, internal decision-making process, policies, or programs. These comments are outside the scope of this review and do not provide specific information relating to the environmental effects of the proposed action; therefore, they will not be evaluated further.*

Comment: I only wish that I had more confidence in the integrity of this process. It is not the NRC's job to deny this application but rather to push it through. The results of this approval are virtually a foregone conclusion. (**0001-24** [Safer, Don])

Response: *The mission of the NRC is to license and regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment. The NRC has established an extensive regulatory process to ensure the integrity of each review. The NRC can deny an application for a COL or ESP based on the finding of its review. The NRC will carefully review the application against its regulations that are intended to protect public health and safety and the environment. This comment provides a personal opinion concerning the integrity of this process and will not be addressed in the EIS.*

31. <u>Comments Concerning Issues Out of Scope – Safety</u>

Comment: I am one of several who have carefully considered the presentation of NuStart Consortium and TVA and feel that the safety issue has been addressed in an acceptable manner. (**0001-22** [Deason, Dan])

Comment: [W]hich environmental issues should the NRC consider during its review of the Combined Licensing. ... seismic issues [should be considered]. (**0001-27** [Safer, Don])

Comment: In talking about the terrain there, surrounding the area around Bellefonte is called a karst terrain. And simply what karst terrain is is sinkhole terrain. That area ... it is extensive. And this is what my rocks are about. I want to demonstrate to you what the karst terrain is and what it means, what the sinkholes mean during drought. Now in reading the TVA C.O.L. and the environmental part of that report, it barely addresses the issue of karst terrain. As a matter of fact, in one part it makes a mention that sinkholes are forming there. But as what it does not mention is what happens in drought. And of course, right now this area is in a severe drought situation. ... But in the karst terrain, in the sinkhole terrain, we have this. And I want to show you this. I'll have to put the microphone down. When that terrain dries out, this is what happens when the rocks dry out [rock crumbles in his hands]. That is what happens when we have drought. And that is what my concern is. (**0001-50** [Morgan, Garry])

Comment: The proposed construction site is in a limestone area where the massive beds of

the Bangor, Monteagle, and Tuscumbia limestone contain many caves. There are over 4,200 known caves in Alabama. And Jackson County contains 1,854 as of last year caves, which is more cave entrances in any county in Alabama or indeed any county in the United States. Most of the caves in this area are not charted. They are unknown. Many of them are voids without entrances which exist below the water table. When the water table drops, these voids become filled with air. The ceiling is no longer supported by the water. The ceiling collapses. And this is one way that sinkholes form. As everyone who lives around here knows, sinkholes have been known to open up and swallow houses and cars. God help us if one undermines the foundations of a nuclear reactor. That was a safety and site suitability concern. (**0001-74** [Moss, Tom])

Comment: [N]uclear plants are not that complicated to operate. What's complicated about nuclear plants are the thousands and thousands of safety systems that are installed in those plants to protect the environment and protect the people in the community. (**0002-13** [Couch, Terry])

Comment: [M]y husband is an Assistant Unit Operator at the Browns Ferry Plant in Athens working for TVA. ...we know based on his experience there that he has been highly trained and the safety standards that are involved. ... I would still not stand here and be in support of this if I did not feel it was safe. I know what vigorous training he went through. I know what the safety standards are there. And I can stand up here and say with confidence that I believe TVA and the NRC will provide a safe environment for us to work in and for us to live in. (**0002-17** [Shepard, Sheila])

Comment: [M]y wife and I along with my three year old daughter and one year old son live within two miles of an operating nuclear power plant. And that's a testament to my confidence in the safe design, construction, and operation of commercial nuclear power plants today. (**0002-42** [Rad, Zachary])

Comment: Brookhaven National Lab, Long Island, New York-The plant was shut down January 16, 1977, because of a leak of radioactive tritium into the groundwater. Test results showed levels of radioactive groundwater that are 11 times the U.S. Environmental Protection Agency's safe drinking water standard. The plant is still shut down, and I do not know if the leak has been found. (**0017-11** [Bennett, Liz])

Comment: DOE has been cited for neglect in safety factors concerning nuclear warheads, and the Nuclear Regulatory Commission (NRC) has for the next several months taken over the inspection, regulation, and safety at Oak Ridge, Tennessee, rather than have DOE regulate its own nuclear safety program. Also DOE has been extremely hard on employees who have exposed flaws and safety at nuclear weapons plants and labs. (**0017-16** [Bennett, Liz])

Comment: With regard to tritium, the plants at Sequoyah and Watts Bar have ice condenser containment structures. Mr. Bergeron, in his study of ice condensers, found that the system "has a high likelihood of failing in the event of a serious accident, leaving the public completely unprotected against the kind of massive release of radioactivity that occurred at Chernobyl". I do not know whether there are ice condensers or massive concrete and steel containment structures at Bellefonte. Mr. Curtis Overall, a former employee of TVA's Watts Bar Plant, discovered in 1995, that more than 200 screws intended to hold the ice condenser baskets

together were either broken or missing. Ann Harris, another TVA employee, along with Mr. Overall, have filed reports about the safety issues at TVA's nuclear plants. Both have been fired. The National Regulatory Commission (NRC) has taken over the safety checks at Oak Ridge. (**0005-5** [Bennett, Liz])

Comment: The proposed construction site is in a limestone area where the massive beds of the Bangor, Monteagle, and Tuscumbia limestones contain many caves. ... When the water table drops, these voids become filled with air. The ceiling is no longer supported by water. The ceiling collapses, and this is one way that sinkholes form. ... sinkholes have been known to open up and swallow houses and cars. God help us if one undermines the foundations of a nuclear reactor! That was a safety concern. (**0014-2** [Moss, Tom])

Comment: [A]s TVA has proven over the years, it [nuclear power] is safe. (**0018-3** [Kitchens, George])

Comment: I am one of several who have carefully considered the presentation of Nu-Start Consortium and TVA and feel that the safety issue has been addressed in an acceptable manner. (**0021-2** [Deason, Dan])

Comment: In the COL Application, Part 3, Environmental Report there is no mention of seismic activity and its effects on the Karst Terrain. Immediately east of the Nuclear Plant is a ridge called River Ridge. River Ridge is a minor fault area. Inclosure 5-1 and 5-2 describes seismic activity in Alabama. If you will notice on the map at Inclosure 5-2 there are several minor earthquakes that have been historically recorded. Earthquake effects on the Karst Terrain have not been discussed in the Environmental Report. ... The application does not discuss or consider the effects ... seismic activity on the Karst Terrain, sinkhole terrain, of the area which the proposed Nuclear Plant will be built. This terrain area displays physical characteristics which are unsuitable for a Nuclear Power Plant as it creates an unacceptable level of risk not discussed in the application. On this basis I am requesting TVA's COL Application be denied for the Bellefonte site. (**0022-2** [Morgan, Garry])

Comment: I have every confidence in TVA and the NRC that the Bellefonte plant will be a quality and safe operation. (**0025-3** [Shepard, Sheila])

Comment: Geologic Concerns: TVA fails to consider in its application the effects of drought and seismic activity on the karsts terrain underlying -the BLN site, a known and identified sinkhole area. The area is susceptible to sink holes and has the potential of complete ground collapse. The application fails to consider historical maps of the area which clearly reflect sinkhole formation on and near the plant site. The anti-bellum community of Bellefonte was so named because the word bellefonte means beautiful spring. Springs are common in karsts areas. (**0048-10** [Gorenflo, Louise])

Comment: Geologic Concerns: TVA fails to consider in its application the effects of drought and seismic activity on the karst terrain underly the BLN site, a known and identified sink hole area. The area is susceptible to sink holes and may result in, complete ground collapse. The application fails to consider historical maps of the area which clearly reflect sinkhole formation on and near the plant site. The anti-bellum community of Bellefonte was so-named because the word bellefonte means beautiful spring. (**0055-9** [O'Donohue, Kathleen])

Comment: Seismic Concerns: The Bellefonte plant is near the Eastern Tennessee Seismic Zone, considered to be one of the most active seismic areas east of the Rocky Mountains. Recent studies have indicated that this seismic zone may have the potential to produce large magnitude earthquakes. The NRC has expressed concern that the outdated hazard models used by TVA do not adequately characterize the potential for larger earthquakes. Fort Payne Earthquake: A magnitude 4.6 earthquake occurred in 2003, 50 miles ESE of Scottsboro, AL. The earthquake was deep enough to suppress significant damage in Fort Payne, the closest community, although this 4.6 magnitude event damaged weaker chimneys and formed cracks in some structures. The community now has many concerns related to this event. A top concern is the community's ability to cope with the potential occurrence of a larger earthquake. (**0048-9** [Gorenflo, Louise])

Comment: Seismic Concerns: The Bellefonte plant is near the Eastern Tennessee Seismic Zone, which is considered to be one of the most active seismic areas east of the Rocky Mountains. Recent studies have indicated that this seismic zone may have the potential to produce large magnitude earthquakes. The NRC has expressed concern that the outdated hazard models used by TVA do not adequately characterize the potential for larger earthquakes. ... The community now has many concerns related to this event. A top concern is the community's ability to cope with the potential occurrence of a larger earthquake when the magnitude 4.6 event raised (**0052-7** [Fitzgerald, Sara]) (**0055-8** [O'Donohue, Kathleen])

Comment: [Consider] Evacuation Plans (**0051-9** (Sondheim, Steven))

Comment: The risk of potentially damaging earthquake-induced ground accelerations requires assessment for all proposed structures, especially nuclear reactors. ... the EIS needs to establish the likelihood of a given level of ground shaking being exceeded within the expected lifetime of the reactor (say, 60 years). Earthquake seismology has advanced so greatly in recent years that the EIS should not rely on dated analyses. Mapping deeply buried faults in the Bellefonte region or elsewhere is difficult but needs to be done. Establishing whether they are potentially active (could rupture again during the operation of the reactor or storage period for the waste) is even harder but necessary. How close do potential faults come to the proposed reactor site? (**0054-15** [D'Arrigo, Diane])

Comment: The EIS should evaluate ... the impact of reduced water on management of waste in the fuel pool; the impact of increased water levels on the storage of high- and so-called "low-level" radioactive waste onsite and/or near site. (**0054-8** [D'Arrigo, Diane])

Response: *The issues raised in these comments are outside the scope of the environmental review and will not be addressed in the EIS. TVA provided its safety assessment for the proposed licensing action as part of the application. The NRC is in the process of developing a safety evaluation report that analyzes reactor and operational safety. The following are examples of how NRC addresses operational safety issues: (1) NRC maintains resident inspectors at each operating reactor site. These inspectors monitor the day-to-day operations of the plant and perform inspections to ensure compliance with NRC requirements. (2) In addition, the NRC has an operational experience program that ensures that the safety issues*

that are found at one plant are properly addressed at the others, as appropriate.

32. Comments Concerning Issues Out of Scope – Security and Terrorism

Comment: Terrorism target. We all know and fear terrorism. These plants are high --they're high value targets from a terrorist perspective. They can do great damage. (**0001-32** [Safer, Don])

Comment: The security program at TVA has been run over and become road kill. Some things to be cleared up: nuclear access at all sites, lack of a formal to a comprehensive training program, improper clearances for behind security, using friends to challenge and breach security, chemical abuse and positions of authority ... I want to know that this EIS will address the issue of Site Access Security. ... And until the NRC and TVA design and implement a secure access to reactor sites now operating, NRC, you should not go forward with this EIS. This EIS has to have an assessment and an analysis of a TVA Secure Program for people to access. (**0002-28** [Harrison, Ann])

Comment: A lot of attention has been paid to protecting the fuel in the nuclear reactor. And we fear that not enough has been looked at the whole cycle from creation of the nuclear fuel to disposal of the waste and the susceptibilities outside the containment, thus leaving outside of the plant security a susceptibility to a variety of problems. We are particularly concerned about ... TVA's insufficient safeguards against the terrorists' attacks. (**0002-68** [McCluney, Dr. Ross])

Comment: We could be subject to terrorism because we have signed treaties with other countries to not produce war material in commercial reactors. (**0017-5** [Bennett, Liz])

Comment: National Security Concerns: Nuclear Proliferation and National Security. Every foreign nuclear proliferation concern is tied to a nuclear reactor program. It is impossible to guarantee that nuclear materials will not fall into the wrong hands. Nuclear reactors create plutonium during their operating cycle, a substance from which bombs can be made. Plutonium remains lethally radioactive for more than 240,000 years. (**0048-14** [Gorenflo, Louise])

Comment: National Security Concerns: 1. Nuclear Proliferation – Every foreign nuclear proliferation concern is tied to a nuclear reactor program. It is impossible to guarantee that nuclear materials will not fall into the wrong hands. 2. National Security – Nuclear reactors make an attractive target for terrorists. (**0052-12** [Fitzgerald, Sara])

Comment: National Security Concerns: 1. Nuclear Proliferation and National Security. Every foreign nuclear proliferation concern is tied to a nuclear reactor program. It is impossible to guarantee that nuclear materials will not fall into the wrong hands. Nuclear reactors create plutonium during their operating cycle, a substance from which bombs can be made. Plutonium remains lethally radioactive for more than 240,000 years. 2. National Security Nuclear Reactors make an attractive target for terrorists. A 1982 Congressional report estimated that if a meltdown occurred at just one of Bellefonte's two reactors, it could cause up to 7,700 immediate injuries with costs of over $80 billion (1980 dollars and Census figures.) (**0055-14** [O'Donohue, Kathleen])

Comment: The EIS should address the potential adverse environmental impacts from a

successful malevolent act involving a significant release of radiation from Bellefonte. (**0054-14** [D'Arrigo, Diane])

Comment: The EIS should address the potential consequences of a jumbo jet assault on Bellefonte 3 and/or 4, taking into consideration the leaked Electricite de France report indicating the EPR design is vulnerable to aircraft crashes (see Large and Associates, May 18, 2006, http://wwwl0.antenna.nl/wise/news/R3150 aircraft impact.pdf). (**0054-9** [D'Arrigo, Diane])

Comment: Concerns about these plants: possibility of terrorist targeting, generation of plutonium used for bombs that threaten the entire world. (**0058-9** [Collins, Judy])

Response: *Comments related to security and terrorism are safety issues that are not within the scope of the staff's environmental review. The NRC is devoting substantial time and attention to terrorism-related matters, including coordination with the Department of Homeland Security. As part of its mission to protect public health and safety and the common defense and security pursuant to the Atomic Energy Act, the NRC staff is conducting vulnerability assessments for the domestic use of radioactive material. In the time since September 2001, the NRC has identified the need for license holders to implement compensatory measures and has issued several orders to license holders imposing enhanced security requirements. Finally, the NRC has taken actions to ensure that applicants and license holders maintain vigilance and a high degree of security awareness. Consequently, the NRC will continue to consider measures to prevent and mitigate the consequences of acts of terrorism in fulfilling its safety mission. Additional information about the NRC staff's actions regarding physical security since September 11, 2001, can be found on the NRC's public web site (www.nrc.gov).*

33. <u>General Editorial Comments</u>

Comment: During my review, I also noticed a few errors in the numbering of figures. Where topographic maps were supposed to be, only wind rose maps emerged. (**0002-65** [Barczak, Sara]) (**0023-11** [Barczak, Sara]) (**0057-11** [Barczak, Sara])

Response: *This comment was brought to TVA's attention at the public scoping meeting. The staff anticipates that the issues identified will be addressed when TVA revises its ER.*

Summary

On October 30, 2007, the TVA submitted to the NRC an application for a COL for Bellefonte Nuclear Plant Units 3 and 4, to be located adjacent to the not-completed Bellefonte Units 1 and 2.

On February 21, 2008, in accordance with 10 CFR 51.26, the NRC initiated the scoping process by publishing a Notice of Intent to Prepare an Environmental Impact Statement and Conduct Scoping Process in the *Federal Register* (73 FR 9604). The Notice of Intent notified the public of the staff's intent to prepare an EIS and conduct scoping for the COL application. Through the notice, the NRC also invited the applicant; Federal, Tribal, State, and local government agencies; local organizations; and individuals to participate in the scoping process by providing oral comments at the public meetings and/or submitting written suggestions and comments no later than April 25, 2008. Public scoping meetings were held at the Scottsboro Goosepond Civic Center in Scottsboro, Alabama on April 3, 2008. Comments were consolidated and categorized according to topic within the EIS or according to the general topic if outside the scope of the EIS. Those comments, along with the responses prepared by NRC staff, are presented in this Scoping Summary Report.

The draft EIS for TVA's COL application will address the relevant environmental issues raised during the scoping process. The draft EIS will be made available for public comment. Interested Federal, Tribal, State, and local government agencies; local organizations; and members of the public will be given the opportunity to provide comments on the draft EIS; the staff will consider these comments during the development of the final EIS.