

June 15, 2010

Ms. Diane Curran  
Harmon, Curran, Spielberg & Eisenberg, L.L.P.  
1726 M Street NW, Suite 600  
Washington, DC 20036

Mr. David Roth  
Office of the General Counsel  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

RE: Fifth Update to Disclosures Pursuant to 10 CFR § 2.336; *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Unit 2), Docket No. 50-391-OL

Pursuant to 10 CFR § 2.336 and the agreement among the parties regarding mandatory discovery disclosures dated December 1, 2009, the Tennessee Valley Authority (TVA) is providing the fifth update to its mandatory disclosures with respect to Intervenor's Contention 7, as admitted by the Board on November 19, 2009 (LBP-09-26).

In order to compile the indices in Enclosures 2, 3, and 4, a search was conducted of documents in TVA's possession, custody, or control since the fourth update to disclosures dated May 14, 2010. Attached is a supporting affidavit. TVA's fifth disclosure update consists of the following:

- Enclosure 1 is reserved for the names, addresses, and telephone numbers of the persons upon whose opinion TVA will base its positions on the contentions and upon whom TVA may rely as a witness, and a copy of the analyses and authorities upon which they base their opinions. TVA has not yet identified witnesses for any hearing on the contentions, and will update Enclosure 1 when it has identified its witnesses.
- Enclosure 2 provides a description, by category and location, of non-privileged documents, data compilations, and tangible things in the possession, custody, or control of TVA that are relevant to the admitted contentions in this proceeding. If you determine that you would like a copy of any of these documents, please inform me of which documents you would like, and I will provide a copy to you.
- Enclosure 3 provides an index of documents, data compilations, or tangible things that may be relevant to the contentions but that contain proprietary information, Sensitive Unclassified Non-Safeguards Information (SUNSI), or otherwise protected information. Upon request by the NRC staff, TVA will provide a copy of any such material using the procedure in 10 CFR § 2.390. If the Intervenor's desire a copy, TVA will work with the Intervenor's to develop a mutually acceptable draft Protective Order for issuance by the Board and a Non-Disclosure Agreement for signature by those persons working with the Intervenor's. TVA will provide any requested proprietary documents to the Intervenor's after the Board has entered a Protective Order and the Intervenor's have signed and returned to TVA the Non-Disclosure Agreement.

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Mr. David Roth  
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- Enclosure 4 provides an index of relevant documents that are otherwise publicly available.

In the event that TVA identifies additional relevant documents or the witnesses for any hearing on the contentions, TVA will update these disclosures periodically on the fifteenth day of each month as required by the December 1, 2009 mandatory disclosure agreement.

In order to compile these enclosures, TVA made a reasonable search of its records. We are attaching an affidavit which attests that all relevant materials identified by this search have been disclosed, and that the disclosures are accurate and complete as of June 15, 2010. Also, we have highlighted the additions to the logs since the last disclosures.

TVA has been conservative in identifying documents for inclusion in Enclosures 2, 3, and 4. By identifying documents on those Enclosures, TVA does not necessarily concede that the documents are in fact relevant or material to the admitted contentions. Also, in order to facilitate your review of these disclosures, we have made a good faith effort to identify the contention number(s) to which each record is responsive. These determinations, however, do not constitute an admission that each and every record is necessarily responsive to that contention(s), and documents may be responsive to additional contentions not identified.

Sincerely,

Signed (electronically) by

/s/ Christopher C. Chandler  
Christopher C. Chandler  
Office of the General Counsel  
Tennessee Valley Authority  
400 W. Summit Hill Drive, WT 6A-K  
Knoxville, TN 37902-1401  
Phone: (865) 632-7317  
Fax: (865) 632-6147  
E-mail: ccchandler0@tva.gov  
*Counsel for TVA*

Attachments

cc: Service List

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD**

|                                   |   |                   |
|-----------------------------------|---|-------------------|
| In the Matter of                  | ) |                   |
|                                   | ) |                   |
| TENNESSEE VALLEY AUTHORITY        | ) | Docket No. 50-391 |
|                                   | ) |                   |
| (Watts Bar Nuclear Plant, Unit 2) | ) | June 15, 2010     |
|                                   | ) |                   |
|                                   | ) |                   |

**AFFIDAVIT**

1. My name is Gordon Arent. My title is General Manager, New Generation Licensing, at the Tennessee Valley Authority (TVA). Working with the attorneys for TVA, I have been responsible for managing the searches, collection, and compilation of documents, data compilations, and tangible things to comply with the mandatory disclosure requirements in 10 CFR § 2.336.
2. This Affidavit relates to the fifth update to disclosures that TVA is providing on June 15, 2010, in the above-captioned proceeding pursuant to 10 CFR § 2.336 and the parties' joint agreement on mandatory disclosures, dated December 1, 2009.
3. A search was conducted of documents, data compilations, and tangible things under the custody and control of TVA since it filed its fourth update to the disclosures for the types of information specified in 10 CFR § 2.336(a). As provided in 10 CFR § 2.336(c), this search was conducted based on information and documents reasonably available to TVA:
  - a. The searches encompassed both electronic and paper documents.

- b. The searches encompassed both Watts Bar 2 project-related files and documents in the possession and control of individuals who have worked on the Watts Bar 2 project.
  - c. Searches did not encompass documents in the possession of individuals who did not work on the Watts Bar 2 project or files unrelated to the Watts Bar 2 project.
- 4. Enclosure 2 provides the index of relevant non-privileged, non-protected documents, data compilations, and tangible things that were located as a result of this search.
  - 5. Enclosure 3 provides the index of relevant documents, data compilations, and tangible things containing proprietary-related information.
  - 6. Enclosure 4 provides the index of relevant documents, data compilations, and tangible things that are publicly available.
  - 7. TVA has been conservative in identifying documents for inclusion in Enclosures 2, 3, and 4. By identifying documents on those Enclosures, TVA does not necessarily concede that the documents are in fact relevant or material to the admitted contentions.
  - 8. These disclosures are accurate and complete as of June 15, 2010.

The statements made above are true to the best of my knowledge, information, and belief.

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Accord with 10 CFR § 2.304(d)

/s/ Gordon Arent\_\_\_\_\_

Gordon Arent

General Manager, New Generation Licensing

Tennessee Valley Authority

Chattanooga, TN 37402

Phone: 423-751-2233

E-mail: garent@tva.gov

Executed this 15th day of June 2010

## ENCLOSURE 1

### TVA WITNESSES

*The name and, if known, the address and telephone number of any person, including any expert, upon whose opinion the party bases its claims and contentions and may rely upon as a witness:*

#### Response:

TVA may rely on the following witnesses in support of its position:

Dr. Charles C. Coutant  
120 Miramar Circle  
Oak Ridge, Tennessee 37830

Dennis S. Baxter  
Tennessee Valley Authority  
400 W. Summit Hill Drive, WT 11C-K  
Knoxville, Tennessee 37904  
(865) 632-6404

John T. Baxter  
Tennessee Valley Authority  
400 W. Summit Hill Drive, WT 11B-K  
Knoxville, Tennessee 37904  
(865) 632-3360

Dr. Paul N. Hopping  
Tennessee Valley Authority  
400 W. Summit Hill Drive, WT 10B-K  
Knoxville, Tennessee 37904  
(865) 632-2881

*A copy of the analysis or other authority upon which that person bases his or her opinion:*

#### Response:

Currently, TVA bases its position on the following sections of the Watts Bar FSEIS and the references cited therein:

- Contention 7 (Aquatic Impacts) - - FSEIS chs. 2.2, 2.4, 3.1, 3.2, tbls. 1-1, 2-1, and references cited therein.

The Watts Bar Unit 2 FSEIS is publicly available at <http://www.nrc.gov/reactors/plant-specific-items/watts-bar/key-correspondence.html>.

TVA will update this disclosure when it has identified the persons that it may use as witnesses and the analyses and authorities upon which they base their opinions.

## ENCLOSURE 2

## Mandatory Disclosure Log

| DOC # | DATE      | LOCATION* | AUTHOR/<br>CUSTODIAN | TO  | SUBJECT/DESCRIPTION   | CONTENTION |
|-------|-----------|-----------|----------------------|-----|---|------------|
| 1     | Jan 2001  | TVA       | TVA                  | N/A | Watts Bar Nuclear Plant Supplemental Condenser Cooling Water System Fish Monitoring Program Final Report  | 7          |
| 2     | May 2009  | TVA       | TVA                  | N/A | Biological Monitoring of the Tennessee River Near Watts Bar Nuclear Plant Discharge, 2008   | 7          |
| 3     | May 2008  | TVA       | TVA                  | N/A | Biological Monitoring of the Tennessee River Near Watts Bar Nuclear Plant Discharge, 2007   | 7          |
| 4     | May 2007  | TVA       | TVA                  | N/A | Biological Monitoring of the Tennessee River Near Watts Bar Nuclear Plant Discharge, 2006   | 7          |
| 5     | May 2006  | TVA       | TVA                  | N/A | Biological Monitoring of the Tennessee River Near Watts Bar Nuclear Plant Discharge, 2005   | 7          |
| 6     | June 2005 | TVA       | TVA                  | N/A | Biological Monitoring of the Tennessee River Near Watts Bar Nuclear Plant Discharge, 2004   | 7          |
| 7     | June 2004 | TVA       | TVA                  | N/A | Biological Monitoring of the Tennessee River Near Watts Bar Nuclear Plant Discharge, 2003   | 7          |
| 8     | June 2003 | TVA       | TVA                  | N/A | Biological Monitoring of the Tennessee River Near Watts Bar Nuclear Plant Discharge, 2002   | 7          |
| 9     | Sept 1994 | TVA       | TVA                  | N/A | Summary of Preoperational Monitoring of the Mussel Fauna in Upper Chickamauga Reservoir in the Vicinity of the Watts Bar Nuclear Plant, 1983-1993 | 7          |
| 10    | Sept 1993 | TVA       | TVA                  | N/A | The Effects of Aquatic Macrophytes on Fish Populations of Chickamauga Reservoir Coves, 1970-90  | 7          |
| 11    | May 1989  | TVA       | TVA                  | N/A | Update of the Watts Bar Nuclear Plant Preoperational Monitoring of the Mussel Fauna in Upper Chickamauga Reservoir                                | 7          |
| 12    | Apr 1980  | TVA       | TVA                  | N/A | Watts Bar Nuclear Plant Preoperational Aquatic Monitoring Report, 1973-1977   | 7          |
| 13    | Mar 1980  | TVA       | TVA                  | N/A | Watts Bar Nuclear Plant Preoperational Aquatic Monitoring Report, 1977-1979   | 7          |

\* TVA is located at 400 W. Summit Hill Drive, Knoxville, TN 37902.

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|-------|-----------|-----------|---|-----|---|------------|
| 14    | Dec 1997  | TVA       | TVA   | N/A | Watts Bar Nuclear Plant Supplemental Condenser Cooling Water Project Thermal Plume Modeling   | 7          |
| 15    | Apr 1997  | TVA       | Tennessee Technological University Center for the Management, Utilization and Protection of Water Resources | N/A | Watts Bar Tailwater Fishery Creel Survey, April 1996 through March 1997, Interim Report   | 7          |
| 16    | June 2002 | TVA       | TVA   | N/A | Biological Monitoring of the Tennessee River Near Watts Bar Nuclear Plant Discharge, 2001   | 7          |
| 17    | Oct 1990  | TVA       | TVA   | N/A | Status of the White Crappie Population in Chickamauga Reservoir Final Project Report  | 7          |
| 18    | Aug 1991  | TVA       | TVA   | N/A | Status of the Channel Catfish Population in Chickamauga Reservoir First Year Progress Report  | 7          |
| 19    | May 1992  | TVA       | TVA   | N/A | Recommendation and Implementation of Special Seasonal Flow Releases to Enhance Sauger Spawning in Watts Bar Tailwater   | 7          |
| 20    | Dec 1986  | TVA       | TVA   | N/A | Preoperational Assessment of Water Quality and Biological Resources of Chickamauga Reservoir, Watts Bar Nuclear Plant, 1973-1985                                | 7          |
| 21    | Dec 1986  | TVA       | TVA   | N/A | Preoperational Assessment of Water Quality and Biological Resources of Chickamauga Reservoir, Watts Bar Nuclear Plant, 1973-1985, Appendices                    | 7          |
| 22    | Aug 1991  | TVA       | TVA   | N/A | Population Survey of Sauger in Chickamauga Reservoir, 1990-1991   | 7          |
| 23    | Aug 1990  | TVA       | TVA   | N/A | Population Survey of Sauger ( <i>Stizostedion canadense</i> ) in Chickamauga Reservoir, 1989  | 7          |
| 24    | Apr 1992  | TVA       | TVA   | N/A | Fish Community Assessment of Selected Chickamauga Reservoir Embayments  | 7          |
| 25    | Sept 1976 | TVA       | TVA   | N/A | Estimates of Entrainment of Fish Eggs and Larvae By Watts Bar Steam Plant, 1975, and Assessment of the Impact of the Fisheries Resources of Watts Bar Reservoir | 7          |

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| DOC # | DATE      | LOCATION* | AUTHOR/<br>CUSTODIAN | TO  | SUBJECT/DESCRIPTION   | CONTENTION |
|-------|-----------|-----------|----------------------|-----|---|------------|
| 26    | Nov 1976  | TVA       | TVA                  | N/A | Environmental Information, Watts Bar Nuclear Plant Units 1 and 2  | 7          |
| 27    | 1996      | TVA       | TVA                  | N/A | Chickamauga Reservoir Sauger Investigation, 1993-1995, Final Project Report   | 7          |
| 28    | Sept 1994 | TVA       | TVA                  | N/A | Chickamauga White Bass Study, 1990-1992, Final Project Report   | 7          |
| 29    | Feb 2000  | TVA       | TVA                  | N/A | Chickamauga Reservoir Fisheries Monitoring, 1999 Cove Rotenone Results  | 7          |
| 30    | June 2000 | TVA       | TVA                  | N/A | Chickamauga Reservoir Fisheries Monitoring, 1999 Cove Rotenone Results  | 7          |
| 31    | May 1996  | TVA       | TVA                  | N/A | Chickamauga Reservoir 1995 Fisheries Monitoring Cove Rotenone Results   | 7          |
| 32    | June 1992 | TVA       | TVA                  | N/A | Chickamauga Reservoir 1991 Fisheries Monitoring Cove Rotenone Results   | 7          |
| 33    | June 1991 | TVA       | TVA                  | N/A | Chickamauga Reservoir 1990 Fisheries Monitoring Cove Rotenone Results   | 7          |
| 34    | June 1990 | TVA       | TVA.                 | N/A | Chickamauga Reservoir 1989 Fisheries Monitoring Cove Rotenone Results   | 7          |
| 35    | June 1989 | TVA       | TVA                  | N/A | Chickamauga Reservoir 1988 Fisheries Monitoring Cove Rotenone Results   | 7          |
| 36    | June 1997 | TVA       | TVA                  | N/A | Aquatic Environmental Conditions in the Vicinity of Watts Bar Nuclear Plant During the First Year of Operation, 1996  | 7          |
| 37    | June 1998 | TVA       | TVA                  | N/A | Aquatic Environmental Conditions in the Vicinity of Watts Bar Nuclear Plant During Two Years of Operation, 1996-1997  | 7          |
| 38    | Aug 1999  | TVA       | TVA                  | N/A | Aquatic Ecological Health Determinations for TVA Reservoirs – 1998  | 7          |
| 39    | Sept 2001 | TVA       | TVA                  | N/A | Aquatic Ecological Health Determinations for TVA Reservoirs – 2000  | 7          |
| 40    | Apr 1995  | TVA       | TVA                  | N/A | Aquatic Ecological Health Determinations for TVA Reservoirs – 1994  | 7          |
| 41    | Mar 1991  | TVA       | TVA                  | N/A | 1990 Preoperational Monitoring of the Mussel Fauna in Upper Chickamauga Reservoir in the Vicinity of the Watts Bar Nuclear Plant  | 7          |
| 42    | Feb 2002  | TVA       | TVA                  | N/A | Watts Bar Native Mussel Enhancement Project: Preliminary Evaluation of an Artificial Boulder Field for Enhancing Native Mussel Habitat in the Watts Bar Tailwater, Tennessee River Mile 528.5 | 7          |

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|-------|------------|-----------|--------------------------------------|-----|--|------------|
| 43    | July 1992  | TVA       | TVA                                  | N/A | Reservoir Monitoring-1991 Summary of Vital Signs and Use Impairment Monitoring on Tennessee Valley Reservoirs        | 7          |
| 44    | July 1981  | TVA       | TVA                                  | N/A | Final Environmental Impact Statement: Watts Bar Waste Heat Park, Rhea County, Tennessee, Volume I                    | 7          |
| 45    | July 1981  | TVA       | TVA                                  | N/A | Final Environmental Impact Statement: Watts Bar Waste Heat Park, Rhea County, Tennessee, Volume II                   | 7          |
| 46    | Feb 1977   | TVA       | TVA                                  | N/A | Effects of Watts Bar Nuclear Plant and Watts Bar Steam Plant Discharges on Chickamauga Lake Water Temperatures       | 7          |
| 47    | May 1977   | TVA       | TVA                                  | N/A | Results of Hydrothermal Model Tests of the Multiport Diffuser System Watts Bar Nuclear Plant                         | 7          |
| 48    | Dec 1993   | TVA       | TVA                                  | N/A | Discharge Temperature Limit Evaluation for Watts Bar Nuclear Plant   | 7          |
| 49    | May 1994   | TVA       | TVA                                  | N/A | Tennessee Valley Reservoir and Stream Quality – 1993 Summary of Vital Signs and Use Suitability Monitoring Volume I  | 7          |
| 50    | May 1994   | TVA       | TVA                                  | N/A | Tennessee Valley Reservoir and Stream Quality – 1993 Summary of Vital Signs and Use Suitability Monitoring Volume II | 7          |
| 51    | Nov 1998   | TVA       | TVA                                  | N/A | Hydrodynamics and Water Temperature Modeling at Watts Bar SCCW Discharge Structure                                   | 7          |
| 52    | Oct 2004   | TVA       | TVA                                  | N/A | Proposed Modifications to Water Temperature Effluent Requirements for Watts Bar Nuclear Plant Outfall 113            | 7          |
| 53    | May 1980   | TVA       | Oak Ridge National Laboratory (ORNL) | NRC | Threadfin Shad Impingement: Effect of Cold Stress  | 7          |
| 54    | 11/12/2008 | TVA       | GE Water & Process Technologies/TVA  | TVA | Water Analysis Report for 30 Oct 2008  | 7          |
| 55    | May 2004   | TVA       | TVA                                  | N/A | 1997 Verification Studies of Thermal Discharge for Watts Bar Nuclear Plant   | 7          |
| 56    | 2/9/2007   | TVA       | Dynamic Solutions, LLC/TVA           | N/A | RFP 103006 Report Rev1 Watts Bar Unit 2 Thermal Effluent Study   | 7          |
| 57    | Sept 2001  | TVA       | TVA                                  | N/A | Hydrothermal Data for Watts Bar Nuclear Plant SCCW Outfall   | 7          |

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|-------|------------|-----------|----------------------|----------------------------------|---|------------|
| 58    | Nov 1999   | TVA       | TVA                  | N/A                              | July 1999 Verification Study of Thermal Discharge for Watts Bar Nuclear Plant Supplemental Condenser Cooling Water System                                     | 7          |
| 59    | Feb 2006   | TVA       | TVA                  | N/A                              | Summer 2005 Compliance Survey for Watts Bar Nuclear Plant Outfall 113 Passive Mixing Zone   | 7          |
| 60    | Jan 2007   | TVA       | TVA                  | N/A                              | Summer 2006 Compliance Survey for Watts Bar Nuclear Plant Outfall 113 Passive Mixing Zone   | 7          |
| 61    | Oct 2005   | TVA       | TVA                  | N/A                              | Winter 2005 Compliance Survey for Watts Bar Nuclear Plant Outfall 113 Passive Mixing Zone   | 7          |
| 62    | Jan 2007   | TVA       | TVA                  | N/A                              | Winter 2006 Compliance Survey for Watts Bar Nuclear Plant Outfall 113 Passive Mixing Zone   | 7          |
| 63    | Sept 2000  | TVA       | TVA                  | N/A                              | Aquatic Ecological Health Determinations for TVA Reservoirs - 1999  | 7          |
| 64    | Sept 2000  | TVA       | TVA                  | N/A                              | Aquatic Ecological Health Determinations for TVA Reservoirs – 1999 Appendices   | 7          |
| 65    | April 1998 | TVA       | TVA                  | N/A                              | Aquatic Ecological Health Determinations for TVA Reservoirs – 1997 Sections 1 through 3   | 7          |
| 66    | April 1998 | TVA       | TVA                  | N/A                              | Aquatic Ecological Health Determinations for TVA Reservoirs – 1997 Sections 4 through 6   | 7          |
| 67    | April 1998 | TVA       | TVA                  | N/A                              | Aquatic Ecological Health Determinations for TVA Reservoirs – 1997 Appendices   | 7          |
| 68    | Jan 1988   | TVA       | TVA                  | N/A                              | Results of Plankton Studies Conducted in 1986 and 1987 as Part of the Operational Aquatic Monitoring Program at Sequoyah Nuclear Plant, Chickamauga Reservoir | 7          |
| 69    | 1991       | TVA       | TVA                  | N/A                              | Reservoir Monitoring Fiscal Year 1991 Workplan  | 7          |
| 70    | 11/15/2006 | TVA       | TVA/R. Horton        | J. Chardos                       | Email discussing follow-up mussel habitat survey  | 7          |
| 71    | 10/12/2006 | TVA       | TVA/S. Chance        | R. Horton                        | Email addressing status of mussels and potential for follow-up mussel survey  | 7          |
| 72    | 6/1/2007   | TVA       | TVA/D. Wade          | R. Sherrad, J. Wright, H. Rucker | Email discussing ammonia toxicity and mussel studies  | 7          |
| 73    | 6/1/2007   | TVA       | TVA/R. Horton        | N/A                              | Notes on Permitting Meeting with Tennessee Department of Environment and Conservation (TDEC)  | 7          |

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| DOC # | DATE       | LOCATION* | AUTHOR/CUSTODIAN      | TO                                | SUBJECT/DESCRIPTION  | CONTENTION |
|-------|------------|-----------|-----------------------|-----------------------------------|--|------------|
| 74    | Jan 2007   | TVA       | TVA/P. Hopping        | N/A                               | Diagram depicting summer and winter mode operating of Watts Bar SCCW   | 7          |
| 75    | 5/25/2007  | TVA       | TVA/ S. Chance        | J. Chardos, B. Yeager, R. Horton  | Email discussing potential endangered species mitigation measures  | 7          |
| 76    | May 2007   | TVA       | TVA                   | N/A                               | List of possible endangered species mitigation measures  | 7          |
| 77    | 1/19/2007  | TVA       | TVA/R. Horton         | J. Phillips                       | Email discussing compilation of required permits list for Watts Bar Unit 2   | 1          |
| 78    | 12/20/2006 | TVA       | TVA/R. Horton         | D. Pittman, J. Phillips           | Email forwarding draft Bellefonte permit table to serve as a guide for use in preparing updated Watts Bar application  | 1          |
| 79    | Nov 2006   | TVA       | Enercon/D. Luchsinger | N/A                               | Draft table of permits required for Bellefonte COL application   | 1          |
| 80    | 1/23/2007  | TVA       | TVA/R. Horton         | J. Phillips                       | Email discussion concerning inclusion of Watts Bar construction permit and operating license in list of required permits   | 1          |
| 81    | 5/31/2007  | TVA       | TVA/P. Hopping        | R. Horton                         | Email discussing design bases for Outfall 101 and 113 discharges   | 7          |
| 82    | 2/13/2008  | TVA       | TVA/D. Hutchison      | TDEC                              | Watts Bar Nuclear Plant NPDES Water Withdrawal Registration Form for Calendar Year 2007 and Revised Registration Form for Calendar Year 2006                                   | 7          |
| 83    | Sept 2009  | TVA       | TVA                   | N/A                               | Comparison of Fish Species Occurrence and Trends in Reservoir Fish Assemblage Index Results in Chickamauga Reservoir before and after Watts Bar Nuclear Plant Unit 1 Operation | 7          |
| 84    | Dec 1995   | TVA       | TVA                   | N/A                               | Effects of Thermal Effluent From Sequoyah Nuclear Plant on Fish Populations in Chickamauga Reservoir   | 7          |
| 85    | Dec 2009   | TVA       | TVA                   | N/A                               | Figures showing sampling locations in Watts Bar and Chickamauga Reservoirs   | 7          |
| 86    | Nov 2003   | TVA       | TVA                   | N/A                               | Intake Temperature Prediction at Kingston Fossil Power Plant   | 7          |
| 87    | 4/25/2007  | TVA       | TVA/R. Horton         | B. Eiford-Lee, D. Pittman, et al. | Email summarizing meeting between TVA and TDEC to discuss Biocide/Corrosion Treatment Plant modifications and NPDES permit renewal   | 7          |
| 88    | 2/20/2004  | TVA       | TVA                   | N/A                               | Categorical Exclusion Checklist, Increase in Allowable UHS Temperature to 88°F   | 7          |

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| DOC # | DATE       | LOCATION* | AUTHOR/CUSTODIAN                       | TO  | SUBJECT/DESCRIPTION   | CONTENTION |
|-------|------------|-----------|--|-----|---|------------|
| 89    | 1999       | TVA       | T.A. McDonough,<br>G.D. Hickman        | N/A | Chapter 20: Reservoir Fish Assemblage Index Development: A Tool for Assessing Ecological Health in Tennessee Valley Authority Impoundments, in <u>Assessing the Sustainability and Biological Integrity of Water Resources Using Fish Communities</u> | 7          |
| 90    | 12/23/2009 | TVA       | TVA                                    | NRC | Watts Bar Nuclear Plant Unit 2 – Additional Information Regarding Environmental Review (TAC No. MD8203)   | 7          |
| 91    | 4/9/2010   | TVA       | TVA                                    | NRC | Watts Bar Nuclear Plant Unit 2 – Response to U.S. Nuclear Regulatory Commission (NRC) Request for Additional Information Regarding Environmental Review (TAC No. MD8203)  | 1, 7       |
| 92    | 4/9/2010   | TVA       | TVA                                    | NRC | Attachment 2 to April 9, 2010 RAI response: G-5 Permit Table  | 1          |
| 93    | 1976       | TVA       | TVA                                    | N/A | Attachment 17 to April 9, 2010 RAI response: TVA 1976, Impingement at Watts Bar Steam Plant   | 7          |
| 94    | 2000       | TVA       | G.D. Hickman                           | N/A | <i>Sport Fishing Index (SFI): A method to quantify sport fishing quality</i> , in Environmental Science & Policy 3, S177-S125.  | 7          |
| 95    | 1980       | TVA       | TVA/R.W. Schneider and J.D. Tuberville | N/A | Kingston Steam Plant 316 Permit Renewal Report  | 7          |
| 96    | 2007       | TVA       | TVA                                    | N/A | Fish Impingement at Watts Bar Nuclear Plant Supplemental Condenser Cooling Water Intake Structure During 2005 Through 2007  | 7          |
| 97    | 2010       | TVA       | TVA                                    | N/A | WBN Summary Work Plan for Preoperational and Operational Monitoring   | 7          |
| 98    | 5/12/2010  | TVA       | TVA                                    | NRC | Watts Bar Nuclear Plant Unit 2 – Response to U.S. Nuclear Regulatory Commission (NRC) Request for Additional Information Regarding Environmental Review (TAC No. MD8203)  | 7          |
| 99    | May 2010   | TVA       | TVA                                    | N/A | Summary of Hydrothermal Sampling for WBN SCCW Field Tests   | 7          |
| 100   | 6/7/2010   | TVA       | TVA                                    | N/A | Aquatic Environmental Conditions in the Vicinity of Watts Bar Nuclear Plant During Two Years of Operation, 1996-1997, Revised 6/7/2010  | 7          |

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| DOC # | DATE      | LOCATION* | AUTHOR/<br>CUSTODIAN | TO        | SUBJECT/DESCRIPTION   | CONTENTION |
|-------|-----------|-----------|----------------------|-----------|---|------------|
| 101   | 4/26/2010 | TVA       | TVA                  | N/A       | Watts Bar Nuclear Plant<br>Process Sampling for<br>NPDES Permit Unit 2<br>Modification Request<br>(Permit No. TN 0020168) | 7          |
| 102   | 5/24/2010 | TVA       | TVA/J. Phillips      | S. Howard | Email summarizing<br>observation of<br>hydrothermal sampling at<br>Watts Bar Nuclear Plant                                | 7          |
| 103   | 6/4/2010  | TVA       | TDEC                 | TVA       | NPDES Permit No. TN<br>0020168 for Watts Bar<br>Nuclear Plant (Unit 1)  | 7          |

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**ENCLOSURE 3****Proprietary Log**

| DOC # | DATE     | LOCATION* | AUTHOR/<br>CUSTODIAN   | TO  | SUBJECT/<br>DESCRIPTION  | CONTENTION | BASIS FOR<br>PROPRIETARY<br>STATUS      |
|-------|----------|-----------|--|-----|--|------------|---|
| 1     | Mar 2008 | TVA       | Electric Power<br>Research Institute,<br>ORNL                      | N/A | The Role of<br>Temperature and<br>Nutritional Status in<br>Impingement of<br>Clupeid Fish Species    | 7          | EPRI Proprietary –<br>Impingement Study |
| 2     | Oct 1986 | TVA       | Kenneth P. Cannon,<br>University of<br>Tennessee-<br>Knoxville/TVA | N/A | An Assessment of<br>the Archaeological<br>Resources of the<br>Watts Bar Reservoir,<br>East Tennessee | 7          | 16 USC § 470hh;<br>18 CFR § 1312.18     |

\* TVA is located at 400 W. Summit Hill Drive, Knoxville, TN 37902.

**ENCLOSURE 4****Publicly Available Log**

| <b>DOC #</b> | <b>DATE</b> | <b>LOCATION</b>   | <b>AUTHOR/CUSTODIAN</b> | <b>TO</b> | <b>SUBJECT/DESCRIPTION</b>   | <b>CONTENTION</b> |
|--------------|-------------|---|-------------------------|-----------|--|-------------------|
| 1            | Nov 1972    | Available at<br><a href="http://www.tva.gov/environment/reports/wattsbar2/related/nov_1972.pdf">http://www.tva.gov/environment/reports/wattsbar2/related/nov_1972.pdf</a> | TVA                     | N/A       | Environmental Statement, Watts Bar Nuclear Plant Units 1 and 2   | 1, 7              |
| 2            | Aug 1993    | Available at<br><a href="http://www.tva.gov/environment/reports/wattsbar2/related/aug_1993.pdf">http://www.tva.gov/environment/reports/wattsbar2/related/aug_1993.pdf</a> | TVA                     | N/A       | Environmental Impact Statement (EIS) Review Watts Bar Nuclear Plant  | 7                 |
| 3            | Feb 1995    | Available at<br><a href="http://www.tva.gov/environment/reports/energyvision2020/index.htm">http://www.tva.gov/environment/reports/energyvision2020/index.htm</a>         | TVA                     | N/A       | Energy Vision 2020 Integrated Resource Plan/Environmental Impact Statement   | 7                 |
| 4            | June 2007   | Available at<br><a href="http://www.tva.gov/environment/reports/wattsbar2/appendix_d.pdf">http://www.tva.gov/environment/reports/wattsbar2/appendix_d.pdf</a>             | TVA                     | N/A       | FSEIS Appendix D: Response to Comments   | 7                 |
| 5            | Aug 1998    | Available at<br><a href="http://www.tva.gov/environment/reports/wattsbar2/related/aug_1998.pdf">http://www.tva.gov/environment/reports/wattsbar2/related/aug_1998.pdf</a> | TVA                     | N/A       | Final Environmental Assessment Related to the Watts Bar Nuclear Plant Supplemental Condenser Cooling Water Project | 7                 |
| 6            | May 2004    | Available at<br><a href="http://www.tva.gov/environment/reports/ros_eis/index.htm">http://www.tva.gov/environment/reports/ros_eis/index.htm</a>                           | TVA                     | N/A       | Reservoir Operations Study Final Programmatic Environmental Impact Statement                                       | 7                 |



**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD**

\_\_\_\_\_  
In the Matter of )  
 )  
 )

TENNESSEE VALLEY AUTHORITY )

Docket No. 50-391

(Watts Bar Nuclear Plant, Unit 2) )  
\_\_\_\_\_)

June 15, 2010

**CERTIFICATE OF SERVICE**

I hereby certify that copies of the “Fifth Update to Disclosures Pursuant to 10 CFR § 2.336; *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Unit 2), Docket No. 50-391-OL” and the “Affidavit of Gordon Arent” have been served on the following persons this 15th day of June, 2010, by Electronic Information Exchange:

Atomic Safety and Licensing Board Panel  
U.S. Nuclear Regulatory Commission  
Mail Stop: T-3F23  
Washington, DC 20555-0001  
Lawrence G. McDade, Chair  
Administrative Judge  
E-mail: [lgm1@nrc.gov](mailto:lgm1@nrc.gov)  
Paul B. Abramson  
Administrative Judge  
E-mail: [pba@nrc.gov](mailto:pba@nrc.gov)  
Gary S. Arnold  
Administrative Judge  
E-mail: [gxal@nrc.gov](mailto:gxal@nrc.gov)  
Wen Bu, Law Clerk  
E-mail: [wxb3@nrc.gov](mailto:wxb3@nrc.gov)

Office of Commission Appellate  
Adjudication  
U.S. Nuclear Regulatory Commission  
Mail Stop: O-16C1  
Washington, DC 20555-0001  
OCAA Mail Center  
E-mail: [ocaamail@nrc.gov](mailto:ocaamail@nrc.gov)

Office of the Secretary  
Rulemaking and Adjudications Staff  
U.S. Nuclear Regulatory Commission  
Mail Stop: O-16C1  
Washington, DC 20555-0001  
Hearing Docket  
E-mail: [hearingdocket@nrc.gov](mailto:hearingdocket@nrc.gov)

Office of the General Counsel  
U.S. Nuclear Regulatory Commission  
Mail Stop: O-15D21  
Washington, DC 20555-0001  
Edward Williamson, Esq.  
E-mail: [elw2@nrc.gov](mailto:elw2@nrc.gov)  
David Roth, Esq.  
E-mail: [david.roth@nrc.gov](mailto:david.roth@nrc.gov)  
Andrea Jones, Esq.  
E-mail: [andrea.jones@nrc.gov](mailto:andrea.jones@nrc.gov)  
Michael Dreher, Esq.  
E-mail: [michael.dreher@nrc.gov](mailto:michael.dreher@nrc.gov)  
Brian Newell, Paralegal  
E-mail: [bpn1@nrc.gov](mailto:bpn1@nrc.gov)  
OGC Mail Center  
E-mail: [OGCMailCenter@nrc.gov](mailto:OGCMailCenter@nrc.gov)

Diane Curran, Esq.  
Representatives of Southern Alliance for  
Clean Energy (SACE)  
Harmon, Curran, Spielberg &  
Eisenberg, L.L.P.  
1726 M Street NW, Suite 600  
Washington, DC 20036  
E-mail: [dcurran@harmoncurran.com](mailto:dcurran@harmoncurran.com)

Morgan, Lewis & Bockius LLP  
1111 Pennsylvania Avenue, N.W.  
Washington, D.C. 20004  
Co-counsel for Tennessee Valley Authority  
Paul M. Bessette, Esq.  
E-mail: [pbessette@morganlewis.com](mailto:pbessette@morganlewis.com)  
Kathryn M. Sutton, Esq.  
E-mail: [ksutton@morganlewis.com](mailto:ksutton@morganlewis.com)

Signed (electronically) by

/s/ Christopher C. Chandler  
Christopher C. Chandler  
Office of the General Counsel  
Tennessee Valley Authority  
400 W. Summit Hill Drive, WT 6A-K  
Knoxville, TN 37902-1401  
Phone: (865) 632-7317  
Fax: (865) 632-6147  
E-mail: [ccchandler0@tva.gov](mailto:ccchandler0@tva.gov)  
*Counsel for TVA*