50-327 (Seq. 1)
50-259 (BF 1)
50-260 (BF 2)
50-296 (BF 3)

Tennessee Valley Authority

Distribution:	Mail Stop
PDR	P-016
NSIC	P-016
LPDR	P-016
TIC	P-016
State of	
ACRS (3)	H-1016
SECY	H-1149
CA (3)	H-1057
F. Ingram, PA	MNBB-3709
J. P. Murray, ELD	MNBB-9604
J. Lieberman, ELD	MNBB-9604
R. Hartfield, MPA	L-1200
D. G. Eisenhut, NRR	P-528-B
V. Stello, IE	
R. C. DeYoung, IE	
T. W. Brockett, IE	
N. C. Moseley, IE	
E. L. Jordan, IE	
M. Wilber, IE	
Enforcement Coordinators Region I, II, III, IV, V	
IE Files	
Central Files	P-016
IE Reading	
EDO Reading	

8005020028

APR 4 1980

Tennessee Valley Authority
ATTN: Mr. H. G. Parris, Manager of Power
500A Chestnut Street Tower II
Chattanooga, Tennessee 37401

Dear Sir:

Please find enclosed a Confirmatory Orders for your facilities. These Orders confirm your commitments to implement action at your facilities.

Sincerely,

Original signed by
Victor Stello

Victor Stello, Jr.
Director
Office of Inspection
and Enforcement

Enclosure:
Confirmatory Order

WPU:SM	IE:ROI	IE:ROI	IE:ROI	IE:XOOS	DD:	ELD	D:IE
3/31/80	HAWilber	ELJordan	NCMoseley	DThompson	RCDeYoung		VStello
JOB Q	3/ /80	3/3/80	3/3/80	3/3/80	3/3/80	3/3/80	3/4/80
	4/3/80						

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of Tennessee Valley Authority (Sequoyah Unit No. 1)	)))	Docket No. 50-327

CONFIRMATORY ORDER

I

Tennessee Valley Authority (the "licensee") is the holder of Facility Operating License No. DPR-77 (the "license") with an expiration date one year from the date of issue (February 29, 1980), which authorizes operation of the Sequoyah Unit No. 1 (the "facility").

II

On November 10, 1979, an event occurred at the Oconee Power Station, Unit 3, that resulted in loss of power to a nonclass 1-E 120 Vac single phase power panel that supplied power to the Integrated Control System and the Nonnuclear Instrumentation System. This loss of power resulted in control system malfunctions and significant loss of information to the control room operator.

This event was described in Information Notice 79-29, dated November 16, 1979, which was sent to this licensee. This licensee was requested by IE Bulletin 79-27, dated November 30, 1979, "Loss of Nonclass 1-E Instrumentation and Control Power Bus During Operation" to review, among other things, buses supplying power to certain instrument and control systems, emergency procedures related to loss of power to such buses and failure to certain power supplies. In accordance with Bulletin 79-27 the licensee was requested to submit to the Commission the results of its review by February 28, 1980. This licensee has not met this date.

On February 26, 1980, an event occurred at Crystal River Unit No. 3 that also involved a loss of instrument and control power. This event was described in Information Notice 80-10, "Partial Loss of Nonnuclear Instrument System Power Supply During Operation," dated March 7, 1980. Because of the implications of the Crystal River Unit No. 3 event on February 26, 1980 and because of the potential adverse effects on public health and safety that could result from future events of this type, the information requested in IE Bulletin 79-27 must be submitted in order that NRC can determine whether this license should be modified to protect the health and safety of the public.

The Licensee has committed by letter dated March 28, 1980, supplemented by telephone conversations between Commission representatives and Mr. L. M. Mills and others of the Licensee organization on March 27, 1980, that it would provide the information required by Bulletin 79-27 as revised in Attachment A to this Order, no later than fifteen (15) days before the issuance of a full power operating license.

III

In view of the importance of this matter, I have determined that these commitments should be formalized by order and that the public health, safety and interest require that this action be made immediately effective. Accordingly, pursuant to the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR Parts 2 and 50, IT IS HEREBY ORDERED, EFFECTIVE IMMEDIATELY, THAT:

(1) The licensee shall submit to the Director of Reactor Operations Inspection, Washington, D.C. 20555 and to the Director of the

appropriate NRC Regional Office, written statements under oath containing the information required in Attachment A to this Order; and

(2) The licensee shall submit the statements no later than fifteen (15) days before the issuance of a full power operating license.

IV

Any person who has an interest affected by this Order may request a hearing within twenty-five (25) days of the date of the Order. Any request for a hearing will not stay the effectiveness of this Order. Any request for a hearing shall be submitted to the Director, Office of Inspection and Enforcement, U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the Executive Legal Director at the above address. If a hearing is requested by a person who has an interest affected by this Order, the Commission will issue an Order designating the time and place of any such hearing.

V

In the event a person who has an interest affected by this Order requests a hearing as provided above and a hearing is held, the issues to be considered at such a hearing shall be:

(1) Whether the facts set forth in Part II of this Order provide an adequate basis for the actions ordered;

(2) Whether the Licensee should perform the actions required in Part III of this Order in accordance with the schedule stated therein.

Operation of the facility on terms consistent with this Order is not stayed by the pendency of any proceedings on the Order.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by
Victor Stello

Victor Stello, Jr.
Director
Office of Inspection
and Enforcement

Dated at Bethesda, Maryland
on this 4 day of April, 1980

Attachment A

1. Review the class 1-E and nonclass 1-E buses supplying power to safety and non-safety related instrumentation and control systems which could affect the ability to achieve a cold shutdown condition using existing procedures or procedures developed under item 2 below. For each bus:

   a) identify and review the alarm and/or indication provided in the control room to alert the operator to the loss of power to the bus.

   b) identify the instrument and control system loads connected to the bus and evaluate the effects of loss of power to these loads including the ability to achieve a cold shutdown condition.

   c) describe any proposed design modifications resulting from these reviews and evaluations, and your proposed schedule for implementing those modifications.

2. Review emergency procedures that will be used by control room operators, including procedures required to achieve a cold shutdown condition, upon loss of power to each class 1-E and nonclass 1-E bus supplying power to safety and non-safety related instrument and control systems. At a minimum, the review shall assure that emergency procedures include:

   a) the diagnostics/alarms/indicators/symptom resulting from the review and evaluation conducted per item 1 above.

b) the use of alternate indication and/or control circuits which may be powered from other nonclass 1-E or class 1-E instrumentation and control buses.

c) methods for restoring power to the bus.

Provide a description of the changes to the emergency procedures and administrative controls that have been prepared to conform to items 2a, 2b and 2c above and provide a description of and schedule for implementation of any design changes resulting from the changes to emergency procedures and administrative controls.

3. Re-review IE Circular No. 79-02, "Failure of 120 Volt Vital AC Power Supplies," dated January 11, 1979, to include both class 1-E and nonclass 1-E safety related power supply inverters. Based on a review of operating experience and your re-review of IE Circular No. 79-02, describe any administrative controls that have been implemented as a result of the re-review and describe any proposed design modifications and schedule for completion to be implemented as a result of the re-review.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of Tennessee Valley Authority (Browns Ferry Unit No. 1)	)))	Docket No. 50-259

CONFIRMATORY ORDER

I

Tennessee Valley Authority (the "licensee") is the holder of Facility Operating License No. DPR-33 (the "license") with an expiration date of May 10, 2007, which authorizes operation of the Browns Ferry Unit No. 1 (the "facility").

II

On November 10, 1979, an event occurred at the Oconee Power Station, Unit 3, that resulted in loss of power to a nonclass 1-E 120 Vac single phase power panel that supplied power to the Integrated Control System and the Nonnuclear Instrumentation System. This loss of power resulted in control system malfunctions and significant loss of information to the control room operator.

This event was described in Information Notice 79-29, dated November 16, 1979, which was sent to this licensee. This licensee was requested by IE Bulletin 79-27, dated November 30, 1979, "Loss of Nonclass 1-E Instrumentation and Control Power Bus During Operation" to review, among other things, buses supplying power to certain instrument and control systems, emergency procedures related to loss of power to such buses and failure to certain power supplies. In accordance with Bulletin 79-27 the licensee was requested to submit to the Commission the results of its review by February 28, 1980. This licensee has not met this date.

On February 26, 1980, an event occurred at Crystal River Unit No. 3 that also involved a loss of instrument and control power. This event was described in Information Notice 80-10, "Partial Loss of Nonnuclear Instrument System Power Supply During Operation," dated March 7, 1980. Because of the implications of the Crystal River Unit No. 3 event on February 26, 1980 and because of the potential adverse effects on public health and safety that could result from future events of this type, the information requested in IE Bulletin 79-27 must be submitted in order that NRC can determine whether this license should be modified to protect the health and safety of the public.

The Licensee has committed by letter dated March 28, 1980, supplemented by telephone conversations between Commission representatives and Mr. L. M. Mills and others of the Licensee organization on March 27, 1980, that it would provide the information required by Bulletin 79-27 as revised in Attachment A to this Order, by July 1, 1980.

III

In view of the importance of this matter, I have determined that these commitments should be formalized by order and that the public health, safety and interest require that this action be made immediately effective. Accordingly, pursuant to the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR Parts 2 and 50, IT IS HEREBY ORDERED, EFFECTIVE IMMEDIATELY, THAT:

(1) The licensee shall submit to the Director of Reactor Operations Inspection, Washington, D.C. 20555 and to the Director of the

appropriate NRC Regional Office, written statements under oath containing the information required in Attachment A to this Order; and

(2) The licensee shall submit the statements on or before July 1, 1980.

IV

Any person who has an interest affected by this Order may request a hearing within twenty-five (25) days of the date of the Order. Any request for a hearing will not stay the effectiveness of this Order. Any request for a hearing shall be submitted to the Director, Office of Inspection and Enforcement, U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the Executive Legal Director at the above address. If a hearing is requested by a person who has an interest affected by this Order, the Commission will issue an Order designating the time and place of any such hearing.

V

In the event a person who has an interest affected by this Order requests a hearing as provided above and a hearing is held, the issues to be considered at such a hearing shall be:

(1) Whether the facts set forth in Part II of this Order provide an adequate basis for the actions ordered;

(2) Whether the Licensee should perform the actions required in Part III of this Order in accordance with the schedule stated therein.

Operation of the facility on terms consistent with this Order is not stayed by the pendency of any proceedings on the Order.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by
Victor Stello

Victor Stello, Jr.
Director
Office of Inspection
and Enforcement

Dated at Bethesda, Maryland
on this 4 day of April, 1980

Attachment A

1. Review the class 1-E and nonclass 1-E buses supplying power to safety and non-safety related instrumentation and control systems which could affect the ability to achieve a cold shutdown condition using existing procedures or procedures developed under item 2 below. For each bus:

   a) identify and review the alarm and/or indication provided in the control room to alert the operator to the loss of power to the bus.

   b) identify the instrument and control system loads connected to the bus and evaluate the effects of loss of power to these loads including the ability to achieve a cold shutdown condition.

   c) describe any proposed design modifications resulting from these reviews and evaluations, and your proposed schedule for implementing those modifications.

2. Review emergency procedures that will be used by control room operators, including procedures required to achieve a cold shutdown condition, upon loss of power to each class 1-E and nonclass 1-E bus supplying power to safety and non-safety related instrument and control systems. At a minimum, the review shall assure that emergency procedures include:

   a) the diagnostics/alarms/indicators/symptoms resulting from the review and evaluation conducted per item 1 above.

b) the use of alternate indication and/or control circuits which may be powered from other nonclass 1-E or class 1-E instrumentation and control buses.

c) methods for restoring power to the bus.

Provide a description of the changes to the emergency procedures and administrative controls that have been prepared to conform to items 2a, 2b and 2c above and provide a description of and schedule for implementation of any design changes resulting from the changes to emergency procedures and administrative controls.

3. Re-review IE Circular No. 79-02, "Failure of 120 Volt Vital AC Power Supplies," dated January 11, 1979, to include both class 1-E and nonclass 1-E safety related power supply inverters. Based on a review of operating experience and your re-review of IE Circular No. 79-02, describe any administrative controls that have been implemented as a result of the re-review and describe any proposed design modifications and schedule for completion to be implemented as a result of the re-review.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of Tennessee Valley Authority (Browns Ferry Unit No. 2)	)))	Docket No. 50-260

CONFIRMATORY ORDER

I

Tennessee Valley Authority (the "licensee") is the holder of Facility Operating License No. DPR-52 (the "license") with an expiration date of May 10, 2007, which authorizes operation of the Browns Ferry Unit No. 2 (the "facility").

II

On November 10, 1979, an event occurred at the Oconee Power Station, Unit 3, that resulted in loss of power to a nonclass 1-E 120 Vac single phase power panel that supplied power to the Integrated Control System and the Nonnuclear Instrumentation System. This loss of power resulted in control system malfunctions and significant loss of information to the control room operator.

This event was described in Information Notice 79-29, dated November 16, 1979, which was sent to this licensee. This licensee was requested by IE Bulletin 79-27, dated November 30, 1979, "Loss of Nonclass 1-E Instrumentation and Control Power Bus During Operation" to review, among other things, buses supplying power to certain instrument and control systems, emergency procedures related to loss of power to such buses and failure to certain power supplies. In accordance with Bulletin 79-27 the licensee was requested to submit to the Commission the results of its review by February 28, 1980. This licensee has not met this date.

On February 26, 1980, an event occurred at Crystal River Unit No. 3 that also involved a loss of instrument and control power. This event was described in Information Notice 80-10, "Partial Loss of Nonnuclear Instrument System Power Supply During Operation," dated March 7, 1980. Because of the implications of the Crystal River Unit No. 3 event on February 26, 1980 and because of the potential adverse effects on public health and safety that could result from future events of this type, the information requested in IE Bulletin 79-27 must be submitted in order that NRC can determine whether this license should be modified to protect the health and safety of the public.

The Licensee has committed by letter dated March 28, 1980, supplemented by telephone conversations between Commission representatives and Mr. L. M. Mills and others of the Licensee organization on March 27, 1980, that it would provide the information required by Bulletin 79-27 as revised in Attachment A to this Order, by July 1, 1980.

III

In view of the importance of this matter, I have determined that these commitments should be formalized by order and that the public health, safety and interest require that this action be made immediately effective. Accordingly, pursuant to the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR Parts 2 and 50, IT IS HEREBY ORDERED, EFFECTIVE IMMEDIATELY, THAT:

(1) The licensee shall submit to the Director of Reactor Operations Inspection, Washington, D.C. 20555 and to the Director of the

appropriate NRC Regional Office, written statements under oath containing the information required in Attachment A to this Order; and

(2) The licensee shall submit the statements on or before July 1, 1980.

IV

Any person who has an interest affected by this Order may request a hearing within twenty-five (25) days of the date of the Order. Any request for a hearing will not stay the effectiveness of this Order. Any request for a hearing shall be submitted to the Director, Office of Inspection and Enforcement, U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the Executive Legal Director at the above address. If a hearing is requested by a person who has an interest affected by this Order, the Commission will issue an Order designating the time and place of any such hearing.

V

In the event a person who has an interest affected by this Order requests a hearing as provided above and a hearing is held, the issues to be considered at such a hearing shall be:

(1) Whether the facts set forth in Part II of this Order provide an adequate basis for the actions ordered;

(2) Whether the Licensee should perform the actions required in Part III of this Order in accordance with the schedule stated therein.

Operation of the facility on terms consistent with this Order is not stayed by the pendency of any proceedings on the Order.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by
Victor Stello

Victor Stello, Jr.
Director
Office of Inspection
and Enforcement

Dated at Bethesda, Maryland
on this 4 day of April, 1980

Attachment A

1. Review the class 1-E and nonclass 1-E buses supplying power to safety and non-safety related instrumentation and control systems which could affect the ability to achieve a cold shutdown condition using existing procedures or procedures developed under item 2 below. For each bus:

   a) identify and review the alarm and/or indication provided in the control room to alert the operator to the loss of power to the bus.

   b) identify the instrument and control system loads connected to the bus and evaluate the effects of loss of power to these loads including the ability to achieve a cold shutdown condition.

   c) describe any proposed design modifications resulting from these reviews and evaluations, and your proposed schedule for implementing those modifications.

2. Review emergency procedures that will be used by control room operators, including procedures required to achieve a cold shutdown condition, upon loss of power to each class 1-E and nonclass 1-E bus supplying power to safety and non-safety related instrument and control systems. At a minimum, the review shall assure that emergency procedures include:

   a) the diagnostics/alarms/indicators/symptoms resulting from the review and evaluation conducted per item 1 above.

b) the use of alternate indication and/or control circuits which may be powered from other nonclass 1-E or class 1-E instrumentation and control buses.

c) methods for restoring power to the bus.

Provide a description of the changes to the emergency procedures and administrative controls that have been prepared to conform to items 2a, 2b and 2c above and provide a description of and schedule for implementation of any design changes resulting from the changes to emergency procedures and administrative controls.

3. Re-review IE Circular No. 79-02, "Failure of 120 Volt Vital AC Power Supplies," dated January 11, 1979, to include both class 1-E and nonclass 1-E safety related power supply inverters. Based on a review of operating experience and your re-review of IE Circular No. 79-02, describe any administrative controls that have been implemented as a result of the re-review and describe any proposed design modifications and schedule for completion to be implemented as a result of the re-review.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of Tennessee Valley Authority (Browns Ferry Unit No. 3)	)))	Docket No. 50-296

CONFIRMATORY ORDER

I

Tennessee Valley Authority (the "licensee") is the holder of Facility Operating License No. DPR-68 (the "license") with an expiration date of July 31, 2008, which authorizes operations of the Browns Ferry Unit No. 3 (the "facility").

II

On November 10, 1979, an event occurred at the Oconee Power Station, Unit 3, that resulted in loss of power to a nonclass 1-E 120 Vac single phase power panel that supplied power to the Integrated Control System and the Nonnuclear Instrumentation System. This loss of power resulted in control system malfunctions and significant loss of information to the control room operator.

This event was described in Information Notice 79-29, dated November 16, 1979, which was sent to this licensee. This licensee was requested by IE Bulletin 79-27, dated November 30, 1979, "Loss of Nonclass 1-E Instrumentation and Control Power Bus During Operation" to review, among other things, buses supplying power to certain instrument and control systems, emergency procedures related to loss of power to such buses and failure to certain power supplies. In accordance with Bulletin 79-27 the licensee was requested to submit to the Commission the results of its review by February 28, 1980. This licensee has not met this date.

On February 26, 1980, an event occurred at Crystal River Unit No. 3 that also involved a loss of instrument and control power. This event was described in Information Notice 80-10, "Partial Loss of Nonnuclear Instrument System Power Supply During Operation," dated March 7, 1980. Because of the implications of the Crystal River Unit No. 3 event on February 26, 1980 and because of the potential adverse effects on public health and safety that could result from future events of this type, the information requested in IE Bulletin 79-27 must be submitted in order that NRC can determine whether this license should be modified to protect the health and safety of the public.

The Licensee has committed by letter dated March 28, 1980, supplemented by telephone conversations between Commission representatives and Mr. L. M. Mills and others of the Licensee organization on March 27, 1980, that it would provide the information required by Bulletin 79-27 as revised in Attachment A to this Order, by July 1, 1980.

III

In view of the importance of this matter, I have determined that these commitments should be formalized by order and that the public health, safety and interest require that this action be made immediately effective. Accordingly, pursuant to the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR Parts 2 and 50, IT IS HEREBY ORDERED, EFFECTIVE IMMEDIATELY, THAT:

(1) The licensee shall submit to the Director of Reactor Operations Inspection, Washington, D.C. 20555 and to the Director of the

appropriate NRC Regional Office, written statements under oath containing the information required in Attachment A to this Order; and

(2) The licensee shall submit the statements on or before July 1, 1980.

IV

Any person who has an interest affected by this Order may request a hearing within twenty-five (25) days of the date of the Order. Any request for a hearing will not stay the effectiveness of this Order. Any request for a hearing shall be submitted to the Director, Office of Inspection and Enforcement, U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the Executive Legal Director at the above address. If a hearing is requested by a person who has an interest affected by this Order, the Commission will issue an Order designating the time and place of any such hearing.

V

In the event a person who has an interest affected by this Order requests a hearing as provided above and a hearing is held, the issues to be considered at such a hearing shall be:

(1) Whether the facts set forth in Part II of this Order provide an adequate basis for the actions ordered;

(2) Whether the Licensee should perform the actions required in Part III of this Order in accordance with the schedule stated therein.

Operation of the facility on terms consistent with this Order is not stayed by the pendency of any proceedings on the Order.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by
Victor Stello

Victor Stello, Jr.
Director
Office of Inspection
and Enforcement

Dated at Bethesda, Maryland
on this 4 day of April, 1980

Attachment A

1. Review the class 1-E and nonclass 1-E buses supplying power to safety and non-safety related instrumentation and control systems which could affect the ability to achieve a cold shutdown condition using existing procedures or procedures developed under item 2 below. For each bus:

   a) identify and review the alarm and/or indication provided in the control room to alert the operator to the loss of power to the bus.

   b) identify the instrument and control system loads connected to the bus and evaluate the effects of loss of power to these loads including the ability to achieve a cold shutdown condition.

   c) describe any proposed design modifications resulting from these reviews and evaluations, and your proposed schedule for implementing those modifications.

2. Review emergency procedures that will be used by control room operators, including procedures required to achieve a cold shutdown condition, upon loss of power to each class 1-E and nonclass 1-E bus supplying power to safety and non-safety related instrument and control systems. At a minimum, the review shall assure that emergency procedures include:

   a) the diagnostics/alarms/indicators/symptoms resulting from the review and evaluation conducted per item 1 above.

b) the use of alternate indication and/or control circuits which may be powered from other nonclass 1-E or class 1-E instrumentation and control buses.

c) methods for restoring power to the bus.

Provide a description of the changes to the emergency procedures and administrative controls that have been prepared to conform to items 2a, 2b and 2c above and provide a description of and schedule for implementation of any design changes resulting from the changes to emergency procedures and administrative controls.

3. Re-review IE Circular No. 79-02, "Failure of 120 Volt Vital AC Power Supplies," dated January 11, 1979, to include both class 1-E and nonclass 1-E safety related power supply inverters. Based on a review of operating experience and your re-review of IE Circular No. 79-02, describe any administrative controls that have been implemented as a result of the re-review and describe any proposed design modifications and schedule for completion to be implemented as a result of the re-review.