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

December 21, 2012

Mr. Joseph H. Plona
Senior Vice President and Chief Nuclear Officer
Detroit Edison Company
Fermi 2 - 210 NOC
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: FERMI 2 - ISSUANCE OF AMEMENDMENT TO MODIFY TECHNICAL SPECIFICATION SURVEILLANCE REQUIREMENTS FOR SAFETY RELIEF VALVES (TAC NO. ME7829)

Dear Mr. Plona:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 190 to Facility Operating License No. NPF-43 for the Fermi 2 facility. The amendment consists of changes to the Technical Specifications in response to your application dated January 10, 2012, supplemented by letter dated July 6, 2012.

The amendment revises Surveillance Requirement (SR) 3.4.3.2, in TS 3.4.3, "Safety Relief Valves (SRVs)", SR 3.5.1.13, in TS 3.5.1, "ECCS-Operating," and SR 3.6.1.6.1, in TS 3.6.1.6, "Low-Low Set (LLS) Valves." The amendment replaces the current requirement in these TS SRs to verify the SRV opens when manually actuated with an alternate requirement that verifies the SRV is capable of being opened.

A copy of our safety evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

Mahesh L. Chawla, Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-341

Enclosures:
1. Amendment No. 190 to NPF-43
2. Safety Evaluation

cc w/encls: Distribution via ListServ

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

DETROIT EDISON COMPANY

DOCKET NO. 50-341

FERMI 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 190
License No. NPF-43

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by the Detroit Edison Company (DECo, the licensee) dated January 10, 2012, as supplemented by letter dated July 6, 2012, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. NPF-43 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 190, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. DECo shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented prior to startup from Refueling Outage 16.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert D. Carlson, Chief
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: December 21, 2012

ATTACHMENT TO LICENSE AMENDMENT NO. 190

FACILITY OPERATING LICENSE NO. NPF-43

DOCKET NO. 50-341

Replace the following pages of the Facility Operating License and Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE	INSERT
License Page 3	License Page 3
Page 3.4-8	Page 3.4-8
Page 3.5-7	Page 3.5-7
Page 3.6-21	Page 3.6-21

(4) DECo, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material such as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(5) DECo, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(6) DECo, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

DECo is authorized to operate the facility at reactor core power levels not in excess of 3430 megawatts thermal (100% power) in accordance with conditions specified herein and in Attachment 1 to this license. The items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 190 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. DECo shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Antitrust Conditions

DECo shall abide by the agreements and interpretations between it and the Department of Justice relating to Article I, Paragraph 3 of the Electric Power Pool Agreement between Detroit Edison Company and

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.3.1	Verify the safety function lift setpoints of the required SRVs are as follows: Number of SRVs — Setpoint (psig) 5 — 1135 ± 34.05 5 — 1145 ± 34.35 5 — 1155 ± 34.65 Following testing, lift settings shall be within ± 1%.	In accordance with the Inservice Testing Program
SR 3.4.3.2	Verify each required SRV is capable of being opened.	18 months

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.5.1.11	----------NOTE---------- Vessel injection/spray may be excluded. ---------- Verify each ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal.	18 months
SR 3.5.1.12	----------NOTE---------- Valve actuation may be excluded. ---------- Verify the ADS actuates on an actual or simulated automatic initiation signal.	18 months
SR 3.5.1.13	Verify each ADS valve is capable of being opened.	18 months
SR 3.5.1.14	----------NOTE---------- ECCS instrumentation response times are not required to be measured. ---------- Verify ECCS RESPONSE TIME is within limits.	18 months

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.1.6.1	Verify each LLS valve is capable of being opened.	18 months
SR 3.6.1.6.2	----------NOTE---------- Valve actuation may be excluded. ---------- Verify the LLS System actuates on an actual or simulated automatic initiation signal.	18 months

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 190 TO FACILITY OPERATING LICENSE NO. NPF-43

DETROIT EDISON COMPANY

FERMI 2

DOCKET NO. 50-341

1.0 INTRODUCTION

By letter dated January 10, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML120110140), DTE Energy, the licensee, requested Nuclear Regulatory Commission (NRC) approval of a proposed amendment to the technical specifications (TSs) for the Fermi 2 Nuclear Power Plant. The license amendment would modify Surveillance Requirement (SR) 3.4.3.2, in TS 3.4.3, "Safety Relief Valves (SRVs)", SR 3.5.1.13, in TS 3.5.1, "ECCS-Operating," and SR 3.6.1.6.1, in TS 3.6.1.6, "Low-Low Set (LLS) Valves." The proposed amendment replaces the current requirement in these TS SRs to verify the SRV opens when manually actuated with an alternate requirement that verifies the SRV is capable of being opened. In response to requests for additional information from the NRC, supplemental information was provided by the licensee in their letter dated July 6, 2012 (ADAMS Accession No. ML121910392). The supplement provided additional details for proposed alternative testing.

Current TSs require that each SRV be tested as a unit in-situ, on reactor steam, every 18 months. The licensee is proposing to test each SRV using a series of overlapping tests performed during refueling outages that demonstrate the required functions of successive valve stages and do not require in-situ testing on reactor steam.

The supplemental letter dated July 6, 2012, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on May 1, 2012 (77 FR 25756).

2.0 REGULATORY EVALUATION

Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.36(c)(2)(ii)(C), "Criterion 3," requires, in part, that a TS limiting condition for operation be established for a component that is part of the primary success path and which functions or

Enclosure

actuates to mitigate a design-basis accident or transient that either assumes the failure of, or presents a challenge to, the integrity of a fission product barrier.

10 CFR 50.36(c)(3), "Surveillance requirements," requires, in part, that SRs be established to ensure that the necessary quality of components is maintained, and that facility operation will be within safety limits.

10 CFR 50.55a(f), "Inservice testing requirements," requires, in part, that American Society of Mechanical Engineers (ASME) Class 1, 2, and 3 components must meet the requirements of the ASME code for Operation and Maintenance of Nuclear Power Plants (OM Code), except where alternatives have been authorized pursuant to paragraphs (a)(3)(i) and (a)(3)(ii) of 10 CFR 50.55a. Currently, Fermi 2 TS SR 3.4.3.2, SR 3.5.1.13, and SR 3.6.1.6.1 state that each main steam SRV must be manually actuated every 18 months during a startup once reactor steam pressure and flow are adequate to perform the test. In its amendment application, the licensee proposes to replace the manual actuation SRV test method in SR 3.4.3.2, SR 3.5.1.13, and SR 3.6.1.6.1 with an alternative requirement to verify that the valves are capable of being opened as determined through a series of overlapping tests performed during refueling outages.

The SRVs at Fermi 2 are Target Rock model 7567F two-stage, pilot-operated safety relief valves. Fifteen SRVs are located on the main steam lines between the reactor vessel and the first isolation valve within the drywell. The SRVs can actuate by either of two modes: the safety mode or the relief mode. In the safety mode, the spring loaded pilot valve opens when steam pressure at the valve inlet overcomes the spring force holding the pilot valve closed. Opening the pilot valve allows a pressure differential to develop across the main valve piston and opens the main valve. Each SRV discharges steam through a discharge line to a point below the water level in the suppression pool. The SRVs that provide the relief mode are the Automatic Depressurization System (ADS) valves and the LLS valves. The ADS consists of five of the 15 SRVs and is designed to provide depressurization of the reactor coolant system during a small break loss of coolant accident if the High Pressure Coolant Injection System fails or is unable to maintain required water level in the Reactor Pressure Vessel. Two of the 15 SRVs are equipped to provide the LLS function. The LLS logic causes the LLS valves to be opened at a lower pressure than the relief or safety mode pressure setpoints and stay open longer. Therefore, the LLS function prevents numerous short duration SRV cycles with valve actuation at the relief setpoint.

3.0 TECHNICAL EVALUATION

3.1 Licensee's Basis for the Proposed TS Changes

The licensee has proposed the following changes to the Fermi 2 TSs:

The current TS SR 3.4.3.2 in TS 3.4.3, "Safety Relief Valves (SRVs)," states, "Verify each required SRV opens when manually actuated." TS SR 3.5.1.13 in TS 3.5.1, "ECCS-Operating," states, "Verify each ADS valve opens when manually actuated." TS SR 3.6.1.6.1, "Low-Low Set (LLS) Valves," states, "Verify each LLS valve opens when manually actuated." The proposed amendment would change these TS SRs to require verifying that each required valve "is capable of being opened."

These TS SRs are currently modified by a note that states, "Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test." This allowance would no longer be needed, and thus, would be deleted.

The verification of the capability to open would be satisfied by a series of overlapping tests that demonstrate the required function of the SRV components. Specifically:

- The simulated automatic actuation test specified in SR 3.5.1.12, of TS 3.5.1, "ECCS Operating," and additional surveillances associated with TS 3.3.5.1, "ECCS Instrumentation," TS 3.3.3.2, "Remote Shutdown System," and TS 3.3.6.3, "LLS Instrumentation," demonstrate the ability of various logics and controls to actuate the SRVs up to the point of energizing the solenoids. These tests are performed once per operating cycle (18 months).

- A solenoid valve (SOV) functional test will be performed in-situ for each SRV solenoid valve once per operating cycle (18 months). In the SOV functional test, a test rig with a pressure gauge will be connected downstream of the SOV pneumatic manifold in place of the SRV actuator. Each SOV will be energized, and pneumatic pressure at the downstream connection will be recorded and compared with pneumatic header pressure.

- An SRV actuator functional test will be performed at an offsite test facility as part of certification testing for each SRV pilot assembly. This procedure tests SRV manual mode actuation. The procedure requires applying steam pressure to the SRV at approximately 1000 psig, pressurizing the SRV solenoid to approximately 70 psig, and energizing the SRV solenoid valve with approximately 125 VDC. Parameters such as steam inlet pressure, pilot disc motion, main disc motion, solenoid actuation signal and valve response time are recorded. The current practice of replacing all 15 SRV pilot assemblies each operating cycle (18 months) will be maintained.

- SRV setpoint testing is performed using steam at the offsite test facility as part of certification testing for each SRV pilot assembly, at intervals determined in accordance with the Inservice Testing (IST) Program. This test is the existing test required by TS SR 3.4.3.1. In addition to demonstrating that the SRV pilot stage will actuate on high steam pressure in the safety mode, this test overlaps with the pilot assembly actuator functional test to demonstrate that the pilot stage will actuate in the relief mode.

- SRV main stage certification testing will be performed using steam at the offsite test facility at intervals determined in accordance with the IST Program. The current Fermi 2 IST Program requires that the SRVs be lift-tested every five years on a staggered basis per ASME OM Code, 2004 Edition, Appendix I. Currently, the Fermi 2 Preventative Maintenance Program requires the SRV main stages to be refurbished within a 6-year period. ASME OM Code, 2004 Edition, Appendix I, Section 1-3400, "Disposition After Testing or Maintenance," addresses the testing required on refurbished main steam pressure relief valves with auxiliary actuating devices. Specifically, paragraph 1-3410(c) states, "Refurbished equipment shall be subjected to the test(s) specified in 1-3310, as applicable. If disassembly includes valve disk (main) components, then valve disk stroke capability shall be verified by mechanical examination or tests." Main stage certification

testing demonstrates that the main stage will open and port steam when actuated by the installed pilot stage.

TS Bases associated with SR 3.4.3.2, SR 3.5.1.13, and SR 3.6.1.6.1 will also be revised to describe these new testing methods.

The Boiling Water Reactor Owners' Group Evaluation of NUREG-0737, "Clarification of TMI Action Plan Requirements," Item II.K.3.16, "Reduction of Challenges and Failures of Relief Valves," recommends that the number of SRV openings be reduced as much as possible and that unnecessary challenges to the SRVs be avoided.

Experience in the industry has shown that manual actuation of SRVs during plant operation may create a potential for SRV seat leakage. SRV leakage is routed to the suppression pool; the increased heat and fluid additions to the suppression pool requires more frequent suppression pool cooling and more frequent pump-down operations to control suppression pool level. Main stage SRV seat leakage also tends to mask the indications of SRV pilot stage seat-leakage; pilot stage leakage could cause spurious SRV actuation and/or SRV failure to reclose after actuation. Excessive leakage would require plant shutdown to replace the leaking SRV.

Eliminating or reducing the number of manual actuations of the SRVs during plant startup minimizes the potential depressurization and cooldown events due to failure to close SRV events as well as minimizing the potential for pilot or main stage leakage of the SRVs. Implementing this change would still maintain the capability to manually open and close SRVs, as necessary, for the IST Program or as corrective action for SRVs with excessive leakage.

The testing proposed to verify that the SRVs are capable of being opened fully meets the requirements of the ASME OM Code, 2004 Edition.

The NRC staff has received other requests for TS changes related to the testing requirements for boiling-water reactor dual-function main steam SRVs. Licensees have determined that in-situ testing of the SRVs on reactor steam can contribute to undesirable seat leakage of the valves during subsequent plant operation and have received NRC approval to perform testing at a test facility coupled with in-situ tests and other verifications of component performance.

3.2 NRC Staff Evaluation of Proposed TS Changes

10 CFR 50.55a(f) requires that the licensee's IST program meet the requirements of the ASME OM Code. The Fermi 2 third 10-year interval IST program complies with the 2004 Edition of the ASME OM Code. Specifically, the following OM Code, Mandatory Appendix I, "Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants," test requirements apply to the Fermi 2 IST program for testing the main steam SRVs:

- Section I-1320, "Test Frequencies, Class 1 Pressure Relief Valves," (a) requires that Class 1 pressure relief valves be set pressure tested at least once every 5 years.

- Section I-1320(a) further requires that 20 percent of the SRVs be tested in any 24-month period.

- Section I-1320(c) requires additional SRVs to be tested if test failures occur within the original test sample of valves.

- Section I-3310, "Periodic Testing / Class 1 Main Steam Pressure Relief Valves With Auxiliary Actuating Devices," (c) requires that the set pressure of each SRV be determined at the frequency specified in I-1320(a).

- Section I-3310(d) requires that the electrical characteristics and pressure integrity be determined for each SOV at the frequency specified in I-1320(a).

- Section I-3310(e) requires that the pressure integrity and stoke capability of each SRV air actuator be determined at the frequency specified in I-1320(a).

- Section I-3310(h) requires that the actuating pressure and electrical continuity of auxiliary actuating device sensing elements of each SRV (as applicable) be determined at the frequency specified in I-1320(a).

- Section I-3410, "Disposition After Testing or Maintenance / Class 1 Main Steam Pressure Relief Valves With Auxiliary Actuating Devices," (d) requires that SRVs with auxiliary actuating devices that have been removed for maintenance or testing and reinstalled, shall have the electrical and pneumatic connections verified either through mechanical/electrical inspection or test. (Note that this is a change from earlier versions of ASME OM Appendix I which required in all cases where a valve had been removed for maintenance or testing that the valve be remotely actuated at reduced or normal system pressure after re-installation. The new provision to allow verification through inspection was supported by the NRC staff as a means to reduce the occurrences of inservice leakage following in-situ stroke testing.)

The NRC staff has reviewed the licensee's proposed TS changes and agrees that the current TS requirement to perform in-situ manual actuation of the SRVs on reactor steam can cause undesirable SRV leakage. The test methods and frequencies proposed by the licensee fully meet the requirements of the ASME OM Code, 2004 Edition, for safety and relief valves which the NRC staff has previously found to be acceptable.

Another difference between the current TS-required manual actuation requirements and the licensee's proposal is that when performing the testing in-situ as required by the current TSs, the testing verifies that the SRV discharge lines are not blocked. However, the licensee stated that its maintenance procedures and its foreign material exclusion (FME) procedures and practices provide assurance that the discharge piping will remain free of obstructions and Fermi 2 has had no previous instances of test failures due to loss of FME controls. The NRC staff finds that the licensee has acceptably addressed this concern.

3.3 Summary

As described above, the licensee has proposed changes to the plant TSs that replace the current requirement to verify the SRVs open when manually actuated with an alternate requirement that verifies the SRVs are capable of being opened. Based on the above

evaluation, the NRC staff concludes that the licensee has demonstrated the adequacy of the proposed changes to the Fermi 2 TSs. The proposed changes demonstrate proper SRV operation without the need for in-situ testing with reactor steam. Therefore, the proposed changes to SR 3.4.3.2, SR 3.5.1.13, and SR 3.6.1.6.1 are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Michigan State official was notified of the proposed issuance of the amendment. The State official made the following comment:

"This LAR seems acceptable, if the "overlapping test" provides an adequate basis for showing whether the valve could be opened under operational conditions."

The comment was resolved by replying to the state official that the overlapping test was the basis for the LAR and by referencing the precedents, where NRC has previously approved similar LAR by accepting the overlapping methodology. The Michigan State official had no further comments. (See ADAMS Accession No. ML12348A021).

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or change the surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (77 FR 25756). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: John Billerbeck, NRR

Date: December 21, 2012

December 21, 2012

Mr. Joseph H. Plona
Senior Vice President and Chief Nuclear Officer
Detroit Edison Company
Fermi 2 - 210 NOC
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: FERMI 2 - ISSUANCE OF AMEMENDMENT TO MODIFY TECHNICAL SPECIFICATION SURVEILLANCE REQUIREMENTS FOR SAFETY RELIEF VALVES (TAC NO. ME7829)

Dear Mr. Plona:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 190 to Facility Operating License No. NPF-43 for the Fermi 2 facility. The amendment consists of changes to the Technical Specifications in response to your application dated January 10, 2012, supplemented by letter dated July 6, 2012.

The amendment revises Surveillance Requirement (SR) 3.4.3.2, in TS 3.4.3, "Safety Relief Valves (SRVs)", SR 3.5.1.13, in TS 3.5.1, "ECCS-Operating," and SR 3.6.1.6.1, in TS 3.6.1.6, "Low-Low Set (LLS) Valves." The amendment replaces the current requirement in these TS SRs to verify the SRV opens when manually actuated with an alternate requirement that verifies the SRV is capable of being opened.

A copy of our safety evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,
/RA/
Mahesh L. Chawla, Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-341

Enclosures:
1. Amendment No. 190 to NPF-43
2. Safety Evaluation

cc w/encls: Distribution via ListServ

DISTRIBUTION:
PUBLIC
LPL3-1 R/F
RidsNrrDssStsb Resource
RidsNrrDorlLpl3-1 Resource
RidsNrrLABTully Resource
RidsRgn3MailCenter Resource
RidsNrrDeEpTb Resource
RidsAcrsAcnw_MailCTR Resource
RidsNrrDorlDpr Resource
RidsNrrPMFermi2 Resource
RidsOgcRp Resource
JBillerbeck, NRR

Amendment Accession Number: ML12321A234 *** via memo - ML12298A462 – 10/26/12**

OFFICE	NRR/LPL3-1/PM	NRR/LPL3-1/LA	DE/EPTB/BC	STSB/BC	OGC	NRR/LPL3-1/ BC	NRR/LPL3-1/PM
NAME	MChawla	BTully	AMcMurtray*	RElliott (RGrover for)	DCylkowski	RCarlson	MChawla
DATE	12/17/12	11/27/12	10/26/12	12/20/12	12/6/12	12/21/12	12/21/12

OFFICIAL RECORD COPY