Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

10CFR50.90

February 25, 1993

Dr. Thomas E. Murley, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Document Control Desk

Subject: LaSalle County Station Units 1 and 2
Application for Amendments to Facility Operating
Licenses NPF-11 and NPF-18
Appendix A, Technical Specifications
Diesel Fuel Oil Testing
NRC Docket Nos. 50-373 and 50-347

In accordance with 10CFR50.90, Commonwealth Edison (CECo) proposes to amend Appendix A, Technical Specifications, of Facility Operating Licenses NPF-11 and NPF-18. The proposed amendment requests changes to Technical Specification 4.8.1.1.2.c, which requires periodic and new fuel oil testing according to ASTM Standards D270-1975, D975-77 and D2274-70.

The amendment request would update sampling requirements to ASTM-D4057-88 (new fuel oil test); ASTM-D975-88 (water and sediment content testing); and ASTM-D2276-89 (impurity levels). All updated Standards would be referenced in the Bases.

The amendment request is subdivided as follows:

1. Attachment A provides a description of the proposed changes to the Technical Specifications.

2. Attachment B includes the marked-up Technical Specification page with the requested changes indicated.

3. Attachment C described CECo's evaluation performed in accordance with 10CFR50.92(c), which confirms that no significant hazards consideration is involved.

4. Attachment D provides the Environmental Assessment.

This proposed amendment has been reviewed and approved by both CECo On-Site and Off-Site Review in accordance with Commonwealth Edison procedure.

Commonwealth Edison is notifying the State of Illinois of this application for amendment by transmitting a copy of this letter and its attachments to the designated State Official.

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To the best of my knowledge and belief, the statements contained above are true and correct. In some respects, these statements are not based on my knowledge, but upon information furnished by other Commonwealth Edison and contractor employees. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

Please direct any questions you may have concerning this amendment request to this office.

Respectfully,

MBDepuydt

Mary Beth Depuydt
Nuclear Licensing Administrator

Attachments:

A. Description and Evaluation of the Proposed Changes
B. Marked-Up Technical Specification Pages
C. Evaluation of Significant Hazards Consideration
D. Environmental Assessment

cc: A.B. Davis, Regional Administrator - RIII
D. Hills, Senior Resident Inspector - LSCS
R.L. Stransky, Project Manager - NRR
Office of Nuclear Facility Safety - IDNS

State of IL County of Lyons
Signed before me on this 25th day
of February, 1993 by MBD
Notary Public Sandra C. Lara

" OFFICIAL SEAL "
SANDRA C. LARA
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 6/22/94

ATTACHMENT A

Description of Safety Analysis of the Proposed Changes

Description of the Proposed Change

In order to ensure the most up-to-date methods of sampling and analysis are applied to Technical Specification 4.8.1.1.2.c for Diesel Generator fuel oil testing, an amendment is requested to stipulate testing in accordance with the most current applicable American Society for Testing Materials (ASTM) Standards. The tests required by these Standards ensure the fuel oil properties are within acceptable limits.

This Amendment Request provides replacement ASTM Standards for Diesel Generator fuel oil testing. The naming of the specific applicable Standards will be moved from the body of the Technical Specification to the Bases. Also provided is a more frequent testing interval for particulate contamination, that would decrease the test interval on stored fuel from 92 days to 31.

Description of the Current Requirement

LaSalle County Station Technical Specification for diesel fuel oil require sampling in accordance with ASTM-D270-1975, ASTM-D975-77 and ASTM-D2274-70.

Testing is performed in accordance with ASTM-D270-1975 which specifies sampling procedure. ASTM-D975-77 verifies water and sediment content less than or equal to 0.05 volume percent, plus kinematic viscosity is tested at 40°C for a value greater than or equal to 1.9 but less than 4.1. ASTM-D2274-70 tests for impurity levels of less than 2 mg insoluables per 100 ml.

These tests are performed at least every 92 days and prior to new fuel addition.

Bases for the Current Requirements

The tests required by the Technical Specifications help to ensure acceptable fuel oil is available for immediate use at all times:

- Fuel oil with particulate contamination has the potential for clogging filters and fuel lines and ultimately causing diesel engine failure.
- The kinematic viscosity test is used to determine that the correct grade of fuel oil has been received.
- The Accelerated Stability test for oxidation tendency of diesel fuel oil is done in an attempt to predict the fuel oil stability over storage time.

Description of the Need for Amending the Technical Specification

Current sampling of diesel fuel oil is in accordance with ASTM-D270-1975, which was discontinued in 1984. Sampling of the fuel oil under the updated applicable Standards will help to ensure up-to-date sampling techniques that will not have an adverse impact on the quality of the obtained fuel oil samples.

ASTM-D975-77 does not contain acceptance criteria for long-term storage of fuel oil, however, these criteria are contained in the updated Standard, ASTM-D975-88. The updated Standard defines long term storage, fuel contaminants, fuel degradation products and references ASTM tests for stored fuel quality and fuel monitoring.

The Accelerated Stability Test, ASTM-D2274-70, provides a rough prediction of the tendancy of the fuel to oxidize and form particulates during storage. It does not indicate actual particulate contamination at the time of sampling. The quantity of actual particulate contamination present can be determined using the upgraded Standard, ASTM-D2276-89. This Standard offers better analytical accuracy because of the relatively small error in the method. This will minimize test results erroneously exceeding the 10mg/liter limit and meet the Technical Specification requirement to accurately determine particulate contamination present in the fuel.

Additionally, testing samples in accordance with ASTM-D2274-70 is considered to be a significant fire hazard potentially dangerous to personnel. This test involves bubbling pure oxygen through a filtered fuel oil sample heated to 203°F for several hours. This temperature is greater than the flash point for fuel oil. The applicable upgraded Standard requires a laboratory filtration test which does not involve fire hazard or potential danger to personnel.

The periodic monitoring of insoluble fuel impurties actually present in the fuel provides a reliable method of determining time intervals to filter or replace aged fuel with fresh. Since formation of particulates during storage at ambient temperatures is a relatively slow process, a 31 day test frequency will aid detection of particulates indicating degraded fuel oil quality. For this reason and to take advantage of improved analytical method, it is proposed to replace ASTM-D2274-70 with the upgraded Standard, ASTM-D2276-89.

Description of the Amended Technical Specification Requirement

CECo proposed that Technical Specification 4.8.1.1.2.c be changed to read:

"By sampling and analyzing stored and new fuel oil in accordance with the following:

1. At least once per 92 days, and for new fuel oil prior to addition to the storage tanks, that a sample be obtained and tested in accordance with the applicable ASTM Standards:

   a) A water and sediment content within applicable ASTM limits.

   b) A kinematic viscosity at 40°C within applicable ASTM limits.

2. At least every 31 days, and for new fuel oil prior to addition to the storage tanks, that a sample obtained in accordance with the applicable ASTM Standard has total particulate contamination of less than 10 mg/l when tested in accordance with the applicable ASTM Standard."

ATTACHMENT A

Description of Safety Analysis of the Proposed Changes
(Continued)

Based for the Amended Technical Specification Request

Use of the upgraded Standard ASTM-4057-88 will help to ensure up-to-date sampling techniques that will not have an adverse impact on the quality of the obtained fuel oil samples.

ASTM-D975-88 defines long term storage, fuel contaminants, fuel degradation products and ASTM reference tests for stored fuel quality and fuel monitoring. The old ASTM-D975-77 does not contain any acceptance criteria for long term storage of fuel oil.

Replacing ASTM-D2274-70 with ASTM-D2276-89 will provide a testing procedure that is more effective in detecting unsatisfactory fuel oil and will enhance the maintenance of the fuel oil and the contend operability of the diesel generators. Discontinuing use of ASTM-D2274-70 will also relieve testing personnel of a procedure that is a fire and personnel safety hazard.