3.9 Continued

C. Diesel Fuel

There will be a minimum of 64,000 gal. of diesel fuel on site for each operable pair of diesel generators.

1. From and after the time that the fuel oil storage tank level instrumentation is made or found to be inoperable for any reason continued reactor operation is permissible indefinitely, provided that the level in the affected storage tank is manually measured at least once/day.

4.9 Continued

6. Once within one hour and at least once per eight hours thereafter, while the reactor is being operated in accordance with Specifications 3.9.B.1, 3.9.B.3 and 3.9.B.4, the availability of the operable off-site sources shall be verified by the correct breaker alignment indicating power availability.

C. Diesel Fuel

Once each month the quantity of diesel fuel available in each storage tank shall be manually measured and compared to the reading of the local level indicators to ensure the proper operation thereof.

1. Once a month a sample of the diesel fuel in each storage tank shall be checked for quality as per the following:

| | |
|---|---|
| Flash Point - °F | 125°F min. |
| Pour Point - °F | 10°F max. |
| Water & Sediment | 0.05% max. |
| Ash | 0.01% max. |
| Distillation 90% Point | 540 min. |
| Viscosity (SSU) at 100°F | 40 max. |
| Sulfur | 1% max. |
| Copper Strip Corrosion | No. 3 max. |
| Cetane # | 35 min. |

3.9 BASES (cont'd)

C. Diesel Fuel

Minimum on-site fuel oil requirements are based on operation of the emergency diesel generator systems at rated load for 7 days.

Additional diesel fuel can be delivered to the site within 48 hours.

If one of the Emergency Diesel Generator Systems is not operable, the plant shall be permitted to run for 7 days provided both sources of reserve power are operational. This is based on the following:

1. The operable Emergency Diesel Generator System is capable of carrying sufficient engineered safeguards and emergency core cooling system equipment to cover all loss-of-coolant accidents.
2. The reserve (offsite) power is highly reliable.

D. Battery System

125 v DC power is supplied from two plant batteries each sized to supply the required equipment at design power following a loss-of-coolant accident with a concurrent loss of normal and reserve power. Each battery is provided with a charger sized to maintain the battery in a fully charged state while supplying normal operating loads.

E. LPCI MOV Independent Power Supplies

There are two LPCI MOV Independent Power Supplies each consisting of a charger, rectifier, inverter and battery. Each independent power supply charger-rectifier is normally fed from the emergency A-C power supply system to maintain the battery in a fully charged state. In the event of a LOCA each independent power supply is automatically isolated from the Emergency A-C power system. The battery and inverter have sufficient capacity to power the MOV's essential to the operation of the LPCI System. A maintenance power source is provided for each LPCI MOV bus whereby in the event its independent power supply is out of service, the LPCI MOV bus be energized directly from the Emergency A-C Power System.

A. High Pressure Water Fire Protection System (Cont'd)

3. If 1. above cannot be fulfilled, place the reactor in Hot Standby within six (6) hours and in Cold Shutdown within the following thirty (30) hours.

A. High Pressure Water Fire Protection System (Cont'd)

| | Item | Frequency |
|---|---|---|
| h. | Fire pump diesel engine by verifying the fuel storage tank contains at least 172 gallons of fuel. | Once/Month |
| i. | Diesel fuel from each tank obtained in accordance with ASTM-D270-65 is within the acceptable limits for quality as per the following: | Once/Quarter |
| | Flash Point - °F | 125°F min. |
| | Pour Point - °F | 10°F max. |
| | Water & Sediment | 0.05% max. |
| | Ash | 0.01% max. |
| | Distillation 90% Point | 540 min. |
| | Viscosity (SSU) @ 100°F | 40 max. |
| | Sulfur | 1% max. |
| | Copper Strip Corrosion | No. 3 max. |
| | Cetane # | 35 min. |
| j. | Fire pump diesel engine by inspection during shut down in accordance with procedures prepared in conjunction with manufacturers recommendations and verifying the diesel, starts from ambient conditions on the auto start signal and operates for $\geq$20 minutes while loaded with the fire pump. | Once/18 months |

ATTACHMENT II

# SAFETY EVALUATION FOR PROPOSED TECHNICAL SPECIFICATION CHANGES REGARDING DIESEL FUEL QUALITY LIMITS AND DAY TANK CAPACITY

**(JPTS-89-018 & 89-020)**

**New York Power Authority**

JAMES A. FITZPATRICK NUCLEAR POWER PLANT
Docket No. 50-333
DPR-59

## I. DESCRIPTION OF THE PROPOSED CHANGES

The proposed changes to the James A. FitzPatrick Technical Specifications revise Specifications 4.9.C, "Diesel Fuel" and 4.12.A.1.i, "High Pressure Water Fire Protection System" and Bases 3.9.C, "Diesel Fuel," on pages 218, 224 and 244c. The changes are as follows:

1. Specification 4.9.C.1, "Diesel Fuel," on page 218.

   Revise the limits for "Water & Sediment" from 0.50% max. to 0.05% max. and the limits for "Ash" from 0.5% max. to 0.01% max.

2. Bases 3.9.C, "Diesel Fuel," on page 224.

   Delete the first paragraph of Bases 3.9.C. and replace it with:

   "Minimum on-site fuel oil requirements are based on operation of the emergency diesel generator systems at rated load for 7 days."

3. Specification 4.12.A.1.i, "High Pressure Water Fire Protection System," on page 244c.

   Revise the limits for "Water & Sediment" from 0.50% max. to 0.05% max. and the limits for "Ash" from 0.5% max. to 0.01% max. In addition correct the spelling of "Ash" from "Hsh".

## II. PURPOSE OF THE PROPOSED CHANGES

Changes 1 and 3

In reviewing ASTM D975-81 (Reference 3), the current industry standards for diesel fuel oil quality, against the Technical Specifications, two discrepancies were noted. The ASTM specification limit for water and sediment is 0.05% and for ash is 0.01%, whereas the Technical Specification specifies 0.5% for water and sediment and 0.5% for ash.

The purpose of these changes is to revise the Technical Specifications to reflect the current industry standards. As the limits for water and sediment and ash in ASTM D975-81 are more conservative than those presently in the Technical Specifications, these changes are not a significant hazards consideration.

Change 2

The diesel fuel oil day tank, when filled, has the capacity to provide fuel oil to an emergency diesel generator for 3 hours at rated load (based on a consumption rate of 3 gpm). However, when the day tank is not completely full, but its level is still above the refill alarm setpoint, a three hour supply does not exist. In order to improve the clarity of the Technical Specifications, Bases 3.9.C is revised to delete the descriptive statement on the sizing of the diesel fuel oil day tank.

## III. IMPACT OF THE PROPOSED CHANGES

Changes 1 and 3

The proposed changes are not a significant hazards consideration, as they impose more stringent limits on the quality of the diesel fuel with regard to the limits of water and sediment and ash. The proposed changes agree with the limits specified in ASTM D975-81 and meet the current industry standards as endorsed by Reg. Guide 1.137. It should also be noted, that chemistry samples of the diesel fuel taken in accordance with the Technical Specifications indicated that high quality fuel has been supplied to the plant on a regular basis.

The proposed changes do not involve the modification of any existing equipment, systems, or components; nor do they relax any administrative controls or limitations imposed on existing plant equipment. The changes do not alter the conclusions of the plant's accident analyses as documented in the FSAR or the NRC staff's SER. Plant procedures have been revised to reflect the new limits for water and sediment and ash.

Change 2

This change is purely administrative in nature. The statement on the capacity of the diesel fuel oil day tank was included in Bases 3.9.C for information only. There are no manufacturer requirements nor are there any licensing requirements in the FSAR or the Technical Specifications to maintain a 3 hour fuel supply in the day tank. In order to improve the clarity of the Technical Specifications and to make Bases 3.9.C consistent with the requirements in the FSAR and the Technical Specifications, this information is being deleted.

This change is in accordance with the guidance of 10 CFR 50.36 which states,"A summary statement of the bases or reasons for such specifications, other than those covering administrative controls, shall also be included in the application, but shall not become part of the technical specifications." Requirements for diesel fuel oil day tank capacity are not included in the technical specifications, and so the basis for its sizing does not need to be included in the bases section.

The proposed change does not involve modification of any existing equipment, systems, or components; nor does it relax any administrative controls or limitations imposed on existing plant equipment. The change does not alter the conclusions of the plant's accident analyses as documented in the FSAR or the NRC staff's SER. Operation of the plant in accordance with the proposed amendment is not considered a safety concern.

## IV. EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATION

Operation of the James A. FitzPatrick Nuclear Power Plant in accordance with this proposed amendment would not involve a significant hazards consideration, as defined in 10 CFR 50.92, since the proposed changes would not:

1. involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed changes to Specifications 4.9.C and 4.12.A.1.i propose limits for water and sediment and ash that are more restrictive than those presently contained in the Technical Specifications. The proposed change to Bases 3.9.C is purely administrative in nature and improves the clarity of the Technical Specifications by deleting extraneous information.

   These changes do not involve the modification of any existing structures, equipment, systems, or components. Plant procedures have been revised as appropriate to reflect the new limits for diesel fuel quality. The changes do not impact previously evaluated accidents; nor do they affect safe plant operations.

2. create the possibility of a new or different kind of accident from those previously evaluated. The changes impose more stringent limits on diesel fuel oil quality and clarify the Technical Specifications Bases. The changes do not involve modification to any of the plant's systems, equipment, or components; nor do they allow the plant to operate in an unanalyzed condition.

3. involve a significant reduction in the margin of safety. The changes to Specification 4.9.C and 4.12.A.1.i increase the margin of safety by imposing stricter limits on the quality of diesel fuel. The change to Bases 3.9.C is purely administrative in nature and therefore, has no impact on the margin of safety.

In the April 6, 1983 Federal Register (48FR14870), NRC published examples of license amendments that are not likely to involve a significant hazards consideration. Examples (i) and (ii) from this Federal Register are applicable to these changes and state:

"(i) A purely administrative change to technical specifications: for example, a change to achieve consistency throughout the technical specifications, correction of an error, or a change in nomenclature."

"(ii) A change that constitutes an additional limitation, restriction, or control not presently included in the technical specifications: for example, a more stringent surveillance requirement."

The proposed changes can be classified as not likely to involve significant hazards considerations, since the changes either impose a more stringent surveillance requirement or are purely administrative in nature.

## V. IMPLEMENTATION OF THE PROPOSED CHANGES

Implementation of the proposed changes will not impact the ALARA or Fire Protection Programs at FitzPatrick, nor will the changes impact the environment.

## VI. CONCLUSION

These changes, as proposed, do not constitute an unreviewed safety question as defined in 10 CFR 50.59. That is, they:

a. will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report;

b. will not increase the possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report;

c. will not reduce the margin of safety as defined in the basis for any technical specification; and

d. involve no significant hazards consideration, as defined in 10 CFR 50.92.

## VII. REFERENCES

1. James A. FitzPatrick Nuclear Power Plant Updated Final Safety Analysis Report, Section 8.6.

2. James A. FitzPatrick Nuclear Power Plant Safety Evaluation Report (SER), dated November 20, 1972 and Supplements.

3. ASTM D975-81, "Specification for Diesel Fuel Oils", dated 1981.

4. Reg. Guide 1.137, "Fuel-Oil Systems For Standby Diesel Generators," dated October 1979.

5. NRC letter, B. A. Boger to W. Fernandez, "NRC Safety System Functional Inspection (SSFI)" Report NO. 50-333/89-80, dated August 22, 1989.