



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

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

THE TOLEDO EDISON COMPANY

DOCKET NO. 50-412

BEAVER VALLEY POWER STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 42  
License No. NPF-73

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Duquesne Light Company, et al. (the licensee) dated October 9, 1991, 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.

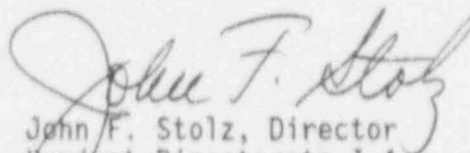
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-73 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 42 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto are hereby incorporated in the license. DLCO shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance, to be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director  
Project Directorate I-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 2, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 42

FACILITY OPERATING LICENSE NO. NPF-73

DOCKET NO. 50-412

Replace the following pages of Appendix A, Technical Specifications, with the enclosed pages as indicated. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove

2-7

Insert

2-7

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS  
NOTATION

NOTE 1: OVERTEMPERATURE  $\Delta T$ 

$$\Delta T \frac{(1 + \tau_1 S)}{(1 + \tau_2 S)} \left( \frac{1}{1 + \tau_3 S} \right) \leq \Delta T_0 [K_1 - K_2 \frac{(1 + \tau_4 S)}{(1 + \tau_5 S)} \{ T(\frac{1}{1 + \tau_6 S}) - T' \} + K_3 (P - P') - t_1 (\Delta T)]$$

Where:  $\Delta T$  = Measured  $\Delta T$ ;
 $\frac{1 + \tau_1 S}{1 + \tau_2 S}$  = Lead-lag compensator on measured  $\Delta T$ ;
 $\tau_1, \tau_2$  = Time constants utilized in lead-lag compensator for  $\Delta T$ ,  $\tau_1 = 8$  s,  $\tau_2 = 3$  s;
 $\frac{1}{1 + \tau_3 S}$  = Lag compensator on measured  $\Delta T$ ;
 $\tau_3$  = Time constants utilized in the lag compensator for  $\Delta T$ ,  $\tau_3 = 0$  s;
 $\Delta T_0$  = Indicated  $\Delta T$  at RATED THERMAL POWER;
 $K_1$  = 1.28;
 $K_2$  = 0.0183/ $^{\circ}$ F
 $\frac{1 + \tau_4 S}{1 + \tau_5 S}$  = The function generated by the lead-lag compensator for  $T_{avg}$  dynamic compensation;
 $\tau_4, \tau_5$  = Time constants utilized in lead-lag compensator for  $T_{avg}$ ,  $\tau_4 = 30$  s,  $\tau_5 = 4$  s;

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS  
NOTATION (Continued)

$T$	=	Average temperature, °F;
$\frac{1}{1 + \tau_6 S}$	=	Lag compensator on measured $T_{avg}$ ;
$\tau_6$	=	Time constant utilized in the measured $T_{avg}$ lag compensator, $\tau_6 = 0$ s;
$T'$	=	$\leq 576.2^\circ\text{F}$ (Nominal $T_{avg}$ at RATED THERMAL POWER);
$K_3$	=	0.00082;
$P$	=	Pressurizer Pressure, psig;
$P'$	=	2235 psig (Nominal RCS operating pressure);
$S$	=	Laplace transform operator, $s^{-1}$ ;

and  $f_1(\Delta I)$  is a function of the indicated difference between top and bottom detectors of the power-range nuclear ion chambers; with gains to be selected based on measured instrument response during plant startup tests such that:

- (i) For  $q_t - q_b$  between -33% and +9%,  $f_1(\Delta I) = 0$ , where  $q_t$  and  $q_b$  are percent RATED THERMAL POWER in the top and bottom halves of the core respectively, and  $q_t + q_b$  is total THERMAL POWER in percent of RATED THERMAL POWER;
- (ii) For each percent that the magnitude of  $q_t - q_b$  exceeds -33%, the  $\Delta T$  Trip Setpoint shall be automatically reduced by 2.52% of its value at RATED THERMAL POWER; and
- (iii) For each percent that the magnitude  $q_t - q_b$  exceeds +9%, the  $\Delta T$  Trip Setpoint shall be automatically reduced by 1.75% of its value at RATED THERMAL POWER.

NOTE 2: The channel's maximum Trip Setpoint shall not exceed its computed Trip Setpoint by more than 1.6% of  $\Delta T$  span.