

Detroit  
Edison

William S. Orser  
Senior Vice President

Fermi 2  
6400 North Dixie Highway  
Newport, Michigan 48166  
(313) 586-5201

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NRC-91-0033



Nuclear  
Operations

Mr. A. B. Davis  
Region III Administrator  
Region III Office  
799 Roosevelt Road  
Glen Ellyn, IL 60137

- Reference:
- 1) Fermi 2  
NRC Docket No. 50-341  
NRC License No. NPF-43
  - 2) NRC Inspection Report No. 50-341/87022,  
dated July 23, 1987
  - 3) Detroit Edison Letter, NRC-87-0140,  
dated August 21, 1987
  - 4) Detroit Edison Letter, NRC-89-0219,  
dated October 20, 1989

Subject: Removal of Jamesbury Valves from Increased Frequency of  
Stroke-Time Testing

In 1987, Detroit Edison received a violation for inadequate corrective action to prevent failures of Jamesbury butterfly valves (Reference 2). The corrective action to prevent reoccurrence stated in the response to the violation (Reference 3) was that:

The remaining carbon steel shafts and wafers in safety-related Jamesbury valves will be replaced with stainless steel shafts and wafers. Twenty-three of the thirty-three safety-related Jamesbury butterfly valves already have stainless steel components. The remaining ten valves will be modified by replacing their carbon steel shafts and wafers with corresponding stainless steel components prior to startup following the first refueling outage....In the interim, the ten Jamesbury valves with carbon steel internals will be monitored by stroke-time testing monthly until they have been modified as described above.

In 1989, the commitment to replace all safety-related Jamesbury butterfly valves carbon steel internals was changed (Reference 4), and stated that:

Instead, for the remaining five valves, monthly stroke-time testing will be conducted to monitor for potential degradation until the stems and wafers are replaced with stainless steel components.

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The remaining five valves containing a carbon steel shaft and/or wafer are:

	<u>Shaft</u> <u>Material</u>	<u>Wafer</u> <u>Material</u>	<u>Location</u>
T4600F402	CS	CS/Nickel Plated	Reactor Bldg. 3rd Floor
T4600F407	SS	CS/Nickel Plated	Reactor Bldg. 3rd Floor
T4600F408	SS	CS/Nickel Plated	Reactor Bldg. 5th Floor
T4800F407	CS	CS/Nickel Plated	Top of Torus
T4803F601	CS	CS/Nickel Plated	Drywell - Approx. Elev. 584 ft.

From Reference 4, the use of stroke-time trending to indicate valve degradation due to corrosion at the valve shaft and bearing (bushing) surface interface is appropriate. As discussed in recent telephone conversations with R. DeFayette and R. Huber of NRC Region III staff, and based on satisfactory valve performance trends, Detroit Edison will be discontinuing the monthly stroke-time testing for the above valves, and instead will be performing quarterly stroke-time testing per the Inservice Test Program for the following reasons:

Valve T4600F402, since January 1985, has been stroked over sixty times with stroke-times in the closed direction from 1.3 to 2.6 seconds, except for a single errant stroke-time of 3.8 seconds in August 1990. Valve T4600F408, since January 1989, has been stroked over twenty-five times with stroke-times in the closed direction from 22.0 to 25.5 seconds, except for two errant stroke-times of 17.7 seconds in July 1989 and 9.8 seconds in December 1989. Also, since July 1989, valve T4600F408 has been stroked over twenty times in the open direction from 9.0 to 11.5 seconds, except for a single errant stroke-time of 2.5 seconds in March 1990. Furthermore, these valves are located in a similar non-corrosive environment as valve T4600F409 (Reactor Bldg. 5th floor), which was inspected and appeared to be in "like new" condition (Reference 4). Based on consistent stroke-times and non-corrosive environments, these valves will be removed from an increased frequency testing schedule.

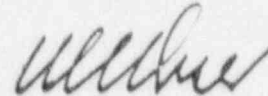
Valve T4800F407, since April 1985, has been stroked over fifty-five times with stroke-times in the closed direction from 2.0 to 4.6 seconds without an errant stroke-time. Also, this valve is located in a less corrosive environment than valve T4800F405 (Torus N<sub>2</sub> Inert.), which was inspected and appeared to be in "good" condition (Reference 4). Valve T4803F601, since January 1989, has been stroked over twenty-five times with stroke-times in the closed direction from 3.4 to 4.0 seconds without an errant stroke-time. Based on consistent stroke-times, these valves will be removed from an increased frequency testing schedule.

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Valve T4600F407 is being worked during the current refueling outage (RPO2) and having its internals removed and replaced with stainless steel. After this work is performed, and following successful completion of the Post Maintenance test, this valve will be removed from an increased frequency testing schedule.

For these reasons, Detroit Edison is revising the commitment to perform monthly stroke-time testing for the four Jamesbury valves which will have carbon steel internals at the end of the second refueling outage. Instead, quarterly stroke-time testing per the Inservice Test program will be conducted to monitor for potential valve degradation. The internals of these valves will be replaced with stainless steel components at a later time when maintenance requiring disassembly of these valves is needed. In addition, if future stroke-time trends show valve degradation, then replacement of internals will be performed as needed. The change in this commitment was confirmed per telecon with Mr. Mark Huber, NRC Region III, on April 1, 1991. If you have any questions please contact Mr. Peter J. Rashid at (313) 586-1495.

Sincerely,



cc: R. W. DeFayette  
W. G. Rogers  
J. F. Stang  
R. Huber  
USNRC Document Control Desk