



OYSTER CREEK NUCLEAR GENERATING STATION  
Forked River, New Jersey 08731

Licensee Event Report  
Reportable Occurrence No. 50-219/76-24-3L

Report Date

October 21, 1976

Occurrence Date

September 28, 1976

Identification of Occurrence

Failure of one (1) torus to drywell vacuum breaker to demonstrate operability. This event is considered to be a 30-day reportable occurrence as defined in the Technical Specifications, paragraph 6.9.2.b.2.

Conditions Prior to Occurrence

The major plant parameters at the time of the event were as follows:

Power:	Reactor, 1389 MWt
	Generator, 627 MWe (g)
Flow:	Recirculation, $56.4 \times 10^6$ lb/hr
	Feedwater, $6.84 \times 10^6$ lb/hr
Stack Gas:	14,700 $\mu$ ci/sec

Description of Occurrence

On Tuesday, September 28, 1976, at approximately 1045, while performing surveillance testing on the fourteen (14) torus to drywell vacuum breaker valves, it was found that one (1) vacuum breaker (V-26-11) failed to demonstrate operability. As part of the surveillance test procedure, it was required to open the valve to the full open position and allow it to close by gravity. When opened, the valve failed to reclose. It is noted that valve V-26-11 was found to be seated prior to testing, as indicated by the valve position indicating system. Following completion of the testing, the valve was secured in the closed position.

Apparent Cause of Occurrence

The cause of this failure is attributed to excess friction on the valve hinge pin due to the growth of the teflon bushing in which the hinge pin rotates.

Analysis of Occurrence

The torus to drywell vacuum breakers are required to open to limit the external pressure of the drywell during post accident drywell cooling operations to the design limit of less than 2 psig. It is required to have twelve (12) of the

fourteen (14) vacuum breaker valves operable to perform this function. Since only one valve was affected, the torus to vacuum breaker system would have functioned as intended. In addition, it is required to have all vacuum breakers closed at the start of pipe break accident to insure proper steam condensation and prevent torus overpressurization. Valve V-26-11 was closed at the time of the occurrence; hence, it would have performed its intended function.

#### Corrective Action

A program has been instituted to modify a portion of the vacuum breaker valves during each refueling outage. The modification provides for replacing the existing hinge pin bushings and shaft seals with ones of a new design which will preclude this type of event from occurring. Valve V-26-11 will be included in the group to be done next outage. The Plant Operations Review Committee recommended that as many valves as possible be modified during refueling outages.

#### Failure Data

Manufacturer: Atwood & Morrill Company  
Type: Check Valve  
Vent Area: 1.75 sq. ft. per valve