NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

| | | |

Attachment To LER 79-01/04T
Beaver Valley Power Station
Duquesne Light Company
Docket No. 50-334

During the current plant shutdown, all four cooling tower pumps were secured. With no cooling tower pumps in operation, flow through the main condenser is reversed due to operation of the turbine plant and reactor plant river water systems. Therefore, any chlorine additions intended for the condenser are backwashed directly to the river without passing through the condenser or the cooling tower.

On January 4, 1979, chlorination was performed in the river water systems and both condenser sections. At 1520 hours, the high alarm on the chlorine analyzer at the outfall structure was received. At 1530 hours, the free chlorine residuals reached a maximum of 2.0 PPM and, at 1610 hours, returned to less than 0.5 PPM.

At 1745 hours, the high alarm was again received and the maximum free chlorine residual measured was 0.65 PPM and, at 1815 hours, returned to less than 0.5 PPM.

Ohio River flow at the time of the incident was approximately 5.4×10^7 GPM, resulting in a dilution factor of 2,000 in the local mixing zone. The high chlorine demand of the river further reduced the effect of the chlorine outside the local mixing zone. No adverse impact to the river ecosystem occurred outside the local mixing zone.

A procedure change was issued requiring chemistry personnel to verify cooling tower pump operation prior to chlorination. An investigation is under way to determine if a suitable interlock can be provided to prevent chlorination when no cooling tower pumps are in operation.