From: "Michael Mulligan" <stmshvl@together.net>
To: "Victor Dricks" <VLD@nrc.gov>, "Deb Katz" <can@sha...
Date: Wed, Jun 14, 2000 8:42 PM
Subject: Generic Concern: running both DG's with the SW discharge header sized for only one DG.

Friends
This is similar to the VY 1991 LOOP and service water flow reduction. Of course the first thing you notice is that at VY and Kewaunee, the Diesel Generator cooling water discharges into a common piping header: so in many of these plants we don't have really have redundant DG's. Any type of blockage of that single header leads to a common mode failure, either man-made as a throttled valve in VY or the design and engineering flaw in Kewaunee. What was that rationale at VY- because the most limiting line-up (DBA) would be a single DG supplying the facility(remember the other DG was assumed to fail), why design the size of the single header with the flow capacity to meet the 100% service water capacity of both DG'S running at the same time-such a waste of money! Besides not being redundant (two independent discharge headers) running two DG's at 100% at the same time wasn't a design feature of service water.

Matter of fact no matter how ridicules it looked, VY in the early years got into trouble with running both DG's in a surveillance at the same time - they discovery the plant didn't have enough SW capacity for this. Then the engineers came back with well the facility was never designed for that. So they put in a prohibition in the surveillance procedures to never run both DG's at the same time because of the shortcoming with the size of the discharge or return header.

Except they have an additional problem. If the grid had a low voltage problem; which has become a national problem with a generic warning, both DG's I think would be proactively started up and loaded in anticipation of a grid failure. The results would be the service water design was not sufficient for both DG's and most likely this would occur during summer times grid emergency-with high ultimate heat sink temps. Additionally I think there would be questions if VY had enough service water pump capacity in it's most tech spec limiting line up that meets the needs of both DG's running at the same time- but it is in the procedure anyway.

Though the years there has been an amazing amount of confusion for the SW in the adequacy of redundancy, proper Tech spec characterization of SW operability and such. And such a simple system.

Thanks

mike

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