

From: <DSTRAKA@apsc.com> Don Straka
To: <atg@nrc.gov> Anthony Coody
Date: 7/2/04 11:43AM
Subject: RE: Testing Performed for Unit 1 ADV 185

Tony:

Our current information on Testing Performed for Unit 1 ADV 185.

Regards,
Don Straka
Senior Consultant - Regulatory Affairs
dstraka@apsc.com
phone: 623.393.5041
pager: 602.509.6240
mobile: 602.509.6240

> -----Original Message-----

> From: Berg, D. Lee (Z99751)
> Sent: Thursday, July 01, 2004 5:11 PM
> To: Straka, Donald J(Z99942)
> Cc: Smyers, Daniel W(Z89227); Fisher, Daniel A(Z99305); Landstrom,
> Carl E(Z98901); Jones, Stephen B(Z02094); Powell, Michael E(Z99700);
> McGhee, Mark A(Z65028); Fernandez, Amado T(Z02065); Muhs, Michael
> K(Z69505); Winter, Christian S(Z01491); Jones, Warren H(Z54741)
> Subject: Testing Performed for Unit 1 ADV 185

>

> Don,

>

> I was asked to update you regarding the testing performed and the
> final outcome for Unit 1 ADV 185. This valve was identified by
> operations as having erratic operation during recovery from the most
> recent trip. It appeared to operations that the valve was changing
> positions with no demand change from the control room. At least one
> time operations indicated that the valve went closed far enough to
> have indications in the control room that it was full closed. To find
> the cause for this issue three revisions to the action plan were
> issued.

>

> Revision 0

>

> ADV 185 was isolated from the steam source and stroked to the 50% open
> position looking for any indication of drifting. Instrument air
> fittings and associated parts were SNOOPed to locate leaks. The valve
> was instrumented to watch I/P signal and valve position.

>

> During the stroking no anomalies were discovered, also no leaks were
> detected.

>

> Revision 1

C/38

- >
- > Under this revision the ADV was stroked with steam using
- > instrumentation monitoring the actuator and valve bonnet pressure.
- >
- > During this stroke the valve again behaved as expected. The bonnet
- > pressure was found to be approximately 10 psig (lower than coming out
- > of the last outage, ~29 psig). The actuator pressures were similar to
- > past traces performed on other ADVs. The valve was held open for about
- > 3 minutes for this test. It was determined that the valve operated as
- > expected.
- >
- > Revision 2
- >
- > This revision combined the previous the action plans with minor
- > modifications. The control system (actuator, positioner, I/P, and
- > demand signal) of the ADV was instrumented to detect any issues that
- > might occur. It was also decided that the stroking would be performed
- > similar to that reported from the area operator during trip recovery.
- > A series of three strokes were performed, as outlined below. All
- > strokes were with steam isolated.
- >
- > * Provide a demand signal of 80% open. When the valve traveled to
- > 20% open change the demand to 30% open. Leave the valve in this
- > position for 20 minutes. After 20 minutes fully close the valve.
- >
- > * The second stroke was the same as the first except the initial
- > demand was 50% open.
- >
- > * The third stroke had an initial demand of 50% open. When the
- > valve achieved 15% open the valve was taken to 20% open. The demand
- > was left at this point for 20 minutes.
- >
- > All three strokes behaved almost identically. The difference between
- > demand and actual position was about 14%. This has been consistent
- > from the time the valve was last calibrated during the U1R11 outage
- > through the series of five strokes described above. When that valve is
- > given a demand there is a normal lag in time prior to the valve
- > moving. This is due to the long tubing run between the I/P and the
- > valve positioner (~110 feet). Once the demand was given the I/P
- > started changing pressure as expected to allow the positioner to port
- > air to the bottom of the actuator to start opening. This function
- > occurred as expected. No anomalies were detected in any of the
- > strokes. At no time did the ADV move from the desired position over
- > any of the three 20 minute time frames.
- >
- > Based upon the response of the valve as seen in the instrumentation
- > response charts ADV 185 is functioning similar to other ADVs observed
- > under the same conditions. The anomalies identified by operations
- > could not be recreated. Engineering cannot find any problem with the
- > operation of this valve or recreate the anomalies reported by

> operations.
>
> In looking at equipment history I/C determined that the positioner is
> approximately 6 years old. Based upon the age of the positioner and
> not being able to recreate the described anomalies it was decided that
> the positioner would be replaced (WM# 2715990) and calibrated. No
> further actions will be performed at this time. When the positioner is
> replaced and calibration is completed operations has indicated the
> valve will be declared operable.
>
> If you have any questions please call me at work or home.
>
>
> Lee Berg
> Work 623-393-3676
> Pager 602-746-2498
>
> "To hike is to live; to hike with family is to live in heaven"
>

CC: <DMAULDIN@apsc.com>, <DSMYERS@apsc.com>,
<DFISHE01@apsc.com>, <CLANDSTR@apsc.com>, <SJONES03@apsc.com>,
<MXPOWELL@apsc.com>, <MMCGHEE@apsc.com>, <AFERNA01@apsc.com>,
<MMUHS@apsc.com>, <CSWINTER@apsc.com>, <WJONES03@apsc.com>