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From: Ellis Merschoff
To: Evangelos Marinos
Date: Tue, Aug 3, 2004 10:31 AM
Subject: Re: UFM

Got it, thanks Angelos.

Ellis

>>> Evangelos Marinos 08/03/04 09:56AM >>>
Ellis,
Attached find the information you requested, with regard to AMAG Strap-On UFM and the Caldon In- line Cordal UFM devices.

Unfortunately we have no information on the Caldon Strap-On devices because we have not formally reviewed these devices for use in Nuclear Plants.

>>> Ellis Merschoff 08/02/04 12:35PM >>>
Thanks Angelos. I want to map the calibration loop and the insitu application on a Moody diagram. Thus I need the reynolds number and roughness assumptions for the Aldon calibration work, and the assumed in plant flow environment for all three types of flow meters, AMAG, Caldon strap on, and caldon cordal.

Right now I just need the data. If my suspicion is correct, it will show these devices were calibrated in a flow transition regime, but operated in a fully developed flow regime. I suspect this is our best arguemnt for the Bulletin, but I need to be sure were these points lie on the Moody diagram.

Ellis

>>> Evangelos Marinos 08/02/04 09:31AM >>>
Ellis,
Iqbal and I would be available at your convenience, including after normal working hours, to walk you through the documentation and leave with you what you feel you need for further review. I feel this would be most expeditious. I am leaving for the Olympics August 9th and returning September 2nd but plan to be here the rest of the week. Igbal will be here , however, for any further assistance you may need. Incindently, the Reactor Systems Branch has assigned Yuri Orechwa, a fluid dynamics expert, to assist us. I believe he could be available also.

>>> Ellis Merschoff 07/30/04 07:05AM >>>
Angelos,

Please forward me the reynolds number at which the laboratory calibration work was done and the calculated reynolds number for the in plant application for:

1. AMAG
2. Strap on caldon
3. Caldon Cordal device

Also, if known the pipe roughness assumed for both applications

Thanks,

Ellis

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AMAG Strap on UFM Test Data

Facility	Reynolds No.	Friction Factor
Alden Lab.	$7x10^6$	0.0326
Toshiba Lab.	$26x10^6$	0.0297
Catawba N.P.P.	$11x10^6$	Unknown
Sharon Harris N.P.P.	$15x10^6$	0.0308
Diablo Canyon N.P.P.	$25x10^6$	0.0298
San Onofre 2&2 N.P.P.	$20x10^6$	Unknown
McGuire N.P.P.	$13x10^6$	Unknown
Kewaunee N.P.P.	$20x10^6$	0.0302

Caldon In-Line Cordal UFM Test Data

Facility	Reynolds No.	Friction Factor
Alden Lab.	$7x10^6$	Qualitative Statement