

December 5, 1983

~~PROPRIETARY~~
INFORMATION

MEMORANDUM FOR: E. Gunter Arndt, MSEB, DET, RES

FROM: F. Maura, Rx Inspector, Region III

SUBJECT: YOUR REQUEST FOR THE REVIEW OF REYTLATT'S VERSION OF
ANSI/ANS 56.8-1981 (PROPRIETARY)

I have completed the requested review and in general I do not find much to be gained by the purchase of Mr. Reytblatt's version of ANSI/ANS 56.8-1981. While some paragraphs are an improvement over the present standards, others I find confusing or as weak as the standard. Because of time limitations I was not able to dedicate the effort necessary to reach a conclusion on whether Mr. Reytblatt's method of calculating the containment leakage rate is any better than the ANSI 56.8 method. In any case that is an area where it may be desirable to run some actual cases to show whether it makes a significant difference or not. Regarding Type B and C testing I was surprised to see no improvement over the present standard since I have always considered this area to be the weakest part of the standard, the one most abused by licensees, and the least inspected by the NRC.

DONE FOR
LASALLE 2
CIAT
AT 40°
EARD
0.3°R
~0.05%
EARD
IN TEMP

The following are some specific comments regarding Mr. Reytblatt's documents:

- Paragraph 3.2.1.4 System Venting and Draining - Has the same problems as the present standard. Both fail to describe how the Type C test results are added to the Type A test results. To what confidence level, if any, are the results added? (Type A results are given to the 90% confidence level, individual Type C results with the instrument system error only.)
- Paragraph 3.2.1.7 Type A Test Environment - It is not clear to me whether it applies to the temperature inside or outside containment. Why 80°F?
- Paragraph 3.2.4.1 Type A Test Frequency - Poor working. I assume he wants the same as ANSI 56.8.

- Paragraph 4 Instrumentation - I prefer his version of 4.1.1.4 than the present standard, however, Paragraph 4.1.1.5 for flowmeters should be worded in terms of La to ensure that resolution and repeatability are as good as the required instrument accuracy and sensitivity. They are not in his version. Should be used if free.
- Paragraph 5.1.1.3 Pressure Sensors - Having two pressure sensors at different elevations may be of academic interest, however, what happens when the two pressure readings are different (within or outside the accuracy of the sensors)? The standard does not state whether they are to be averaged, weight averaged, or what? We already get different readings when both sensors are on the same instrument tap. And so what, as long as the changes are constant, within the instrument accuracy, sensitivity, and repeatability.
- Paragraph 5.2.1 Hardware Calibration - Better than ANSI 56.8, however, not as good as our proposal to you dated August 6, 1982.
- Paragraph 5.2.2 Software Calibration - Confusing, I am not sure what is to be done since containment can not be isolated from the environment.
- Paragraph 5.2.2.1 It is not clear to me how this will determine if the weight factors are correct. It appears that depending where one injects or bleeds may influence one or two sensors but not necessarily the rest.
- Paragraph 5.3.2 Depressurization - I see not much benefit for the effort required.
- Paragraph 5.3.4 Temperature Control - I like the idea of having no fans operating during the test. If the weighting factors have been correctly determined, mixing is not really needed. Operating fans have always bothered me because I have no way of determining their effect on the results. His suggestion should be used if free.
- Section 6 Test Procedures for Type B and C Tests - Very similar to the present standard to the point that it even allows the use of the "air discharge from the test volume" flowrate method which I strongly oppose.
- Both versions are also silent on equalization time and test duration for the range of volumes tested (from very small volumes of ~~one~~ one cuft to airlocks of hundreds of cuft).

~~Proprietary~~
Information

E. Gunter Arndt

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I apologize for not giving you my comments sooner. Enclosed I am returning to you the material you sent for my review. No copies were made of any of the material.

Original signed by F. A. Maura

F. A. Maura
Rx Inspector

cc: L. Reyes