March 1, 1964

Dr. Harding Bliss
AIChE Journal
Yale University
New Haven, Conn.

Dear Dr. Bliss:

Thank you for being kind enough to forward the negative reviews to me. I am not nearly so disappointed as you may think, as I have begun to receive as much good news as bad of late. Be that as it may, I would like to give you the benefit of my review of the reviews.

Review #1 No name given

1. The reviewer attributes the statement to me that I have criticized others for believing that free convection is nucleate boiling. I have done no such thing. I have stated that the pool boiling curve is always drawn including the free convection region whereas this region should be excluded because it does not satisfy a reasonable definition of boiling.

2. I claim "surprising unanymity" concerning the equation Q/A proportional to delta T cubed, whereas the reviewer says thisis unsupported. I now quote from page 117 of Modern Developments in Heat Transfer by Ibele (1963) in which this section was written by Rohsenow:

> Although the slope is predominantly in the neighborhood of 3, observations are available with resulting slopes of as low as unity for contaminated surfaces and as high as approximately 25 for very clean surfaces.

This section ~~yyy~~ of the book purports to be a review of the recent work in boiling by Rohsenow who is accepted as more or less of a knowledgeable person in this field.

3. His third comment is not much different from the second.

4. The reviewer is kidding if he means to imply that he would be convinced by seeing two or even twenty sets of data which give straight lines.

To summarize, the reviewer does not know whereof he speaks. As time passes, he will come to know that. Really, he has missed the point of the paper which is to indicate that plotting points on log log paper does not result in conclusive evidence of the non-linearity even when the data appear to result in a straight line. If you will simply reflect for a moment, you will realize that no one has ever done anything else to demonstrate this non-linearity except plot on log-log paper.

I enclose a letter to Rohsenow because I would like to give him the benefit of my review of his review. Since I do not know whether this would violate a trust, I am forwarding the letter on to you that you may either return it to me or send it on to Rohsenow as I request.

Perhaps I should take my manuscripts to those magazines at which I have had better success. It is indeed strange that there should almost invariably be such strong resistance to the right answer and such weak resistance to the wrong answer.

With best personal regards.

Sincerely yours,

Eugene F. Adiutori

P. S. Your first reviewer berates me for leaving names unsaid. This was part of my plan to avoid embarassing anyone, but apparently that is the price one must pay.

March 1, 1964

Dr. Warren M. Rohsenow, Professor
Mechanical Engineering
MIT
Cambridge 39, Massachusetts

Dear Dr. Rohsenow:

Thank you for reviewing my manuscript entitled

Nucleate Boiling--The Relationship Between Heat Flux and Thermal Driving Force

and which you recommended against publication.

You state that you disagree with my conclusion (which disagreement places you with the majority) and you request that I plot up some data and that this might show you and myself something interesting. In point of fact, I have done just that, although I did not see fit to place such plots in the manuscript. That you and I may reach agreement in this matter, allow me to indicate that I plotted up a good deal of the data from the following two widely accepted reports:

Berensen's report on transition boiling (1960)

The report by Cichella and Bonilla

It will no doubt amaze you as I myself was amazed, but I was unable to find any non-linearity in the data from the above reports. It is true that the data plots up quite well on log-log paper, but as my manuscript points out, this is simply a mirage and the same data plots up beautifully on linear paper. I showed such plots to Dr. Bonilla and he shared my amazement, although he seemed inclined to believe that both methods are correct.

I therefore make you the following offer:

If you will send me the coordinates of five runs of Berensen's which you will select, I will plot them up and send you copies that we may reach a rapport in this matter.

I am sure that we both agree that the per se importance of this particular point is far from earth shaking. However, we can never expect to improve our understanding of the boiling process as long as we insist on retaining the incorrect functionality between the important variables.

I look forward to hearing from you in this matter which interests both of us. I should also add that you are in store for several surprises if you plot up some of Berensen's data yourself.

Thank you for your interest in my manuscript.

Sincerely yours,

Eugene F. Adiutori
President

EA/mh