

ASHRAE 90 - A Historical perspective

Roderick Kirkwood, who became ASHRAE President in 73-74 discovered that the Bureau of Standards was working on a building energy conservation standard. There was no Dept of Energy back then. Kirkwood volunteered ASHRAE assistance in December, 1973. The Bureau said they would “like us to look at the standard they had done and provide our input.” So, he sent copies to all Tech Committee Chairs

At the January 1974 Los Angeles meeting, ASHARE members had unhappiness with what they had read. They held a meeting and so many members wanted to attend that they had to move to a portion of the Convention Hall for a few hundred people. The meeting lasted several hours with the conclusion that what the Bureau had done was absolutely impossible to do. So, the Bureau came to Kirkwood and said maybe it would be better if ASHRAE wrote the standard. He suggested that maybe they could use the Bureau’s standard as reference material but we had to conform to ASHRAE Standards process. They wanted the draft by September of that year. It was urgent with long lines at the gas pumps and people upset over energy.

ASHRAE got its Standards Committee together and set up an organization. The Bureau ultimately wanted a Standard, probably national or even international. ASHRAE didn’t write code at that time. Then the question of funding meant a Board of Directors discussion; ultimately the only costs were for publishing since member participants paid their own costs and no government funds were available. This was already in the Spring of 1974 for a project that had to be done by September.

Around 150 ASHRE members worked on the Standard. They requested IES do the building lighting component and AIA do the building envelope. Meetings were moved around the country so those attending would sometimes have short trips and sometimes long. And in 90 days, a draft was completed although there were complications. Some wanted to cover existing buildings as well as new but “we couldn’t require someone in a glass building to cover it with insulation.” So it focused on new construction.

Halfway thru the effort, AIA decided they didn’t like that this was an ASHRAE Standard. AIA wanted to call this a “principles of practice” but that designation

does not exist within ASHRAE. There was no compromise so, AIA took their people out of the development and the ASHRAE members took the half completed building envelope section and finished it

The final draft was done by the end of June, but it took over a year to complete the peer reviewed audit. Since then, ASHRAE 90.1 has been reviewed and updated on about a 4-year cycle. The original 90 designation was due to this being the next Standard number. 90.1 ID came with the first review and rewrite.

As an aside, creation of 90 put ASHRAE front and center both globally and in the US. ASHRAE developed a Washington office although selling ASHRAE 90 to Congressmen and Senators was very difficult. Government is about big money, and ASHRAE was doing this for free. They weren't interested in the "piddle little money." The Bureau of Standards accepted our work then and has done so for each update since. IES is still with us but AIA is not, although they do use our Standards to design and build commercial structures.

Overall, ASHRAE 90 was designed to save 50% of new building energy. And the public received the benefit for free. Furthermore, Kirkwood notes he went to a meeting in the Bahamas where they thought he was part of the ashtray group. They were serious, but today ASHRAE is well known. As a result of 90, ASHRAE hired a PR firm and that resulted in name recognition as well as rapid membership growth that continues today, except for a COVID interruption.

Many people think that energy standards come from the federal government, particularly since the Dept of Energy was established. But they actually come from the Engineering Profession.

And I lived thru this because my father, in 1973, was one of the key ASHRAE member collaborators on Standard 90. Decades later I oversaw the completion of 90.1-2015 as Chair of Technology Council.

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