

U.S. Department of Energy, Office of Building Equipment Fuel Cell Summit

Summary

The Fuel Cell Summit was held on April 29 and 30, 1997, at the Hyatt Regency Washington on Capitol Hill. PNNL sent invitations to more than 100 individuals and organizations interested in fuel cells. Fifty-three people attended, representing those involved with various codes and standards activities; manufacturers and their suppliers; utilities and energy services consultants; and government agencies. Based on pre-summit feedback and the results of an attendee evaluation, the summit was termed "unique," "a first," and clearly a DOE-OBE success.

The purpose of the summit, in keeping with the mission of the Office of Building Equipment (highlighted at the outset of the presentations) was to foster an effective and supportive environment for implementation of stationary fuel cell power plant (SF CPP) technologies, through the timely adoption of codes and standards. Codes and standards include product rating and testing, performance, and health and life safety criteria. There are currently four separate U.S. codes and standards development efforts underway, under the auspices of four different voluntary sector standards organizations. Without coordination of these efforts, they could easily conflict and serve to stifle technology development and implementation. A variety of fuel cell power plants (5 kilowatt to megawatt size) were discussed, and no attempt was made to limit discussion to any particular fuel cell technology.

The generic description of the technology is intentional, to maintain neutrality among the competing fuel cell designs. In addition, a variety of sizes of fuel cell products were discussed, and no attempt was made to bracket discussion around power generation capacity.

The objectives of the summit were to:

- raise the level of awareness about codes and standards that could impact SF CPP technology;
- assure an understanding of relevant current and planned activities by standards developers, government, manufacturers, utilities, and independent power producers;
- provide an opportunity to cooperatively determine the most effective use of codes and standards in fostering the application of SF CPP technology: and to
- begin efforts to coordinate future activities for the development of integrated SF CPP codes and standards among codes and standards developers so as to benefit the industry.

To accomplish these objectives, the summit combined overview presentations with detailed discussions in break-out groups. Break-out groups were organized around three topics: performance and comparability; power output and grid connection; and building integration, fire, and life safety.

By the end of the Fuel Cell Summit, participants had developed a coordinated plan for SF CPP codes and standards. They had: identified customer needs for codes and standards for stationary fuel cell power plants; identified 17 end-products from codes and standards activities; prioritized and in some cases combined end-products; and identified lead and supporting organizations to develop those end-products.

The great majority (over 90%) of participants agreed that the summit met its stated objectives. The general tenor of comments emphasized the helpfulness of the summit in increasing awareness of the importance of codes and standards, and for the identification of "sticky" points and activities needed to address them. Participants also said that this is a start on a "must do" activity with much more to do, and which must be treated "seriously and expeditiously" if the

technology is to be successful in the marketplace. Future OBE sponsored efforts will need to address concerns about the complexity of the issue, and the need for "hard decisions" to be made.

Chronology:

It's important to note that April's fuel cell summit followed many months of dialogue with individuals at the Department of Energy (both DOE and METC), codes and standards organizations, utilities, and manufacturing companies.

The first formal effort to convene a group of individuals to discuss and begin to coordinate codes and standards activities was in September, 1996. David Conover, PNNL senior program manager, sent a memorandum to a select group of individuals involved with SF CPP technology, in which he proposed a meeting on November 19, 1996, in conjunction with a Fuel Cell Seminar that took place November 17-20 in Orlando, FL. While response to the memo indicated general interest in the topic, the suggested date and time was felt to be too constrained within the already full seminar, and the idea was put on hold.

Formal planning for a spring-time meeting began in December 1996. Tentative dates were selected, and PNNL began building an invitation list, which totaled more than 125 organizations. During January, OBE/PNNL selected final dates for the hotel; PNNL placed a hotel contract to accommodate the Summit, and placed a subcontract with Rich Zelinski as the Summit facilitator. Rich Zelinski was recommended by PNNL's Bruce Kinzey, based on Mr. Zelinski's prior work for Ron Fiskum and knowledge of building equipment and related technologies, including fuel cell power plants.

An initial letter of invitation outlining the objectives of the Summit was issued shortly thereafter. Feedback from the initial letter indicated that individuals were waiting to see who else was invited and what the complete agenda encompassed before deciding whether to attend. PNNL issued a second letter of invitation on March 3, which included a preliminary agenda, "backgrounder," and list of invitees. As RSVPs continued to come in, we surpassed our expectation of 40 attendees to a total of 50-plus confirmed participants.

On March 24, PNNL faxed a memo to confirmed participants asking for their input on codes and standards activities, customers, and customer needs. The replies were for the most part very substantive, and were compiled into a piece titled "Here's What You Told Us" that was distributed in packets prepared for the summit. This memo also requested preferences for participation in break-out groups.

Additional preparatory work for the Summit took place during April, such as lining up individuals to present overview information on current codes and standards activities; finalizing the protocol and preparatory materials for break-out group discussions; and preparing packets for attendees.

The summit was held on April 29 and 30. A follow-up mailing of results and continued dialogue to implement the plan is expected before the end of May.