

May 28, 1999

Dear Colleague:

The Nuclear Utility Meteorological Data Users Group (NUMUG) held its sixth meeting in Syracuse, New York, on May 13-14, 1999. This meeting was hosted by Niagara Mohawk Power Corporation.

The mission of NUMUG is to provide a forum to address problems and exchange ideas for those collecting and utilizing meteorological data at nuclear facilities. The Steering Committee will continue to pursue this mission and try to meet the needs of the Nuclear Meteorological Professionals nationwide.

As a summary of the meeting activities, the following information is enclosed:

Enclosure 1) Meeting Highlights

Enclosure 2) Business Meeting

Enclosure 3) NUMUG Charter

Enclosure 4) Steering Committee Members

Enclosure 5) NUMUG List Service Instructions

Enclosure 6) NUMUG Mailing List

There are still some copies of the meeting preprint available. If you did not get to attend the meeting or would like an additional copy, please contact Bob Yewdall (robert.yewdall@pseg.com, 609-339-2469) for copies. The NUMUG survey information is available in electronic format from Ken Wastrack (kgwastrack@tva.gov, 256-386-3835).

We thank all who attended the Syracuse meeting. The Steering Committee welcomes comments and suggestions on how to improve NUMUG meetings in the future.

Sincerely,

Kenneth G. Wastrack
Outgoing Chairman, NUMUG Steering Committee
Enclosures

Enclosure 1
Meeting Highlights
NUCLEAR UTILITY METEOROLOGICAL DATA USERS GROUP
Syracuse, New York
May 13-14, 1999

The sixth meeting of the Nuclear Utility Meteorological Data Users Group (NUMUG) was held May 13-14, 1999, at the Sheraton Hotel and Conference Center in Syracuse, New York. Niagara Mohawk Power Corporation hosted the meeting which was attended by 47 individuals representing utilities, private contractors, consulting firms, equipment manufacturers, state agencies, and Department of Energy facilities. Attendance is noted on the enclosed Mailing List (Enclosure 6).

KEYNOTE SPEECH

Mr. Carl Terry, Vice President for Nuclear Safety and Assessment (Niagara Mohawk Power Corporation) was the keynote speaker. He addressed dealing with the future of nuclear power and stressed the need for organizations like NUMUG to exchange information, even in a competitive environment.

MEETING CONTENTS

During the meeting, information was conveyed concerning a wide variety of topics using several different formats.

Technical Presentations

The NUMUG Steering Committee members served as moderators for 15 presentations.

1. A New Meteorological Data Acquisition System of Savannah River Site.
Matt Parker, Westinghouse Savannah River Company
2. An Overview of PM_{2.5}.
Tom Merrifield, Met One Instruments, Incorporated
3. Sonic Anemometers Now Meet NRC Requirements.
David Katz, Climatronics Corporation
4. Comparison of In-situ Data from Handar Sonic Anemometers and the Met One Cup and Vane.
Frank Gouviea, Lawrence Livermore National Laboratory
5. New Advances in Sensors, Equipment Self-diagnostics, Communications, and Data/Information Sharing.
Pat Kelly, Coastal Environmental Systems

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6. Configuration Management for Meteorological Monitoring.
Doyle Pittman, Tennessee Valley Authority
7. DMCC Assist Visit Program.
Darryl Randerson, NOAA-Air Resources Laboratory-SORD
8. Quality Assurance Methods for Ground-Based Meteorological Remote Sensors.
Bob Baxter, Parsons Engineering Science
9. A Methodology for Calculating Meteorological Channel Accuracies.
Brad Harvey, Duke Engineering
10. Display of RSM Model Results on an Internet Web Site.
Ken Wastrack & Doyle Pittman, Tennessee Valley Authority
11. Disseminating Your Meteorological Data to the Local National Weather Service Office.
Tom Bellinger, Illinois Department of Nuclear Safety
12. A GIS/Weather Decision Support System.
Tsengdar Lee, Litton PRC, Incorporated
13. Application of ARCON96 to Browns Ferry Nuclear Plant Habitability Demonstration.
Carl Mazzola, Stone and Webster
14. The Inland Penetration of the Lake Breeze along the Western Shore of Lake Michigan.
Tom Bellinger & Bob Wonderling, Illinois Department of Nuclear Safety
15. Ethics and Common Sense in Measurement.
Tom Lockhart, Meteorological Standards Institute

Panel/Group Discussions

- a. Instrumentation--Three individuals described instrumentation problems for group discussion and suggestions of possible solutions.
 - Mark Abrams, rain effects on temperature instrumentation.
 - Rich Wooley, wind vane fluctuations during some high wind conditions.
 - Tom Galletta, temperature aspirators indicated as not operating during high wind conditions.
- b. Data Display--A group discussion about data display was conducted as a follow-up to technical presentations.

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- c. Effects of Deregulation and Future Trends--Three individuals presented perspectives.
 - Gene Shelar discussed deregulation in California and how Pacific Gas & Electric is responding.
 - Brad Harvey discussed deregulation in New England and how he personally was affected by changes in the nuclear industry.
 - Doyle Pittman discussed how deregulation and industry changes will affect NUMUG.

Vendor/Poster Displays

- a. Climatronics displayed their sonic anemometer.
- b. Coastal Environmental Systems displayed information about their data handling systems.
- c. Matt Parker (Westinghouse Savannah River Company) provided poster-type information about a methodology for detecting corrosion impacts on meteorological towers. This was as a follow-up to his presentation at the previous NUMUG meeting in South Bend.

Reports concerning NUMUG "Projects"

- a. Carl Mazzola (substituting for Stan Marsh) provided a status of ANS-3.11, the new meteorological monitoring national standard.

The standard development process has reached the final round of technical comments. Once these comments are resolved (hopefully in June 1999), there will be additional rounds of administrative review and approval. Carl indicated that the final approval of ANS-3.11 may occur by autumn of 1999. Carl noted that comments received in this last round of technical review included comments from Nuclear Regulatory Commission (NRC) staff. Therefore, if the NRC comments can be addressed satisfactorily, it is likely that NRC will formally endorse the new standard as a replacement for Regulatory Guide 1.23.

- b. Ken Wastrack presented the second edition of the NUMUG Survey.

The second edition of the survey was intended to expand on the original survey by adding Department of Energy (DOE) sites and providing additional information about work practices. The information was valuable and filled in various gaps. Because of the volume of information, Mr. Wastrack distributed diskettes that contained files related to the survey (survey data spreadsheet, survey report, and survey presentation all in pdf format). Copies of these diskettes or other files used for the survey (including copies of the original survey) can be obtained by contacting Mr. Wastrack (kgwastrack@tva.gov, 256-386-3835).

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In discussing the survey, it was noted that the number of responses were not as high as was desired. Also, it was noted that the survey process needs to be ongoing to reflect continuing changes. In follow-up individual discussions, it was noted that the complexity of the survey was a factor in the low response rate. It was proposed that a continuing process of small surveys (each targeting on a specific aspect) might improve the response rate.

SOCIAL ACTIVITIES

Niagara Mohawk Power Corporation (Tom Galletta) provided social opportunities which allowed attendees to network with existing and new contacts. A Wednesday evening (May 12) welcoming reception, in the Sheraton Hotel, was highlighted by hors d'oeuvres and an informal meal. Thursday evening social activities consisted of a visit to the Museum of Science and Technology (MOST) for hors d'oeuvres and hands-on exhibits, followed by dinner at Pascale's Wine Bar & Restaurant. Great food and conversation were enjoyed by all.

ADDITIONAL MEETING-RELATED ACTIVITIES

The Meteorological Standards Institute (Tom Lockhart and Bob Baxter) conducted a workshop based on the latest *EPA QA Handbook, Volume IV, Meteorological Measurements* at the Sheraton Hotel prior to the NUMUG meeting. Several NUMUG members attended the workshop.

At the conclusion of the NUMUG meeting, Carl Mazzola discussed the latest technical comments concerning ANS-3.11 and made assignments to ANS-3.11 writers to develop responses.

It was evident that NUMUG meeting attendees comprise a wealth of experience and knowledge in the areas of meteorological data collection and application. The continued exchange of information initiated through this meeting should prove to be beneficial to the nuclear industry and beyond.

Enclosure 2
Business Meeting
NUCLEAR UTILITY METEOROLOGICAL DATA USERS GROUP
Syracuse, New York
May 14, 1999

The NUMUG Business Meeting, at the completion of the second day, addresses the following items:

1. Steering Committee Members (Enclosure 4)

Two members leaving the steering committee are Matt Parker of Westinghouse Savannah River Company and Ken Wastrack of TVA.

Continuing member of the steering committee are Bob Yewdall of Public Service Electric and Gas Company, Mark Abrams of PLG, Incorporated, and Dan Mihalik of American Electric Power.

Two new members joining the steering committee are Paul Fransioli of the Yucca Mountain Project and Woody Whitlatch of Pacific Gas and Electric.

Bob Yewdall will replace Ken Wastrack as NUMUG chairman.

2. The NUMUG membership recognized Niagara Mohawk (specifically Tom Galletta and Joe Blakely) for the excellent efforts in handling the local arrangements for the meeting. The NUMUG Steering Committee was recognized for organizing the meeting.

Group feedback indicated that the content, location, cost, etc. for the meeting was very good. The only adverse comment was that the meeting and related activities were somewhat intense and that future meetings should be structured to reduce the number of presentations or be expanded to another day. Inclusion of instrument manufacturers was appreciated since it allowed for opportunities to examine the state-of-the-art in instruments while providing user feedback.

The steering committee felt that dividing up the responsibilities for meeting preparation among several individuals work well. The use of e-mail helped considerably in meeting preparation.

The issue of the registration fee was discussed since there was concern that it may be difficult to find future hosts willing to subsidize meeting facilities and social activities. Tom Galletta estimated the cost at about \$9,300 (of which about \$6,300 was offset by registration fees), not including preprint preparation costs which were covered by Public Service E&G. Tom felt that the costs could have been significantly reduced by eliminating or reducing some of the social activities. However, the membership felt that the social activities were a major factor in the success of the past meetings. The group agreed that the registration fee (\$150 for the Syracuse meeting) was not very high when compared with travel and lodging expenses. Raising the registration fee to \$200-\$225 or selling sponsorship to vendors, might help reduce expenses in future meetings.

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Business Meeting
NUCLEAR UTILITY METEOROLOGICAL DATA USERS GROUP
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3. Ken Wastrack discussed the membership composition of NUMUG.

The efforts to acquire more representation from utilities were considered successful since meeting announcements were mailed to 46 of 47 utilities with nuclear power plants. Further, announcements in the Bulletin of the American Meteorological Society resulted in several inquiries from vendors and individuals from outside the United States.

The issue of broadening NUMUG membership beyond the nuclear power industry was also discussed. It was agreed that while informal participation by regulators in NUMUG would not be discouraged, it was felt that NUMUG "conversations" are much more candid when regulators are not present. Although no formal global links have been established, the Syracuse meeting included at least one individual from overseas.

4. Steering Committee Charge.

The current steering committee felt that it has adequately addressed the charge established at the South Bend meeting.

- a. The Syracuse meeting included time periods specifically set aside for open discussions.
- b. The efforts to broaden membership were successful since virtually all utilities were provided information about NUMUG and information was made available outside of the nuclear power industry.
- c. The Syracuse meeting continued the 18-month frequency for NUMUG meetings.
- d. A revised NUMUG survey was conducted and summary report prepared.

The charge for the new steering committee was established.

- a. Continue to conduct meetings on about an 18-month frequency.
- b. Update the NUMUG mailing list to reduce it to a more manageable size while maintaining an adequate list of current industry contacts.
- c. Analyze the impact of ANS-3.11 implementation.
- d. Continue to periodically update the NUMUG survey. However, instead of a large comprehensive survey, conduct a series of smaller surveys and use electronic capabilities where possible.
- e. Investigate the use of a "list server" or other world-wide web presence to distribute NUMUG information.

Follow-up note: Frank Gouveia has set up a list service for NUMUG. See Enclosure 5 for instructions.

- f. Consider lengthening the NUMUG meeting slightly.

Enclosure 3

CHARTER

Nuclear Utility Meteorological Data Users Group

1. Name

- a. The name of the group is the Nuclear Utility Meteorological Data Users Group (NUMUG).

2. Mission and Objectives

- a. To provide a forum to address problems and exchange ideas for those collecting and utilizing meteorological data at nuclear facilities.

3. Membership

- a. Membership is open to any individual interested in pursuing the mission and objectives of the group. Individuals interested in membership should inform a member of the Steering Committee who will add their name to the membership roster.

4. Steering Committee

- a. The management of the group is vested in the Steering Committee. The steering committee shall consist of five members, with at least three members representing U.S. utilities.
- b. A term on the Steering Committee is defined as the period of time between group meetings. Steering Committee members should not serve more than two consecutive terms.
- c. New members of the steering committee are to be chosen from membership volunteers by the existing Steering Committee during group meetings.
- d. Responsibilities of the Steering Committee include:
 - Soliciting industry-wide representation and participation.
 - Maintaining and distributing a Membership Roster.
 - Soliciting suggestions for group activities.
 - Implementing group activities.
 - Keeping membership informed of group activities via newsletters and group meetings.
 - Planning and publicizing group meetings.

Enclosure 3

CHARTER

Nuclear Utility Meteorological Data Users Group

5. Finances

- a. No dues shall be collected by the group and the group shall accumulate no assets. It is expected that group members and their sponsoring organizations will voluntarily contribute the time and resources required to manage group activities between group meetings.
- b. Registration fees can be charged for attendance at group meetings to offset costs associated with implementing group meetings.

6. Meetings

- a. Group meetings should be held every one to two years. The location and agenda of group meetings are to be determined by the steering committee.

7. Amendments to the Charter

- a. Amendments to this charter can be proposed by any member in attendance at any group meeting. Amendments can be implemented by a consensus vote of the members in attendance.

Enclosure 4

Nuclear Utility Meteorological Data Users Group
Steering Committee Members
(Nominated May 14, 1999)

Bob Yewdall (remaining member and Chairperson)
Public Service Electric & Gas Company
P. O. Box 236
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Mark Abrams (remaining member)
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Paul Fransioli (new member)
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Enclosure 5

Nuclear Utility Meteorological Data Users Group List Service Instructions

Frank Gouveia of Lawrence Livermore National Laboratory has set up a List Service for the Nuclear Utility Meteorological Data Users Group (NUMUG). Individuals can subscribe to the List Service as a means to keep informed of NUMUG activities. Anything that is E-mailed to the List Service will be automatically distributed to all subscribers. The primary advantage it provides is that the individual subscribers will not have to maintain mailing lists of their own.

To subscribe to the List Service, send an E-mail message to Majordomo@lists.llnl.gov from the computer that will be subscribed. The body of the message must include the following line (and nothing else):

subscribe numug

To post e-mail messages, send an E-mail message to:

numug@lists.llnl.gov

The E-mail will be automatically distributed to all subscribers.

Replies to the E-mails are distributed to all subscribers, too.

To get a short list of the commands that are available on the List Server send an E-mail message to Majordomo@lists.llnl.gov. The body of the message must include the following line:

help

To list the current subscribers to the List Server, send an E-mail message to Majordomo@lists.llnl.gov. The body of the message must include the following line:

who numug

If you need further assistance, please contact Frank Gouveia (gouveia2@llnl.gov, 925-423-2052).