



ANSI/ANS-3.11
Determining Meteorological
Information at Nuclear
Facilities

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ANSI/ANS-3.11

- ◆ **Purpose** Report on ANSI/ANS-3.11, a new Standard for Determining Meteorological Information at Nuclear Facilities, Sites and Existing.
- ◆ **Objective** Develop a standard which reflects the current operational and regulatory climate and incorporates state-of-the-art data acquisition, processing, and recording technology for all nuclear facilities nationwide.

ANSI/ANS-3.11 Goals

- **Integrate the meteorological monitoring requirements and practices of the civilian nuclear power industry with those of Federal government nuclear facilities.**
- **Construct a new standard to replace ANSI/ANS-2.5 which clarifies existing issues and provides additional guidance without imposing new requirements.**
- **Develop the most technically sound, state-of-the-art standard without consideration of regulatory forcing functions.**



Why Replace ANSI/ANS-2.5?

- **No longer active per ANS Standards rules**
- **Technically outdated**
- **Emphasizes siting, not operation of nuclear facilities**
- **Does not reflect current in situ meteorological instrumentation standards**
- **Does not consider remote sensing technology**
- **Does not reflect state-of-the-art data acquisition, processing, and archiving technology**
- **Inconsistent with USEPA and ASTM guidance**
- **Addresses only civilian nuclear power plants and not all non-reactor nuclear facilities**
- **Does not address meteorological program life cycle considerations**
- **Does not fully address complex terrain siting and operational issues**
- **Inconsistent with NEXRAD, ASOS, EPA, and ASTM guidance**

ANSI/ANS-3.11 Design Criteria

- **Replace ANSI/ANS-2.5, not just revise it.**
- **Applicable to both civilian nuclear power industry and Federal Gov't nuclear facilities.**
- **Applicable to meteorological monitoring supporting siting, licensing, operation, emergency response, decontamination, and decommissioning of nuclear facilities.**
- **Reside in ANS-3.0, Operations.**
- **Rely on existing, technically sound, meteorological guidance.**
- **Develop new guidance only where necessary.**
- **Stand alone, technically sound document.**

ANSI/ANS-3.11 WG PARTICIPANTS AND STRUCTURE

WG ELEMENT I: CHAIRMEN

OVERSIGHT AND FACILITATION

NUMUG Rep:
DMCC Rep:

Stan Marsh (SCE)
Carl Mazzola (SW)

WG ELEMENT II: TECHNICAL RESEARCHERS AND WRITERS

DEVELOPMENT OF TECHNICAL MATERIALS

Mark Abrams
Bob Banta
Tom Bellinger
Paul Fransioli
Brad Harvey
Stan Marsh
Carl Mazzola
Matt Parker
Ken Wastrack

Vendor
Fed Research
Fed Pgm
Consultant
Util Pgm Mgr
Util Pgm Mgr
Consultant
Fed Pgm
Util/Fed Pgm

PLG
ERL/ETL
IDNS
SAIC
DESI
SCE
SW
WSRC
TVA

ANSI/ANS-3.11 WG PARTICIPANTS

WG ELEMENT III: PEER REVIEWERS


Rob Addis	Fed Pgm Mgr	WSRC
Ron Baskett	Fed Pgm Mgr	LLNL
Leta Brown	Regulator	NRC
Bruce Carson	Util Pgm	PP&L
Tom Coulter	Regulator	EPA
Jerry Crescenti	Fed Pgm Mgr	INEEL
Jim Fairobent	Fed Pgm	DOE/SO
Jim Holian	Consultant	SAIC
John Irwin	Regulator	EPA
Bob Kornasiewicz	Regulator	NRC
Stanley Krivo	Regulator	EPA IV
Tom Lockhart	Consultant	MSI
Doyle Pittman	Util Fed Pgm	TVA
Darryl Randerson	Fed Pgm Mgr	NTS
Gene Shelar	Util Pgm	PG&E
Irv Spickler	Fed Pgm	DOE/EM
Bob Swanson	Consultant	CCC
Ping Wan	Consultant	Bechtel
Marvin Wesely	Fed Pgm	ANL
Bob Yewdall	Util Pgm Mgr	PSE&G

ANSI/ANS-3.11 Milestone Summary

Apr 93	Comments on ANSI/ANS-2.5-1984 compiled from all NUMUG attendees.
Apr 94	Recommended revisions submitted jointly to Dr. Frank Congel, NRC, and Marilyn Weber, ANS Standards
Jul 94	NRC response
Apr 96	San Francisco NUMUG Meeting - DMCC joined NUMUG in pursuing new standard.
Jun 96	NUMUG and DMCC met with ANS in Reno to kickoff standards development effort
Aug 96	ANS-3.11 Working Group Co-Chairs and Members finalized
Sep 96	ANS-3.11 Working Group Kickoff Meeting at ANS Headquarters
Oct 96	Design Criteria Developed
Nov 96	Technical Evaluation of ANS-2.5; Scope of Work, PINS submitted to ANS
Mar 97	Technical Evaluation of all Meteorological Monitoring Guidance
Jul 97	ANS-3.11 Outline finalized
Aug 97	ANS-3.11 Working Group - Research/Technical Writing Assignments
Jan 98	Preliminary Draft
Mar 98	First Draft
Jul 98	Second Draft
Aug 98 - Jan 99	Third, Fourth Drafts to ANS-3.0 Subcommittee
Feb - Dec 99	Fifth, Sixth, Seventh, Eighth Drafts to NFSC
Feb 3, 2000	NFSC, SSC approval
Feb 16, 2000	American National Standards Institute, Inc. approval
Late 2000	Submit to USNRC for approval

ANSI/ANS-3.11 REGULATORY IMPLICATIONS

- **NRC RESPONSE (7/94)**
- **“...we are not aware of any safety issues which would suggest that a revision of this Regulatory Guide (1.23) is in order.”**
- **“...NRC approval is not needed for ANS to revise the subject standard.”**
- **“We cannot make a commitment at this time to endorse the revised ANSI/ANS-2/5 (ANSI/ANS-3.11) without a compelling safety argument.”**
- **“...the NRC will determine how to support your activity.”**
- **Conclusion: NRC is focused on the safety envelope**



ANSI/ANS-3.11 REGULATORY IMPLICATIONS

- ◆ **DOE TECHNICAL STANDARDS PROGRAM (TSP)
STRATEGIC PLAN (DOE/EH-53)**

- ◆ **TSP VISION**
 - **DOE COMMUNITY CULTURE WILL BE BASED ON
STANDARDS BY YEAR 2000**
 - **TECHNICAL STANDARDS WILL BE FORMALLY
INTEGRATED INTO ALL DOE FACILITY, PROGRAM,
AND PROJECT ACTIVITIES**

- ◆ **TSP MISSION**
 - **DOE WILL PROVIDE INFORMATION AND
COORDINATING ACTIVITIES**
 - **DOE WILL PROMOTE USE OF NATIONAL
CONSENSUS STANDARDS**

- ◆ **OMB A-119: ENCOURAGES FEDERAL
PARTICIPATION IN THE DEVELOPMENT AND
USE OF VOLUNTARY CONSENSUS STANDARDS**

- ◆ **CONCLUSION: ANSI/ANS-3.11 IS WITHIN THE
SCOPE OF DOE TSP STRATEGIC PLAN AND OMB
A-119**

- ◆ **ON 8/26/98, THE METEOROLOGY TOPICAL
COMMITTEE CHARTER WAS APPROVED BY
DOE/EH-53 TO ESTABLISH TSP INTERFACE**



ANSI/ANS-3.11

- ◆ **HOW DO I PURCHASE A COPY?**
- ◆ **WRITE OR CALL,**

**AMERICAN NUCLEAR SOCIETY
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STANDARDS MANAGER**

ANSI/ANS-3.11 WG FUTURE

- ◆ **UPDATES/REVISIONS TO ANSI/ANS-3.11 THROUGH RECONFIRMATION PROCESS**
- ◆ **DEVELOPMENT OF OTHER METEOROLOGICAL STANDARDS**
- ◆ **VOLUNTEERS FOR WG CHAIR?**
- ◆ **VOLUNTEERS FOR WG MEMBERS?**
- ◆ **PROBABLE WG MEETING AT ANS ANNUAL MEETING IN RENO, NOV. 2001**
 - **DISCUSS TECHNICAL IMPROVEMENTS IN BOTH IN-SITU AND REMOTE SENSING METHODS**
 - **DISCUSS PROGRAMMATIC IMPROVEMENTS AT DOE AND COMMERCIAL NUCLEAR SITES**
 - **DETERMINE WHETHER STANDARD SHOULD BE REVISED BY 2/16/05 RECERTIFICATION DATE**



ANSI/ANS-3.11 Implementation Considerations

- ◆ **Costs of implementing ANSI/ANS-3.11**
 - **Hardware**
 - **Software**
 - **Documentation**
 - **Configuration management**
 - **O&M**

- ◆ **Policy considerations**
 - **Licensing commitments**