

***Technical Committee on Electrical Equipment
in Chemical Atmospheres***

Draft ROP Minutes for NFPA 497 & 499

Four Points Sheraton Hotel

Norwood, MA

August 24-26, 2010

I. Attendance: *Principal Members:*

James Stallcup, Sr. – Grayboy, Inc., TX – *Chair*
Babanna Biradar – Bechtel Corporation, TX
Edward Briesch – Underwriters Laboratories Inc., IL
Frank C. DeFelice, Jr. – Cytec Industries, Inc., CT
Matt Egloff – Montana Tech, Univ. of Montana, MT
William T. Fiske – Intertek Testing Services, NY
Ezekiel Hill – U.S. Army Corps of Engineers, OK (*On Conference call / Live Meeting*)
William G. Lawrence, Jr. – FM Global, MA
Ryan Parks – Alt., Intertek Testing Services, TX
Sam Rodgers – Alt., Honeywell Inc., VA
Joseph V. Saverino – Air Products & Chemicals, Inc., PA (*On Conference call / Live Meeting*)
Richard F. Schwab – Honeywell Inc., NJ
Sonny Sengupta – FMC Corporation, NJ (*On Conference call / Live Meeting*)
James Stallcup, Jr. – Alt., Grayboy, Inc., TX
Erdem A. Ural – Loss Prevention Science & Technologies, Inc., MA
David B. Wechsler – The Dow Chemical Company, TX – *Rep. American Chemistry Council*
Jack H. Zewe – Electrical Consultants Inc., LA (*On Conference call / Live Meeting*)

Members without Alternates Present:

Mark Driscoll – XL Global Asset Protection Services, MA
Bradley G. Lapp – Expo Technologies, Inc., TX
Robert Malanga – Fire and Risk Engineering, NJ
Timothy J. Myers – Exponent, Inc., MA
Rodolfo N. Sierra – U.S. Coast Guard, DC

NFPA Staff: Martha H. Curtis – NFPA Staff Liaison, MA

II. Minutes of Meeting:

- 1. Call to order.** The Chair called the meeting to order at 8:30 AM on Aug. 24, 2010.
- 2. Introduction.** Self-Introduction of Committee Members and Guests
- 3. Chair and Staff Liaison Remarks:** The Chair welcomed all attendees, including those participating on the Conference call with Live Meeting.

James S., Sr. identified the three TG Chairs and asked each Chair to lead the review effort for their particular document in the identified revision cycle. See the proposed cycles for the documents on the last 2 pages of these minutes.

NFPA 497 – Sam R.: F2011 revision cycle; **NFPA 499 – Dave W.:** F2011 revision cycle;
NFPA 496 – Bill F.: F2012 revision cycle; **Physical Properties Tables – Ed B.**

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There may be a need for a TG between NFPA 496 & NFPA 70. It was noted that Art. 500 & 501 refer to the use of pressurization (NFPA 496). It is believed that the Committee needs to improve NFPA 496 to include zone information.

4. Technical Committee Update: The Committee was shown a PowerPoint Presentation containing the essential dates for A2011 cycle. The PCD for F2011 was May 28, 2010 and the deadline for holding an ROP meeting is Aug. 27, 2010.

Sam R. agreed with the proposed cycle of A2011 and said that the TC should try to resolve the problems with flyings and dust and update the list of chemicals to the PTB book (German).

Bill L. stated that IEC 60079-20-1 with Dr. Brandes (from PTB) input should be published at the end of 2009.

Dave W. said that the IEC standard is the defacto standard for data for NFPA 497.

Dick S. said that Dr. Brandes is in the explosion group at PTB.

Dave W. brought up the subject of flash points and auto-ignition temperatures (AIT).

Bill L. mentioned that the IEC publication (60079-20) was dated 1996 and will become a 2009 edition, renumber 60079-20-1.

Sam R. asked if there was P_{max} data in the IEC standard. The answer appeared to be No. There is P_{max} data in the NEC since it is important in identifying the group for the dust classification. Comments specifically addressing the Group B definitions (from the PTB book) should be sent to NFPA on the NEC by the Comment Closing Date of Oct. 23, 2009. NFPA 497 has 5 chemicals that need to be moved into Group C (for seals and overpressure differences). This information is found in the NEC by means of FPN that refer to NFPA 497.

Dick S. said that P_{max} data is important to electrical design and specification.

Bill L. said that Footnote E and the exceptions to Table 4.4.2 are without MESH data. He suggested that the TC needed to make a comment to NEC CMP-14 regarding the data from NFPA 497. Standards Council has confirmed that the NFPA 497 TC is responsible for the group definitions.

Dave W. said that the tests are historical data from with UL 58 or Bureau of Mines (BOM) documents. Butadiene is a B and should be a D group material. It exhibits as a B with respect to overpressure characterization and as a D with respect to **??**.

Ed B. said that Table 4.4.2 without definitions of MESH due to pressure piling. There needs to be a review of data due to pressure piling (w/conduit). He also mentioned that electrical equipment needs protection techniques. Users need to differentiate data to the situation.

Lon B. said that the 1999 edition contained MESH added to NFPA 497 "or equivalent".

Dave W. said that the TC needs to put the data into tables. The existing tables are OK. The MIC numbers need to be reviewed.

Sam R. encouraged the TC to schedule Web Conference Meetings.

James S., Sr. encouraged the TC to put NFPA 496 into the F2012 cycle. The PCD will be May 23, 2009.

Dave W. suggested that NFPA 497 and NFPA 499 be entered into the A2011 cycle since the IEC will be finished by Dec. 2009.

Matt E. stated that NFPA 497 & 499 should be kept together in F2011 with a PCD of May 28, 2010, since the NEC is in the A2011 and the NECH will be produced in 2012. All the chemicals and all the tables including MESH and flash point need to be reviewed. The question is which tables prevail, the NEC or the Tables in NFPA 497 & 499.

Sam R. believes that NFPA 497 & 499 need definitions from the NEC. He believes that once the definitions are written, the NEC should extract them. The NEC addresses the Zones 20-22 and they need guidance from the EEC TC.

Dave W. said that the figures should not be followed until they are verified. He believes that the Tables are OK as they are in the documents. He believes that the figures should be in the Annex. However, with an NFPA Recommended Practice document, format may not have specific guidance.

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Sam R. asked about the schedule for processing the documents. See the schedules at the end of these minutes. He believes that the NEC needs interaction and guidance from the EEC TC.

Dave W. encouraged the TC to move forward with the work on NFPA 497 & 499. Dave reaffirmed that he is the TG Chair for NFPA 499, with Sam R. on his TG while Sam R. is the TG Chair for NFPA 497 with Dave W. and Bill L.

Martha C. noted that the PCD for NFPA 497 & 499 will be May 28, 2010. The EEC TC is encouraged to **send their proposals to NFPA by March 3, 2010** for distribution to the entire TC. They should also draft updates of items that need to be changed and send them to Martha by the end of 2009 or no later than Jan. 2010. It was suggested that the TGs hold meetings or Web Conferences for NFPA 497 & 499 (F2011 cycle) for doing the work on these documents.

The TC tentatively set a Web Conference meeting date for March 31, 2010, since the PCD is May 28, 2010. Martha also indicated that all TG work should be sent to her for posting on the E-Committee page for the whole TC to see.

4. Staff Liaison Report. To date, only 7 public proposals have been received on NFPA 497/499 in advance of the proposal closing date of May 28, 2010. The Committee reviewed the public proposals that had been sent to them, but took no official actions on the Conference Call.

5. Adjournment. The meeting adjourned at 1:45 PM on Aug. 26, 2010.

Respectfully submitted,

Martha H. Curtis

Staff Liaison to the TC on Electrical Equipment in Chemical Atmospheres

NFPA 497/499 Revision Cycle: Fall 2011 (2012 edition)
4 year cycle
(Previous revision cycles: F2007; A2004; and A1993?)

Proposal Closing Date:	May 28, 2010
NFPA 497/499 ROP Mtg. (Location TBD):	Before Aug. 27, 2010
ROPs published and posted:	Dec. 22, 2010
Comment Closing Date:	March 4, 2011
NFPA 497/499 ROC Mtg. (Location TBD):	Before May 6, 2011
ROCs published and posted:	August 26, 2011
Notice of Intent to Make Motion closing:	Oct. 21, 2011
Standards Council Issuance of Consent Docs:	Dec. 13, 2011
NFPA Assn. Meeting (Docs w/NITMAMs):	June 2-7, 2012 (Location: Las Vegas, NV)
Issuance of new std. (Docs w/NITMAMs):	July 27, 2012

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NFPA 496 Revision Cycle: Fall 2012 (2013 edition)

5 year cycle

(Previous revision cycles: F2007; A2004; and A1993?)

Proposal Closing Date:	May 23, 2011
NFPA 496 ROP Mtg. (Location TBD):	Before Aug. 26, 2011
ROPs published and posted:	Dec. 23, 2011
Comment Closing Date:	March 3, 2012
NFPA 497/499ROC Mtg. (Location TBD):	Before May 4, 2012
ROCs published and posted:	August 24, 2012
Notice of Intent to Make Motion closing:	Oct. 5, 2012
Standards Council Issuance of Consent Docs:	Nov. 27, 2012
NFPA Assn. Meeting (Docs w/NITMAMs):	June 3-6, 2013 (Location: TBD)
Issuance of new std. (Docs w/NITMAMs):	July 25, 2013