

MINUTES  
**Fog & Smoke Working Group**  
Thursday, 19 July 2018  
D/FW Marriott Solana  
Westlake, TX

**Presiding chair:** Larry Schoeneman; DesignLab Chicago, Inc.; P; DR

**Recording secretaries:** Erin Grabe, Richard Nix, Karl G. Ruling; ESTA

**Members attending:**

Matthew Antonucci; Contract Services Administration Trust Fund; P; U  
Brad Dittmer; Stage Labor of the Ozarks; P; U  
Robert Haycock; Cal Performances (UC Berkeley); O; U  
Cedric Jackson; SAG-AFTRA; P; U  
Paul Jordan; NBC Universal; P; U  
Edwin S. Kramer; I.A.T.S.E. Local 1; P; DE  
Karl G. Ruling; Unit 12 Productions; I; CP  
Mona Shum; Aura Health and Safety Corporation; I; U  
Keith Sklar; Actors' Equity Association; O; U  
Marnie Styles; Ultratec Special Effects Inc.; P; MP  
Stephen Vanciel; IATSE Local 631; P; U  
Don Ward; I.A.T.S.E. Local 891; P; G  
Mike Wood; Mike Wood Consulting LLC; P; G

**1 Opening remarks**

Larry Schoeneman called the meeting to order at 15:03. He thanked people for attending.

**2 Attendance and membership**

A blue sign-in sheet was passed around for everyone to sign. The secretaries noted who was attending on-line via WebEx.

**2.1 Introductions of those present**

Everyone present in the room introduced themselves. Then everyone attending online introduced themselves.

**2.2 Determination of quorum**

*There are currently 13 votes possible. A quorum is 5; supermajority is 7.*

Larry Schoeneman asked voters to raise their hands. Brad Dittmer counted and announced that more than a majority of voters were present.

**2.3 Recognition of alternate voting members**

**2.4 Requirements for membership**

The following statement was read aloud to the assembly by Larry Schoeneman;

Working group membership is open to all who are affected by the work of the group. Voting members must vote on letter ballots and attend meetings. A member's voting status will be changed to observer if three consecutive letter ballots or three consecutive meetings are missed. Voting status change due to failure to vote will be done at the conclusion of the ballot period. Voting status change due to lack of attendance will be done at the beginning of the third meeting missed. Reinstatement of voting status may be requested at the next meeting attended. There is a \$100 per person per year participation fee.

## 2.5 Processing of new membership applications and change in status requests

As of 28 June 2018, the following applications or status changes were on file:

Keith Sklar; Actors' Equity Association; O; U  
Robert Haycock; Cal Performances; UC Berkeley; O; U  
Chris Moulton; Contract Services Administration Trust Fund; A; U  
Cedric Jackson; SAG-AFTRA, P, U

Brad Dittmer moved that they be accepted. The motion was seconded and then approved with a show of hands.

## 2.6 Processing of changes to observer status if this meeting is missed

The following voters have missed the last two meetings and are in jeopardy of a change to Observer status if this meeting is also missed:

Marnie Styles; Ultratec Special Effects Inc.; P; MP  
Don Phillips; Ultratec Special Effects Inc.; A; MP  
Larry Schoeneman; DesignLab Chicago, Inc.; P; DR

Styles and Schoeneman were present, so there were no status changes. Styles's attendance satisfies the participation requirement for all representatives for Ultratec Special Effects.

## 2.7 Consensus body

The full consensus body during this meeting, including those not present, was:

Delegate	Representing	Voting status	Int. cat.
Margaret Burke, MPH	20th Century Fox	P	U
Mona Shum	Aura Health and Safety Corporation	I	U
Matthew Antonucci	Contract Services Administration Trust Fund	P	U
Chris Moulton	Contract Services Administration Trust Fund	A	U
Larry Schoeneman	DesignLab Chicago, Inc.	P	DR
Edwin S. Kramer	I.A.T.S.E. Local 1	P	DE
Peter T. Donovan	I.A.T.S.E. Local 1	A	DE
Don Ward	I.A.T.S.E. Local 891	P	G
Stephen Vanciel	IATSE Local 631	P	U
Mike Wood	Mike Wood Consulting LLC	P	G
Paul Jordan	NBC Universal	P	U
Cedric Jackson	Screen Actors Guild - American Federation of Television & Radio Artists	P	U
Brad Dittmer	Stage Labor of the Ozarks	P	U
Marnie Styles	Ultratec Special Effects Inc.	P	MP
Don Phillips	Ultratec Special Effects Inc.	A	MP
Karl G. Ruling	Unit 12 Productions	I	CP
Mark Elliott	Walt Disney Company	P	U
	<b>Total votes possible</b>	<b>14</b>	

	<b>Votes by interest category</b>	1	CP
		1	MP
		1	DE
		1	DR
		2	G
		8	U

CP=custom-market producer; MP=,mass-market producer; DR=dealer or rental company; DE=designer; G=general interest; U=user

### 3 Approval of minutes from the previous meeting

See *FSmin11-2017.pdf*

Brad Dittmer moved that the minutes be accepted as drafted. The motion was seconded and then approved with a show of hands. There was no opposition and no abstentions.

### 4 Approval of agenda

Eddie Kramer moved the draft agenda be approved as written. The motion was seconded and then approved with a show of hands. (Those on-line held up their hands in front of their webcams.)

### 5 Reading of the call for patents

The following statement was read aloud to the assembly by Schoeneman:

ESTA intends not to publish any standard that contains protected intellectual property, unless that information can be licensed by anyone for a reasonable fee. ESTA uses a process of open patent and copyright disclosures to implement its intent. ESTA does not conduct patent or copyright searches and does not warrant that its standards contain no protected intellectual property.

In keeping with the open disclosures policy, I ask if anyone present wishes to notify this working group of the existence of a patent, patent application, copyright, or other intellectual property that might protect material in a standard being developed by this working group. You need not be the holder of the patent or copyright to notify this working group of its existence.

Nothing was reported.

### 6 Reading of the anti-trust statement

The following statement was read aloud to the assembly by Schoeneman:

ESTA and its members take seriously their obligation to comply with all applicable antitrust laws. Therefore, during this meeting and during all ESTA events, all discussions will be limited to those subjects that are permitted by the antitrust laws. All members should refrain from any discussion or mention of competitively sensitive subjects such as the current or future prices charged for any member product or services, current or future marketing plans or strategies, and current or future costs, including employee salaries. There also must be no agreement on the suppliers or customers that members will or will not do business with or the markets in which members will conduct business.

Violations of the antitrust laws can have serious consequences. If you have any questions or concerns about anything that is discussed at an ESTA meeting, please bring your concern to ESTA management. An easy to read pamphlet describing the antitrust laws is available from the ESTA staff.

Karl Ruling held up several of the easy-to-read pamphlets to show that they were available to anyone for the asking.

No restraint of trade problems were brought to the attention of the assembly.

## 7 Old Business

**7.1 ANSI E1.5 – 2009 (R2014), Entertainment Technology - Theatrical Fog Made with Aqueous Solutions of Di- and Trihydric Alcohols** (Reaffirmation, revision, or withdrawal by 9 June 2019)  
*Any news or action at this time? There are three meeting cycles left before action must be taken.*

Brad Dittmer moved that we start the process of reaffirming E1.5. The motion was seconded. There was discussion.

Matthew Antonucci asked about the genesis and development of ANSI E1.5. Karl Ruling explained the history of the document and how the recommended exposure limits in it were developed.

The motion was approved with a show of hands. There will be a letter ballot for reaffirmation concurrent with the public review.

**7.2 ANSI E1.14 - 2018, Entertainment Technology—Recommendations for Inclusions in Fog Equipment Manuals**

*This standard was approved by ANSI on 27 February, 2018. It is published and has been downloaded seventeen times as of 20 June 2018.*

No news or action at this time.

**7.3 ANSI E1.23 – 2010 (R2015), Entertainment Technology - Design and Execution of Theatrical Fog Effects** (Reaffirmation, revision, or withdrawal by 13 February 2020)

*Any news or action at this time?*

No news or action at this time.

**7.4 ANSI E1.29 – 2009 (R2014), Product Safety Standard for Theatrical Fog Generators that Create Aerosols of Water, Aqueous Solutions of Glycol or Glycerin, or Aerosols of Highly Refined Alkane Mineral Oil** (Reaffirmation, revision, or withdrawal by 9 June 2019)

*Any news or action at this time? There are three meeting cycles left before action must be taken.*

Mike Wood moved that we start the process of reaffirming it. The motion was seconded, and then approved with a show of hands. There will be a letter ballot for reaffirmation concurrent with the public review.

**7.5 ANSI E1.40 – 2016, Recommendations For the Planning of Theatrical Dust Effects**

(Reaffirmation, revision, or withdrawal by 16 September 2021)

No action at this time on ANSI E1.40. However, at the November meeting it was noted that ESTA in partnership with Actors' Equity have created a poster for display backstage in Equity theatres. The poster notes some of our standards, including E1.40, and tells actors and technicians where to get them.

At this meeting, Keith Sklar reported that the poster will soon to be published. The poster will be displayed backstage for everyone's benefit.

**7.6 Introduction to Modern Atmospheric Effects, 5th edition**

Action on The Introduction to Modern Atmospheric Effects was taken under "New business."

**8 New business—revision to the Introduction to Modern Atmospheric Effects**

Keith Sklar said that he was grateful to now be part of the working group, and said that Equity wants to work with the Fog & Smoke Working Group to develop guidance about safe fog use.

The “safe fog use” problem that revealed in discussion was the lack of knowledge among people in the field about when to use time-distance tables, meters, or other methods of measuring and controlling exposure to fog—that is, exposure monitoring. The consensus of the working group was that a chapter in the *Introduction to Modern Atmospheric Effects* could explain the different control methods.

A task group of Karl Ruling, Keith Sklar, and Mike Wood was appointed to write a new chapter about exposure monitoring. The new text should be distributed to the working group by December 1 for discussion at a January meeting.

## **9 Other business**

### **Aura study funded by IATSE Local 891**

See *IA170101 FINAL Fog Report Feb\_21\_2018.pdf*.

*From the draft November 2017 minutes:*

*Don Ward asked if the data they collected in Vancouver with Local 891 would be of value to the working group. Karl Ruling said yes, that the data would be great, because it might allow use of an aerosol meter other than the pDR 1000AN for fog testing.*

Mona Shum reported that there has been an update to the report, and that more work is being done in British Columbia to study the health effects of fog. The updated version will be one that we can share with others. The study described in the report uses DustTrak aerosol monitors.

Keith Sklar said that he has been working with the Ramboll Group to find an alternative for the pDR 1500AN aerosol meter, which is becoming increasingly hard to obtain. He said that he'd made no progress with Ramboll yet.

## **10 Above & Beyond Awards**

Schoeneman noted that the nomination site is open year round at

[http://tsp.esta.org/tsp/news/award\\_nomination.html](http://tsp.esta.org/tsp/news/award_nomination.html). Nominate your peers!—all who are worthy.

## **11 Liaison Reports**

None.

## **12 Schedule for future meetings**

Schoeneman noted that he full meeting schedule may be found at

<http://www.esta.org/ESTA/meetings.php>.

### **12.1 October ESTA meetings**

*The October meeting cycle will take place 4-7 October 2018 at the D/FW Marriott Solana in Westlake, TX. There is currently no FSWG meeting schedule for October. Should there be?*

There was discussion. The consensus was not to meet in October.

### **12.2 January ESTA meetings**

*The January ESTA meetings are taking place in conjunction with the NAMM show in Anaheim, California, which is scheduled for 24-27 January 2019, but no Fog & Smoke Working Group meeting is currently scheduled for that cycle.*

There was discussion. The consensus was to meet in January. A request to Frances Thompson will be made.

### **13 Adjournment**

Brad Dittmer moved the meeting adjourn. The motion was seconded. Hearing no objections, Larry Schoeneman called the meeting adjourned at 16:18.

Fog & Smoke Working Group Members as of 20 July 2018

Delegate	Company	Representing	Voting status	Int. cat.
Matthew Antonucci	Contract Services Administration Trust Fund	Contract Services Administration Trust Fund	P	U
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	U
Paul Beasley	Walt Disney Imagineering	Walt Disney Company	O	U
Justin Cicerone	Martin Professional	Harman International Industries	O	MP
Brad Dittmer	Stage Labor of the Ozarks	Stage Labor of the Ozarks	P	U
Peter T. Donovan	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	A	DE
Mark Elliott	Walt Disney Company	Walt Disney Company	P	U
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	O	G
Erin Grabe	ESTA	ESTA	exf	G
Robert Haycock	Cal Performances	UC Berkeley	O	U
Cedric Jackson	Screen Actors Guild - American Federation of Television & Radio Artists	Screen Actors Guild - American Federation of Television & Radio Artists	P	U
Paul Jordan	NBC Universal	NBC Universal	P	U
Kent H. Jorgensen	IATSE Local 80	IATSE Local 80	O	G
Nathan Kahn	Look Solutions USA Ltd.	Look Solutions USA Ltd.	O	MP
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	DE
Chris Moulton	Contract Services Administration Trust Fund	Contract Services Administration Trust Fund	A	U
Margaret Burke, MPH	Fox Filmed Entertainment	20th Century Fox	P	U
Richard J. Nix	ESTA	ESTA	exf	G
Don Phillips	Ultratec Special Effects Inc.	Ultratec Special Effects Inc.	A	MP
Karl G. Ruling	Unit 12 Productions	Unit 12 Productions	I	CP
Karl G. Ruling	ESTA	ESTA	exf	G
Larry Schoeneman	DesignLab Chicago, Inc.	DesignLab Chicago, Inc.	P	DR
Ford Sellers	Chauvet Lighting	Chauvet Lighting	O	MP

Fog & Smoke Working Group Members as of 20 July 2018

Delegate	Company	Representing	Voting status	Int. cat.
Mona Shum	Aura Health and Safety Corporation	Aura Health and Safety Corporation	I	U
Keith Sklar	Actors' Equity Association	Actors' Equity Association	O	U
Marnie Styles	Ultratec Special Effects Inc.	Ultratec Special Effects Inc.	P	MP
Stephen Vanciel	IATSE Local 631	IATSE Local 631	P	U
Don Ward	I.A.T.S.E. Local 891	I.A.T.S.E. Local 891	P	G
Colin Waters	TMB	TMB	O	G
Mike Wood	Mike Wood Consulting LLC	Mike Wood Consulting LLC	P	G

P=principal; A=alternate; I=individual; O=observer

CP=custom-market producer; MP=,mass-market producer; DR=dealer or rental company; DE=designer; G=general interest; U=user