

Minutes
Fog and Smoke Working Group
23 March 2001
Westin Hotel
Long Beach, CA

Chair: Larry Schoeneman; Interesting Products, Inc.; principal; producer

Recording secretary: Karl G. Ruling; ESTA

Members attending: Marc Gingras; MDG Fog Generators Ltd.; principal; producer
Eric Tishman; Rosco Laboratories; principal; producer
Adrian Segeren; Le Maitre Special Effects; principal; producer
Bill Hektner; USITT ; principal; general interest
Greg Meeh; Jauchem & Meeh, Inc.; observer; user
Mike Wood; High End Systems Inc.; High End Systems Inc.; principal; producer
F. Lee Iwanski; Four Star Lighting; observer; user
Murray Gellatly; A.C. Lighting Ltd.; principal (changed from observer at this meeting); general interest
Eckart Steffens; SOUNDLIGHT, representing VPLT; alternate; general interest
Tim Cox; PLASA; principal; general interest
Edwin S. Kramer; I.A.T.S.E. Local 1; principal; user
M. Brad Dittmer; Downhome Productions; principal; user

Visitor: Mark Elliott, The Walt Disney Company

1 Opening remarks

Larry Schoeneman noted that there was a quorum in attendance (four or more voting members) and called the meeting to order at 19:36.

2 Attendance and membership

2.1 Introductions of those present

Schoeneman asked those present to introduce themselves, which they did.

2.2 Recognition of alternate voting members

Schoeneman noted that Eckart Steffens was present to vote on behalf of VPLT, but that no organizations were being represented at this meeting by both a principal and an alternate, or by two alternates, so there was no danger of double-voting.

2.4 Requirements for membership

Schoeneman reminded the assembly that, except for organizational members, a member's voting status will be changed to observer if he and his alternate miss two consecutive meetings, pending that member's attendance at another meeting. Membership is open to all who are materially affected by the work of the group. Membership in ESTA is not a requirement.

2.5 Processing of new membership applications

No new membership applications had been submitted. However, Gellatly asked to become a principal voting member again. Eddie Kramer moved that Gellatly's voting status be reinstated. The motion was seconded. The motion passed unanimously on a show of hands.

2.6 Processing of changes to observer status

There were no non-attending members to be moved to observer status at this meeting.

The voting body for the meeting was thus:

Name	Company	Representing	Voting status	Int. cat.
Murray Gellatly	AC Lighting Ltd.	AC Lighting Ltd.	P	G
Gary Falls	City Theatrical, Inc.	City Theatrical, Inc.	P	P
M. Brad Dittmer	Downhome Productions - Springfield, MO	Downhome Productions	P	U
Mike Wood	High End Systems Inc.	High End Systems Inc.	P	P
Lowell Fowler	High End Systems Inc.	High End Systems Inc.	A	P
Byron Ziegler	High End Systems Inc.	High End Systems Inc.	A	P
Edwin S. Kramer	IATSE, Local 1	I.A.T.S.E. Local 1	P	U
Larry Schoeneman	Interesting Products, Inc.	Interesting Products, Inc.	P	P
Adrian Segeren	Le Maitre Special Effects	Le Maitre Special Effects	P	P
Marc Gingras	MDG Fog Generators Ltd.	MDG Fog Generators Ltd.	P	P
Martin Michaud	MDG Fog Generators Ltd.	MDG Fog Generators Ltd.	A	P
Tim Cox	PLASA	PLASA	P	G
Tony Douglas-Beveridge	PLASA	PLASA	A	G
Jim Gill	Reel EFX, Inc.	Reel EFX	P	P
Martin Becker	Reel EFX, Inc.	Reel EFX	A	P
Eric Tishman	Rosco Laboratories	Rosco Laboratories	P	P
Dan Faulkner	Rosco/Entertainment Technology	Rosco Laboratories	A	P
Bill Hektner	USITT	USITT	P	G
Florian von Hofen	VPLT	VPLT	P	G
Eckart Steffens	SOUNDLIGHT	VPLT	A	G
Gunther Schaidt	Safex Chemie	VPLT	A	G
			13 votes	7 P 2 U 4 G

3 Approval of minutes from the previous meeting

Ruling pointed out that the draft minutes incorrectly stated that enough of the membership was present to sustain a super-majority vote. This was not the case since only 50% of the voting membership (not more than 50%) participated in the tele-conference meeting. Furthermore, since not more than 50% was present, the results of the roll call ballot for acceptance of BSR E1.14 could not be reported as a super-majority. Ruling distributed new copies of the minutes with the statements about a super-majority deleted.

Eddie Kramer moved that the corrected minutes be accepted. The motion was seconded. The motion was approved by a show of hands.

4 Approval of agenda

Ruling noted that the vote to accept BSR E1.14 would have to be re-done to determine if a super-majority of the consensus body was in favor of accepting it. He proposed that this be done under "Old business."

Greg Meeh asked that problems with smoke detection systems be discussed under "New business."

Larry Schoeneman proposed that we discuss further concrete steps to implement fog product stewardships programs under "Other business."

Bill Hektner moved that the revised agenda be accepted. The motion was seconded. The motion was accepted unanimously with a voice vote.

5 Call for patents

Larry Schoeneman read the following:

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

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

No issues were brought to the attention of the chair by those attending the meeting.

6 Anti-trust statement

Schoeneman read the following anti-trust statement:

"The ESTA Board of Directors, the Technical Standards Committee, and the leadership of this Working Group will reject or nullify any actions that restrain trade. Anyone who feels that an action restraining trade is being or has been taken is requested to bring the matter to the attention of the chair immediately. Anyone who feels that actions in restraint of trade have been taken and not properly annulled is requested to notify the TSC chair or ESTA president immediately.

"ESTA legal counsel has informed us that any member of this working group may be found individually liable for any action that restrains trade taken by this working group. An individual convicted of a violation of the Sherman Act may be fined as much as \$100,000 and be imprisoned for up to three years. An easy to read pamphlet describing restraint of trade is available from the Technical Standards Committee."

Karl Ruling waved some of the pamphlets in the air to show that he had them to distribute. No one identified any anti-trust issues.

7 Task group and committee reports

7.1TSC

Larry Schoeneman briefly reported that the work of this group had been reported to the TSC at the Wednesday, March 21 meeting.

7.2Fog standard E1.5

Karl Ruling reported on the ACGIH response to our request that they set TLVs for the glycols and glycerin used in fog. Ruling reported that after much telephone tag and letters, a rather pro forma response was received, in which it was revealed that triethylene glycol, dipropylene glycol, butylene glycol (all isomers), and glycerol are not under study. It was not clear from the response if ESTA's request was ever actually considered. Ruling said that he'd discussed the matter with Ms. Lisa Thomas at the ACGIH by telephone, and sent a request to her via email for more information as to why these chemicals were rejected for study. If the reason is lack of information, then we can collect more data. If the issue is that the audience is perceived as too small, then we need to make a better case for how large the audience is. Ruling said he would continue to pursue getting information on why these four, common fog chemicals are not under study.

Mike Wood agreed to ask Dr. Kehrer for guidance on how to proceed either with getting the ACGIH to take up our project or in determining safe peak exposure levels without the help of the ACGIH.

Ruling reported that he had heard from a reliable source that the Equity/League study would be published within two months. He suggested that it could offer both some good peak levels that we can use in the E1.5 draft standard and justification for those levels.

Visitor Mark Elliott talked about the interest in Canada occupational health and safety executive in fog standards. Elliot said he will give Ruling information on who this group is and contact information.

7.3 Data collection task group

Bill Hektner reported that he had collected business cards from a number of USITT members who would be willing to conduct glycol sampling tests for us. He gave the pile of business cards to Karl Ruling to have him work out the schedule of samplings with the volunteers.

7.4 Scents

At the October 2000 meeting Martin Becker had suggested that we should start work on standards for scents. Becker was then directed at the October meeting to collect data on what scents are available and where they are being used. Martin Becker was not present at this meeting, so there was no report on his scent survey.

8 Old Business – voting on BSR E1.14

The motion to accept BSR E1.14 as an American National Standard was reconsidered.

Brad Dittmer moved, as he had at the January 2001 meeting, that BSR E1.14 [F&S/1999-3006r3] be accepted as an American National Standard. Bill Hektner seconded the motion, as he had done in January.

By roll call ballot:

Name	Company	Representing	Voting status	Int. cat.	Accept	Accept in principle	Accept in part	Reject	Abstain
Murray Gellatly	AC Lighting Ltd.	AC Lighting Ltd.	P	G	X				
Gary Fails	City Theatrical, Inc.	City Theatrical, Inc.	P	P					absent
M. Brad Dittmer	Downhome Productions – Springfield, MO	Downhome Productions	P	U	X				
Mike Wood	High End Systems Inc.	High End Systems Inc.	P	P	X				
Edwin S. Kramer	IATSE, Local 1	I.A.T.S.E. Local 1	P	U	X				
Larry Schoeneman	Interesting Products, Inc.	Interesting Products, Inc.	P	P	X				
Adrian Segeren	Le Maitre Special Effects	Le Maitre Special Effects	P	P	X				
Marc Gingras	MDG Fog Generators Ltd.	MDG Fog Generators Ltd.	P	P	X				
Tim Cox	PLASA	PLASA	P	G	X				
Jim Gill	Reel EFX, Inc.	Reel EFX	P	P					absent
Martin Becker	Reel EFX, Inc.	Reel EFX	A	P					absent
Eric Tishman	Rosco Laboratories	Rosco Laboratories	P	P	X				
Bill Hektner	USITT	USITT	P	G	X				
Eckart Steffens	SOUNDLIGHT	VPLT	A	G	X				
			13 votes	7 P 2 U 4 G	11				2 absent

The motion was accepted with a clear super-majority of 11 of a possible 13 votes in favor. The interest category breakdown of the votes was 5 producers, 2 general interest, and 4 users in favor of the motion. Two producer votes were not cast because the voters were absent. There were no negative votes in any interest category.

9 Liaison Reports

9.1 PLASA

Tim Cox reported no news.

9.2VPLT

Eckart Steffens reported that a person at a Bon Jovi concert in Weimar had an adverse reaction that some believe was caused by the cracked oil fog. The medical authorities there are interested in getting a sample of the oil used so that testing can be done.

9.3The Kramer and Fails Report

Eddie Kramer said that he had no news. He reported that Gary Fails is at Columbia University working on an MBA.

9.4NFPA

No news was reported by Schoeneman or Ruling.

10 New business – smoke detectors

Greg Meeh said that he is getting a lot of calls from people that are not being allowed to use atmospheric effects because of the smoke detection systems that are being installed in the performance venues. This is a serious problem, he reported. For example, at Mandalay Bay the theatre smoke detectors are tied into the alarm system for the hotel. Thus, the use of fog effects results in the fire alarms in the hotel being activated.

What do we do? asked Meeh. It was suggested that we could work with NFPA on a guidance document on using detection zones to address this problem. Larry Schoeneman said he would contact Henry Renfrew, the chair of the NFPA special effects technical committee, for guidance.

Tim Cox said that he'd had a conversation about this matter with a theatre designer. He will look up that contact and revisit the issue to see what problems or solutions the designer had.

Eddie Kramer said that the NFPA spring trade show is a place to see detection equipment and to talk to fire detection system manufacturers. He is attending it, and will see what he can find out about technological solutions to this problem.

11 Other business – product stewardship

Larry Schoeneman said that the working group needed to revive the product stewardship program to allow us to work with the Chemical Manufacturers' Association. We have a generic ESTA product stewardship program as a general statement of policy, Schoeneman pointed out, but we have no specific documentation of a program for fog manufacturer and dealers.

Schoeneman suggested that we need to have forms available for the different players in the fog-material distribution chain to help them document their participation in the product stewardship process. Schoeneman offered samples of three different forms (appended to these minutes) and asked that the working group send comments/corrections within 30 days to a task group that he appointed of himself, Mike Wood, and Karl Ruling. This task group would then incorporate any needed changes.

Gellatly moved that we pursue this refinement of the product stewardship program. The motion was seconded. The motion was accepted unanimously with a show of hands.

12 Schedule for future meetings

Ruling announced that the next meeting is scheduled for Saturday, July 14 at 19:00 at the Dallas/Ft. Worth Airport Marriott.

13 Adjournment

Bill Hektner moved that the meeting adjourn. The motion was seconded. The motion was accepted unanimously by acclamation. Larry Schoeneman declared the meeting adjourned at 21:17.

Fog & Smoke Working Group Membership at the End of the Meeting

Name	Company	Representing	Vote status	Int. cat.
Murray Gellatly	A.C. Lighting Ltd.	A.C. Lighting Ltd.	P	G
Patrick O'Rourke	Big Apple Lights	Big Apple Lights	O	U
Gary Crawford	C.I.T.C.	C.I.T.C.	O	P
Gary Fails	City Theatrical, Inc.	City Theatrical, Inc.	P	P
M. Brad Dittmer	Downhome Productions – Springfield, MO	Downhome Productions	P	U
Norman Wright	Group One	Group One	O	P
Mike Wood	High End Systems Inc.	High End Systems Inc.	P	P
Lowell Fowler	High End Systems Inc.	High End Systems Inc.	A	P
Byron Ziegler	High End Systems Inc.	High End Systems Inc.	A	P
Edwin S. Kramer	IATSE, Local 1	I.A.T.S.E. Local 1	P	U
Larry Schoeneman	Interesting Products, Inc.	Interesting Products, Inc.	P	P
Jack Suesse	J.R. Clancy, Inc. (NC)	J.R. Clancy, Inc.	O	G
Greg Meeh	Jauchem & Meeh, Inc.	Jauchem & Meeh, Inc.	O	U
Patrick Boyd	Jauchem & Meeh, Inc.	Jauchem & Meeh, Inc.	O	U
Adrian Segeren	Le Maitre Special Effects	Le Maitre Special Effects	P	P
Jon Petts	Jem Smoke Machine Co, Ltd.	Martin Professional A/S	O	P
F. Lee Iwanski	Four Star Lighting	Matthews Studio Group Companies (in bankruptcy)	O	U

Name	Company	Representing	Vote status	Int. cat.
Marc Gingras	MDG Fog Generators Ltd.	MDG Fog Generators Ltd.	P	P
Martin Michaud	MDG Fog Generators Ltd.	MDG Fog Generators Ltd.	A	P
Monona Rossol	Monona Rossol	Monona Rossol	O	G
Kent H. Jorgensen	MPS Grips, Local 80	MPS Grips, Local 80	O	G
Tony Douglas-Beveridge	PLASA Standards Office	PLASA	A	G
Tim Cox	PLASA	PLASA	P	G
Robert Barbagallo	Proximo Inc.	Proximo Inc.	O	U
Jim Gill	Reel EFX, Inc.	Reel EFX	P	P
Martin Becker	Reel EFX, Inc.	Reel EFX	A	P
Eric Tishman	Rosco Laboratories	Rosco Laboratories	P	P
Dan Faulkner	Rosco/Entertainment Technology	Rosco Laboratories	A	P
Heinz Siller	RST Prsentations-systeme	RST Prsentations-systeme	O	G
Beverly Huggins	SFX Design, Inc.	SFX Design, Inc.	O	P
Nathan Kahn	Theatre Effects, Inc.	Theatre Effects, Inc.	O	P
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	O	G
Thomas Costello	TJC and Associates	TJC and Associates	O	G
Colin Waters	TMB Associates	TMB Associates	O	G
James F. Foley	UCISCO, Inc.	UCISCO, Inc.	O	P
Bill Hektner	USITT	USITT	P	G

Name	Company	Representing	Vote status	Int. cat.
Florian von Hofen	VPLT	VPLT	P	G
Eckart Steffens	SOUNDLIGHT	VPLT	A	G
Gunther Schaidt	Safex Chemie	VPLT	A	G
Michael Zilz	Zilz International GmbH	Zilz International GmbH	O	G

Voting Status

- P Principal voting representative for a company or organization
- A Alternate voting representative for a company or organization
- I Individual representing no organization other than himself or herself
- O Observer; non-voting

Interest Categories

- P Producer (manufacturer) of fog or smoke effects
- U User of fog or smoke effects
- G General interest

Fog Manufacturer Product Stewardship Check List

This checklist is intended to facilitate the establishment and maintenance of a Product Stewardship Program for Manufacturers of Theatrical Fog Products. This is a voluntary program intended to foster improved industrial safety and to foster appropriate purchasing, handling, use and disposal of all chemicals and other materials involved in the generation and use of theatrical fogs.

Compliance Step	Date of Completion
1 Has your fog making material supplier provided appropriate MSDS documentation?	
2 Do my suppliers know that you need and use this information and that they should send you any updates in a timely manner?	
3 Do you know your fog making supplier's safety and/or product stewardship officer and how to contact them?	
4 Has someone in your company been assigned the responsibility of managing product safety and stewardship information?	
5 Has this information been communicated to other involved employees?	
6 Have you established appropriate methods for receiving the fog making materials?	
7 Have these methods been suitable documented?	
8 Are there procedures to ensure fog-making materials meet specifications?	
9 Have you established appropriate methods for storing fog making materials?	
10 Have you trained your employees in the appropriate handling of fog making materials?	
11 Have you established quality control procedures to ensure proper formulation of your fog making products?	
12 Are you familiar with all safety procedures related to the manufacture of your products?	
13 How are your fog products distributed to your clients?	
14 Are the carriers or shipping companies that you use aware of and conversant with any special procedures or practices needed for shipping your products?	
15 Do these carriers and shipping companies have the safety related data you provide?	
16 Do your customers know and understand these special shipping procedures?	

- 17 Do your products have any special storage requirements – such as containers, environment and shelf life? _____
- 18 Do your customers know about these storage requirements? _____
- 19 How do they know about these storage requirements? _____
- 20 Do you provide up to date MSDS sheets or other safety related information to your clients? _____
- 21 How? _____
- 22 Do you provide comprehensive operating instructions for the equipment you supply? This may include manuals, videos and direct training. _____
- 23 Do your products have any health and safety concerns in operation? _____
- 24 If so, what are they? _____
- 25 Do your customers know about these concerns? _____
- 26 How do they know? _____
- 27 Do you have procedures for dealing with complaints and problems relating to health and safety issues? _____
- 28 How are those procedures communicated to your employees and customers? _____
- 29 If your product produces any waste product do you provide information and assistance on how to deal with this? _____
- 30 Do you provide information and assistance on dealing with the final disposal or recycling of your product at the end of its life? _____
- 31 How do you provide this information and assistance? _____
- 32 Is there a procedure to insure the regular re-evaluation of your safety and product stewardship programs? _____

To the best of my knowledge, this information is true and accurate

Fog Stewardship Manager:

Company:

Date:

Fog Distributor Product Stewardship Check List

This checklist is intended to facilitate the establishment and maintenance of a Product Stewardship Program for Distributors of Theatrical Fog Products. This is a voluntary program intended to foster improved industrial safety and to foster appropriate purchasing, handling, use and disposal of all chemicals and other materials involved in the generation and use of theatrical fogs.

Compliance Step	Date of Completion
1 Have your fog making material suppliers provided appropriate MSDS documentation?	_____
2 Do your suppliers know that you need and use this information and that they should send you any updates in a timely manner?	_____
3 Do you know your fog making supplier's safety and/or product stewardship officers and how to contact them?	_____
4 Has someone in your company been assigned the responsibility of managing product safety and stewardship information?	_____
5 Has this information been communicated to other involved employees?	_____
6 Have you established appropriate methods for receiving the fog making materials?	_____
7 Have these methods been suitable documented?	_____
8 Have you established appropriate methods for storing fog-making materials?	_____
9 Have you trained your employees in the appropriate handling of fog making materials?	_____
10 How are your fog products shipped to your clients?	_____
11 Are the carriers or shipping companies that you use aware of and conversant with any special procedures or practices needed for shipping your products?	_____
12 Do these carriers and shipping companies have the safety related data you provide?	_____
13 Do your customers know and understand these shipping procedures?	_____
14 Do your products have any special storage requirements – such as containers, environment and shelf life?	_____
15 Do your customers know about these storage requirements?	_____
16 How do they know about these storage requirements?	_____

- 17 Do you provide up to date MSDS sheets or other safety related information to your clients? _____
- 18 How? _____
- 19 Do you provide comprehensive operating instructions for the equipment you supply? This may include manuals, videos and direct training. _____
- 20 Do your products have any health and safety concerns in operation? _____
- 21 If so, what are they? _____
- 22 Do your customers know about these concerns? _____
- 23 How do they know? _____
- 24 Do you have procedures for dealing with complaints and problems relating to health and safety issues? _____
- 25 How are those procedures communicated to your employees and customers? _____
- 26 If these products produce any waste product do you provide information and assistance on how to deal with this? _____
- 27 Do you provide information and assistance on dealing with the final disposal or recycling of your product at the end of its life? _____
- 28 How do you provide this information and assistance? _____
- 29 Is there a procedure to insure the regular re-evaluation of your safety and product stewardship programs? _____

To the best of my knowledge, this information is true and accurate

Fog Stewardship Manager:

Company:

Date:

Fog User Product Stewardship Check List

This checklist is intended to facilitate the establishment and maintenance of a Product Stewardship Program for Users of Theatrical Fog Products. This is a voluntary program intended to foster improved industrial safety and to foster appropriate purchasing, handling, use and disposal of all chemicals and other materials involved in the generation and use of theatrical fogs.

Compliance Step	Date of Completion
1 Have your fog making material suppliers provided appropriate MSDS documentation?	
2 Do your suppliers know that you need and use this information and that they should send you any updates in a timely manner?	
3 Do you know your fog making supplier's safety and/or product stewardship officers and how to contact them?	
4 Has someone in your company been assigned the responsibility of managing product safety and stewardship information?	
5 Has this information been communicated to other involved employees?	
6 Have you established appropriate methods for receiving the fog making materials?	
7 Have these methods been suitable documented?	
Are there special requirements for storing the fog making materials?	
8 Have you established appropriate methods for storing fog-making materials?	
9 Have you trained your employees in the appropriate storing of fog making materials?	
10 Do you provide your employees with comprehensive operating instructions for the equipment you supply? This may include manuals, videos and direct training.	
11 Do you make MSDS or other fog material information available to your customers?	
12 How is this achieved?	
13 Do you have procedures for dealing with complaints and problems relating to health and safety issues?	
14 How are those procedures communicated to your employees and customers?	
15 If the fog making process produces any waste product do you provide information and assistance to your employees on how to deal with this?	
16 How do you provide this information and assistance?	

17 Is there a procedure to insure the regular re-evaluation of your Safety and Product Stewardship programs? _____

To the best of my knowledge, this information is true and accurate

Fog Stewardship Manager:

Company:

Date: