

**Minutes**  
**Fog and Smoke Working Group**  
June 28, 1997  
Irving, TX

Chairman: Larry Schoeneman, Interesting Products  
Recording Secretary: Karl G. Ruling  
Members in attendance: Adrian Segeren, Le Maitre Special Effects, Principal  
Bill Hektner, USITT Health & Safety Commissioner, Principal  
Brad Dittmer, Associated Theatrical Contractors, Principal  
Eric Tishman, Rosco Laboratories, Principal  
Gary Crawford, C. I. T. C., Principal (Inducted at this meeting)  
Jim Gill, Reel FX, Observer  
Larry Schoeneman, Interesting Products, Inc., Principal  
Marc Gingras, MDG Fog Generators, Principal  
Murray Gellatly, A.C. Lighting Ltd., Principal  
Tony Douglas-Beveridge, PLASA, Principal

1 Opening remarks

Called to order at 1:07 p.m.

2 Attendance and membership

2.1 Introductions of those present

The members introduced themselves

2.2 Determination of quorum (7 needed)

The chair, Larry Schoeneman, noted that we have a quorum.

2.3 Recognition of alternate voting members

No alternates attended, so none were recognized. Only principal voting members were present.

2.4 Requirements for membership

The chair reviewed the requirements for membership. Membership is open to all persons and organizations who are directly and materially affected by the work of the working group.

2.5 Processing of new membership applications

Gary Crawford, CITC Mfg., principal

Brad Dittmer moved that Crawford be accepted. Eric Tishman seconded. The vote was five in favor, none against, with two abstentions. The chair did not vote, as per Robert's Rules Of Order.

3 Approval of minutes from the previous meeting

Bill Hektner moved the minutes be accepted as written. Eric Tishman seconded. Unanimous show of hands.

4 Approval of Agenda

Eric Tishman requested that a new liaison report be added to accommodate a report on contacts he has had with a health and safety group at Disney.

Brad Dittmer moved that the agenda with the new liaison report be accepted. Bill Hektner seconded. Unanimous show of hands.

5 Call for patents:

"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 that might protect material in a standard being developed by the working group. You need not be the holder of the patent in order to notify the working group of its existence. "

## 6 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."

## 7 Discussion of glycol (and glycerin) studies

Eric Tishman moved we accept both CIH reports (The Cohen Group and HSE Consulting), with the proviso that HSE provide information about the other three butanediol isomers. Brad Dittmer seconded. All in favor, with one abstention: Gary Crawford, who had not had an opportunity to review the reports.

The group agreed unanimously that there were no real areas of conflict, no areas of concern in the reports.

### 7.1 Drafting a response for public consumption

Agreed, Schoeneman will write a draft response to the reports and circulate it among the working group for comment. He will amend the report from the received comments and send it to the TSC.

### 7.2 LDI session on fog studies

We will present the results of the studies. Ruling is left to organize it as he has done in the past.

### 7.3 Next step to set standards

Larry Schoeneman proposed to set levels for fog of  $10 \text{ mg/m}^3$ , based on the data revealed in the CIH reports. Larry also presented his plan to solicit support from the Chemical Manufacturers Association.

Bill Hektner moved that a task group be formed to draft a draft standard for glycol and glycerin-based theatrical fog. Murray Gellatly seconded the motion. Passed by a unanimous show of hands.

Larry Schoeneman appointed Eric Tishman, Adrian Segeren, Bill Hektner, and Brad Dittmer to be the task group. Immediately dubbed "The Gang of Four" or "Les Quatres Chevaliers."

Larry Schoeneman will draft a cover letter to the CMA introducing ESTA, the TSC, and the F&S Working Group.

Ruling was directed to notify ANSI of the initiation of the fog standard project.

## 8 Introduction to Modern Atmospheric Effects revision

### 8.1 Review and resolution of suggested booklet rewrites

Number 1	From: Murray Gellatly	Org: AC Lighting Ltd.
Com. Type:	Technical	
Location:	General	
Comment:	<p>In my view I consider it essential that the booklet contains a strong recommendation that all "smoke" machines offered for hire are only hired out when accompanied with the manufacturer's instruction booklet and an MSDS leaflet on the appropriate fluid.</p> <p>From the rental companies point of view they should be seeking to limit their own liability by ensuring that the user is fully aware of the recommendations issued by the manufacturer and that they as the rental company only supply a fluid specifically recommended by the manufacturer for that particular machine.</p> <p>From the users point of view he should want to be instructed in the use of the machine and should want to satisfy himself that he has full instructions and the correct fluid for that particular machine.</p> <p>I appreciate that such advice is generally given on page 4 but I feel that stronger emphasis should be placed on it.</p>	
Working Group Response:	Recommendations to hire companies are not appropriate for this book, which has end-users as its intended readers.	

Number 2	From: Murray Gellatly	Org: AC Lighting, Ltd.
Com. Type:	Technical	
Location:	"Working with Fog" section, page 16	
Comment:	<p>In the "Working With Fog" section (page 16) I feel that there should be specific reference to the positioning of the unit(s) with regard to the air circulation system of the venue and also the air intakes of the other items on the show.</p> <p>Experience, for example on the last Pink Floyd tour, shows that careless positioning of cracked oil machines can lead to expensive maintenance costs where lighting fixtures which use fans for cooling purposes can suck in large quantities of oil if the machines are badly positioned or left to run for prolonged periods.</p> <p>I appreciate that such advice is given in the "Safety Guidelines" (page 15) section, but I feel this properly belongs in the "Working With Fog" section.</p>	
Working Group Response:	Change top line of page 17 to read "...onto performers, or onto sensitive equipment."	

Number 3	From: Murray Gellatly	Org: AC Lighting, Ltd.
Com. Type:	Technical	
Location:	Page 8	
Comment:	On page 8 there is a recommendation not to add a perfume or fragrance to a fog fluid. At least 2 manufacturers actually market fragrances to be added by the user to unperfumated fluids. Should this not be mentioned?	
Working Group Response:	On page 8, change the line that now reads: "Similarly, perfumes or other scents must not be added to the fog fluid." to read ". . . not be added to the fog fluid, unless recommended by the manufacturer."	

Number 4	From: Murray Gellatly	Org: AC Lighting, Ltd.
Com. Type:	Technical	
Location:	General	
Comment:	At least one manufacturer is now producing a cryogenic "add-on" to a glycol based machine to create a dense long lasting low hanging fog. This mixed technology is not covered in the present booklet.	
Working Group Response:	<p>On page 7, in the paragraph about accessories, note the existence of cryogenic accessories and reference the cryogenic section.</p> <p>The paragraph then reads:  "Several accessories expand the usefulness of these technologies. If the fog is chilled after leaving the machine, the result is a low-lying fog effect similar to the traditional dry ice fog effect. Some manufacturers make chiller accessories that use cryogenic materials such as liquid carbon dioxide. See the section on cryogenic fogs for information on how to use these cold materials safely and effectively. Most manufacturers now sell timers and remote controls for their equipment. Some manufacturers now offer DMX and analog remote controls for their fog machines."</p>	

Number 5	From: Murray Gellatly	Org: AC Lighting, Ltd.
Com. Type:	Technical	
Location:	Pages 7 through 8	
Comment:	The notation as to contaminated fluids on page 16 in the Mechanical Fogs section, although making reference to glycol and mineral oil fluids is not repeated in the Heated Fogs section, pages 7 to 8.	
Working Group Response:	<p>On page 8, after the "Never alter the contents of a fog fluid" section, add a paragraph that reads:  "<b>Do not use contaminated fluids.</b> If your fluid contains foreign substances, the contaminants may clog or damage the machine, and may be propelled into the air. The heated contaminants may be unsafe to breathe."</p>	

Number 6	From: Larry Schoeneman	Org: Interesting Products
Com. Type:	Editorial	
Location:	Page 2	
Comment:	" Acknowledgments" is misspelled.	
Working Group Response:	Correct the spelling.	

Number 7	From: Larry Schoeneman	Org: Interesting Products
Com. Type:	Editorial	
Location:	Footnote, page 3.	
Comment:	Correct "signalled" to "signaled."	
Working Group Response:	Change the spelling.	

Number 8	From: Larry Schoeneman	Org: Interesting Products
Com. Type:	Technical	
Location:	Page 4.	
Comment:	<p>"This booklet describes each technology in simple terms. From each section, you will get a basic understanding of the technology, its effective use, as well as benefits and cautions. <u>OSHA and NIOSH accepted safe concentrations are included when they are available and manufacturer's mail or Internet sources are included to assist in locating pertinent MSDS information.</u> Next, there is a brief discussion about how to work with a fog once you have put it in the air... "</p> <p>Add underlined text.</p>	
Working Group Response:	<p>Add the following line:  "The OSHA and HSE accepted safe concentrations of the chemicals used are included when they are available."</p>	

Number 9	From: Mike Wood	Org: High End Systems
Com. Type:	Technical	
Location:	Page 5.	
Comment:	<p>"<b>Gas-propelled fluid</b> fog-making systems were also developed in the 1970s. The fluid used is either a high-grade mineral oil or a solution of one or more glycols and water. The heated fluid process produces a very white fog composed of small droplets with a long hang-time. <u>Because fluid usage decreases at a rate proportional to the cube of the particle diameter, the amount of fluid required is substantially less.</u>"</p> <p>Amount of fluid required is substantially less than what? This whole sentence is irrelevant, just because particles are smaller doesn't mean less fluid is used — you could make many more small particles and use just the same amount of fluid. I suggest that the underlined sentence adds nothing to the booklet and should be deleted.</p>	
Working Group Response:	<p>Let the sentence stand. The sentence was debated at the last editing session, and the working group does not feel that there is an argument here compelling enough to warrant revisiting that debate.</p>	

Number 10	From: Mike Wood	Org: High End Systems
Com. Type:	Technical	
Location:	Page 7	
Comment:	<p>"<b>Gas-propelled fluid</b> fog machines can easily be left running during an entire production because of their quietness and very low fluid consumption. <u>Since the droplets produced by these machines are very small, they have a very long hang-time.</u>"</p> <p>This is a non sequitur — yes, smaller droplets are less likely to 'settle out'. However smaller droplets also evaporate more rapidly. It's the combination of small size and low rate of evaporation of the specific fluid used that gives the long hang time. We should either clarify this or omit this sentence.</p>	
Working Group Response:	<p>All other factors being equal, smaller droplets do have a longer hang time. Let the sentence stand.</p>	

Number 11	From: Larry Schoeneman	Org: Interesting Products
Com. Type:	Technical	

Location:	Page 7
Comment:	<p>"Safety Guidelines</p> <p><i>. . . between fog fluid composition and temperature settings and other internal features of the fog-making equipment is critical.</i></p> <p><u>Toxicity: While there are currently no accepted concentration standards for heated fogs (PELs or TLV-TWA (Threshold Limit Value-Time Weighted Average for acceptable exposure over an 8-hour workday), MSDS information is available from most manufacturers of Heated Fog Machines and Fluids. These sources include: (INCLUDE ADDRESS &amp; INTERNET URL WHEN POSSIBLE)</u></p> <p><u>High End</u>  <u>Le Maitre</u>  <u>MDG Smoke Machines</u>  <u>ROSCO Laboratories "</u></p> <p>Add underlined text.</p>
Working Group Response:	<p>Add the sentences:</p> <p>"Toxicity: While there are currently no accepted concentration standards for heated fogs (PELs or TLV-TWA (Threshold Limit Value-Time Weighted Average for acceptable exposure over an 8-hour workday), MSDS information is available from most manufacturers of Heated Fog Machines and Fluids. Contact the manufacturer of your fog machine for the appropriate MSDS information."</p> <p>The working group does not want to limit the applicability of the booklet to only a few manufacturers, nor does it want to create contact lists that will become outdated quickly.</p>

Number 12	From: Mike Wood	Org: High End Systems
Com. Type:	Technical	
Location:	Page 9.	
Comment:	<p><b>"Provide for quick emergency access to all fog machines.</b> The small size of heated fog machines may tempt you to build one into a set. If you do so, be sure that the machine can be quickly accessed in an emergency. Remember, some components in the fog machine get very hot <u>and adequate ventilation must be provided to prevent overheating.</u> Normal fire safety precautions must be observed."</p> <p>Add the underlined clause.</p>	
Working Group Response:	Suggestion accepted. Add the words.	

Number 13	From: Mike Wood	Org: High End Systems
Com. Type:	Technical	
Location:	Page 11.	
Comment:	<p><b>"Handle cryogenics carefully.</b> The cryogenics are extremely cold and should be handled with caution. Directly exposing your skin to cryogenics can cause severe <u>burns</u> or frost bite. Consult manufacturers' safety recommendations for proper handling procedures."</p> <p>Add the underlined words.</p>	
Working Group Response:	"Frost bite" adequately describes the tissue damage. The text should remain unchanged.	

Number 14	From: Mike Wood	Org: High End Systems
Com. Type:	Technical	
Location:	Page 12	
Comment:	<p>"There are three mechanical methods for making fog: pressurized water, crackers, and ultrasonic. All these methods have the common theme that heating or cooling is not used and that some mechanical process is used to manipulate a fluid to create the fog. <u>The fog produced by these machines is usually fine and light so they are often known as 'Hazers'.</u>"</p> <p>Add the underlined sentence.</p>	
Working Group Response:	The mist produced by a pressurized water machine is not usually fine and light. The mist tends to be wet and to fall out of the air readily, and does not produce a haze very easily. Water mist machines are rarely, if ever, called "hazers." The text should remain as it is.	

Number 15	From: Larry Schoeneman	Org: Interesting Products
Com. Type:	Technical	
Location:	Page 12	
Comment:	<p>"Hot water and dry ice can produce corrosive conditions inside the fog machine. You should change the water frequently in a dry ice fog-maker and check for signs of corrosion.</p> <p><u>Toxicity Safe environmental concentrations for Nitrogen and Carbon Dioxide have been established by OSHA and NIOSH.</u></p> <p><u>Nitrogen: Since Nitrogen is not bio-active (that is it is inert insofar as your body is concerned), safe concentrations of Nitrogen are stated in terms of remaining concentrations of atmospheric Oxygen. The atmosphere normally contains 21.5% of Oxygen (O<sub>2</sub>), Nitrogen can be added to the until the Oxygen level falls to 19.5%. Reducing the breathable Oxygen concentration slightly below this point will impair coordination while significant reductions in breathable Oxygen can lead to unconsciousness. Both automated and inexpensive hand-held O<sub>2</sub> monitoring equipment is available. MSDS information is available from your Industrial Gas Supplier or by Internet at <a href="http://hazard.com">http://hazard.com</a>.</u></p> <p><u>Carbon Dioxide: Carbon Dioxide is bio-active affecting respiration and the transfer of Oxygen to the bloodstream through the lungs. The OSHA TLV-TWA (Threshold Limit Value-Time Weighted Average for acceptable exposure over an 8-hour workday) for CO<sub>2</sub> is 5000 parts per million, or 0.5%. Increasing the concentration slightly above this point will increase respiration while significant reductions in breathable Oxygen will lead to unconsciousness. Both automated and hand-held CO<sub>2</sub> monitoring equipment is available. MSDS information is available from your Industrial Gas Supplier or by Internet at <a href="http://hazard.com">http://hazard.com</a>."</u></p>	

	Add underlined text.
Working Group Response:	<p>The relevant organizations for setting regulatory standards in the workplace in the US and UK are OSHA and HSC, respectively, and also by particular legislation in the UK. OSHA and HSC standards should be cited whenever possible. NIOSH is a forensic organization, and does not set standards.</p> <p>Add the following text:</p> <p>Toxicity: Safe environmental concentrations for Nitrogen and Carbon Dioxide have been established by the Occupational Safety and Health Administration (OSHA) in the United States and the Health and Safety Executive (HSE) in the United Kingdom.</p> <p>Nitrogen: Since nitrogen is not bio-active (that is it is inert insofar as your body is concerned), safe concentrations of nitrogen are stated in terms of remaining concentrations of atmospheric oxygen. The atmosphere normally contains 21.5% of oxygen (O<sub>2</sub>), Nitrogen can be added to the atmosphere until the oxygen level falls to 19.5% according to OSHA regulations in the U.S. or to 18% according to HSE guidelines in the U.K. Reducing the breathable oxygen concentration slightly below these points will impair coordination, while significant reductions in breathable oxygen can lead to unconsciousness. Both automated and inexpensive hand-held O<sub>2</sub> monitoring equipment are available. MSDS information is available from your Industrial Gas Supplier or by Internet at <a href="http://hazard.com">http://hazard.com</a>.</p> <p>Carbon Dioxide: Carbon Dioxide is bio-active, affecting respiration and the transfer of oxygen to the bloodstream through the lungs. The OSHA TLV-TWA (Threshold Limit Value-Time Weighted Average for acceptable exposure over an 8-hour workday) and the HSE occupational exposure standard (OES) for CO<sub>2</sub> is 5000 parts per million, or 0.5%. Increasing the concentration slightly above this point will increase respiration, while significant reductions in breathable oxygen will lead to unconsciousness. Both automated and hand-held CO<sub>2</sub> monitoring equipment are available. MSDS information is available from your Industrial Gas Supplier or by Internet at <a href="http://hazard.com">http://hazard.com</a>."</p> <p>In addition, the working group decided that the previous line —      "You should change the water frequently in a dry ice fog-maker and check for signs of corrosion." —      should be changed to read:      "You should change the water frequently in a dry ice fog-maker and check for signs of machine corrosion."      The previous sentence was judged too vague because it did not specify where to look for the corrosion.</p>

Number 16	From: Mike Wood	Org: High End Systems
Com. Type:	Technical	
Location:	Page 13.	
Comment:	<p>"In chemistry, cracking a compound means to decompose (break down or reduce) that compound using heat. In the petroleum industry, cracking is the name given to specific parts of the oil refining process. For theatrical fogs, cracker does not describe a chemical process. These crackers work more like cracking a dinner plate; <u>they enlarge the space between molecules.</u>"</p> <p>No they don't! The effect is macroscopic not microscopic. They merely break the fluid into small particles. 'Enlarge the space between molecules' implies some kind of atomic or chemical process is going on, that simply isn't true — it's much simpler than that. Suggest replacing the underlined words with:- 'they break the fluid into very small particles'.</p>	
Working Group Response:	<p>"Particles" isn't quite the right word because it suggests smoke. Change the sentence to:  "... they break the fluid into small droplets."</p>	

Number 17	From: Mike Wood	Org: High End Systems
Com. Type:	Technical	
Location:	Page 14	
Comment:	<p>"Fog crackers are nothing like petroleum industry crackers, the large towers you see at an oil refinery. Crude oil cracking is a process that reduces crude oil to chemically component products using a combination of heat and catalysts. On the other hand, fog crackers <u>separate the molecules of an oil</u> by pushing air between them, but do not change the oil's chemical composition. Mineral oil cracker fog machines never use catalysts."</p> <p>Same comment as above — suggest replacing the underlined words with:- 'atomize the oil'.</p>	
Working Group Response:	<p>Replace the words and following words with "... fog crackers break the fluid into small droplets, but do not..."</p>	

Number 18	From: Larry Schoeneman	Org: Interesting Products
Com. Type:	Technical	
Location:	Page 19 (Glossary)	
Comment:	<p>"<b>Smoke:</b> small, solid particles dispersed in air that reduce visibility and reflect light.</p> <p><u><b>TLV-TWA:</b> (Threshold Limit Value-Time Weighted Average) This is a standard means for stating acceptable exposure to a chemical over an 8-hour workday, 40 hours a week. These concentration standards are usually established by OSHA, NIOSH or some similar safety organization."</u></p> <p>Add underlined text.</p>	
Working Group Response:	<p>Accept, but delete NIOSH and substitute the appropriate UK organization, which is the Health and Safety Executive.</p> <p>Definitions of OSHA and HSE must also be added.</p> <p>Add the following text.</p> <p>"<b>TLV-TWA:</b> (Threshold Limit Value-Time Weighted Average) This is a standard means for stating acceptable exposure to a chemical over an 8-hour workday, 40 hours a week. Concentration standards are usually established by OSHA, HSE, or some similar safety organization."</p>	

Number 19	From: Larry Schoeneman	Org: Interesting Products
Com. Type:	Technical	
Location:	Page 20 at the end.	
Comment:	<p>Do we want to add this compendium at the end also?</p> <p>Fog Making MSDS Sheet Sources: CO<sub>2</sub> LN<sub>2</sub> Glycol Stuffs</p>	
Working Group Response:	<p>No. MSDSs are supposed to be product specific and be supplied by the manufacturer of the product. We have urged the reader in numerous places to get information from the manufacturer of their equipment, and this urging is sufficient.</p>	

Number 20	From: The Working Group	Org:
Com. Type:	Technical/Editorial	
Location:	Acknowledgments	
Working Group Comment:	Need to update the list.	

Number 21	From: The Working Group	Org:
Com. Type:	Technical/Editorial	
Location:	Back cover	
Working Group Comment:	Add a general notice that all are welcome to join.	

## 8.2 Discussion of MSDSs for N<sub>2</sub>, CO<sub>2</sub> and proprietary fluids (Schoeneman)

No. Decided not to. See comment number 19.

## 9 Discussion of getting the chemical manufacturers involved in setting standards for fog

Larry Schoeneman proposes to present the draft standard, along with the two CIH reports and a variety of other documentation, to the Product Stewardship Program for Responsible Care(tm) of the Chemical Manufacturers Association (CMA) and to the product stewardship officials for major manufacturers of these chemicals. Our hope is to receive additional toxicity documentation and possible funding so that we can work together toward achieving a safer work place and safer use of their products.

General consensus that this is the way to proceed.

Adrian Segeren has had contact with the Dow propylene glycol product steward , Alton Martin. Adrian will send a duplicate of the package to this person.

## 10 Liaison Reports

### 10.1 PLASA (Douglas-Beveridge)

At the Equity Annual General Meeting the opera group raised a concern. A motion put forth asking Equity to consider taking action up to and including a ban. It is being addressed by the Equity Council. Assistant General Secretary is in contact with Tony Douglas-Beveridge.

### 10.2 JATET (Schoeneman)

No response to letter of invitation.

### 10.3 VPLT (von Hofen)

No report. Absent

### 10.4 Labor Unions (Romans/Fails)

No report. Absent

### 10.5 Disney industrial safety group

Eric Tishman met with about 18 people. Eric reported that they like the Introduction to Modern Atmospheric Effects, and will make it standard reading material for the technicians. Disney has stopped using mineral oil as a result of Equity pressing the entire issue. The current official position on glycol is that the group is waiting to see what happens with the League and Equity. This remarkable because it means Disney is now following the League rather than going its own way. Hour and a half meeting. Eric offered that we can establish a personal liaison. They were interested but needs to get okay from higher up.

Eric offered to be the liaison with Disney. The consensus of the F&S Working Group was that it would be alright to have Eric be the liaison.

Richard Gill asked about why the ban on mineral oil. Eric did not have the answer to that question.

The discussion of Disney and Equity raised questions about Equity. Adrian Segeren has received a letter from Kenneth Greenwood stating that Equity and the League have put together a committee of experts to address fog health issues. Adrian proposes to write to Equity to volunteer to be one of the experts on the committee. Larry Schoeneman will write to Equity to renew our invitation for them to join the working group. Eric Tishman will write to the League to offer our help on the expert committee. The letters are to be done in two weeks.

## 11 New business

Marc Gingras noted that Marge Roman's comment at the last meeting, that the AMPTP opposes oil mists "because the mists foul equipment," could be taken to mean that oil shorts out electrical equipment. This is impossible, Marc noted, because oil is an insulator. Marc Gingras asked that it be noted in the minutes that he would like Marge Romans to try to disabuse the AMPTP of this error.

12 Other business

Larry Schoeneman noted that proxies are not permitted. One may vote while absent only by giving the chair a written vote before the question is called. This requires that one know what the question is before the meeting. An organization may also have alternate voting members to vote in a principal member's absence.

13 Schedule for future meetings

Saturday Oct. 25, night. 7:00 - 11:00. at LDI.

Irving, TX. Saturday Jan 24, 1998, at 1:00 p.m.

14 Adjournment

Brad Dittmer moved. Bill Hektner seconded. No objections.