

ASHRAE...IN WINDSOR!

*Windsor Ontario Chapter
American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.*

VOLUME 15

OCTOBER, 1997

NO. 2

**1997 - 1998
Executive**

President - Greg Dufour
Baymax A/C Supply -
974-5800

President Elect - Brian Dayus
Dayus register & grilles -
252-0227

Treasurer - Ken Wilson
Kenwil Services -
977-7919

Secretary - Ken Thompson
Honeywell -
250-2000

Board of Governors

Frank Frabotta - 974-5800
Steve Koutsonicolas - 945-2426
Mark Benedet - 966-2250
James Smith - 948-2600

Committee Chairmen

TEGA - Dan Lariviere -
969-9919
Membership - Chris Racicot
251-0200
Research - James Smith -
948-2600
Refrigeration - Stewart Lockhart
256-7922
Student Activities - Lorraine
Grondin - 250-0227
Program - Brian Dayus -
252-0227
Historian - Tom McDonald -
966-2617
Reception - Phil Bracewell
(519) 649-1700
Newsletter - Mark Benedet -
966-2250

TEGA NIGHT

TUESDAY, OCTOBER 21, 1997

STATIC AIR MIXERS DESIGN & SELECTION

at

**tbq's OTHER PLACE
3065 Dougall Avenue
Windsor, Ontario**

| | |
|-------------|----------------------|
| Fellowship: | 5:30 p.m. |
| Dinner: | 6:30 p.m. (Cash Bar) |
| Speaker: | 7:45 p.m. |

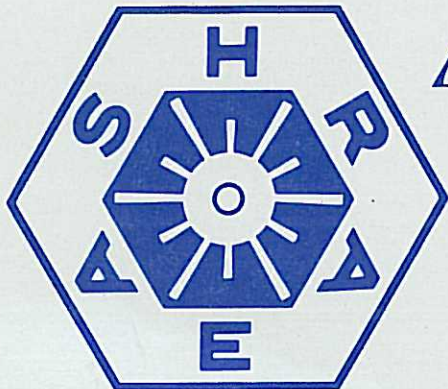
(ASHRAE Members \$25. Guests \$30)

Speaker: Bill Myles, P. Eng. - Owner/Application Engineer
Square M Engineering/System Ltd.

Topic: Proper Selection of Static Air Mixers for Prevention
of Frozen Coils, Reduced Sensor Errors and Improved
Indoor Air Quality

For Dinner Reservations Contact:

Jan at 974-5800



ASHRAE...IN WINDSOR!

*Windsor Ontario Chapter
American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.*

VOLUME 15

JANUARY 1998

NO. 4

TECHNICAL NIGHT

Tuesday, January 13, 1998

HUMIDIFICATION SEMINAR

at

**TBQ's Other Place
3067 Dougall Avenue
Windsor, Ontario**

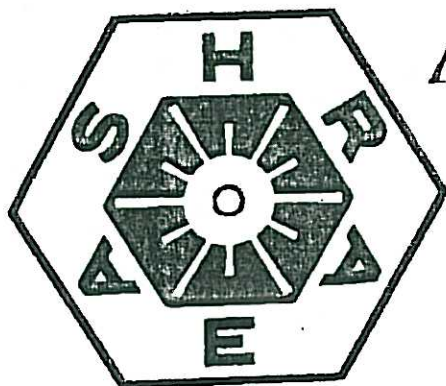
| | |
|---|-----------------------------|
| Fellowship: | 5:30 p.m. |
| Dinner: | 6:15 p.m. (Cash Bar) |
| Speaker: | 7:45 p.m. |
| Discussion Period | 8:15 p.m. |
| (ASHRAE Members \$25. Guests \$30) | |

Speaker: Mr. Kendall Brant - Dri-Steem Humidifier Company

Topic:

- I. Principles of Humidification
- II. Humidification and Indoor Quality
- III. Methods of Humidification
- IV. Equipment Selection Considerations

**For Dinner Reservations Contact:
Jan at 974-5800 by Monday, January 12, 1998**



ASHRAE...IN WINDSOR!

*Windsor Ontario Chapter
American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.*

VOLUME 15

FEBRUARY 1998

NO. 5

RESEARCH PROMOTION NIGHT

Tuesday, February 17, 1998

**DESIGNING FOR THERMAL COMFORT
THE SCIENTIFIC PRINCIPLES BEHIND
THE FACTORS USED IN UNDERSTANDING
THE HUMAN BODY AS A THERMAL SYSTEM**

at

Beach Grove Golf & Country Club
14134 Riverside Drive
St. Clair Beach, Ontario



| | |
|-------------------|----------------------|
| Fellowship: | 5:30 p.m. |
| Dinner: | 6:30 p.m. (Cash Bar) |
| Speaker: | 7:45 p.m. |
| Discussion Period | 8:15 p.m. |

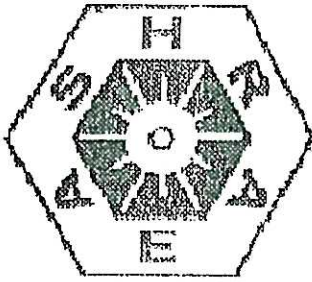
(ASHRAE Members \$25, Guests \$25, Students \$20)

Ashrae Members and guests are urged to make an effort to attend this meeting to hear our keynote speaker.

Speaker: Distinguished Lecturer - Dr. Byron W. Jones
Mechanical Engineering Department
Kansas State University, Manhattan, KS

Topic: A better understanding how the human body functions as a thermal system, how it interacts with its thermal surroundings, and how these factors are related to thermal protection and comfort.

For Dinner Reservations Contact:
Jan at 974-5800 by Friday, February 13, 1998



ASHRAE IN WINDSOR

Windsor Ontario Chapter
American Society of Heating,
Refrigeration and Air Conditioning
Engineers

Designing for Thermal Comfort

The Human body can be analyzed in much the same way as any other thermal system. Such an analysis can be used to quantitatively describe the thermal interaction between the body and the surrounding environment. This capability can in turn be used to examine the impact of various environmental factors such as air temperature, humidity, thermal radiation, and air motion, on the human body. It also allows a quantitative assessment of the critically important roles of activity and clothing. This background provides a scientific basis for designing buildings and HVAC systems from the perspective of the human occupant. It is particularly useful for addressing nonconventional approaches to providing thermal comfort and for dealing with unique situations. Understanding these principles is an important factor in providing a quality thermal comfort environment.

Tuesday, February 17th, 1998.

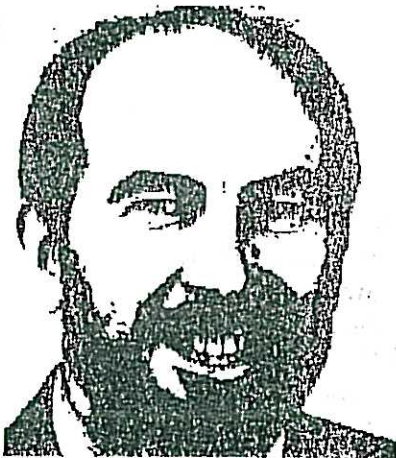
Location to be announced

Fellowship 5:30

Dinner 6:30

Speaker 7:45

ASHRAE members and guests invited.



**Distinguished Lecturer
Dr Byron W. Jones
Mechanical Engineering Department
Kansas State University
Manhattan, KS**

Dr. Jones currently serves as head of the Mechanical Engineering Department at Kansas State University. He served as Director of the KSU Institute for Environmental Research prior to his current position. Before joining the KSU faculty 18 years ago, he was senior systems Scientist at the Montana Energy and MHD Research and Development Institute. Dr. Jones received his degree in mechanical engineering from Oklahoma State University. His areas of expertise include heat and mass transfer, human thermal systems simulation, and thermal measurements and instrumentation. Dr. Jones is an active researcher, and, in addition to traditional HVAC research, he has conducted a number of studies aimed at better understanding how the human body functions as a thermal system, how it interacts with its thermal surroundings, and how these factors are related to thermal protection and comfort. He has directed or participated in eleven ASHRAE sponsored projects.

For reservations contact Jan @ 974-5800,
for further information, contact Brian Dayus @ 252-0227

DR. BYRON W. JONES
Mechanical Engineering Department
Kansas State University
Manhattan, KS

Dr. Jones currently serves as Head of the Mechanical Engineering Department at Kansas State University. He served as Director of the KSU Institute for Environmental Research prior to his current position. Before joining the KSU faculty 18 years ago, he was a Senior Systems Scientist at the Montana Energy and MHD Research and Development Institute. Dr. Jones received his B.S. degree in mechanical engineering from KSU and both his M.S. and Ph.D. degrees from Oklahoma State University. His areas of expertise include heat and mass transfer, human thermal systems simulation, and thermal measurements and instrumentation. Dr. Jones is an active researcher and, in addition to traditional HVAC research, he has conducted a number of studies aimed at better understanding how the human body functions as a thermal system, how it interacts with its thermal surroundings, and how these factors are related to thermal protection and comfort. He has directed or participated in eleven ASHRAE sponsored research projects.

LECTURE TOPICS:

Thermal Engineering and the Human Body: The human body, when viewed from an engineer's perspective, is a marvelous thermal system. It is both resilient and adaptable, maintaining closely regulated temperature control for critical biological functions at the same time it functions in widely varied environments and at widely varied heat output rates. Although often overshadowed by the biochemical and mechanical functions of the body, the thermal functions of the body are equally critical to human survival and performance, and equally fascinating. Many features used today by engineers designing thermal systems have always been a part of the human thermal system. These features include liquid coolants, counter flow heat regeneration, evaporative cooling, movable insulation, and selective load shedding in response to excessive demands. This view of the human is essential to understanding thermal protection and human performance in extreme hot and cold environments and understanding thermal comfort in less extreme conditions. It provides particularly useful insight for people who design buildings and HVAC systems and who wish to have those designs provide high quality thermal environments. This presentation is made from the point-of-view of an engineer but is not highly technical and is suitable for both technical and nontechnical audiences.

Designing for Thermal Comfort: The human body can be analyzed in much the same way as any other thermal system. Such an analysis can be used to quantitatively describe the thermal interaction between the body and the surrounding environment. This capability can in turn be used to examine the impact of various environmental factors such as air temperature, humidity, thermal radiation, and air motion, on the human body. It also allows a quantitative assessment of the critically important roles of activity and clothing. This background provides a scientific basis for designing buildings and HVAC systems from the perspective of the human occupant. It is particularly useful for addressing nonconventional approaches to providing thermal comfort and for dealing with unique situations. Understanding these principles is an important factor in providing a quality thermal comfort environment. This presentation is not highly technical; it is, however, directed primarily at practicing engineers.

**ASHRAE**

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

WINDSOR CHAPTER, ASHRAE – MEETING SUMMARY

PURPOSE: REGULAR MEETING
LOCATION: _____
GUEST SPEAKER: DR BYRON JONES
TOPIC: _____
CHAIRMAN: GREG DUFOUR
RESERVATION COUNT: 48 (program chairman)

DATE: FEB 17/98**REVENUES****Table Top Displays**

1. _____ \$ _____
2. _____ \$ _____

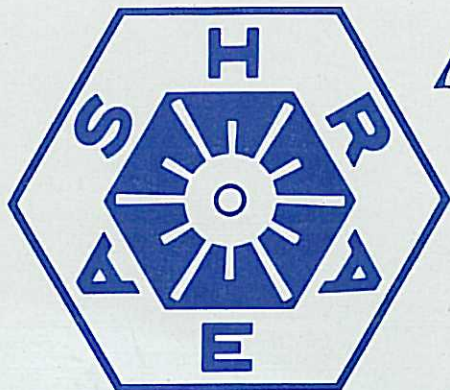
Meals

| | | | | | |
|--------------------------|--|---|-----------------|---|-------------------|
| Members | <u>41</u> | x | \$ <u>25.00</u> | = | \$ <u>1025.00</u> |
| Non Members | <u>2</u> | x | \$ <u>25.00</u> | = | \$ <u>50.00</u> |
| Guests – (Non Paying) | <u>DR. BYRON JONES</u> <u>SPEAKER 1</u> | x | \$ <u>0.00</u> | = | \$ <u>0.00</u> |
| Students <u>Service</u> | <u>1</u> | x | \$ <u>20.00</u> | = | \$ <u>20.00</u> |
| Total Meals | <u>45</u> | | | = | \$ <u>1095.00</u> |
| Meeting Only | <u>—</u> | | | | |
| Total Attendance | <u>45</u> | | | | |
| | | | Total Revenue | = | \$ <u>1095.00</u> |

EXPENDITURES

| | | | | |
|---|---|-----------------|---|------------------|
| Restaurant Charge: <u>45</u> meals | x | \$ <u>20.00</u> | = | \$ <u>900.00</u> |
| Visual Aid Rentals (Receipt Required) | | | = | \$ _____ |
| Gift for Speaker (Receipt Required) | | | = | \$ _____ |
| Other Expenses (Specify Below) <u>(SPEAKER FEE)</u> | | | = | \$ <u>150.00</u> |
| Total Expenditures | | | = | \$ _____ |
| Net Revenue | | | = | \$ _____ |

CHAPTER MAY NOT ACT FOR SOCIETY



ASHRAE...IN WINDSOR!

*Windsor Ontario Chapter
American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.*

VOLUME 15

MARCH 1998

NO. 5→6

RESEARCH PROMOTION NIGHT

Tuesday, March 24, 1998

COMBO SYSTEM SIZING GUIDELINES AND SIZING TECHNIQUES

AND

ASHRAE STUDENT AWARD PRESENTATION

at

**Smitty's Restaurant
307 Grand Avenue West
Chatham, Ontario**

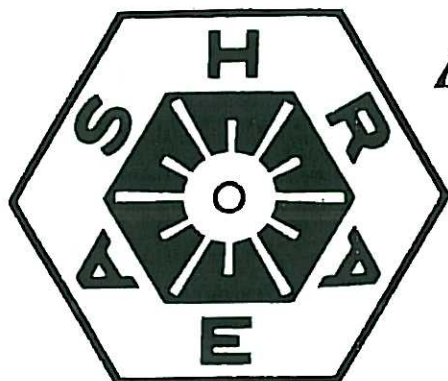
| | |
|--------------------------|-----------------------------|
| Fellowship: | 5:30 p.m. |
| Dinner: | 6:30 p.m. (Cash Bar) |
| Speaker: | 7:45 p.m. |
| Discussion Period | 8:15 p.m. |

(ASHRAE Members \$25, Guests \$25, Students \$20)

Speaker: Mr. Steve Davies, P. Eng.
Union Gas Limited/Centra Gas (Ontario) Inc.

Topic: A look into the new "Unified Canadian Guide for
Integrated (Combo) Heating Systems"
A Guideline to provide standardized sizing and
design of Combo Systems
- Discussions on the latest findings in Combo
performances and sizing techniques

**For Dinner Reservations Contact:
Jan at 974-5800 by Monday, March 23, 1998**



ASHRAE...IN WINDSOR!

*Windsor Ontario Chapter
American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.*

VOLUME 15

MARCH 1998

NO. 5

RESEARCH PROMOTION NIGHT

Tuesday, March 24, 1998

COMBO SYSTEM SIZING GUIDELINES AND SIZING TECHNIQUES

AND

ASHRAE STUDENT AWARD PRESENTATION

at

BAYMAR SUPPLY LTD.

3200 Jefferson Blvd., Windsor, ON N8T 2W8
(519) 974-5800 • Fax 974-5803

Smitty's Restaurant
307 Grand Avenue West
Chatham, Ontario

| | | |
|-------------------|-----------|--------------|
| Fellowship: | 5:30 p.m. | ✓ |
| Dinner: | 6:30 p.m. | (Cash Bar) ✓ |
| Speaker: | 7:45 p.m. | ✓ |
| Discussion Period | 8:15 p.m. | ✓ |

(ASHRAE Members \$25, Guests \$25, Students \$20) ✓

Speaker: Mr. Steve Davies, P. Eng.
Union Gas Limited/Centra Gas (Ontario) Inc.

Topic: A look into the new "Unified Canadian Guide for
Integrated (Combo) Heating Systems"
A Guideline to provide standardized sizing and
design of Combo Systems
- Discussions on the latest findings in Combo
performances and sizing techniques

For Dinner Reservations Contact:
Jan at 974-5800 by Monday, March 23, 1998

OK M.
Plz FAX BACK
as fine

FAX COVER SHEET

No. of Pages

From: Lorraine Grondin**To: Greg Dufour****Company: Union Gas****Company: Baymar****Fax #: 250-2224****Phone #: 250-2355****Fax #: (519) 974-5803****SUBJECT: Meeting March 24, 1998**

Hi Greg

BAYMAR SUPPLY LTD.3200 Jefferson Blvd., Windsor, ON N6T 2W8
(519) 974-5800 • Fax 974-5803*SPEAKER,*
(Steve Davies) will be talking about "Combo System Sizing"
UNION GAS.

Steve will cover two topics in his presentation. Steve will discuss the new "Unified Canadian Guide for Integrated (Combo) Heating Systems", a guideline developed by HRAI in conjunction with several different associations along with Union and Consumer Gas to provide a more standardized approach to sizing and designing combo systems. He will also discuss the latest findings in combo performance and sizing techniques.

I will let you know about a student speaker as well.

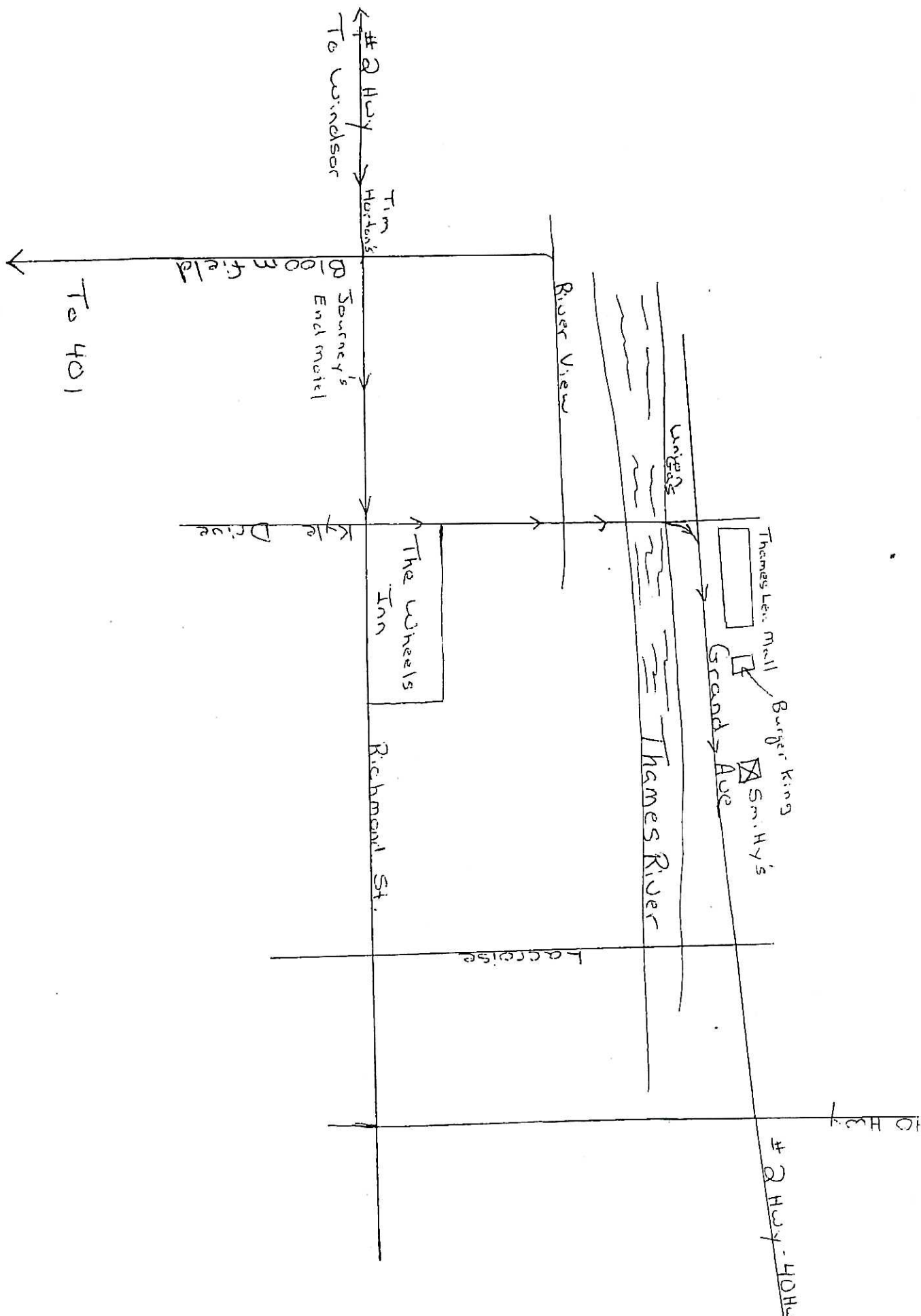
Thanks!

Lorraine

ALSO - STUDENT AWARDS.
ST. CLAIR COLLEGE CHATHAM.

SMITH'S PASTA HOUSE.
307 GRAND AVE W.

332-6266



**ASHRAE**

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

WINDSOR CHAPTER, ASHRAE – MEETING SUMMARY

PURPOSE: REGULAR MEETING
LOCATION: CHATHAM (SMITTY'S)
GUEST SPEAKER: STEVE DAVIES
TOPIC: COMBO SYSTEMS
CHAIRMAN: GREG DUFOUR
RESERVATION COUNT: _____ (program chairman)

DATE: MARCH 24/98**REVENUES****Table Top Displays**

1. BAYMAR \$ 75.00
2. _____ \$ _____

Meals

| | | | | | |
|--------------------------|--|------|--------------|------|--------------|
| Members | <u>16</u> | x \$ | <u>25.00</u> | = \$ | <u>400</u> |
| Non Members | <u>1</u> | x \$ | <u>25.00</u> | = \$ | <u>25.00</u> |
| Guests – (Non Paying) | <u>3</u> <u>DARREL BOYCE</u> <u>SPEAKER</u> <u>STUDENT (AWARD)</u> | x \$ | <u>0.00</u> | = \$ | <u>0.00</u> |
| Students | | x \$ | <u>.00</u> | = \$ | |
| Total Meals | <u>20</u> | | | = \$ | <u>500</u> |
| Meeting Only | | | | | |
| Total Attendance | <u>20</u> | | | | |

EXPENDITURES

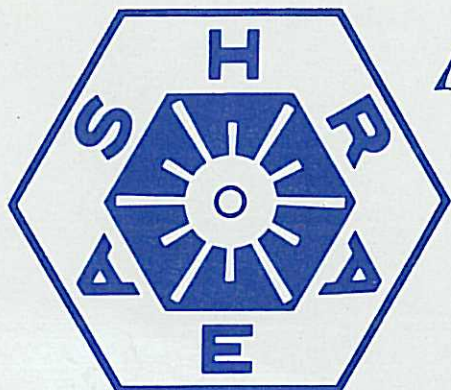
Restaurant Charge: _____ meals x \$ _____ = \$ _____
Visual Aid Rentals (Receipt Required) = \$ _____
Gift for Speaker (Receipt Required) = \$ _____
Other Expenses (Specify Below) = \$ _____

Total Expenditures = \$ _____
Net Revenue = \$ _____

CHAPTER MAY NOT ACT FOR SOCIETY



An International Organization



ASHRAE...IN WINDSOR!

*Windsor Ontario Chapter
American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.*

VOLUME 15

APRIL 1998

NO. 6 → 7

TOUR AND TECHNICAL NIGHT

Tuesday, April 21, 1998

TOUR AND TECHNICAL TALK OF TRANS ALTA ENERGY CORPORATION WINDSOR-ESSEX COGENERATION PLANT

**2600 TEMPLE DRIVE
WINDSOR, ONTARIO**

**This will be a joint meeting with 'HRAI', Heating Refrigeration
and Air Conditioning Institute**

Tour Starts at 5:00 p.m.

(Protective glasses, hard hat and safety shoes are required)

Meet at Main Office

West Off of Central Avenue - North of Windsor Star's New Plant on E.C. Rowe

Tour Guide - Don Bauder, Assistant Plant Manager

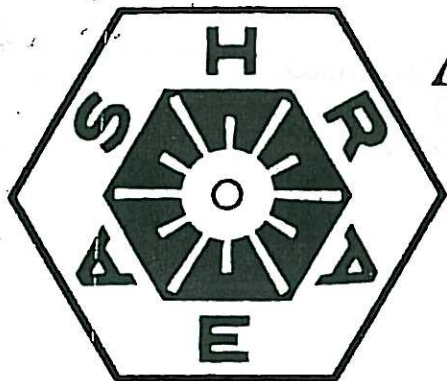
After Tour adjourn to 'RIB NIGHT' at

**TBQ's Other Place
3067 Dougall Avenue
Windsor, Ontario**

Dinner: 6:45 p.m. (Cash Bar)

(ASHRAE Members \$25, Guests \$25, Students \$20)

**For Dinner Reservations Contact:
Jan at 974-5800 by Monday, April 20, 1998**



ASHRAE...IN WINDSOR!

Windsor Ontario Chapter
American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.

VOLUME 15

APRIL 1998

NO. 6

TOUR AND TECHNICAL NIGHT

Tuesday, April 21, 1998

TOUR AND TECHNICAL TALK OF TRANS ALTA ENERGY CORPORATION WINDSOR-ESSEX COGENERATION PLANT

2600 TEMPLE DRIVE
WINDSOR, ONTARIO

This will be a joint meeting with 'HRAI', Heating Refrigeration
and Air Conditioning Institute

Tour Starts at 5:00 p.m.

(Protective glasses, hard hat and safety shoes are required)

Meet at Main Office

West Off of Central Avenue - North of Windsor Star's New Plant on E.C. Rowe

Tour Guide - Don Bauder, Assistant Plant Manager

After Tour adjourn to 'RIB NIGHT' at

TBQ's Other Place
3067 Dougall Avenue
Windsor, Ontario

Dinner:

6:45 p.m. (Cash Bar)

(ASHRAE Members \$25, Guests \$25, Students \$20)

For Dinner Reservations Contact:
Jan at 974-5800 by Monday, April 20, 1998

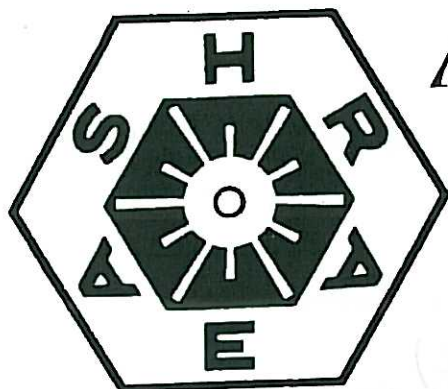
DOUGLAS DYER
NATIONAL
- CHARGES TO PLUMBING
CODE READING BACK
PLAN PRESENTING -

THANKS - TOUR OF TRANSACTA CO GENERATION
PENT.

TO

Don Brinner }
John Soares }

- ALENA MATOS-



ASHRAE...IN WINDSOR!

Windsor Ontario Chapter
American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.

VOLUME 15

MAY 1998

NO. 7

PAST PRESIDENTS NIGHT

AND

INTRODUCTION OF 1998-99 EXECUTIVE

Thursday, May 21, 1998

at

Beach Grove Golf & Country Club
14134 Riverside Drive
St. Clair Beach, Ontario

| | |
|--------------------|----------------------|
| Fellowship: | 5:30 p.m. |
| Dinner: | 6:30 p.m. (Cash Bar) |
| Speaker: | 7:45 p.m. |
| Discussion Period: | 8:15 p.m. |

(ASHRAE Members \$25, Guests \$25, Students \$20)

There will be no speaker as this is a social night. Ashrae members are urged to make an effort to attend, bring a guest and enjoy our "STEAK BARBEQUE along with the company of fellow Ashrae members.

Come and welcome in our new executive for next year:

| | |
|-----------------|------------------|
| President | - Brian Dayus |
| President-Elect | - Ken Wilson |
| Treasurer | - Ken Thompson |
| Secretary | - Phil Bracewell |

For Dinner Reservations Contact:
Jan at 974-5800 by Tuesday, May 19, 1998



*1998 New Members
David Ting, Mike Welsh, John Regier, Mason Hoppe*



























