1987 - 1988 ANNUAL REPORT
REGION IX
BLACK HILLS CHAPTER

CHAPTERS REGIONAL CONFERENCE
BILLINGS, MONTANA
MAY 5, 6, 7, 1988

AMERICAN SOCIETY OF HEATING
REFRIGERATION AND AIR CONDITIONING ENGINEERS

BLACK HILLS CHAPTER
RAPID CITY, SOUTH DAKOTA

TIMOTHY M. ELLIOTT
PRESIDENT
BLACK HILLS AREA CHAPTER 1987 - 1988

CHAPTERS REGIONAL CONFERENCE REPORT

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A. PRESIDENT'S REPORT
BLACK HILLS AREA CHAPTER OF ASHRAE

PRESIDENTS REPORT

1987 - 1988 CRC IN BILLINGS, MONTANA

This year has been hectic with the planning of the upcoming 1989 CRC in Rapid City, and the unexpected resignation of the original President Elect, we have slowly got reorganized and are getting the Chapter back on its feet.

Dave Berg, Past President and CRC Chairman, has got the ball rolling for next years regional meeting. He has set up 10 committees and each has a chairman and assistant with assignments to be completed. We are all working hard to make next years meeting a success.

This past years meetings have seen various attendance records both for increases and decreases. The programs have been on the more technical approach in lieu of social, but it is still hard to get people interested. We have a new program chairman for next year, Jerry Austin from the Omaha Chapter. Jerry's enthusiasm and new idea's should help increase attendance. I will be assisting Jerry and together, as two past Omaha Members, we should be able to increase attendance and participation.

There was another resignation in the committee chairman assignments and Bobb Haefner stepped in to take over the Research Chairman duties. After a couple of crash meetings, there has been a positive effort to receive donations and meeting our goal.

This last year we have received additional money by two sources, the HEDS/CEP seminar for the Veterans Administration. This was a successful program for both the VA and for the Black Hills ASHRAE Chapter. Dale Skillman and Brian Artz were the organizers and feel that next year we should be able to double the income from this agency. The second source of substantial income was the ASHRAE/API Golf Outing. Besides the late "T" off times and the two sudden hail storms (size of golf balls) a good time, great stories, plenty of strokes and peers were had by all.

This future year looks optimistic with the present officers and committee chairmen. We should be able to make this Chapter a successful professional organization and a learning experience.

Looking forward to seeing you all in '89.

Timothy M. Elliott
President 1988
B. COMMITTEE CHAIRMEN REPORTS
The Black Hills Chapter of ASHRAE presented an HVAC seminar for HEDS/CHEP (Health Education Development System, Inc. and Cooperative Health Education Program) on March 31, 1988. HEDS/CHEP is responsible for aiding in the education of plant and maintenance people of health care facilities such as nursing homes, veteran hospitals etc.

The seminar was presented by ASHRAE members located in the Black Hills area. The first morning session of the seminar addressed the fundamentals of boilers and boiler design. Topics included; types, sizing, efficiencies and applications. The second session in the morning dealt with pneumatic control fundamentals. This session included; basic principles and concepts, room control loop design, instrumenting air supply requirements, and air handler control principles.

The afternoon session included a detailed discussion of pneumatic system and boiler operation and maintenance. Major topics included; reading control schematics, trouble-shooting and planned maintenance of control systems, control system layout and operation, boiler maintence and tune-up procedures, boiler operation modifications, and effects of scale deposits.

The seminar was a success with 77 participants gathering at the FT. Meade Veterans Hospital. The seminar lasted for six hours which can be awarded PAOE points. General opinion from the participants was good to excellent for the seminar speakers and topics. The Black Hills Chapter will receive a fee for the seminar and should expect to receive 200 PAOE points under Energy and Technical activities. At this time, HEDS/CHEP has requested an annual seminar.

The Black Hills chapter maintained 3 faculty liason from the South Dakota School of Mines and Technology. The chapter should receive 75 PAOE points.

The Black Hills Student Chapter of ASHRAE located at SDSM&T started out slowly during the 1987-88 academic year with only 10 members. Many of the existing members graduated mid-term and therefore membership had dropped somewhat. Dale Skillman, faculty liason to the branch, is working very diligently in promoting the student chapter at SDSM&T. The present number of members is 16. By maintaining the student branch the Black Hills Chapter should expect 50 PAOE points.

The Black Hills chapter has presented the ASHRAE faculty liasons at SDSM&T with a check for $250 to be used for scholarships. 25 PAOE points should be obtained for the donation.
The Black Hills Chapter has presented various technical sessions in conjunction with monthly ASHRAE meetings. In November we had an hour presentation on Direct Digital Control. Asbestos laws and regulations was the February topic and in April there was a session on evaporative cooling (50 PAOE point bonus). Also, in January, Two ASHRAE prepared programs were shown with the monthly meeting.

Brian Artz
Education Chairman
April 18, 1988

Mr. Tim Elliott, President
Black Hills Area Chapter, ASHRAE
P.O. Box 292
Rapid City, SD  57709

Dear Tim:

Our current membership as of the current membership master list of 2-12-88 is 47 as compared to last years membership of 50. The delinquency list of 4-1-88 shows 6 members delinquent. I have contacted those on the delinquency list by letter but as of the date of this writing have had no response.

The basic reasons for the drop in our membership from last year is that several members have retired and do not wish to continue paying dues and several have transferred to other chapters.

Our student membership is about the same as last year and is holding at 17, one of which has not paid his dues.

Yours truly,

Ronald R. O'Connell
Membership Chairman

RRO: cmw
April 26, 1988

1988 ASHRAE RESEARCH FUND

Black Hills Chapter Committee Chairman Report

The 1988 Research Promotion campaign got off to a late start this year when the individual in charge of the committee decided at the last minute to discontinue his membership in ASHRAE. The newly appointed committee chairman drafted the members of the board of directors to assist with the fund.

The members of the newly formed Research Committee put together a RUSH COLLECTION CAMPAIGN and during the past two weeks have collected a total of $1,015 with an additional $525.00 promised and some firms still scrambling to come up with a donation. The $1,540.00 collected and promised to date is below the Chapter Goal which was set at $2,000.00.

The amount collected to date is 77% of our goal. It should be noted, however, that we did not send anyone from our committee or chapter to the Research Promotion Workshop in Denver on October 16, 1987. If the money saved in travel and subsistence expense were applied to our our chapter fund, we would be at or near our $2,000.00 goal.

We will continue to solicit for additional contributions in order to achieve our goal.

Respectfully submitted,
RESEARCH PROMOTION COMMITTEE

Bobb Haefner, Committee Chairman
BLACK HILLS AREA CHAPTER OF ASHRAE
On March 31, 1988 a seminar for energy plant operators was held at Ft. Meade, SD. There were approximately 70 operators in attendance.

Don Hansen of Dakota Repco gave a lecture on boiler and burner efficiency. He also discussed turbulators, showing various energy savings with their proper use.

Don peacock with Johnson Controls discussed the Fundamentals of Pneumatic Controls.

Mark Mayclln of Temperature Technology talked on the operation and maintenance of pneumatic systems.

Lee Olsen was also on hand to speak on boiler operation and maintenance.

Brian Artz gave a seminar to the South Dakota Assessors Association - Energy Savings in the Home.

This was the only activity that this committee was able to be involved in.

Respectfully submitted,

Scott Hansen, Committee Chairman
BLACK HILLS CHAPTER ASHRAE
1987 - 1988 TREASURER'S REPORT

This year we had two money making ASHRAE sponsored events.

a. $250.00 was collected from the seminar given to Health Education Development Systems, Inc. This year another seminar was given and we collected a fee of $700.00.

b. The third annual ASHRAE/API golf outing netted a profit of $600.00.

This money is used to help sponsor a student night ASHRAE meeting and $250.00 contributed to a student scholarship fund.

Craig Waddington
Treasurer
C. ASHRAE COMMITTEE INFORMATION QUESTIONNAIRE 1988 - 1989
# ASHRAE CHAPTER INFORMATION QUESTIONNAIRE

*CHAPTER OFFICERS MUST BE MEMBERS OF SOCIETY IN GOOD STANDING WITH THE GRADE OF ASSOCIATE MEMBER OR HIGHER*

<table>
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<tr>
<th>CHAPTER</th>
<th>REGION</th>
<th>SOCIETY YEAR</th>
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<tbody>
<tr>
<td>127 Black Hills</td>
<td>IX</td>
<td>1988-89</td>
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## CHAPTER OFFICERS (Do not use nicknames)
(Include area code when listing phone numbers.)

### PRESIDENT

<table>
<thead>
<tr>
<th>Name</th>
<th>Member #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenneth S. Cole</td>
<td>2018596</td>
</tr>
<tr>
<td>Address</td>
<td>1023 Rosilee Lane Rapid City, SD 57701</td>
</tr>
<tr>
<td>Business Phone</td>
<td>(605) 348-4662</td>
</tr>
<tr>
<td>Area Code and Number</td>
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### PRESIDENT-ELECT

<table>
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<tr>
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<tr>
<td>Richard B. Clegg</td>
<td>0136701</td>
</tr>
<tr>
<td>Address</td>
<td>2939 Country Club Drive Rapid City, SD 57702</td>
</tr>
<tr>
<td>Business Phone</td>
<td>(605) 348-2033</td>
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### VICE-PRESIDENT

<table>
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<tr>
<th>Name</th>
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<tr>
<td>Gerald P. Austin</td>
<td>0029281</td>
</tr>
<tr>
<td>Address</td>
<td>3824 Sarita Street Rapid City, SD 57701</td>
</tr>
<tr>
<td>Business Phone</td>
<td>(605) 341-8009</td>
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### SECRETARY

<table>
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<tr>
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<th>Member #</th>
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<tr>
<td>J. Craig Waddington</td>
<td>2038585</td>
</tr>
<tr>
<td>Address</td>
<td>1856 Lombardy Drive Rapid City, SD 57701</td>
</tr>
<tr>
<td>Business Phone</td>
<td>(605) 348-5212</td>
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<td>Area Code and Number</td>
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### TREASURER

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<tr>
<td>Dan Benedict</td>
<td>new</td>
</tr>
<tr>
<td>Address</td>
<td>RR 2, Box 601E Rapid City, SD 57701</td>
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<tr>
<td>Business Phone</td>
<td>(605) 341-8009</td>
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### OTHER

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### BUSINESS PHONE

| Area Code and Number |          |

## CHAPTER BOARD OF GOVERNORS

### Name

<table>
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<th>Member #</th>
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<tbody>
<tr>
<td>0650322</td>
</tr>
<tr>
<td>0201636</td>
</tr>
</tbody>
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### Address

| Rapid City, SD 57709 |
| Rapid City, SD 57701 |

### Business Phone

<table>
<thead>
<tr>
<th>Area Code and Number</th>
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</table>

**HEADQUARTERS ADDRESS:** ASHRAE, 1791 Tullie Circle, N.E., Atlanta, Georgia 30329

APPENDIX 1
CRC DELEGATE
Name: Kenneth S. Cole  Member # 2018596
Address: 1023 Rosilee Lane
          Rapid City, SD 57701
Business Phone (605) 348-4662
MEMBERSHIP PROMOTION COMMITTEE CHAIRMAN
Name: Timothy M. Elliott  Member # 0209250
Address: 4932 Steamboat Circle
          Rapid City, SD 57702
Business Phone (605) 343-6102
RESEARCH PROMOTION COMMITTEE CHAIRMAN
Name: Robert C. Haefner  Member # 0288906
Address: P.O. Box 1985
          Rapid City, SD 57709
Business Phone (605) 348-5665
PROGRAM SUBCOMMITTEE CHAIRMAN
Name: Gerald P. Austin  Member # 0029281
Address: 3824 Sarita Street
          Rapid City, SD 57701
Business Phone (605) 341-8009
HISTORIAN
Name: William R. Craig  Member # 0153792
Address: 219 San Marco
          Rapid City, SD 57702
Business Phone (605) 394-4165
REFRIGERATION (“R” in ASHRAE) CHAIRMAN
Name: J. Craig Waddington  Member # 2038585
Address: 1856 Lombardy Drive
          Rapid City, SD 57701
Business Phone (605) 348-5212

CRC ALTERNATE
Name: Richard B. Clegg  Member # 0136701
Address: 2939 Country Club Drive
          Rapid City, SD 57702
Business Phone (605) 348-2033
EDUCATION AND CHAPTER PROGRAMS COMMITTEE CHAIRMAN
Name: Brian J. Arzt  Member # 2038075
Address: 4720 Primrose Place
          Rapid City, SD 57702
Business Phone (605) 342-0160
ENERGY AND TECHNICAL AFFAIRS COMMITTEE CHAIRMAN
Name: J. Scott Hansen  Member # 0298458
Address: RR 1, Box 1380
          Rapid City, SD 57702
Business Phone (605) 343-5879
GOVERNMENT AFFAIRS SUBCOMMITTEE CHAIRMAN
Name: Mel R. Gerlach  Member # 0257364
Address: P.O. Box 2788
          Rapid City, SD 57709
Business Phone (605) 342-0674
NEWSLETTER EDITOR
Name: David L. Berg  Member # 0056403
Address: 2218 Jackson Blvd., Suite 10
          Rapid City, SD 57702
Business Phone (605) 348-7455

MEETING DATES FOR THE UPCOMING SOCIETY FISCAL YEAR
July       October 10/20/88
August     November 11/17/88
September  9/22/88

Regular Meeting Location  Days Inn, 125 Main Street, Rapid City, South Dakota 57701

HEADQUARTERS ADDRESS: ASHRAE, 1791 Tullie Circle, N.E., Atlanta, GA 30329

APPENDIX J
D. BLACK HILLS CHAPTER PAST PRESIDENTS
<table>
<thead>
<tr>
<th>Year Range</th>
<th>Name</th>
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<tbody>
<tr>
<td>1987 - 1988</td>
<td>Tim Elliott</td>
</tr>
<tr>
<td>1986 - 1987</td>
<td>Bobb Haefner</td>
</tr>
<tr>
<td>1985 - 1986</td>
<td>Dave Berg</td>
</tr>
<tr>
<td>1984 - 1985</td>
<td>Dave Berg</td>
</tr>
<tr>
<td>1983 - 1984</td>
<td>Mel Gerlach</td>
</tr>
<tr>
<td>1982 - 1983</td>
<td>Gunar Dzintars</td>
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<tr>
<td>1981 - 1982</td>
<td>Gunar Dzintars</td>
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<tr>
<td>1981 - 1981</td>
<td>Dale Skillman</td>
</tr>
<tr>
<td>1979 - 1980</td>
<td>Bill Craig</td>
</tr>
<tr>
<td>1978 - 1979</td>
<td>Al Harding</td>
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<tr>
<td>1977 - 1978</td>
<td>Del Aldrich</td>
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<tr>
<td>1976 - 1977</td>
<td>Ron D'Connell</td>
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</table>
E. ASHRAE CRC SUMMARY REPORT REGIONAL IX
Note: The "current" Society year (1987-88) is the year being reported for Spring CPCs. The previous year column represents 1986-87 totals.

Chapter: Black Hills  Chapter No.: 127

CRC Location: City: Rapid City  State/Province: South Dakota

CPC Business Session: Date: May 5, 1988

MEMBERSHIP PROMOTION

<table>
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<tr>
<th>Previous Year (86-87)</th>
<th>YTD (87-88) as of 2/12/88</th>
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<tbody>
<tr>
<td>Assigned Members</td>
<td>51</td>
</tr>
<tr>
<td>Student Members</td>
<td>10</td>
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<tr>
<td>Chapter Members</td>
<td></td>
</tr>
<tr>
<td>New Members to Date</td>
<td></td>
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<tr>
<td>Members Delinquent To Date</td>
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<tr>
<td>Number of Upgrades</td>
<td></td>
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<tr>
<td>Date of Membership Night</td>
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<tr>
<td>Guests Attendance (Membership Night)</td>
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EDUCATION AND CHAPTER PROGRAMS

Name(s) of Student Branch(es): Black Hills Area Student Chapter

Do you have a Student Night?  Yes X  No

Number of Students attending Student Night: 10

Number of Scholarships: 1  Total $ Value: 250

Number of Grants in Aid: 0  Total $ Value: 0

Special Activities (describe): Guided Tour of Utility Plant
<table>
<thead>
<tr>
<th>Chapter Meeting/Technical Programs (Excluding Social Functions)</th>
<th>Previous Year (86-87)</th>
<th>YTD (87-88) as of 5/1/88</th>
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</thead>
<tbody>
<tr>
<td>Number of Technical Programs</td>
<td>1</td>
<td>6</td>
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<tr>
<td>Total Number of Meetings</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Average Meeting Attendance</td>
<td>15</td>
<td>15</td>
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<tr>
<td>Number of Pre-Dinner Sessions</td>
<td></td>
<td>6</td>
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<tr>
<td>Best Program</td>
<td></td>
<td><strong>Direct/Indirect Cooling</strong></td>
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Comments on programs, speaker lists, etc.

We have tried noon meetings, evening meetings, different days, same day of month, but attendance and participation is still low.

Social Functions

ASHRAE/API Golf Outing June 1

Feb. 3/88
### ENERGY AND TECHNICAL AFFAIRS

<table>
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<tr>
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<th>Previous Year (86-87)</th>
<th>YTD (87-88) as of 5/1/88</th>
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<tbody>
<tr>
<td>Number of Legislative Liaison</td>
<td>0</td>
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<tr>
<td>Number of Liaison other Societies</td>
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<tr>
<td>Number of Energy Award Entries</td>
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<td>0</td>
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<tr>
<td>Number of Sessions</td>
<td>0</td>
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<tr>
<td>Number of Chapter Seminars</td>
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### RESEARCH PROMOTION/FUND RAISING

<table>
<thead>
<tr>
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<th>Previous Year (86-87)</th>
<th>YTD (87-88) as of 5/1/88</th>
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<tr>
<td>Quota</td>
<td>1600</td>
<td>2000</td>
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<tr>
<td>Number of Contributions</td>
<td>40</td>
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<tr>
<td>Dollar Value</td>
<td>$2030</td>
<td>$1540</td>
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<tr>
<td>Dollars per Member</td>
<td>$41.77</td>
<td>$</td>
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<tr>
<td>Special Activities or Comments</td>
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<td></td>
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<tr>
<td>Committee Chairman resigned</td>
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<tr>
<td>Crash drive to achieve goal</td>
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### FINANCES

<table>
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<th>Previous Year (86-87)</th>
<th>YTD (87-88) as of 5/1/88</th>
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<tr>
<td>Reserve Funds</td>
<td>$</td>
<td>$</td>
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<tr>
<td>Current Balance</td>
<td>$750</td>
<td>$1233.02</td>
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<tr>
<td>Chapter Dues</td>
<td>$15</td>
<td>$15</td>
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<tr>
<td>Member Cost of Meals</td>
<td>$Varies</td>
<td>$Varies</td>
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<tr>
<td>Guest Cost of Meals</td>
<td>$Varies</td>
<td>$Varies</td>
</tr>
<tr>
<td>Cash Earn? Yes <em>X</em> No <em>?</em></td>
<td>$Yes</td>
<td>$Yes</td>
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<tr>
<td>Package Plan? Details</td>
<td>No</td>
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Rev. 3/88
Description of Other Sources of Income?

- ASHRAE/API Golf Outing
- Seminar - Veterans Administration

Description of Special Projects or Programs Funded?

- Student Night - Social
- Student Scholarship

CRC ACTION COMMITTEE PROPOSALS


CHAPTER PROBLEMS

- Poor attendance

CHAPTER INNOVATIONS AND SUGGESTIONS

- HED/CEP Seminar - exposure to ASHRAE and Govt. Agencies

Rev. 3/88
<table>
<thead>
<tr>
<th>PAOE POINTS</th>
<th>Previous Year (86-87)</th>
<th>YTD (87-88) as of 5/1/88</th>
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<tr>
<td>Membership Growth</td>
<td>400</td>
<td>700</td>
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<tr>
<td>Meeting Attendance</td>
<td>350</td>
<td>330</td>
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<tr>
<td>Research Promotion</td>
<td>408</td>
<td>483</td>
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<tr>
<td>Education and Chapter Program Activities</td>
<td>300</td>
<td>350</td>
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<tr>
<td>Energy/Technical Affairs Activities</td>
<td>-</td>
<td>350</td>
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<tr>
<td>CPC Attendance</td>
<td>70</td>
<td>271</td>
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Attachments: 1. CRC Action Items
2. Best Newsletter of the Year
3. Special Seminar Program
4. Chapter Information Questionnaire
5. Copy of Chapter Roster (optional)
6. Product Directory (if published)
7. Chapter Committee Chairmen MBC's

SIGNED: Timothy M. Elliott, 1987-88

Rev. 3/88
F. EDUCATION SEMINAR ANNOUNCEMENT
MORNING SESSION

The morning session will involve the basic principles of boiler and pneumatic control design as they relate to the HVAC industry. Major topics will include:

Boilers and Boiler Design Fundamentals
- Various types and applications
- Basic sizing techniques
- Boiler efficiencies
- Burner types and applications

Pneumatic Control Fundamentals
- Basic principles and concepts
- Room control loop design
- Instrumenting air supply requirements
- Air handler control principles
- Hydronic and steam control for energy conservation

PRESENTERS:

Don Hansen - Dakota Repco
Scott Hansen - Dakota Repco

Don and Scott Hansen currently own Dakota Repco in Rapid City, SD. Dakota Repco represents many brands of boilers such as: Kewanee, American Standard, Well-McLain, and Gordan Pratt Burners. Don Hansen has been representing these and other manufacturers for over 37 years.

Don Peacock - Johnson Controls

Mr. Peacock has a Bachelor of Science degree in Technology from USD Springfield. He has one and a half years experience in plant maintenance and process control and has a background in electronics, HVAC, and refrigeration. Mr. Peacock is currently Project Manager for Johnson Controls where has has worked for over 11 years. He is also a qualified member of NEBB (National Environmental Balancing Bureau).

AFTERNOON SESSION

Experienced people in the HVAC industry will share their knowledge and expertise of the maintenance and operation of boilers and pneumatic controls. Major topics will include:

Pneumatic Systems - Operation and Maintenance

MARCH 31, 1988

BOILERS & PNEUMATIC CONTROLS UPDATE '88

HVAC SYSTEMS UPDATE '88
<table>
<thead>
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<th>PARTICIPANTS</th>
<th>SSN</th>
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REGISTRATION
HEDS/CHEP/VA-FREE
Individual Associate
Members - $25.00
All others - $50.00
Make checks payable to: HEDS
Mail to: HEDS/CHEP
Box 187
Fort Meade, SD
57741

PRE-REGISTRATION IS REQUESTED BY March 24, 1988

ATTENTION:
ALL PERSONNEL ASSOCIATED WITH HVAC SYSTEMS
HVAC SYSTEMS UPDATE '88
BOILERS & PNEUMATIC CONTROLS

MORNING SESSION

The morning session will involve the basic principles of boiler and pneumatic control systems as they relate to the HVAC industry. Major topics will include:

- Boilers and Boiler Design Fundamentals
  - Various types and applications
  - Basic sizing techniques
  - Boiler efficiencies
  - Burner types and applications

- Pneumatic Control Fundamentals
  - Basic principles and concepts
  - Remote control loop design
  - Instrumenting air supply requirements
  - Air handler control principles
  - Hydronic and steam control for energy conservation

PRESENTERS:

Don Hansen - Dakota Recycling
Scott Hanson - Dakota Recycling
Dakota Recycling currently owns Dakota Recycling in Rapid City, SD. Dakota Recycling represents many brands of boilers such as, Wexford, American Standard, Mail-McLain, and Garrettson Products. Don Hansen has been representing these and other manufacturers for over 27 years.

Don Peacock - Johnson Controls
Mr. Peacock has a Bachelor of Science degree in Technology from USD Springfield. He has one and a half years experience in plant maintenance and process control and has a background in electronics, HVAC, and refrigeration. Mr. Peacock is currently Project Manager for Johnson Controls where he has worked for over 11 years. He is also a member of ASHRAE and HEO (National Environmental Balancing Bureau).

AFTERNOON SESSION

Experienced people in the HVAC industry will share their knowledge and expertise of the maintenance and operation of boilers and pneumatic controls. Major topics will include:

- Pneumatic Systems - Operation and Maintenance
  - Control system layout and operation
  - Trouble-shooting and problem solving
  - Reading control schematics
  - Planned maintenance

- Boiler Operation and Maintenance
  - Boiler Maintenance procedures
  - Boiler startup
  - Boiler operational modifications
  - Effect of scale deposits
  - Major factors controlling boiler efficiency

PRESENTERS:

Mark Mazzal - Temperature Technology
Returning for his second year is Mark Mazzal for Temperature Technology. He has broad experience in the installation and service of control systems, and in the training of control system maintenance personnel. Mr. Mazzal is currently direct the control system in a five-state area.

Ray March - Johnson Controls
Ray March started with Hellgren's Inc. where he was involved in the operation and maintenance of mechanical systems. He has over 30 years of experience with Johnson Controls where he has worked in the construction branch for 7 years and in the service branch for 8 years.

Lee Olsen
Mr. Olsen has over 45 years of experience in the plumbing and HVAC industry. His experience started with the Crane Co., where he worked in design and sales for 10 years. In 1998, he co-founded Hellgren's Inc., which was a mechanical contracting company engaged in plumbing, heating, and air conditioning. During that time he was involved with boiler operation and maintenance contracting. He also performed training sessions for many operating people at various institutions in the area. Mr. Olsen is currently a consultant working as a consultant for various projects.

TARGET AUDIENCE: All personnel associated with HVAC systems and maintenance.

FEE: HEDS/CHEP: $25.00, Individual Associate Members $25.00, ALL others $50.00

PRE-REGISTRATION: is required by March 24, 1988, please register by calling HEDS/CHEP office (605) 271-2451 ext. 302, or mail registration form on reverse side.

CONTINUING EDUCATION CREDITS: HEDS/CHEP will award 0.5 CEU's for 6 contact hours.

LOGISTICS: HEDS/CHEP Classroom
Fort Meade, SD

REGISTRATION: 8:30 am - 9:00 am
PROGRAM: 9:00 am - 4:00 pm
REGISTRATION FOR  
HAVC UPDATE '88  BOILERS & PNEUMATIC CONTROLS

PARTICIPANTS FACILITY

LOCATION: HEOS/CHEP Classroom, Fort Meade, SD

PARTICIPANTS  SSN  POSITION

REGISTRATION

HEOS/CHEP/VA-FREE
Individual Associate
Members - $25.00
All others - $50.00
Make checks payable to:HE.
Mail to: HEOS/CHEP
Box 187
Fort Meade, SD
57741

PRE-REGISTRATION IS REQUESTED BY March 24, 1988

ATTENTION:

ALL PERSONNEL ASSOCIATED WITH HVAC SYSTEMS

HVAC SYSTEMS UPDATE '88
BOILERS & PNEUMATIC CONTROLS

MARCH 31, 1988

Health Education Development System, Inc.
and
Cooperative Health Education Program
HEOS/CHEP
Feb. 11, 1988

Brian Artz
Education Chairman, ASHRAE
4720 Primrose PL.
Rapid City, SD 57702

Veronica Parsons
HEDS/CHEP
VA Medical Center
Ft. Meade, SD 57741

Dear Ms. Parsons:

Enclosed is the information for the American Society of Heating, Refrigeration, and Air Conditioning Engineers seminar at Ft. Meade on March 31, 1987. The information provides a description of topic materials and a short description of each speaker.

Dale Skillman will act as host for the seminar to make introductory remarks and introduce each session and the speakers. He will also direct the sessions by keeping time and soliciting questions from the audience. He will also provide information about ASHRAE to the conference attendees.

Upon completion of the pamphlet for the conference, please mail me several copies for the speakers. I will let you know if any video equipment, screens, etc. will be needed. If you have any question, please call at 342-0160 or 348-8905.

Very truly yours,

Brian Artz
Education Chairman, ASHRAE

cc. Tim Elliott
Dale Skillman

enc.
BOILERS AND PNEUMATIC CONTROLS

Morning Session

The Morning session will involve the basic principles of boiler and pneumatic control design as they relate to the HVAC industry. Major topics will include:

Boilers and Boiler Design Fundamentals - Don Hansen
Scott Hansen

- Various types and applications
- Basic sizing techniques
- Boiler efficiencies
- Burner types and applications

Pneumatic Control Fundamentals - Don Peacock

- Basic principles and concepts
- Room control loop design
- Instrumenting air supply requirements
- Air handler control principles
- Hydronic and steam control for energy conservation

Afternoon Session

Experienced people in the HVAC industry will share their knowledge and expertise of the maintenance and operation of boilers and pneumatic controls. Major topics will include:

Pneumatic Systems - Operation and Maintenance - Mark Mayclin
Ray Barck

- Control system layout and operation
- Trouble-shooting and problem solving
- Reading control schematics
- Planned maintenance

Boiler Operation and Maintenance - Lee Olsen

- Boiler Maintenance procedures
- Boiler tune-up
- Boiler operational modifications
- Effect of scale deposits
- Major factors controlling boiler efficiency
Mr. Peacock has a Bachelor of Science degree in Technology from USD Springfield. He has one and a half years experience in plant maintenance and process control and has a background in electronics, hvac, and refrigeration. Mr. Peacock is currently Project Manager for Johnson Controls where he has worked for over 11 years. He is also a qualified member of NEBB (National Environmental Balancing Bureau).

Don Hansen - Dakota Repco
Scott Hansen - Dakota Repco

Don and Scott Hansen currently own Dakota Repco in Rapid City, SD. Dakota Repco represents many brands of boilers such as: Kewanee, American Standard, Weil-McLain, and Gordon Platt Burners. Don Hansen has been representing these and other manufacturers for over 37 years.
Mark Mayclin - Temperature Technology

Returning for his second year is Mark Mayclin for Temperature Technology. He has broad experience in the installation and service of control systems, and in the training of control system maintenance personnel. Mr. Mayclin is currently directing control system construction projects and maintenance service in a five state area.

Ray Barck - Johnson Controls

Ray Barck started with Mellgren's Inc., where he was involved in the operation and maintenance of mechanical systems. He has over 15 years of experience with Johnson Controls, where he has worked in their construction branch for 7 years and in their service branch for 8 years.

Lee Olsen

Mr. Olsen has over 45 years of experience in the plumbing and HVAC industries. His experience started with the Crane Co. where he worked in design and sales for 10 years. In 1938, Mr. Olsen co-founded Mellgren's Inc., which was a mechanical contracting company engaged in plumbing, heating, and air conditioning. During that time he was involved with boiler operation and maintenance contracting. He also performed training sessions for many operating people of various institutions in the area. Mr. Olsen currently retired but is working as a consultant for various projects.
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(Local Chapter and Society Member)  
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Rapid City, S.D. 57702  
Home Phone: (605) 343-0768

Aldrich Air Conditioning  
2403 South Highway 79  
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Work Phone: (605) 343-1711

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Mail Preference: Business

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VA Medical Center  
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<th>Phone Numbers</th>
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Treasurer  
E - Associate (Under 30)  
Membership No. 2038585  
Mail Preference: Business
H. NEWSLETTERS
MINUTES

CHAPTER: 127 - Black Hills Area
MEETING DATE: September 22, 1987

ATTENDANCE: MEMBERS 13; GUESTS 3; COMPILED BY Jerry Austin

DISTRIBUTION: Retain BLUE original for chapter files and mail GREEN copy to your Regional Chairman. Send WHITE copy to Manager, Membership Dept., ASHRAE, Atlanta, together with the YELLOW copy for "Journal" information.

The ASHRAE Black Hills Area Chapter meeting was called to order by Acting President Tim Elliott at noon on September 22, 1987 at the Imperial Inn. Roll call was conducted by having a self introduction of members and guests present.

Discussion was held on committee assignments and the best method of getting needed volunteers. After some discussion, the following committee members were prepared pending acceptance by those suggested:

- Education Committee: Brian Arzt, Marlin Brendsel
- Research Promotion Committee: Wayne Krause, Bob Haefner, Dell Petersen, Don Hansen
- Energy and Technical Affairs Committee: Scott Hansen, Dale Skillman
- Programs: Tim Elliot, Lee Olson, Dennis Pfitzer
- Government Affairs Committee: Mel Gerlach, Dave Berg
- Historian: Jim Christensen, Bill Craig
- Newsletter: Dave Eberg
- "P" in ASHRAE: Craig Waddington, Al Cornella
- Strategic Planning Committee: Jerry Austin, Bob Haefner, Dan Benedict

Discussion was held on planning for the CRC scheduled to be held in May of 1989. Dave Eberg will head up the effort. Volunteers are needed yet for several committee assignments.

There being no further business, the meeting was adjourned at 1:20 p.m.

APPENDIX I
BLACK HILLS AREA CHAPTER MEETING ANNOUNCEMENT

DATE:   September 22, 1987 (Tuesday)
TIME:   12:00 - Noon Buffet - $5.50
        Imperial Inn

Welcome to the 1987-88 ASHRAE year! We will be beginning this ASHRAE year with our first meeting held at noon at the Imperial Inn. We have completed another successful ASHRAE season by increasing our membership and surpassing our goal to ASHRAE Research.

The new ASHRAE Officers are seeking volunteers for several committee assignments for this coming year, such as Membership Chairman, Program Chairman, Research Chairman, etc. Bring your ideas and suggestions to our first meeting and let's kick this year off with enthusiasm and involvement.

The 1989 CRC will be held in Rapid City. We must begin now to plan for this event. We have asked for volunteers to head several committees. We need a commitment from the total membership to make this a successful CRC!

Don't forget this meeting will be a noon luncheon.

See You at ASHRAE!

Dave Berg.
MINUTES

CHAPTER: 127 - Black Hills Area  MEETING DATE: October 20, 1987

ATTENDANCE: MEMBERS: 17  GUESTS: 5  COMPILED BY: Jerry Austin

DISTRIBUTION: Retain BLUE original for chapter files and mail GREEN copy to your Regional Chairman. Send WHITE copy to Manager, Membership Dept., ASHRAE, Atlanta, together with the YELLOW copy for "Journal" information.

SUGGESTED CHECK LIST OF ITEMS TO BE REPORTED:

1. PRESIDING OFFICER
2. CALL TO ORDER (Time & Place)
3. ROLL CALL
4. APPROVAL OF MINUTES
5. REPORTS
6. ELECTION Members Officers
7. OLD BUSINESS
8. NEW BUSINESS
9. SPEAKER
10. DISCUSSIONS
11. MOTIONS
12. RESOLUTIONS
13. OTHER FEATURES
14. ADJOURNMENT

The ASHRAE Black Hills Area Chapter meeting was called to order by President Tim Elliot at 5:30 p.m. October 20, 1987 at the Imperial Inn. Larry Jenkins, Region IX Chairman was visiting. There was a self introduction of members and guests present. This meeting was the annual new member/student chapter night and there was a good turnout.

Mr. Jenkins addressed the group about a variety of Society level changes and discussed the move of the CRC's to the fall, starting with the 1990 CRC in Omaha. Some concern was expressed by the members because the tourist season is in full swing in August. It would be very difficult to find necessary accommodations and the Chapter would be competing with large numbers of people for any activity. Mount Rushmore for example is currently visited by over two million visitors per year, most of whom began arriving mid-May and are largely gone by early September. However, since the 1988 CRC will still be a spring CRC, and because the Black Hills Chapter wants to host that CRC, there should be no problem this time.

The meeting was adjourned at 7:30 p.m.

APPENDIX I
BLACK HILLS AREA CHAPTER MEETING ANNOUNCEMENT

STUDENT/NEW MEMBER NIGHT

DATE: October 20, 1987 (Tuesday)
TIME: 5:30
PLACE: Imperial Inn, 125 Main Street, Rapid City.

The October meeting has been designated as "Student Night". Members and guests of the Student Branch have been invited to attend this meeting. Let's have another good turnout for this Annual Beer/Chicken Wing Gathering. Bring a future member and enjoy!

Mr. Larry Jenkins, Region IX Regional Chairman, will be visiting our chapter. Larry is the Mechanical Department Head for HDR in Omaha, NE.

The following people have been elected to the committees as shown:

EDUCATION COMMITTEE: Brian Artz, Marlin Brendsel

RESEARCH PROMOTION COMMITTEE: Wayne Krause, Bob Haefner
Del Peterson, Don Hanson

ENERGY & TECHNICAL AFFAIRS COMMITTEE: Scott Hanson, Dale Skillman

PROGRAMS: Tim Elliot, Lee Olson, Dennis Pfizer

GOVERNMENT AFFAIRS COMMITTEE: Mel Gerlach, Dave Berg

HISTORIAN: Jim Christensen, Bill Craig

NEWSLETTER: Dave Berg

"R" IN ASHRAE: Craig Waddington, Al Cornella

STRATEGIC PLANNING COMMITTEE: Jerry Austin, Bob Haefner
Dan Benedict

Total group participation will make this chapter a success!

See You at ASHRAE!
The ASHRAE Black Hills Area Chapter meeting was called to order at 7:30 p.m. after a Board of Governors meeting, social hour and dinner at the Imperial Inn. President Dave Hammerquist requested that his resignation be accepted. Dave will continue to remain active and support the Chapter but his work has required more of his time and he finds too many conflicts to his president's duties. The remaining officers were moved up to fill vacancies. The officers moved up were announced:

President - Tim Elliott
Vice President - Rick Clegg
Secretary - Ken Cole
Treasurer - Craig Waddington

A letter was read from Wayne Krause, faculty liason from South Dakota State School of Mines and Technology in which $250 was requested from the Chapter to purchase a piece of HVAC test equipment. It was moved and seconded to send them a check.

A certificate of appreciation was presented to Bob Haefner as past President for his work on behalf of the Chapter.

The program for the evening was a technical presentation on direct digital drive controls presented by Bernie Mackey, Honeywell sales engineer for Sioux Falls.

There being no further business, the meeting was adjourned at 9:00 p.m.
BLACK HILLS AREA CHAPTER MEETING ANNOUNCEMENT

DATE: November 17, 1987 (Tuesday)
TIME: 5:30 - 6:30 Social Hour & Board of Governors Meeting
       6:30 - 7:30 Dinner (from menu)
       7:30 - 8:30 Program
PLACE: Imperial Inn, 125 Main Street, Rapid City.

Black Hills Chapter President Dave Hammerquist has announced that he will no longer be able to serve as president of our Chapter due to conflicts beyond his control. Dave will remain active in our Chapter, but anticipates having to travel more this next year.

The remaining officers will move up the chairs to fill the vacant positions. The Officers are:

President - Tim Elliot
Vice President - Rick Clegg
Secretary - Ken Cole

Craig Wadington has accepted the office of Treasurer for this next year.

The program for our November meeting will be presented by Bernie Mackey. Bernie will enlighten us on the use of DDC (direct digital control) in the temperature control and energy management field. Temperature control systems are changing each day and new products are being developed constantly. This is a worthwhile program for all ASHRAE Members. DDC is fast becoming the standard in the control industry.

We have just learned that CRC will be held in Rapid City as originally planned in May, 1989. We will be asking each member to help serve on one or more of the CRC Committees. We will also be asking all of our members to try to attend the CRC in Billings, Montana this spring. Think CRC in '89!

Come to ASHRAE - Bring a Member!
The ASHRAE Black Hills Area Chapter meeting was called to order at noon by President Tim Elliot at the Imperial Inn. The Treasurer's report was read with a balance of $589.65 in the account.

Ken Cole discussed advance planning for the 1986 CRC to be hosted by the Black Hills Area Chapter. It was vowed to work to make this the best CRC ever. Space has been reserved at the Howard Johnson. Dave has set up the necessary committee structures and still needs so help on the various committees. Attendance at the May CRC in Billings, Montana was emphasized. It looks like we will have a good turnout.

Tim announced a change in the Chapter Officer lineup:

- President - Tim Elliot
- President Elect - Ken Cole
- Vice President - Rick Clagg
- Secretary - Jerry Austin
- Treasurer - Craig Weddington

The program was a viewing of the video tape of the San Francisco Annual ASHRAE Winter Meeting. Additionally, we viewed the Energy Awards video tape.

There being no further business, the meeting was adjourned.
BLACK HILLS AREA CHAPTER MEETING ANNOUNCEMENT

DATE: THURSDAY, JANUARY 21, 1988
TIME: 12:00 NOON
PLACE: ROMANS RON DE VU
125 Main Street, Rapid City, SD

AGENDA:
- Technical Video
- VAV Duct Design
- Review Energy Awards
- Scenes from ASHRAE Exposition—Dallas & Portland
- Optimal Control Strategies

LUNCH:
- New Improved Buffet - $5.25
- Soup/Sandwich Bar - $3.75

Mark Your Calendar!

ASHRAE/API Golf Outing - June 1st.
Dinner & Awards - Canyon Lake Club
Let's have another great turn out. We do have the whole course this year.

To all the members that have attended the meetings, the Chapter appreciates your participation - to the others, let's try harder to attend. We have tried different times, days and meeting programs to get your involvement, but still, we only have a handful of people that attend. ASHRAE is a Professional Society that all of us can learn and profit from, but participation is required. Next year the Region IX CRC will be in Rapid City and it will take a total Chapter effort for this to be a success.

Next months meeting - Valentine/Sweetheart Dinner. If interested please contact Tim @ 343-6102, if not we’ll schedule another meeting with poor attendance.

Tim Elliott
President & Program Chairman
The ASHRAE Black Hills Area Chapter meeting was called to order at 6:00 p.m. by President Tim Elliot after a social hour and dinner. The Treasurer's report was read. The golf outing was promoted. This will be an event involving ASHRAE and API planned for June 1st.

Brian Artz discussed the upcoming seminar sponsored by the local Chapter and the Air Conditioning Engineers at Ft. Meade on March 31, 1988. Dale Skillman will act as host for the seminar and provide information on ASHRAE to seminar participants. The morning session will cover: boilers and boiler design fundamentals and pneumatic control fundamentals. The afternoon session will cover: pneumatic systems and their operation and maintenance and boiler operation and maintenance. The following ASHRAE Black Hills Chapter members are presenting information: Dale Skillman, Don Hansen, Scott Hansen, Mark Mayclin and Lee Olsen.

The speaker for the night was Bob Haefner who spoke on the Asbestos Hazard Emergency Response Act. Bob discussed the deadlines for action under the Act. Bob discussed the main features of the Act such as inspections, re-inspections, sampling and analysis, assessment, management plans, response actions, training and periodic surveillance, completion of response actions, use of accredited persons, worker and occupant protection, recordkeeping (30 years), enforcement, transportation and disposal. Bob emphasized that architects and engineers can no longer get by with "All asbestos must be removed in accordance with all local, State and Federal requirements."

There being no further business, the meeting was adjourned.
BLACK HILLS AREA CHAPTER MEETING ANNOUNCEMENT

DATE: TUESDAY, FEBRUARY 23, 1988

PLACE: ROMANS RON DE VU
125 Main Street, Rapid City, SD

Social Hour in Lounge 5:00-6:00 P.M.
Special Prices & Hors'douvres

Dinner & Meeting following (Select from Menu)

TIME: 6:00 Meeting with Famous Guest Speaker Bobb Haefner
Talking on AHERA Asbestos Hazard
Emergency Response Act and the Gov't. Regulations

REMINDER

*ASHRAE/API Golf Outing - June 1st.
*CRC Next year - 6 - 8 committees
*Local ASHRAE Dues are past due.

Minutes from last Meeting:

Eleven people attended. Thanks to all.
VCR on – ASHRAE Winter Meeting
Optimal Control Strategies
Static Duct Regain Systems

Last ASHRAE notice of officers misprint:

Ken Cole - President-Elect
Rick Clegg - Vice President:
Jerry Austin - Secretary
Craig Waddington - Treasurer

Tim Elliott
President & Program Chairman
DATE: February 23, 1988

SPEAKER: Bobb Haefer, L & L INSULATION, INC.
SUBJECT: AHERA (Asbestos Hazard Emergency Response Act)  
EPA 40 CFR Part 763 Asbestos-Containing Materials in Schools
ISSUING AGENCY: Environmental Protection Agency

EFFECTIVE DATES:
October 22, 1986 - President Reagan signs Substance Control Act of which this legislation is a part
November 13, 1987 - Promulgated for judicial review
December 14, 1987 - Approved and incorporated into the Federal Register

OCTOBER 12, 1988 - All LEAs (Local Education Agencies) must submit plans to State Agency tasked with AHERA compliance or be subject to a fine by EPA for non-compliance

APPLICABILITY:
This law applies to ALL public and private school buildings currently in use by the LEA for the purposes of classrooms, bus garages, shops or other school related activities owned or leased by the LEA.

SUMMARY:
EPA is issuing a final rule under section 203 of Title II of the Toxic Substances Control Act (TSCA), 15 U.S.C. 2643, to require all LEAs to identify asbestos-containing materials (ACM) in their school buildings and take appropriate actions to control release of asbestos fibers. The LEAs are required to describe their activities in management plans, which must be made available to all concerned persons and submitted to State Governors. This final rule requires LEAs to use specially-trained persons to conduct inspections for asbestos, develop the management plans, and design or conduct major actions to control asbestos.

BACKGROUND:
The 1982 Asbestos-in-Schools Rule went into effect on May 27, 1982. This rule required the LEA to inspect for ACM (Asbestos Containing Material) by no later than June 28, 1983.

This Rule required the LEA to notify employees of the location of the materials, post a notification for all administrative, faculty and custodial personnel and notify all parent-teacher associations or parents directly of the inspection results.
AHERA REQUIREMENTS:

Inspections and re-inspections
Sampling and Analysis
Assessment
Management Plans
Response Actions
Training and Periodic Surveillance
Completion of Response Actions (TEM vs PCM)
Use of Accredited Persons
Worker and Occupant Protection
Recordkeeping

Enforcement (penalties up to $5,000.00 per day for LEA)
   (penalties up to $25,000.00 per day for others)

Transport and Disposal

SUMMARY

QUESTIONS
The ASHRAE Black Hills Area Chapter meeting was called to order at noon by President Tim Elliot at the Imperial Inn. Flyers were passed out promoting the annual ASHRAE golf outing at Meadowbrook Golf Course on June 1st. Tim also promoted the HVAC Systems Update '88 being presented by the Black Hills Chapter. Dale Skillman, assistant professor of mechanical engineering at SDS&M was to host the event. A motion was made and seconded to request 50% of money paid by paying customers or a minimum of $300. Bob Hafner was named as a replacement for the Research Committee Chairmanship. President Elliot requested that all committee chairmen get their CRC reports into Jerry Austin as soon as possible. Dave Berg requested a good showing of all committee people at Billings in May. This is even more important in view of the fact that few of the current members have ever been to a CRC and thus do not understand what is required. The Rapid City Chamber of Commerce's "Star of the West" presentation will be used in Billings. We have our motel locked in - Howard Johnson. Dave passed out the CRC committee assignments for our 1989 CRC effort.

Tim discussed the golf outing and requested more sponsors. The student chapter found that the equipment they needed was much more expensive than planned. They are dropping the proposal.

There being no further business, the meeting was adjourned.
BLACK HILLS AREA CHAPTER MEETING ANNOUNCEMENT

DATE: WEDNESDAY, MARCH 30, 1988
PLACE: ROMANS RON DE VU
125 Main Street, Rapid City, SD
Soup & Sandwich $3.75
or Buffet $5.25
TIME: 12:00 NOON

The Big Sky Chapter of ASHRAE will be our hosts for the Region IX CRC this year, in Billings, Montana, May 5, 6, 7. Plan now to attend. Registration forms and additional information will be available at the meeting.

Since Black Hills Chapter will be hosting the 1989 CRC, we need to have several representatives at the Billings CRC in May.

We will also be selecting our committee chairpersons for the '89 CRC. Please be ready to volunteer some time to make our CRC in the Black Hills successful.

REMINDER
Mark your calendar - June 1, 1988
ASHRAE/API Golf outing

Tim Elliott
President & Program Chairman
The ASHRAE Black Hills Area Chapter meeting was called to order at noon by President Tim Elliot at the Imperial Inn. The members were reminded of the golf outing scheduled for June 1st. The election of officers for the 1988-1989 Society year was held:

President - Ken Cole
President Elect - Rick Clegg
Vice President - Jerry Austin
Secretary - Craig Waddington
Treasurer - Dan Benedict
Membership Promotion - Tim Elliot
Research Promotion - Bob Haefner
Program Chairman - Jerry Austin
Historian - Bill Craig
Education and Chapter Programs - Brian Ariz
Energy and Technical Affairs - Scott Hansen
Government Affairs - Mel Gerlach
Newsletter - Dave Berg
"RM" in ASHRAE - Craig Waddington

The adoption of the slate of officers was moved and approved.

The technical speaker was Mr. Lou Grounds of MORS-AIRE in Denver who presented an informative session on indirect and direct evaporative cooling.

Thus being no further business, the meeting adjourned.
BLACK HILLS AREA CHAPTER MEETING ANNOUNCEMENT

DATE: TUESDAY, APRIL 19, 1988
PLACE: ROMANS RON DE YU
125 Main Street, Rapid City, SD
TIME: 12:00 NOON
PROGRAM: Guest Speaker - Lou Grounds
NORS-AIRE - Denver
Topic - "Indirect/Direct Evaporative Cooling"

Election of new Committee Chairmen.
If not present - you could be a shoe-in for these positions.

ASHRAE Golf - June 1.
*Send checks NOW!!
Choice of Foursome
Choice of Starting Time (8 - 12 Noon)
$50.00 - Golf-Cart-Dinner for one
$35.50 - Golf-Dinner for one
$13.50 - Additional Dinner
$25.00 - Golf Only

*Tim Elliott (ASHRAE)
c/o TSP
600 Kansas City Street
Rapid City, SD 57701

REMINDER

Region IX CRC May 5, 6, 7 - Billings
Plan to be there!

Tim Elliott
President & Program Chairman
ASHRAE/API
GOLF OUTING & FUND RAISING

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June 1, 1988
Meadowbrook Golf Course
Rapid City, SD

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Sign up now for T-off times and foursomes

$50.00 Entry Fee
(includes green fees, carts,
refreshments on course, dinner for one)

* * * * *

Additional dinners $13.50
(wife, girlfriend, friends welcome)

* * * * *

Dinner Choices:
Steak, Prime Rib, Shrimp, Chicken Victoria

* * * * *

Send checks, choice of dinner(s), foursome,
and starting time(s) to:

Tim Elliott
TSP
600 Kansas City Street
Rapid City, SD 57701
(605) 343-6102

Ron Mateo
API
5004 API Road
Black Hawk, SD 57718
(605) 787-6781

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DONATIONS FOR GIFTS AND PRIZES STILL NEEDED!!
COME ON SPONSORS!!
HELP OUT!!
1. SDSM&T STUDENT CHAPTER FUNDING REQUEST
October 28, 1987

Mr. David Berg
President,
West Plains Engineering
2218 Jackson Boulevard
Rapid City, SD 57701

Dear Dave:

Enclosed please find a copy of information on an HVAC related data logger/instrumentation system. Professor Groves and I feel that this would be a useful tool for our HVAC, Measurements, and other thermal science related courses. Would it be possible that the local ASHRAE group could raise $250 for this item?

Thank you for your considerations.

Very truly yours,

Wayne B. Krause
Associate Professor

WBK:vh
Enclosure
Dear Professor:

A sophisticated, but simple, data logging system; the Solomat MPM-2000 with an MPM LOGGER gives you one of the most flexible instrumentation systems available on the market today.

Store up to 5000 measurements on your choice of 7 different automatic sampling rates, or at your discretion with manual triggering. Download the completely scaled and linearized measurements to your computer or directly to a printer. Numerical, decimal point and unit symbols are all stored, so only minimal programming is required to analyze the downloaded information.

And for IBM PCs, IBM compatibles, Apple IIes and Apple IIEcs, Solomat's "MPM Analyst" software simplifies your data analysis even further. Create files, plot and perform statistics on your data...

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...if you measure any of these parameters, or plan to in the future, find out about the foremost instrumentation technology available. Send for your copy of Solomat's 40 page 1987 SYSTEMS CATALOG.

Yours Very truly,

Richard T. Stonier
Nat'l Sales Manager

P.S. In a hurry for your information? Call one of our application engineers toll-free at 1-800-932-4500.
MEMORANDUM

DATE: March 22, 1988

TO: Mr. Tim Elliott,
President Black Hills
ASHRAE Senior Chapter

FROM: Michael Thompson,
President Black Hills
ASHRAE Student Chapter

SUBJECT: HVAC related data logger/instrumentation system for
the South Dakota School of Mines and Technology

This is to inform you that we are dropping our proposal for funds
to purchase the above referenced system. Our original impression
was that the system could be purchased for $495, including the
necessary probe (see enclosure). It was assumed that the probe(s)
detailed in the advertisement could be used to accomplish all six
measurements that the 500e model is capable of. After receiving
further information from the SOLOMAT Co., it was determined that
a minimum of four probes are needed. The price of the 500e with
the necessary probes is approximately $2,000 to $2,500, or
approximately $1500 for an earlier version of the 500e with
probes. The additional funding needed from the school is not
available, therefore we are dropping our request for funds from
your organization.

Thank you for your time and consideration.

enclosure

cc: W. Krause
October 30, 1987

Brian Artz  
Education Chairman  
Black Hills Chapter ASHRAE  
Rapid City, South Dakota

Dear Brian:

Find enclosed a request from Wayne Krause at the South Dakota School of Mines & Technology for a donation to help pay for some HVAC equipment. I think this is a worthwhile cause and a way we can support the local college, as well as the HVAC students at SDSM&T.

Please discuss this at your next Board of Governors meeting at see if there is any support in the Chapter.

Sincerely,

David L. Berg, P.E.

Encl.

CC: Tim Elliot