THANK YOU SPONSORS

We are pleased to publish another listing of sponsors. You have been a great help towards the publication of "The Collector" and we hope that all our readers and sponsors will continue to support one of the best Associations established. Thank you!

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Ken Bradley
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O. George Harrington
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Doug Hayes
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TRI-STATE PACKING SUPPLY, INC.
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OSSIPEE MEETING

The Town of Ossipee hosted our Association's September 20 meeting. Chief Operator Roland Stockbridge and Nelson Thibault from Hoyle, Tanner & Associates gave tours of Ossipee's innovative subsurface disposal system, the largest in New Hampshire. Nested in a secluded forest area, this treatment facility is a unique solution to a small community's wastewater disposal problems. Who can forget the sight of Lorraine Sander bouncing over the leach field in Roland's "Big Wheels" with the White Mountains in the distance?

After the tours, over 85 members lunched at the Sunny Villa Restaurant. Our guest speaker, Dr. Bob Faro of HTA, gave an informative presentation on industrial pretreatment programs for municipalities. Thanks to Roland and Nelson for their assistance in setting up this meeting.

Association Elections for '85

Recommendations to the Nominating Committee should be sent by March 1 to Mark Gauthier, 406 Ten Rod Road, Rochester, NH 03867.

CONTEST

The Newsletter Committee has been asked to extend the time limit for submitting new logos for our Association. Designs should be on 5" x 7" paper in black and white. The prize is $100.

Please send any additional entries by March 1 to Bob Livingston at the NHWS&PCC.
SOLIDS PROCESSING MODIFICATIONS AT THE MERRIMACK, N.H. WASTEWATER TREATMENT FACILITY

BY MR. JAMES TAYLOR — ASSISTANT SUPERINTENDENT

The Merrimack, N.H., Wastewater Treatment Facility has a design flow of 5.0 MGD and became operational in 1970. As shown on the flow diagram below, the plant has a high rate trickling filter followed by a conventional activated sludge process. The present average flow is 3.5 MGD with an influent BOD and SS of 1500 mg/L and 400 mg/L respectively. The Anheuser-Busch Brewery contributes 85% of the organic loading and about 40% of the hydraulic loading.

<table>
<thead>
<tr>
<th>Incineration</th>
<th>Composting</th>
</tr>
</thead>
<tbody>
<tr>
<td>$63,373</td>
<td>$41,600</td>
</tr>
<tr>
<td>a. Labor</td>
<td></td>
</tr>
<tr>
<td>b. Maintenance &amp; Materials</td>
<td>$361,537</td>
</tr>
<tr>
<td>Total</td>
<td>$444,910</td>
</tr>
<tr>
<td>Annual Savings</td>
<td>$694,461</td>
</tr>
<tr>
<td>$416,392</td>
<td></td>
</tr>
</tbody>
</table>

Computed pay back period: Three years

Flow diagram of Merrimack, New Hampshire, Waste Treatment Facility. Influent enters left; effluent exits right to river.

Originally, solids were thickened with dissolved air flotation, dewatered on vacuum filters and disposed in an off-site interim storage lagoon.

Two multiple hearth incinerators were constructed in 1977, but due to excessive operational costs were phased out in early 1982 in favor of composting on site. In the fall of 1982 the vacuum filters were replaced with an Arus-Andritz belt filter press. The following is a summary of O&M savings and intangible benefits associated with converting to a filter press — composting operation.

**SUMMARY OF ANNUAL O&M COSTS**

<table>
<thead>
<tr>
<th></th>
<th>Vacuum</th>
<th>Belt Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filtration</td>
<td>$136,600</td>
<td>$67,554</td>
</tr>
<tr>
<td>a. Chemical</td>
<td>10,495</td>
<td>1,201</td>
</tr>
<tr>
<td>b. Electrical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Maintenance (including labor)</td>
<td>$102,456</td>
<td>$15,114</td>
</tr>
<tr>
<td></td>
<td>$249,551</td>
<td>$83,869</td>
</tr>
</tbody>
</table>

**INTANGIBLE BENEFITS**

Morale in the operations section improved due to:
1. 2nd and 3rd shift operators no longer had to run the coal filters;
2. The operators who ran the press had to contend with far less equipment noise;
3. Clean-up time was cut in half;
4. It is a much cleaner operation.

Due to the 98% capture of solids by both the belt press and flotation units and not recycling them in the plant, treatment efficiency of the secondary portion has increased significantly.

Effluent BOD & SS from September of 1981 through August of 1982 averaged 36.5 mg/L of BOD and 29.2 mg/L of SS.

Effluent BOD & SS from September of 1982 through June of 1984 averaged 25 mg/L BOD and 15.5 mg/L SS.

This represents a 31% decrease in BOD and a 47% decrease in SS.
Composting leaves a very useful by-product. A giveaway program was initiated and has been very successful. Compost can be used as a soil conditioner for new lawns, a mulch for shrubs and trees, and a potting medium for flowers. In addition, a contract was signed with a compost broker to sell 90% of the screened compost.

The following is a flow diagram of the composting process:

A cost breakdown for site development and operational costs is as follows:

**Site Development and Equipment**
- Construction: $330,000
- Equipment: $316,000
  - a. 2 front-end loaders
  - b. blowers
  - c. power screen
- Engineering: $90,000

**Total:** $736,000

**Operations - Labor**
- 1 Compost Foreman: $41,600
- 2 Loader Operators: $41,600

**Operating Materials & Maintenance**
- Bulkng Agent (woodchips): $90,000
- Electricity: $5,000
- Plastic Piping: $6,000
- Fuel Oil: $15,000
- Equipment Maintenance: $31,000
- Miscellaneous: $5,000

**Total:** $193,600

Cost per ton of composted sludge = \( CT_s \)

\[
CT_s = \frac{\text{Site Development & Equipment}}{\text{Useful Life}} + \text{Operations}
\]

\[
CT_s = \frac{16,265 \text{ Tons}}{736,000} + 193,600
\]

\[
CT_s = \frac{16,265 \text{ Tons}}{16.67} + 193,600
\]

\[
CT_s = $15/\text{ton}
\]

**Reminder**

The NHWPCA Trade Fair is scheduled for Thursday, March 28th, 1985 at the New Hampshire Highway Hotel. It's going to be bigger and better than last year!

---

**Re-Certification**

**Continuing Education Unit Requirements**

This is a reminder that the two (2) CEU requirement for re-certification is now in effect. Grade I's are exempt.

Possible sources for CEU's are listed below:

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of CEU's</th>
</tr>
</thead>
<tbody>
<tr>
<td>NH Association Meetings</td>
<td>0.3/meeting</td>
</tr>
<tr>
<td>NH Annual Trade Fair</td>
<td>0.3</td>
</tr>
<tr>
<td>NH Annual Clambake</td>
<td>None given</td>
</tr>
<tr>
<td>Courses: Franklin Training Center</td>
<td>0.1/hour</td>
</tr>
<tr>
<td>SEVCA</td>
<td>0.1/hour</td>
</tr>
<tr>
<td>NEWPCA Technical Mtg</td>
<td>0.1/hour</td>
</tr>
<tr>
<td>Voc-Tech</td>
<td>1.5/credit</td>
</tr>
<tr>
<td>Accredited Colleges</td>
<td>1.5/credit</td>
</tr>
<tr>
<td>NERWI</td>
<td>1.5/credit</td>
</tr>
<tr>
<td>SAC (can be taken through State or Sacramento College)</td>
<td>9/volume (1980 edition)</td>
</tr>
<tr>
<td>Michigan Management</td>
<td>6</td>
</tr>
<tr>
<td>Red Cross (First Aid &amp; CPR)</td>
<td>Same as</td>
</tr>
<tr>
<td></td>
<td>number given</td>
</tr>
<tr>
<td></td>
<td>by Red Cross</td>
</tr>
</tbody>
</table>

Examples of appropriate courses and seminars include those dealing with:
- Hydraulics
- Biology
- Chemistry
- Electrical Wiring
- Instrumentation
- Wastewater process control
- Mathematics
- Mechanical aspects of pumps, motors, pipe layout, HVAC, etc.
- Public administration (management)
- Collection system design and maintenance
- Construction techniques concerning WWTP's and sewers

CEU's are subject to Certification Committee review and approval.

CEU's must be earned during the current two year period to fulfill the requirement.

---

**Jobs**

Manchester EDP
Opening for an Operator II, starting pay $312/wk.
-$370.63/wk. max.
Contact: Personnel Department
City Hall Annex
27 Market Street
Manchester, NH 03101
1983 SALARY SURVEY
Wastewater Treatment Facilities in New Hampshire

<table>
<thead>
<tr>
<th>Grade I Plants</th>
<th>High</th>
<th>Low</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendent (only 1 plant)</td>
<td>$17,200</td>
<td>$17,200</td>
<td></td>
</tr>
<tr>
<td>Operator</td>
<td>15,200</td>
<td>9,700</td>
<td>$13,200</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade II Plants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superintendent</td>
<td>22,300</td>
<td>11,500</td>
<td>18,000</td>
</tr>
<tr>
<td>Chief Operator</td>
<td>20,100</td>
<td>11,000</td>
<td>16,400</td>
</tr>
<tr>
<td>Operator</td>
<td>18,600</td>
<td>13,000</td>
<td>14,100</td>
</tr>
<tr>
<td>Laborer (only 1 plant)</td>
<td>10,400</td>
<td>10,400</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade III Plants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superintendent</td>
<td>28,500</td>
<td>20,000</td>
<td>23,400</td>
</tr>
<tr>
<td>Chief Operator</td>
<td>20,400</td>
<td>16,600</td>
<td>18,800</td>
</tr>
<tr>
<td>Shift Operator (only 1 plant)</td>
<td>16,600</td>
<td>16,600</td>
<td></td>
</tr>
<tr>
<td>Operator</td>
<td>18,400</td>
<td>13,800</td>
<td>15,100</td>
</tr>
<tr>
<td>Laborer</td>
<td>13,800</td>
<td>12,000</td>
<td>13,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade IV Plants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superintendent</td>
<td>31,800</td>
<td>24,000</td>
<td>26,900</td>
</tr>
<tr>
<td>Assistant Superintendent</td>
<td>24,600</td>
<td>22,000</td>
<td>23,300</td>
</tr>
<tr>
<td>Chief Operator</td>
<td>27,100</td>
<td>13,500</td>
<td>16,400</td>
</tr>
<tr>
<td>Shift Operator</td>
<td>21,500</td>
<td>17,300</td>
<td>19,200</td>
</tr>
<tr>
<td>Operator</td>
<td>16,900</td>
<td>14,300</td>
<td>15,900</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support Systems for Grade III and IV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanic</td>
<td>20,400</td>
<td>14,000</td>
<td>18,400</td>
</tr>
<tr>
<td>Electrician</td>
<td>21,200</td>
<td>16,600</td>
<td>19,200</td>
</tr>
<tr>
<td>Chemist</td>
<td>22,400</td>
<td>18,700</td>
<td>20,500</td>
</tr>
<tr>
<td>Laboratory Technician</td>
<td>19,500</td>
<td>14,100</td>
<td>16,200</td>
</tr>
</tbody>
</table>

1983 TREASURER’S REPORT
New Hampshire Water Pollution Control Association

Summary

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total 1983 Income</td>
<td>$12,509.06</td>
</tr>
<tr>
<td>Total 1983 Expenses</td>
<td>11,114.23</td>
</tr>
<tr>
<td>Total 1983 Profit</td>
<td>1,394.83</td>
</tr>
<tr>
<td>Balance Remaining</td>
<td>2,901.03</td>
</tr>
<tr>
<td>Total Balance for Year Ending 12/31/83</td>
<td>$4,295.86</td>
</tr>
</tbody>
</table>

Breakdown of 1983 Income

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dues (317 members)</td>
<td>$2,377.50</td>
</tr>
<tr>
<td>Meetings (ticket sales)</td>
<td>8,851.50</td>
</tr>
<tr>
<td>Sponsors</td>
<td>600.00</td>
</tr>
<tr>
<td>Training Center Funds</td>
<td>81.50</td>
</tr>
<tr>
<td>Tee Shirt &amp; Hat Sales</td>
<td>172.00</td>
</tr>
<tr>
<td>Redeposit of cash for meetings</td>
<td>245.00</td>
</tr>
<tr>
<td>Interest</td>
<td>181.56</td>
</tr>
<tr>
<td><strong>Total 1983 Income</strong></td>
<td><strong>$12,509.06</strong></td>
</tr>
</tbody>
</table>

Breakdown of 1983 Expenses

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Halls, meals, coffee, beverages, etc.</td>
<td>$8,037.77</td>
</tr>
<tr>
<td>Tee shirts &amp; hats</td>
<td>325.00</td>
</tr>
<tr>
<td>Cash for meetings*</td>
<td>245.00</td>
</tr>
<tr>
<td>Printing</td>
<td>1,064.23</td>
</tr>
<tr>
<td>Awards</td>
<td>237.10</td>
</tr>
<tr>
<td>Postage</td>
<td>502.00</td>
</tr>
<tr>
<td>Mileage</td>
<td>164.30</td>
</tr>
<tr>
<td>Miscellaneous supplies</td>
<td>17.86</td>
</tr>
<tr>
<td>Scholarships</td>
<td>105.00</td>
</tr>
<tr>
<td>Banking expenses</td>
<td>20.75</td>
</tr>
<tr>
<td>Podium speaker (special purchase)</td>
<td>386.20</td>
</tr>
<tr>
<td>Bounced check</td>
<td>9.00</td>
</tr>
<tr>
<td><strong>Total 1983 Expenses</strong></td>
<td><strong>$11,114.23</strong></td>
</tr>
</tbody>
</table>

Profit - Year Ending 12/31/83

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>$1,394.83</strong></td>
</tr>
</tbody>
</table>

*NOTE: Cash for meetings — This money is drawn from the account to make change for selling tickets. This money is redeposited to the account and counted as income.
Lab Talk

What are you doing all those tests for? Regulating agencies require them for permit compliance is a true statement, but more important is the fact that they represent plant status. It is not always true that a more extensive testing program is better for plant evaluation. Careful consideration should be given to the selection of parameters to test for. The operator in control must decide what changes to make and justify them. Experienced laboratory techs and operators are valuable for compiling plant data for overall evaluation.

A few points to realize in some typical tests that are routinely performed are:

1. The BOD test usually represents loadings for a one day period, not the fluctuations during that day.
2. Settlemeter readings and physical observations reflect laboratory conditions and not always process profiles.
3. Centrifuge spin tests represent sludge reactions to specific forces which are not always present in nature.
4. Nutrient levels can vary dramatically with the fluctuations of influent composition.
5. In general, sample collection and techniques can vary from person to person and affect the total picture.

The importance of any laboratory test is not the purpose of generating data for its own sake, but what it truly represents and what operational conditions correlate to it. This concept will provide individuals with a better understanding of plant performances and enable them to have more success in operating within the goals of their organization.

Philippe J.G. Maltais

CERTIFICATION QUIZ NO. 6

Grade I —
Never enter a manhole or a confined space unless the oxygen content is at least?
1. 19.5%  3. 85%
2. 50.0%  4. 98%

Grade II —
Which of the following are properties of Hydrogen Sulfide gas?
1. colorless
2. explosive
3. flammable
4. odorless
5. toxic

Grade III —
All trenches deeper than ? feet must be shored.
1. 3 ft.
2. 5 ft.
3. 8 ft.
4. 11 ft.

Grade IV —
Which one of the following consists of water-borne diseases that are capable of being transmitted to personnel through hand-to-mouth contacts?
1. Asiatic cholera and amebic dysentery
2. Malaria and dysmenorrhea
3. Mumps and measles
4. Smallpox and diphtheria
5. Trichinosis and psittacosis

CERTIFICATION QUIZ ANSWERS

Grade I —
Grit is "washed" to remove organic material before disposal. If the organic matter is not removed, then odors could develop. If used as fill material, the fill could settle when the organics decompose.

Grade II —
Advantages of aerobic digestion in comparison with anaerobic digestion include fewer operational, maintenance, and safety problems. Aerobic digesters do not require mixing, heating, and gas handling facilities. Potentially explosive methane gas is not produced and close operational control of the volatile acid/alkalinity relationship is not necessary.

Grade III —
Off gases and cool air are treated in a biological odor reduction tower by flowing up through the filter media where the odor causing compounds are oxidized to an acceptable level.

Grade IV —
Potentially harmful industrial waste discharges that can be continuously monitored and connected to alarm systems include conductivity, pH, explosive atmosphere, and oxygen deficiency conditions.
The subject of this issue's profile is Ms. Lorraine Sander, Superintendent of the Nashua Wastewater Treatment Facility, and Past-President of the N.H.W.P.C.A.

Lorraine's experience before starting at Nashua in 1974 as chemist ranged from CRT operation in the criminal justice field to computer applications in the world of finance.

After six years at Nashua, Lorraine was promoted to superintendent. Her key accomplishments include a closeout of the on-site landfill and establishing a co-disposal program at the Four Hills Sanitary Landfill. The closeout involved major effort in convincing State officials that the action was prudent. An end result was a substantial reduction of plant odors.

After the co-disposal project, Lorraine focused her energy into streamlining the P.M. system and obtaining budgetary appropriations to bring overall equipment condition to a satisfactory level. Since the completion of this program there has been no need for major equipment repairreplacement expenditures.

Ms. Sander's attention is presently tuned to the major expansion of the Nashua plant from a primary to a secondary facility. Design flow of the upgraded plant will be around 30 mgd with 150 contributing industries, 75 of which fall under the categorical pretreatment standards.

In her free time Lorraine enjoys reading, horticulture, coaching softball and basking in the sun on the beach at Ogunquit, Maine.

### UNIVERSITY OF LOWELL
DIVISION OF CONTINUING EDUCATION
INDUSTRIAL TECHNOLOGY-
WATER/WASTEWATER OPTION

The following courses are offered during the winter 1985:

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course</th>
<th>Night Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.153</td>
<td>Aquatic Ecology</td>
<td>Monday</td>
</tr>
<tr>
<td>20.226</td>
<td>Water Chemistry II</td>
<td>Thursday</td>
</tr>
<tr>
<td>20.252</td>
<td>Wastewater Operation II</td>
<td>Mon./Wed.</td>
</tr>
<tr>
<td>20.254</td>
<td>Wastewater Lab II</td>
<td>Tues./Wed.</td>
</tr>
<tr>
<td>20.255</td>
<td>Water Distribution System</td>
<td>Wednesday</td>
</tr>
<tr>
<td>20.258</td>
<td>Water/Wastewater Treatment</td>
<td></td>
</tr>
<tr>
<td>20.352</td>
<td>Mgmt. II</td>
<td>Thursday</td>
</tr>
<tr>
<td>20.352</td>
<td>Water Supply Treatment</td>
<td></td>
</tr>
<tr>
<td>20.452</td>
<td>Operator II</td>
<td>Thursday</td>
</tr>
<tr>
<td>20.452</td>
<td>O&amp;M Wastewater Collection II</td>
<td>Monday</td>
</tr>
</tbody>
</table>

Registration is January 7-10, 1985. Classes will commence the following week of January 14, 1985. For further information, call 617-452-5000.

### THANKS

Many thanks are offered to our operators and company representatives who conducted or assisted with the fall operator training courses.

**Thanks to:**
- Art Hoffman, Dover WWTF
- Dean Mendenhall, Water Industries
- Michael Kookan, Gorman Rupp
- Pump Operation & Maintenance
- Charles Lord, Tannin Corp.
- Sludge Conditioning & Dewatering
- Ken Smith, Nashua WWTF
- John Bush, NHWS&PCC
- Emergency First Aid
- Dick Haines, E.R. Field, Inc.
- Safety
- Rick Seymour, Nashua WWTF
- Jon Bushold, Hall St. WWTF
- Laboratory Troubleshooting
- George Ross, Metcalf & Eddy
- Gary Kunz, Fisher Porter
- C.J. Chelsouksy, Fisher Porter
- Chlorination
- Rick Seymour, Nashua WWTF
- Frances Burdall, Warner-Lambert Technologies, Inc.
- Wastewater Biology
- Ray Carter, Manchester WWTF
- Activated Sludge
SAFETY CORNER

The Board recently approved the safety committee's budget request for $500. This money will be used to purchase films, reference material, etc., pertinent to the wastewater field.

Safety Course

Mark Gauthier of the WS&PCC’s Operations Division is presently undertaking a Safety Service Program which will be available to all operators seeking assistance in establishing or improving an active safety program in their facility.

Some of the services available include:
- Discussion of management responsibility towards safety
- Plant safety inspections
- Training for safety program establishment
- Training in accident investigation
- Reports and Recordkeeping
- Safety policy development
- Establishment of safety incentive program
- Collection system safety training
- Safety equipment use and maintenance training
- Chlorine safety

Also available will be hands-on training and safety checks in hazardous gas monitoring and related equipment. These gases include:
- Hydrogen Sulfide
- Carbon Monoxide
- Carbon Dioxide
- Chlorine
- Chlorine Dioxide
- Oxygen deficiency
- Explosive conditions

Mark has much experience in the safety field. It includes loss control management training and active membership in both the New Hampshire and National Safety Councils. He received the Water Pollution Control Federation’s “George Burke Safety Award” in 1983, for establishing an outstanding safety program and low accident rate at the Somersworth Wastewater Treatment Plant. He also initiated and chaired that city’s ongoing municipal safety program in 1979. Mark has an extensive library on safety training, hazardous conditions, equipment and maintenance, etc., which will be available to all operators for reference. Please call him for any safety assistance at 603-271-2586.

Backhoe Man Responds To Rescue Plea

Shortly after 1 p.m. Tuesday, workers heard the cry that too often is the prelude to tragedy in open-trench work.

"It's covering me up," yelled Scott Noury, who had been about to emerge from the muddy 12-foot cut in the earth after probing for a sewer line at a construction site in southern Olathe.

When the walls began to crumble around him, events happened too fast in the 2-foot-wide trench. Suddenly the 36-year-old owner of American Plumbing Inc. was in loose dirt up to his waist, trapped.

"I've seen a cave-in before, but I've never seen anybody covered up," said Clinton Vickers, a self-employed backhoe operator working with Mr. Noury in front of a residence under construction at 1222 Jamestown Drive.

Mr. Vickers said he called for two laborers, Randy Crenshaw and John Vagenas, to help. The two young men raced to the ditch and tried frantically to dig out the immobilized man, but Mr. Vickers said: "As they were trying to drag him out, I saw the walls start to cave in more."

"He said, 'Clint, don't let it go. I just had a baby and I don't want to lose myself,'" Mr. Crenshaw said.

That was when the 40-year-old Bonner Springs contractor jumped back into the cab of his backhoe and made the maneuver with the hydraulically controlled shovel that police credit with saving Mr. Noury's life.

"I just took the bucket and told Scott I was going to put it over his head," Mr. Vickers said.

Mr. Crenshaw and Mr. Vagenas narrowly escaped the second, more extensive cave-in that completely buried Mr. Noury.

While Mr. Noury breathed the air provided by the protective pocket of the shovel, the laborers tried vainly for what police believe was nearly a half-hour to rescue their boss. Finally, Mr. Crenshaw dashed to a home across the street and placed a call for help.

During the four-hour rescue effort that followed, air hoses were pushed down to the trapped man, who was able to talk to police from beneath the shovel, while construction workers dug carefully around the sides of the trench with additional backhoes.

When he was finally dragged from the ditch, Mr. Noury was smiling and gave a brief thumbs-up sign just before he was placed in an ambulance. The victim was taken to Olathe Community Hospital, where he was listed in good condition today.

"I'd say the real hero of the whole thing is my backhoe man," Mr. Noury said in a telephone interview from his hospital room today. "If it had not been for Clint, I wouldn't be here."

Asked how the experience would affect him psychologically, he said: "One more thing I'll tell you is that you'll never find anybody unreligious at the bottom of a ditch."
Familiar Faces in new places

Tom Corey, formerly of the Concord Hall Street Plant, has moved south to the Manchester WWTF as their new Maintenance Supervisor.

Good luck to Ken Ward who left the Henniker treatment plant to become Administrative Assistant for the Town of Weare. Since Ken is leaving the field, he resigned from the Certification Committee. Ric Cantu of Dover has been appointed to fill out the term on this important committee.

We hear that Tom White held an anniversary party at the Penacook WWTF on December 6 to celebrate the plant's 10th anniversary. Tom treated everyone to an effluent composite punch.

The November issue of "Water/Engineering & Management" contains an article by Dick Case of the Operations Division entitled "No More Alkalinity Burnout": Dick did most of his research at Charlie Damours' Henniker extended aeration plant.

Bruce Kudrick reports that Hooksett has begun preliminary research into the feasibility of replacing the old sludge treatment system with a belt filter.

Barry Brescia is leaving Somersworth to operate the oxidation ditch treatment plant at the Spaulding Fibre Company in Rochester.

NEW HAMPSHIRE WATER POLLUTION CONTROL ASSOCIATION
P.O. BOX 35
CONCORD, NH 03301

NEWPCA MEETING

NEWPCA will again hold its Annual Meeting in Boston at the newly opened Marriott Copley Place. The exhibit area has been expanded to include over 70 exhibitors. Significant effort has been expended in developing a timely and stimulating technical program. On Tuesday morning at the Operator's Session on Sludge Dewatering, Don Pottle will chair a panel of New Hampshire operators who will give short talks on improvements that have been made at their plants. Greg Mack, Ric Cantu and Ray Carter will participate.

Dates of the meeting are January 28-30. For more information contact: Ron Hunte, NEWPCA Executive Director at (617) 263-6165.

MERRY CHRISTMAS