PRESIDENT’S MESSAGE

I would like to begin by expressing my feeling of honor at being elected President of the New Hampshire Water Pollution Control Association for the coming year. My special gratitude goes to those who have preceeded me and who have made this the active and effective organization it is today. I would like also to recognize the dedication and enthusiasm of Bob Livingston who has been, and continues to be, the man behind the scenes for all those who have held this position in the past few years.

Together with the other officers of the Association and the Board of Directors, we have planned what we feel is an interesting and informative schedule of meetings for the forthcoming year. Our September meeting will be held jointly with the Massachusetts Wastewater Treatment Plant Operators Association at the Greater Lawrence Sanitary District Treatment Plant and will include a tour of that plant and its hydroelectric facility. The Cold Regions Research Lab in Hanover, New Hampshire will be the site of the December meeting. A repeat of the annual Tradefair is planned for March.

The Franklin Training Center has just finished another term of well-attended courses. I hope that the operators will continue to take advantage of this opportunity to enhance their professional growth in the wastewater field.

Our first venture into publication, The Collector, was well received and is planned to be a quarterly occurrence. This will be another means for the operators in New Hampshire to stay in touch with one another. Take advantage of it.

Along with the Officers and Directors, I look forward to this year and ask that all of you become involved in your Association.

Lorraine Sander
President, 1983

1984 ELECTIONS

It is not too early to think about the election for Water Pollution Control Association directors and officers which will take place during March 1984. The past three presidents serve as the Nominating Committee and will present a slate of candidates to the membership. If you are interested or want to suggest someone for nomination, call Charles Damour at 428-7200, Mark Gauthier at 692-2418, or myself at 298-5986.

David Beecher
Nominating Committee
MAINTENANCE HOT TIPS

Many questions arise concerning pump packing. With all the new materials on the market today, it's a problem deciding which packing is best suited for a particular pump. We found a more loosely woven packing with graphite performed better on a bronze sleeve than did the tighter or harder packings. Granted bronze sleeves are not that popular, but we still have a few pumps with this type.

Stainless or high carbon alloy sleeves are more common and accept a greater variety of packings. It is a good policy to consult with your packing supplier. They are willing and able to recommend the proper packing for a particular application. We are satisfied with our suppliers and find that they are reliable and honest.

Sleeve removal can be a problem if there is a serious build up of rust and corrosion between shaft and sleeve. We found that heating the sleeve in one section along the length of it and quickly tapping it usually jarrs it loose. The idea is to heat the sleeve to expand it but not the shaft. Also, support the shaft impeller end with a heavy lead or brass weight to absorb the shock. We also use generous amounts of grease when replacing sleeves. It's much easier to remove next time around. The manufacturers do not take the time to do this.

Now, on the matter of mechanical seals. There are several good brands available. They are somewhat expensive but have merit: no packing replacement and no leakage. At present we’re testing mechanical seals on two of our thicker pumps. Under adverse conditions and high R.P.M., the seals have proven satisfactory for about a year now.

Here's an idea that might be helpful to some. We cut regular key stock 6” long in the standard sizes 1/2” — 7/16” — 3/8” and so on down the line. About 1-1/2” from the end make a bend-about 20° for most stuffing boxes. These act as sort of a “go—no go” gauge. It is handler than mathematically figuring out proper packing size the usual way.

Now I have a question for you wrench twisters out there. What do you do when a lantern ring is just plain stuck in the box and will not budge? It won't blow out by starting the pump. Except for dismantling the pump, what procedure would you take?

I would appreciate hearing from you.

Write: c/o Bill Syvinski
Wastewater Facility
157 Main St.
Somersworth, NH 03878

EDUCATION COMMITTEE

Many thanks to all who returned the training questionnaire. Over 125 questionnaires were submitted. Your suggestions will influence courses at Franklin designed to meet operator needs. Through the efforts and diligence of Jerry Manzi, operator of the Spaulding Fibre Company WWTP, several industrial WWTP operators have given us their input on training needs and, hopefully, will become involved in our Association.

Thanks again for your input and suggestions on operator training in New Hampshire. Winners of the cash drawings are: 1st Prize ($25)—Stan Madeja (Claremont), 2nd Prize ($15)—John McEachon (Gorham), 3rd Prize ($10)—Mario LeClerc (Manchester).

David Beecher, Chairman
Bruce Kudrick
Jerry Manzi

‘83 CLAMBAKE

Once again we had a perfect day on June 10th for our annual clam bake at Simpson's in Dover. Our final count was 209 for lobsters and steak. The morning’s athletic activities were highlighted by the annual Maine versus New Hampshire softball game which, of course, resulted in another victory for the White Mountain boys (and girl). Being the good sports that we are, Walt Norris presented Maine's Mike Pacillo with the "Rusty Auger" award for second place. When New Hampshire operators go to courses at NERWI, be sure to check that Mike has placed this trophy in an appropriate conspicuous location.

The outing could not be a success without the continued support of our Associate Members. The following firms contributed to the liquid refreshments:

Anderson-Nichols & Co., Inc. (George Carlson)
Havens and Emerson (Bruce Pierstoff)
Hoyle, Tanner & Assoc., Inc. (Nelson Thibault)
C. E. Maguire, Inc. (Edward Dunn)
J. F. McDermott Company (Brian Kennedy)
Metcalf & Eddy, Inc. (Wiff Peterson)
Roy F. Weston, Inc. (Dick Currier)
Weston & Sampson, Inc. (Dave Blake)
Whitman & Howard, Inc. (Bob Hankinson)
ZEP (Frank Gels)

New Hampshire Distributors — donated van and attendant for the day (Tom Brown)

SCHOLARSHIP COMMITTEE

Due to the large number of requests for scholarship funds last year, we limited the total amount per person to $35. To date, we have only received one request. This program was set up at the operators' request; try to use it. Let's show our communities the N.H.W.P.C.A. cares about the training and will help finance the cost. For any information on the scholarship program contact Art Hoffman at 742-2109, Lorraine Sander at 880-3365, or Greg Mack at 692-2418.
OPERATOR’S IDEAS

Odor Control at Berlin, New Hampshire, Wastewater Treatment Plant

The conventional activated sludge facility at Berlin has a design flow of 2.64 MGD and became operational in August 1979. The average dry weather flow is 1.7 MGD and average wet weather flow is 3.0 MGD due to inflow and infiltration. Wastewater treated by this facility is mostly domestic since the major industry, Brown Paper Company, has its own facility to treat its industrial wastewater.

The influent is pumped across the Androscoggin River to the headworks which consists of comminution and aerated grit removal. There are two circular primary clarifiers, three aeration cells using Norton fine bubble dome diffusers, and two final clarifiers. Flow is measured prior to chlorination. Waste activated sludge is blended with primary sludge and pumped to covered gravity thickeners where it is stored 3 to 4 days prior to dewatering with slow-speed solid bowl centrifuges using cationic polymer as a flocculent.

Since the plant went on line it has experienced a serious odor problem during sludge dewatering. Sludge is normally dewatered two days each week and although the odors were persistent year round, they were more pronounced during the warm summer months. A number of masking agents were tried with deodorants used in the office area in an attempt to control the unpleasant odors. The various products were not effective and were eventually discarded. The hydrogen sulfide odors were extreme throughout the plant and plant personnel tried venting off the centrifuge odors through the root vents. This helped alleviate some of the odors in the immediate dewatering area but the dewatered sludge dropped from a hopper into a dump truck and at this point the septic odors were just as severe. Since odors were not the only problem but the sulfide in the atmosphere has been causing corrosion in the main motor control panels and other electrical equipment located in the centrifuge room, action to control this problem was mandatory. Frequent equipment failure due to this corrosion problem was being experienced. For example, 3/4" bolts in the covered gravity thickeners completely were corroded away within three years and the sludge flights were hanging with one bolt. The exterior of the bowls on the centrifuges had serious corrosion.

During February 1983 it was decided to run an in-house trial using potassium permanganate. Dry, free-flowing potassium permanganate was mixed with water and fed through a 3/4" chemical feed line topped into the suction side of the centrifuge feed pumps. This data is shown in Table 1 and the effectiveness of this chemical treatment is quite apparent.

Table 2 shows the total costs for chemical conditioning the sludge prior to and after the use of potassium permanganate. As indicated, there is an anticipated annual savings of $2,600 using the high grade free-flowing oxidant. Recent trials have been conducted using the reagent grade chemical and the centrifuge data was identical with using the more expensive high grade chemical, with no odors.

Advantages of Odor Control with Potassium Permanganate

1. Higher staff morale—clothes and body reeked of hydrogen sulfide odor.
2. Less odor complaints.
3. Control of filamentous organisms.
4. Stopped serious corrosion problems.
5. Cost savings in using less polymer.
6. Cleaner centrate with less shock load going back to plant.

Conclusions

It appears that the use of potassium permanganate at the Berlin Treatment Plant has been a success. It has solved a serious odor and corrosion problem, produces a cleaner centrate and is saving money on chemical conditioning. Most important, however, is the attitude and morale improvement of the entire staff. No longer is dewatering time looked at the way it was in the past, when most of the personnel were apprehensive of the obnoxious odors and fearful for their safety.

by: Charles McDowell
Supt./Chief Operator — Berlin
<table>
<thead>
<tr>
<th>Plant</th>
<th>Type of Treatment</th>
<th>Existing Flow (MGD)</th>
<th>Method of Disposal</th>
<th>Yd³ — % solids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allenstown</td>
<td>EA</td>
<td>0.45</td>
<td>Landspreading</td>
<td>5</td>
</tr>
<tr>
<td>Antrim</td>
<td>AL</td>
<td>0.03</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>Ashland</td>
<td>AL</td>
<td>0.33</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>Berlin</td>
<td>AS</td>
<td>1.71</td>
<td>SLF</td>
<td>1440 — 14.5</td>
</tr>
<tr>
<td>Bristol</td>
<td>OD</td>
<td>0.13</td>
<td>Landspreading</td>
<td>10 — 20</td>
</tr>
<tr>
<td>Center Harbor</td>
<td>SP</td>
<td>0.17</td>
<td>LNC</td>
<td></td>
</tr>
<tr>
<td>Charlestown</td>
<td>AL</td>
<td>0.21</td>
<td>NR</td>
<td>750 — 22</td>
</tr>
<tr>
<td>Claremont</td>
<td>P</td>
<td>1.2</td>
<td>Stockpile</td>
<td></td>
</tr>
<tr>
<td>Colebrook</td>
<td>SP</td>
<td>0.23</td>
<td>SLF</td>
<td>40.5</td>
</tr>
<tr>
<td>Concord—Hall St.</td>
<td>ABF</td>
<td>3.0</td>
<td>SLF</td>
<td>12</td>
</tr>
<tr>
<td>Concord—Penacook</td>
<td>AS</td>
<td>0.88</td>
<td>SLF</td>
<td></td>
</tr>
<tr>
<td>Conway</td>
<td>AL</td>
<td>0.25</td>
<td>SLF</td>
<td></td>
</tr>
<tr>
<td>Derry</td>
<td>AL</td>
<td>0.81</td>
<td>SLF</td>
<td></td>
</tr>
<tr>
<td>Dover</td>
<td>P</td>
<td>1.8</td>
<td>Landspreading</td>
<td>1880 — 26</td>
</tr>
<tr>
<td>Durham</td>
<td>AS</td>
<td>0.72</td>
<td>Compost/giveaway</td>
<td>950 — 60</td>
</tr>
<tr>
<td>Epping</td>
<td>SP</td>
<td>0.08</td>
<td>LNC</td>
<td></td>
</tr>
<tr>
<td>Exeter</td>
<td>SP</td>
<td>1.9</td>
<td>Landspreading</td>
<td></td>
</tr>
<tr>
<td>Farmington</td>
<td>OD</td>
<td>0.3</td>
<td>SLF</td>
<td>208 — 16</td>
</tr>
<tr>
<td>Franklin</td>
<td>AS</td>
<td>2.5</td>
<td>On site LF &amp; landspreading</td>
<td>30</td>
</tr>
<tr>
<td>Goffstown</td>
<td>IT</td>
<td>0.27</td>
<td>SLF</td>
<td>440 — 20</td>
</tr>
<tr>
<td>Gorham</td>
<td>EA</td>
<td>0.50</td>
<td>SLF</td>
<td>14</td>
</tr>
<tr>
<td>Greenville</td>
<td>EA</td>
<td>0.07</td>
<td>SLF</td>
<td>200</td>
</tr>
<tr>
<td>Hampton</td>
<td>AS</td>
<td>1.8</td>
<td>Storage</td>
<td>506 DT — 18</td>
</tr>
<tr>
<td>Hanover</td>
<td>P</td>
<td>1.1</td>
<td>Landspreading/recl.</td>
<td>100 — 12</td>
</tr>
<tr>
<td>Henniker</td>
<td>EA</td>
<td>0.11</td>
<td>SLF</td>
<td>15 — 17</td>
</tr>
<tr>
<td>Hinsdale</td>
<td>OD</td>
<td>0.23</td>
<td>SLF</td>
<td>75 — 20</td>
</tr>
<tr>
<td>Hooksett</td>
<td>EA</td>
<td>0.31</td>
<td>SLF</td>
<td>850 — 7</td>
</tr>
<tr>
<td>Jaffrey</td>
<td>SP</td>
<td>0.57</td>
<td>LNC</td>
<td>170 — 18</td>
</tr>
<tr>
<td>Keene</td>
<td>IT</td>
<td>2.2</td>
<td>SLF</td>
<td></td>
</tr>
<tr>
<td>Lancaster</td>
<td>SP</td>
<td>0.66</td>
<td>Incineration</td>
<td>1400 — 30</td>
</tr>
<tr>
<td>Lebanon</td>
<td>AS</td>
<td>0.07</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>Lincoln</td>
<td>AL</td>
<td>0.56</td>
<td>LNC</td>
<td></td>
</tr>
<tr>
<td>Lisbon</td>
<td>SP</td>
<td>0.06</td>
<td>Compost/SLF</td>
<td>950 — 23</td>
</tr>
<tr>
<td>Littleton</td>
<td>P</td>
<td>1.0</td>
<td>Incineration</td>
<td>420 (Ash)</td>
</tr>
<tr>
<td>Manchester</td>
<td>AS</td>
<td>12.2</td>
<td>Laconia pump station</td>
<td>NR</td>
</tr>
<tr>
<td>Meredith</td>
<td>TF</td>
<td>0.2</td>
<td>Giveaway and sale</td>
<td></td>
</tr>
<tr>
<td>Meriden</td>
<td>AL (new)</td>
<td></td>
<td>On site secure LF</td>
<td></td>
</tr>
<tr>
<td>Merrimack</td>
<td>AS</td>
<td>3.1</td>
<td>SLF</td>
<td></td>
</tr>
<tr>
<td>Milford</td>
<td>EA - N (new)</td>
<td></td>
<td>7315 — 25</td>
<td></td>
</tr>
<tr>
<td>Nashua</td>
<td>P</td>
<td>8.9</td>
<td>On site landspreading</td>
<td>3 — 20</td>
</tr>
<tr>
<td>Newbury</td>
<td>IT - SF (new)</td>
<td>0.03</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>Newfields</td>
<td>AL (new)</td>
<td></td>
<td>LNC</td>
<td></td>
</tr>
<tr>
<td>New Hampton</td>
<td>SP</td>
<td>ND</td>
<td>Composted at Durham</td>
<td>50 — 20</td>
</tr>
<tr>
<td>Newington</td>
<td>EA</td>
<td>ND</td>
<td>SLF</td>
<td>270 — 20</td>
</tr>
<tr>
<td>Newmarket</td>
<td>P</td>
<td>0.33</td>
<td>Septage</td>
<td></td>
</tr>
<tr>
<td>Newport</td>
<td>P</td>
<td>0.5</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>Northumberland</td>
<td>SP</td>
<td>0.3</td>
<td>NR</td>
<td></td>
</tr>
<tr>
<td>Ossipee</td>
<td>SD (new)</td>
<td></td>
<td>Compost/giveaway</td>
<td>330 — 18</td>
</tr>
<tr>
<td>Peterborough</td>
<td>AL</td>
<td>0.4</td>
<td>Landfilling</td>
<td>2500 — 18</td>
</tr>
<tr>
<td>Pittsfield</td>
<td>AL</td>
<td>0.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plymouth</td>
<td>P</td>
<td>0.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portsmouth</td>
<td>P</td>
<td>5.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 1983 WWTP SLUDGE DISPOSAL (Cont.)

<table>
<thead>
<tr>
<th>Plant</th>
<th>Type of Treatment</th>
<th>Existing Flow (MGD)</th>
<th>Method of Disposal</th>
<th>Yd(^3) — % solids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rollinsford</td>
<td>OD</td>
<td>0.04</td>
<td>On site LF</td>
<td>43 — 11</td>
</tr>
<tr>
<td>Salem</td>
<td>TF</td>
<td>1.3</td>
<td>Storage/giveaway</td>
<td>1200 — 16</td>
</tr>
<tr>
<td>Somersworth</td>
<td>FA</td>
<td>1.6</td>
<td>Storage</td>
<td>3500 — 13</td>
</tr>
<tr>
<td>Stewartstown</td>
<td></td>
<td>Pump Station to Canaan, VT</td>
<td>Storage</td>
<td>40.5 — 20</td>
</tr>
<tr>
<td>Sunapee</td>
<td>OD</td>
<td>0.215</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swanzey</td>
<td>AL (new)</td>
<td>0.13</td>
<td>SLF</td>
<td>10 — 20</td>
</tr>
<tr>
<td>Troy</td>
<td>AL (new)</td>
<td>0.07</td>
<td>SLF</td>
<td>6 — 20</td>
</tr>
<tr>
<td>Warner</td>
<td>OD</td>
<td>0.04</td>
<td>SLF</td>
<td>75 — 32</td>
</tr>
<tr>
<td>Waterville Valley</td>
<td>AL - PC</td>
<td>0.015</td>
<td>Landspreading on site/storage</td>
<td>25</td>
</tr>
<tr>
<td>Weare</td>
<td>SD</td>
<td>0.1</td>
<td>SLF</td>
<td>10</td>
</tr>
<tr>
<td>Winchester</td>
<td>OD</td>
<td>0.04</td>
<td>Storage</td>
<td></td>
</tr>
<tr>
<td>Wolfboro</td>
<td>EA - SI</td>
<td>ND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woodstock</td>
<td>OD</td>
<td>0.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woodsville</td>
<td>FA</td>
<td>0.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glenciff</td>
<td>ST - SF</td>
<td>UNK</td>
<td>UNK</td>
<td></td>
</tr>
<tr>
<td>Cheshire County</td>
<td>AL</td>
<td>0.002</td>
<td>UNK</td>
<td></td>
</tr>
<tr>
<td>Hillsborough County</td>
<td>IT - SF</td>
<td>0.08</td>
<td>UNK</td>
<td></td>
</tr>
<tr>
<td>Merrimack County</td>
<td>AL</td>
<td>0.03</td>
<td>UNK</td>
<td></td>
</tr>
<tr>
<td>Rockingham County</td>
<td>TF</td>
<td>0.07</td>
<td>UNK</td>
<td></td>
</tr>
<tr>
<td>Strafford County</td>
<td>AL</td>
<td>LNC</td>
<td>UNK</td>
<td></td>
</tr>
<tr>
<td>Sullivan County</td>
<td>AL - EA - SF</td>
<td>0.04</td>
<td>LNC</td>
<td>10</td>
</tr>
</tbody>
</table>

**Abbreviations:**
- ABF — Activated Biofilers
- AL — Aerated Lagoon
- AS — Activated Sludge
- DT — Dry Tons
- EA — Extended Aeration
- IT — Imhoff Tank
- N — Nitrogen Removal
- OD — Oxidation Ditch
- PC — Physical-Chemical
- SD — Subsurface Disposal
- SF — Sand Filtration
- SI — Spray Irrigation
- SP — Stabilization Pond
- ST — Septic Tank
- TF — Trickling Filters
- UNK — Unknown
- SLF — Sanitary Landfill
- LNC — Lagoon Never Cleaned
- NR — None Required

---

Recent sewer construction in Concord. That's Walter Norris trying to find his interceptor.
CERTIFICATION QUIZ

GRADE I
Chlorine applied minus _____ equals chlorine residual.
  a. chlorine dose
  b. chlorine demand
  c. combined chlorine
  d. free chlorine
  e. total chlorine

GRADE II
The minimum velocity to prevent solids deposition in sewers is about
  a. 1 ft/sec
  b. 2 ft/sec.
  c. 5 ft/sec.
  d. 10 ft/sec.

GRADE III
Problem
Calculate the efficiency of an anaerobic digester as a percent given:
IN = 70% Volatile Matter in raw sludge
OUT = 50% Volatile Matter in digested sludge

GRADE IV
Under which one of the following circumstances should sludge wasting normally be increased?
  a. Mixed liquor settles too slowly.
  b. Large billows of white foam start forming on the aeration tank surface.
  c. A dark-brown, scummy foam appears on the aeration tank surface.
  d. All of the above.
  e. None of the above.

Answers to Certification Questions in Issue No. 1:

| Grade I: | c - b |
| Grade II: | b - d |
| Grade III: | b - d |
| Grade IV: | a - d |

OPERATOR TRAINING

The spring training effort was most successful and all the sessions were fully enrolled, with attendance averaging approximately 25 per class. The following courses were presented:

March 21, 25 Activated Sludge, Lebanon Treatment Plant — 1.2 CEU
March 22, 23 Activated Sludge, Berlin Treatment Plant — 1.2 CEU
April 14 Pumps and Pumping, Franklin Training Center — 0.6 CEU
April 18, 19 Activated Sludge, Lebanon Treatment Plant — 1.2 CEU
April 21 Lab Instrumentation and Safety, Franklin Training Center — 0.6 CEU
April 28 Instrumentation, Franklin Training Center — 0.6 CEU
May 3-5 Collection System Maintenance, Hampton Treatment Plant — 1.5 CEU
May 10-12 Wastewater Math, Franklin Training Center — 1.5 CEU

PUBLIC RELATIONS COMMITTEE

This is the second Newsletter to be published this year. The Newsletter is published for Association members to use as well as to read. The committee must receive articles, reports, classified ads or just interesting news in order that we may continue to bring you an interesting Newsletter.

We plan to publish the Newsletter three times a year plus an annual journal summarizing the year’s activities.

So come on all you operators and Association members, if you have something to say — say it to Public Relations Committee members, express your feelings and interests. If you get your message to us — we’ll print it.

There will also be a column called “Have You Heard?” which will cover what is happening at treatment plants across the state, both good and bad news, process changes, updating, etc. There will also be a future troubleshooting column entitled “Go ask Don”. Don Pottle, whom you all know, will attempt to solve operators’ problems through the Newsletter. Both problems and solutions will be published in the same Newsletter. All problems should be sent to Don at the New Hampshire Water Supply and Pollution Control Commission. Don’t be afraid to ask for help. Why struggle for long periods of time with a problem when you have the state association ready and willing to help? There’s nothing better to hear than an operator helping another operator solve a problem.

With a closing “Let’s Go!” we are saying, if this Newsletter is going to be a success, we need your help. Send any material you have to:

Mark Gauthier or Greg Mack
Somersworth W.P.C.F.
157 Main Street
Somersworth, NH 03878

or Mike Nolin
c/o NHWSPPC
P.O. Box 95, Hazen Drive
Concord, NH 03301

May 19 Certification Exam Review, Franklin Training Center
May 17, 24, 31 Activated Sludge, Franklin Training Center — 1.5 CEU
June 9, 16, 23 Wastewater Plant Management, Franklin Training Center — 1.8 CEU
June 28 Sludge Composting, Durham Treatment Plant

Planning is now underway for the fall program. The results of the Association’s survey will be used to finalize course content. A flyer advertising the fall program will be available in August.

Certification Exams will be given at the FTC on November 9, 1983 with review sessions given on October 26 and November 2.
SAFETY CORNER

Industrial accidents are directly attributed to unsafe working environments or careless acts of employees. You have the responsibility to influence both.

Common sense should dictate the precautions we exercise in every job undertaken; however, our judgements require accurate information. Consider the following safety recommendations:

—Housekeeping is the most overlooked safety consideration. "Put it away today and you won't trip over it tomorrow."

—Confined spaces are potential KILLERS. When is the last time you checked your confined space entry safety equipment; self-contained breathing apparatus, gas detectors, and safety harnesses?

—Modern laboratories are designed with many safety measures, yet accidents are common. Know your compatible chemicals and store accordingly. Some simple spills can create violent reactions. Utilize equipment, such as fume hoods, for the purpose they were intended.

—On machinery, the removal of safety guards for working convenience has often been the cause of limb injuries. Underestimating the hazards of machinery, especially the slower moving equipment, has resulted in many permanent disabilities. Increase your awareness during operation and maintenance.

—Learn and practice proper body mechanics while lifting and moving equipment. Participate in safety classes and encourage co-workers to do likewise.

—Take advantage of local first-aid and cardiopulmonary resuscitation (CPR) classes and maintain your Red Cross certification annually with refresher classes.

NOW take the time to pass this information on to a co-worker. YOU CAN PREVENT needless injury.

Roger Taillefer, Chairman
John Dolbeare
Bob Heliger

OPERATOR CERTIFICATION

The following operators passed the Certification Examination in June:

**Grade I**
- Richard Blanchard
- Stephen Clough
- Michael Dalton
- James Damon
- Christian Frey
- Andre Gonthier
- Bruce Grover
- William Hagadorn
- James Hansen, Jr.
- John Hrycuna
- David Hughes
- Richard Martin
- Michael McNamara
- Gary Mitchell
- Kathleen Patrick
- Philip Piatti
- Scott Pollock
- Wesley Ripple
- Roger Varney

**Grade II**
- Robert Allen
- Jack Ashley
- Marcel Belanger
- Lawrence Burrell
- Walter Clifton
- Walter Glynn
- Lewis Gregory
- Larry Hart
- Robert Higgins
- Robert Legace
- Bruce Larrabee
- Orest Manzi
- Robert Napolitano
- Jon Patterson
- Thomas Staniec
- Henry Tylec

**Grade III**
- Michael Beauchamp
- Brian Carroll
- Brian Cate
- Thomas Hastings
- Kenneth Kessler
- Keith Lemoine
- Peter Navin
- John Russell
- Kenneth Smith

**Grade IV**
- Wayne Kimball
- Kevin Kingston
- Richard Seymour
- Sheldon Towne
- Dennis Wells

SEWAGE PLANT EXPLODES; 2 DIE

BEAVER FALLS, PA (UPI) — On July 21, 1983 an explosion "like a big atomic bomb" ripped apart a sewage treatment plant in Beaver County yesterday, killing two employees and injuring nine firefighters, authorities said.

Authorities were not immediately sure of the cause of the blast, which leveled the Chippewa Township sewage treatment plant near Beaver Falls around 2:30 p.m. EDT and shook buildings a mile away.

Two plant employees injured in the blast — one of them buried in twisted debris up to his neck — died at the Medical Center of Beaver County, hospital spokeswoman Norma DeVincentis said.

She identified them as plant manager Robert T. Elleson, late 30s, of Chippewa Township, and Steven Andrew Sekeres, Jr., 22, of Beaver Falls.

A hospital spokeswoman said nine firefighters were treated for heat exhaustion and inhalation of toxic gas fumes, probably chlorine and methane. "I heard a big explosion, like a concussion explosion," said Steve Zunac, owner of a sandblasting company across from the plant. "I saw a big cloud of dust and debris and parts of the building.

"When everything cleared up, the building was gone. It was like a big atomic bomb," he said.
HAVE YOU HEARD?

"Hats Off"

We would like to take this opportunity to express our appreciation to Wayne Hughes of Ashland for his years of dedicated service on the Board of Directors of the New Hampshire Water Pollution Control Association. He has had to step down because of job-related commitments. Wayne is probably the only one to have a perfect attendance record as a Director. Thank you Wayne Hughes.

Manchester

The first of two 2.2 meter Arus Andritz belt presses was delivered July 14th to the City of Manchester Wastewater Treatment Facility. The new belt presses will replace four existing centrifuges and are expected to reduce the cost of sludge disposal dramatically. Both presses should be fully operational by the end of September.

Bedford

The Town of Bedford is presently constructing several miles of interceptors which will discharge to the Manchester Wastewater Treatment Facility. The project also requires siphons under the Merrimack River. Completion of the entire project is expected by March 1984.

Somersworth

The City of Somersworth's water pollution control facility is considering a pilot study for updating the dewatering equipment to a belt filter press. This change could eliminate the operation of two dissolved air flotation thickeners and two vacuum filters. The pilot study would be undertaken to determine if a belt filter could dewater our 2% secondary sludges. If the pilot study is positive, a capital pay-back should be within a range that would prove attractive to city financial managers.

Dover

The City of Dover is in the process of reviewing bids to replace sludge dewatering equipment. At the present time we have two centrifuges installed in 1969 when we were treating a tannery waste and dewatering about 100 cubic yards of sludge per week. From 1969 until the tannery went out of business in 1976, our annual maintenance costs were about $50,000 per year. Since 1979 our average has been between $5,000 and $10,000 per year.

Last November we pulled #1 centrifuge apart for an annual inspection and found not only the conveyor worn beyond limits but also every wear point in the entire rotating assembly. Estimated repair costs were between $36,000 and $50,000. With the possibility of $100,000 to repair both machines, we looked at alternatives. We finally decided on the belt filter press as the best investment for the City.

Our projected savings in maintenance and electrical cost alone will be about $15,000 per year. Chemical cost will be a little higher than at present time, but dewatering time will almost be cut in half due to the higher throughput. Projected savings should be about $20,000 per year.

Burmese Python Still Missing in Nashua

The case of Nashua’s missing 5-1/2’ python remains unsolved. The Nashua Telegraph immediately contacted Lorraine Sander at the treatment plant, a natural spot for this reptile to migrate. Our President is quoted as saying, “We get snakes in here all the time . . . I’m sure the python is well fed if he made it to the sewer system and probably could stay fat on rats and happy forever unless the flow got enough to push him through. If the snake made it into the plant, it would face certain death from chemical poisoning.”

If any other operators are having similar python problems, please feel free to contact the Nashua plant for advice. Lorraine’s first advice would be: Do not talk to reporters at 7:30 a.m. before your second cup of coffee.