Peter LaBonte, Chief Operator at the Gorham W.W.T.F. At this writing, Peter had just accepted the job as Chief Operator of the new North Conway Advanced WWTF.

Gorham NH WWTF

The Gorham WWTF is a 0.75 MGD extended aeration activated sludge facility set in the beautiful North of Pinkham Notch town of Gorham, NH.

Peter LaBonte, Chief Operator and Bob Bagley, Assistant Operator have very smartly operated this facility to produce and discharge one of the finest effluents in the state into the Androscoggin River. EPA awarded this facility the much coveted "O&M Excellence Award" in 1995.

Peter established his own process control numbers running his MLSS around 3400 mg/l and maintaining a Dissolved Oxygen level in aeration of around 0.5 mg/l. This lower than average D.O. level is maintained to inhibit nitrification and the subsequent alkalinity burnout which can cause effluent pH violations. Some might say he is flirting with conditions that might cause excessive filamentous bacteria growth but this has work been the case. Instead, this facility continues to produce single number TSS and BOD's monthly.

A small plate and frame press utilizing ferric and lime for sludge conditioning cranks out 30-35% solids which go to a nearby landfill.

Septage is accepted routinely and the facility also has an aerated sludge holding tank.

If you're in the area hiking or skiing, drop in to see Peter or Bob and check out this WWTF.

Fall Meeting

The NH Water Pollution Control Assoc. is planning a special train ride to celebrate its 30th anniversary along with the 25th anniversary of the Clean Water Act of 1972. The "Clean Water Express" will be pulling out of Lincoln, NH for an exciting southbound ride along the picture perfect Pemigewasset River Valley. This is the scene of NH's first watershed wide efforts in the 1960's to clean up one of America's "10 most polluted rivers".

We will be sightseeing the area's peak foliage on Friday, October 3rd. The train will be leaving the Hobo Railroad Station promptly at 9:30 a.m. (please arrive by 9:00 a.m.).

Coffee and donuts will be served while we roll down the valley to Ashland, then back to Plymouth for a quick tour of the POTW. At 12:30 we'll enjoy a chicken cordon bleu luncheon inside the newly refurbished Plymouth Train Station. Refreshments will be provided with the meal and for the return ride along the river. Our celebration ends back in Lincoln at 3:00.

The NHWPCA expects all attendees to behave in a responsible and professional manner.

The NHWPCA welcomes NEWEA members to join us at the regular member price.
Pemi River Valley this September. The cost of the train rental has come down and a place to have a reasonably priced lunch in Plymouth has been found (the old recently refurbished train station next to the WWTF). Currently, work is underway to locate noteworthy speakers who would discuss pertinent water quality issues, history, etc. while enjoying the scenery!

6.) **Treasurers Report:** Mike passed out copies of the most recent budget for this fiscal year. A general update was given and discussed.

7.) **NEWEA Update:** George Laney reported on a successful spring meeting in Portsmouth, New Hampshire with our own John Bush presiding. NHPCA co-sponsored a reception on Monday evening 6/9/97 during which time president Moe Gauthier along with past president and association co-founder Bill Finenko accepted NEWEA’s Founder’s Award on behalf of NHPCA. This award recognizes contributions made toward the advancement of the water pollution control industry.

George also discussed the need for better coordination of the operator exchange program and was given constructive feedback from the board on this matter. We are looking for an interested operator to participate in this worthwhile program.

He mentioned the possibility of establishing training sessions at strategic locations throughout New England which would deal in subject matters relating to the Operations challenge. These sessions, for example, would discuss pump technology then feature a hands on demonstration of the Operations challenge pump event in order to demystify it for people unfamiliar with it. Another day would deal with the safety event and discuss pertinent safety issues, etc. These sessions would be offered for CEUs and would be sponsored by NEWEA. George Neill stated that the Franklin Training Center would be available for such training.

George Laney mentioned that his term as NH director for NEWEA is up this January and that consideration should be given to whom his replacement should be.

8.) **Winter Meeting:** While the date and location have been established (Bedford Wayfarer, December 11, 1997), Mary is still working on finalizing speakers for this meeting. One is committed (an electrical safety speaker) while another isn’t quite nailed down yet, regarding public relations issues.

9.) **Other Business:** George Neill reported on a very successful proclamation signing event with Governor Jeannie Shaheen who was most gracious. At the same time, our poster contest winner, Amanda Earley presented the Governor with a framed copy of her poster. Photos of the event were sent to various newspapers, some of which published them. Ed Rushbrook of the P.R. committee, wrote a fine article about clean water week which also received some publication.

10.) Next directors meeting will be held on August 14, 1997 at 9:00 a.m. in Franklin.

End of Meeting
George W. Burke, Jr. Facility Safety Award Application

DESCRIPTION
The WEF George W. Burke, Jr. Facility Safety Award is presented through NEWEA to a selected municipal or industrial wastewater facility in recognition of a documented illustrated safety program and safety record. The award is presented to the selected facility at the annual NEWEA meeting.

PURPOSE
To encourage an active and effective safety program in wastewater facilities and to stimulate the collection and reporting of injury data.

SELECTION
The award applicants are evaluated and selected according to the following criteria. An on-site visit by the NEWEA Safety Committee may be included during the evaluation process.

CRITERIA
The application should be tabbed and organized according to the following criteria. Applications will also be judged on the basis of overall presentation quality.

1. Personal Safety Awareness Program
2. Orientation Program
3. On-going Training Program
4. Inventory of Safety Equipment
5. Injury Occurrence Statistics
6. Personnel Check-off System of Skills
7. Program Which Extends Beyond the Plant
8. Any articles/publications/presentations done by facility workers on safety topics to organizations outside the facility
9. Member Affiliation with WEF
10. An Outstanding Feature
11. Highlights of the current Safety Program
12. Safety Committee Minutes for previous year (1997)
13. Evidence of worker participation in the Safety Program

APPLICATION PROCEDURE
Applications must be contained in a single binder no larger than 4” wide.

Send applications to:
Kristen Hall, NEWEA Safety Committee Chair
Massachusetts Water Resources Authority
100 First Avenue
Boston, MA 02129

Applications must be received by January 15, 1998

For Sale
2 — 1250 Gallon Fiberglass Tanks – formerly used for NaOH – $500 each or will consider trade. Contact Ken Levesque at Henniker WWTF, (603) 428-7215 — 7:00 a.m. - 3:30 p.m.

Educational Assistance Available
In order to encourage the advancement of knowledge in all aspects of water pollution control, the New England Water Environment Association has established the Edward A. Kowsz Memorial Education Assistance Grant Program. Under this program, selected applicants may be eligible for reimbursement for tuition, registration and other related costs for training or courses in wastewater treatment, collection, disposal, management or other relevant topics. Grants usually average $300.00 per application but may vary depending on the number of requests.

This program is administered by the Personnel Advancement Committee of NEWEA. Grants may be awarded for self-study training programs, courses at accredited colleges and universities, technical schools or specialty schools approved by the Committee. Applicants must be either a NEWEA member or a member of any of the six New England operators' associations for at least two years to be eligible.

To find out more about this program or for copies of criteria and applications, please contact Elizabeth Haffner, NEWEA Executive Director, at 508-658-4048 or George Neill, PAC Chair, at 603-271-3325.

NHDES Industrial Pretreatment Program
Publications/Guidance Documents

Fact Sheet
☐ Guidelines for Industrial Pretreatment Discharge Permit Request (DPR)

Rules
☐ Env-Ws 904 Standards For Pretreatment of Industrial Wastewater

Forms
☐ NHDES Industrial Wastewater Discharge Permit Request & Application

Guidance (for POTW adoption/use)
☐ Model Sewer Use Ordinance NHDES
☐ Example Industrial User Classifications
☐ Industrial Waste Survey Questionnaire
☐ Industrial Wastewater Discharge Permit Application
☐ Industrial Discharge Class I & II Permit
☐ Industrial Discharge Class III Permit

Check box for item(s) requested and mail to:
State of New Hampshire
Department of Environmental Services
64 No. Main St., P.O. Box 2008, Concord, NH 03302-2008

Name:

Address:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Thanks for coming back, and thanks for your support and comments during the previous three installments. Vin-E is grateful for your input. (Been thinking about changing the name to Vin-E to keep up with the times, waddaya think?)

We've looked at who, what, when, where and how we lie. Now it is time to look at the results, at the costs. What happens to Vinnie, his family, city, workplace, and country, when the basic fiber of communication, honesty, is lacking. If lying had no consequences, then Vinnie would have no problem with it. It does.

OK, close your eyes and think about this, (all right, keep them open till after you read this part!): what do you feel like just after you lie to your partner or a friend? Do you feel closer to or farther apart from them? Feel good about having lied? Worried about getting caught? Got some bleekey feeling in your gut?

If so, you are quite normal. That is how your body reacts to dishonesty. You have an uneasy feeling, and that unease, unless released from your body, can eventually become disease. It makes you physically sick. Lying within your family is like poisoning your own well.

Vinnie's experience has been that, once told, a lie needs many little supports and sometimes flying-buttresses to keep it standing. Each of these adds to the load on Vinnie's structure, putting more strain on it until the maximum loading capacity is exceeded. If he holds it in, physical collapse or "nervous breakdown" or both occur when the un-truth beams begin to crumble.

Sports and drinking are the pressure regulators we use most to "let off steam". Putting focused effort into sporting activity can be a healthy means of release. Using alcohol, tobacco and firearms can bring harm to self or others. Car accidents, lung cancer and "postal worker syndrome" are unhealthy examples of what happens when the internal structures crumble. Have you noticed, like Vinnie has, that people can be brutally honest when they're drunk? Lies are often released from captivity in the Land of Intoxication. In Vino Veritas, In Wine Is Truth!

By failing to exhibit outrage at these activities, we the people (that includes Vinnie!) are rewarding the perpetrators, and telling them it is OK to delay the truth, and it won't hurt as much. At what cost to our society? It allows corruption to continue undermining public confidence indefinitely, and some people to delay the consequences of their actions. For a while. Like until after the next election . . .

How about actions undertaken for your good and Vinnie's? A Washington Times article recently reported on a man-made substance that is found in blood samples of Gulf War veterans. It is a regulated substance used in experimental AIDS vaccines, which has not been approved for use in human beings!

Rather than admit that they injected personnel going into the Gulf War with experimental vaccines which probably caused Gulf War Syndrome, our military medical establishment has LOST medical records of 70,000 people. It seems that if you act for someone else's good, you don't need to inform them or abide by the laws of the land. And if your altruistic deed turns into disaster, simply deny it!

Does Vinnie ever lie? You bet! His kids get money from the Tooth Fairy, and he sometimes overstates his deeds. Does that make it right? Hell, no! We are complex creatures, and prone to self-contradiction. What Vinnie recommends here is this: strive for personal honesty, and work to change the systems around us that support dis-honesty.

What we lose when we lie is the ability to be honest with and close to ourselves and those around us. We miss the opportunities to improve our workplaces and homes when we deny that problems exist.

Lying is trying to avoid consequences. When we do it, we live with not only the fear of discovery and the result we wished to avoid, but also the added burden of the lie.

Truth, if you Dare, has fewer Consequences. Long term, it's easier for Vinnie to just tell the truth. No burdens. Nothing to remember. Nothing to release.

How about when someone lies to you? Do you feel good? "Did you put gas in the truck?" "Yup." Great. Vinnie heads out to pick up some new spray nozzles for his RBC knowing he's got a full tank. Part way through the journey, at that awful blend of I-93 and 101 where all humanity looks like so many salmon thrusting upstream to spawn at the Mall of New Hampshire, Vin's tailfins cough and sputter. Soon Vinnie is just another cadaver in the stream of life that others swim around on their passage from caviar to coho. Out of gas. Not only does that gas gauge lie to him, but now his co-worker does as well.

Does Vinnie feel good? No. It costs him in time, anger and resentment. And, it will affect the atmosphere at Vinnie's plant, making day-to-day operations just a bit more difficult.

How much time do you spend trying to figure out the truth in what others tell you? We all have our viewpoints, and it is hard enough to communicate when we're straight with each other. Add a variable of intentional obfuscation, and get out your logarithmic calculator. It's tougher than calculating what Grade certification exam you're eligible for.

Here's another thing to think about: as Wastewater Operators, we hold a sacred public trust. If Vinnie seeks help when his plant isn't performing, then he can get help. Remember that Collector article by Jack Healey of the EPA? If Vinnie is honest, improvement can come. If he lies, falsifies documents, or misleads his employer, he can lose his job and his livelihood.

The current crew in Washington, DC has made an art form of lying about their actions, and then slowly and begrudgingly admitting to the truth in little bites. No, I didn't make any calls; well, maybe I did; oh, yeah, I did, but the DNC paid for them; oh, I guess you taxpayers paid for them, but it wasn't very much and we'll cut you a check . . . Is this healthy?
Standards of Ethical Performance

What is the standard of ethical performance that a Certified Wastewater Operator in New Hampshire is expected to live up to? This is the question that the NH DES Wastewater Operator Certification Committee (the Committee) has had to wrestle with in the past 18 months. During this time two separate cases involving complaints against certified operators were investigated. Each case involved issues which should have been handled differently by the Operator and each led to action being taken against the Operator's Certificate.

In the first case, a NH Grade 4 Operator was found to have: allowed raw wastewater discharges to occur from a manhole without taking prompt remedial action; and to knowingly have ordered the cessation of effluent de-chlorination, thereby violating the facility's NPDES permit. The Operator displayed a lack of respect for the Federal and State rules and their representatives by making these decisions. The Operator felt that the Town's Director of Public Works was ultimately responsible. The Operator's Certificate was suspended for six months and a letter of reprimand from the Committee was placed into the Operator's file. Additionally, a copy of the reprimand letter was sent to the Environmental Department in the State that the Operator is currently employed.

In the second case, a NH Grade 2 Operator was found to have: not submitted monthly Discharge Monitoring Reports (DMR's) to the US EPA; falsified information on the DMR's and State Monthly Operating Report; and not performed sampling and analyses as required by the NPDES permit. The Operator complained of not having sufficient time or money to perform the analyses because the Town required significant work outside of the facility. After an informal hearing with the Operator, the Committee voted to suspend the Certificate for 2 years and to require the Operator to receive additional training. Subsequently, more information became available that proved the Operator had falsified several months of data, did not perform any of the permit required analyses and had knowingly misled the Committee during the informal hearing. This led to a Federal investigation and eventually the State Attorney General prosecuted the Operator for criminal charges, resulting in a $5,000 fine, community service and a six month suspended jail sentence. The Certification Committee has since begun formal proceedings to revoke this Operator's Certificate.

The Certification Committee is allowed, under State Rules, to either suspend or revoke an Operator's Certificate if it deems that the Operator has been negligent in his/her duties. The Committee realizes that this type of action can impact the Operator's livelihood and these decisions are only made after gathering as much information as possible, lengthy deliberations and considerable soul searching. It is the Committee's commitment to uphold the professional standards which the majority of New Hampshire Certified Operator's willingly abide by. It is for these dedicated Operators that the Committee takes action when needed. The overwhelming majority of New Hampshire's Operators perform their jobs with the greatest of pride and professionalism, and action taken against Certificates happens very rarely.

It is important for Operator's to remain aware that all the requirements of both the State and Federal discharge permits are enforceable if they are not followed. Although a Town may be ultimately responsible for permit violations, each and every Operator is responsible for their actions. Remember that by law the Committee can suspend or revoke a Certificate regardless of whether any punitive action is taken against the Permittee (Town) or if there have been permit violations. The Committee urges any Operator to contact the New Hampshire Department of Environmental Services when circumstances occur which may lead to non-compliance with the permit, or put an Operator in a situation which compromises his/her professionalism and integrity.

Operators Exchange News

This year's lucky winner in the Operator Exchange Contest for New Hampshire is Ray Vermette, of the Dover-OMI treatment facility. Ray will be representing Cow Hampshire on September 22, 23 and 24, while touring treatment facilities in Central Massachusetts, Deer Island, and the Mass. State Association's Trade Fair, respectively. Some of Ray's adventures will be shared with us at the Fall Meeting, and in a future edition of The Collector. Congratulations Ray!

On the other side of the Exchange Program, New Hampshire will be hosting Scott Gordon, from the Leominster, Mass. EOS facility. Scott will be visiting several Seacoast area treatment plants on Wednesday, October 1, then enjoying an evening meeting with the NHWPCA Board of Directors in Concord. Thursday will find him touring some western and central facilities. The highlight of Scott's visit will be the Fall Meeting train ride down the beautiful Pemi Valley. If you see Scott on the train, be sure to give him a hearty New Hampshire welcome!

NHWPCA Winter Meeting
December 11, 1997

Mark your calendar to attend our Winter Meeting at the Sheraton Wayfarer in Bedford, NH. Registration is at 8:30 a.m. for two excellent technical sessions: Electrical Safety speaker Ken Garabault, P.S.N.H., and Public Relations — speaker Mac Richardson.

Raffle and SANTA to follow along with an Italian Buffet. 0.3 CEU will be awarded for the Technical Sessions.

DID YOU KNOW...?

Acting on a suggestion from Ed Rushbrook, of Dufresne Henry, the Henniker WWTF doses its septic holding tanks with one gallon of 15% sodium hypochlorite solution per 1000 gallons of septicage, to deter filamentous bacteria growth. The septicage is metered into the plant at a maximum of 2000 gallons per day.
Developing and Managing a Performance Contract

by Steven Bolles, Energy Services Manager
Woodard & Curran, Concord, New Hampshire

(This is the second part of a two-part article on Performance Contracting. Part one reviewed the basic concept of Performance Contracting, the benefits, and how to begin the process of applying this concept to a facility.)

TYPES OF ENERGY PERFORMANCE CONTRACTS

Energy performance contracting for public facilities includes options such as leasing, joint ventures, shared savings plans, and energy service contracts. Of these, leasing and shared savings plans are the most common types of performance contracts by public agencies.

Shared savings plans can be described as an agreement under which a performance contractor undertakes to design, install, and maintain improvements to a facility, with the facility agreeing to pay a contractually specified amount of the measured energy cost savings. Shared savings plans are very simple in concept and have the advantage of being easily explained to administrators and policy-makers. The agency and performance contractor agree on a method of measuring savings and a formula for “splitting” these savings. The arrangement automatically ensures that the facility will pay less after implementing a performance contract. The main disadvantage of shared savings plans is that they are usually more expensive than other approaches, due to greater risks assumed by the performance contractor.

Leasing may also be referred to as “municipal leasing” or “guaranteed savings.” Under a lease, the facility agrees to make a fixed payment to the performance contractor for a fixed term. In addition to designing, installing and maintaining the improvements, the performance contractor guarantees that energy and maintenance savings from the project will exceed the payments to the performance contractor. The net effect is similar to that under a shared savings plan.

One advantage of a municipal lease is that it can be financed as a tax-exempt obligation for a municipality. This reduces the interest rate associated with the financing by a substantial amount. As an example, if a proposed tax-exempt rate averaged 7.5%, while non-tax-exempt financing proposals were offered at nearly 12%, it becomes clear what approach is in the best interest of the municipality.

It is important to note that the guaranteed lease and shared savings approaches both offer the same scope of services to a facility. The key difference between the two is in the method used to determine price and payments and the mechanism that guarantees the performance contract will reduce overall costs.

KEY ISSUES TO ADDRESS IN A PERFORMANCE CONTRACT

The following paragraph list key issues to consider in developing a performance contract.

Contractor’s Services (Scope of Work)

As in any contract, the performance contractor’s scope of work to complete the project must be described clearly and completely. In a performance contract, the contractor may be performing services in several different areas. Common services include:

• A detailed energy study to identify existing conditions and propose improvements
• Engineering and design services
• Construction services (including any license and permits required)
• Maintenance services (including preventive maintenance, repairs, and emergency service)
• Training services (to ensure facility staff can operate equipment)

Oftentimes, the performance contractor is responsible for equipment repair and scheduled maintenance. In some cases using on-site facility personnel to perform some maintenance may reduce costs. Usually the on-site personnel retain most of the operating responsibility.

Facility Responsibilities

Generally, the efficiency improvements installed by the performance contractor depend on certain actions by the facility in order to achieve savings. The facility must make sure that the contract describes its obligations very clearly. This ensures that the facility understands its commitment and prevents the contractor from unreasonably claiming that savings were not achieved due to omissions by the facility. Facility responsibilities may include operating or maintaining existing equipment in a way that helps the performance contractor’s improvements to achieve savings. For example, if the contractor proposes an automated dissolved oxygen system for an aeration system, the contractor may ask the facility to maintain a designated dissolved oxygen level.

Compensation

The contract must establish what price will be paid for the performance contractor’s services, the timing of payments, and how payments will be calculated. This is more complicated in a performance contract because the contract is awarded before the improvements are known and a total price can be determined. To allow for this, the contractor submits a price formula in the proposal which establishes the price based on the project scope. The energy study report includes a calculation of the final price, based on the approved project scope and this price formula.

Term

The contract must state the term of the agreement and the circumstances under which it may be terminated. Possible reasons for each termination include failure to agree on the content of the energy study report (including what measures to install or the total price), failure to appropriate sufficient funds for the continuation of the contract or default.

Ownership of Equipment

The contract should make clear who owns the equipment installed by the performance contractor at all times during the contract. Equipment ownership may be important to the contractor for purposes of securing financing or for the tax treatment of the contractor’s revenues under the contract. Typically,
a contract provision establishes that all equipment installed by the performance contractor remains the property of the contractor during the term and ownership transfers to the facility at the expiration of the contract.

In cases where the contractor’s equipment includes software, the facility should ensure that it receives a license, both during the contract term and perpetually afterwards, to use the software to the extent necessary to operate facility equipment.

**Savings Measurement**

In a performance contract, savings measurement is an important consideration. Generally, the improvements to be installed must be known before the most appropriate savings measurement method can be selected. Therefore, the contract requires the contractor to provide a savings measurement plan, including the method for establishing the energy baseline, in the energy study report. Facilities should review the measurement plan before accepting the energy study report for incorporation into the contract.

**Material Changes and Baseline Modification**

An issue related to savings measurement is what to do if the operation or equipment of the facility changes, making the original energy baseline unrepresentative of the actual operation. Generally, contracts provide that when the facility changes in a way that affects the project energy savings significantly, the baseline may be modified.

**Risk Management**

The contract should include typical language to protect the facility from any damages or liability that may arise due to the performance contractor’s performance or non-performance under the contract. Typical requirements include insurance indemnification and a general indemnification by the contractor. Provisions addressing contractor responsibility for handling any hazardous materials encountered during the project may also be advisable.

**MONITORING A PERFORMANCE CONTRACT**

After contract award, a project proceeds in three phases: the energy study, construction and commissioning, and operation. The key to managing the project is to ensure timely and complete communication between the contractor and facility staff. Meetings held at major project milestones establish a pattern of communication and mutually agreed benchmarks which can then be used to monitor and control the progress of the project. Once the contract is awarded, it is easy for the facility staff to turn their attention to their regular responsibilities and for the contractor to focus on the current task and forget to keep the facility staff informed. A schedule of regular project meetings helps prevent surprises and keeps the contractor on track.

**Project Kick-Off Meeting**

Immediately after the execution of the contract, a project meeting should be held to plan the contractor’s first major task, the energy study. This meeting should include a facility presentation on measures it would like to see evaluated and procedures such as site check-in and check-out, parking, identification, access to occupied spaces, etc. The contractor should describe its plan for the energy study, particularly on-site activities and intermediate submittals for review. Notes from this meeting will document mutually accepted procedures and a plan to complete the energy study within the designated time frame.

![PERFORMANCE CONTRACTING PROCESS](image)

**Energy Study Phase**

During the energy study phase, project meetings between the contractor’s project manager and the facility’s management and planning staff typically occur at least once a month. The primary purpose of these meetings is for regular updates and discussion of the existing conditions and energy conservation measures on which the contractor is focusing. The staff can use these meetings to ensure that the contractor is basing the analysis on realistic assumptions and is evaluating the improvements they prefer.

**Construction and Commissioning Phase**

The construction and commissioning phase of the project requires precise coordination and well-defined interaction between the performance contractor and the facility staff. This phase begins with the approval of the final energy study report and notice to proceed with design of the project.

During this phase, project meetings should be scheduled on a regular basis for status reports. The contractor will be required to submit installation plans for approval before beginning construction.

Management of the design and construction phase of the performance contract is essentially the same as the management of a large design/build retrofit or repair and maintenance project. However, performance contracts incorporate several other elements which are not associated with conventional retrofits. These include training staff, maintaining equipment, monitoring standards of service and verifying savings. Unlike construction management, which is completed once the installation has been accepted, these other activities must be monitored for the duration of the contract (often ten years) in order to receive full value from the project.

**Annual Monitoring of Savings and Standards of Services**

In its energy study report, the performance contractor is required to document a method of determining energy savings annually throughout the contract term. This method

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*Performance Contract — Continued on next page*
Effective April 22, 1997 the New Hampshire Department of Environmental Services (NH DES) adopted the latest edition of Env-Ws 901, Certification of Wastewater Treatment Plant Operators. This latest set of rules was developed over a 12 month period by the NH DES Wastewater Operator Certification Committee (the Committee). What follows are highlights of the most significant changes in the rules that govern New Hampshire's Wastewater Operations professionals. For a copy of these rules contact the NH DES Public Information and Permitting office at (603) 271-2975.

The definition of "operating experience" was expanded to include specific references to time spent working at a wastewater treatment plant performing duties which include equipment maintenance, laboratory analysis, equipment operation, administration, supervision and process control. This allows for a fairer assessment of an individual's work experience regardless of their specialty. Similarly, the definition of "operator in responsible charge" was expanded to distinguish the levels of responsibility and accountability between an "operator" and an "operator in responsible charge".

For the first time there will be "Operator-in-Training" levels for each of the four license grades. This allows operators who meet the full education requirements but fall short of the required "operating experience" an opportunity to take the next level of certification exam. Operators who pass the "OIT" exam will receive the full license grade only when they have met the full "operating experience" requirement. Applicants who have completed a minimum one year wastewater certificate program or a two year water/wastewater associates program are automatically eligible for the Grade 2-OIT examination regardless of their work experience. They will receive a Grade 2-OIT certificate and must then complete three full years of in-plant operating experience before earning a full Grade 2 license. Applicants for the Grade 3-OIT and Grade 4-OIT may be two years short of the full Grade 3 and Grade 4 operating experience requirement to sit for the OIT exams.

Applicants for an exam and for a reciprocal license have been changed to include two new clauses. One is a section where the applicant indicates whether substitutions are being requested for education or experience. Applicants who check "yes" in this section must submit proof of sufficient education or experience to warrant the substitution. There also is a new section requiring the signature of the operator in responsible charge or of the permittee/facility owner to verify the applicant's current work history.

Penalties are now in place for late renewals. Failure to renew an operator license by the expiration date results in suspension of the license and assessment of a 50% late fee (for a total renewal price of $75.00). After 90 days beyond the expiration date the operator's license is expired and the permittee or facility owner is notified in writing. An operator whose license lapses 90 days or more beyond the renewal date must apply for and pass the next scheduled certification exam (at their previous certification level) to reinstate their license. Because of the nature of these penalties, renewal notices and forms will be sent out by the NH DES approximately 90 days prior to an expiration date.

Revocation of an operator's license has always been in the rules. In addition to the original four clauses, two new clauses were added that allow the Committee to suspend or revoke an operator's certificate for illegal behavior. The first new clause allows action when a licensed operator fails to submit permit required operational documentation to appropriate regulatory agencies in a timely manner. The second new clause allows action when a licensed operator fails to comply with an order of the department (NH DES) relative to the management of a wastewater facility.

Classification of wastewater plants was in the previous set of rules. New language was added to clarify when reclassification of a wastewater plant grade may occur. Reclassification may occur for one or more of the following changes: as a result of system upgrading, physical process changes, changes in effluent discharge requirements, laboratory controls, alterations to receiving water classification and water quality criteria and/or increased treatment requirements. The NH DES must now notify in writing the plant's owner when and if a reclassification affects the plant's grade level. When a plant's grade level increases due to one or more of the above changes, the plant owner must now designate a properly certified "operator in responsible charge" within one year of receipt of the written notification.

Lastly, by the summer of 1998 each plant owner shall designate a backup operator in responsible charge for their facility. The plant owner must notify the NH DES in writing of their selection. This back-up operator's license must be not more than one grade lower than the facility's grade level. In the case of a Grade 1 facility, the certified operator shall hold a Grade 1 or at least a Grade 1-OIT license.

Performance Contract — Continued from previous page

should be referred to and checked against a schedule of first-year measurement activities which the contractor submits for approval at commissioning meetings. This schedule should include a joint annual inspection of all of the contractor-installed equipment to verify that equipment is being operated and maintained as designed. The annual meeting should review the calculation of energy savings for the previous year, including any material changes or modifications to the baseline. At each annual meeting the schedule of measurement activities for the following year should be reviewed and approved.

These annual meetings are not a substitute for ongoing monitoring of maintenance activities or regular auditing of energy-savings estimates included in contractor-submitted invoices. They supplement these ongoing activities and provide an opportunity for a comprehensive review of the performance of the project on a facility-wide basis. Because they are not in response to an immediate problem, they make it easier to observe trends and longer-term facility changes. They also serve as an annual opportunity for facility staff to ask questions and offer suggestions to the contractor regarding how to optimize system performance.
The 8th Annual NHWPCA Golf Outing was held on August 15, 1997, at Plausawa Valley Country Club. Despite a one year layoff, this year’s outing was bigger and better than ever! The new golf course and a shotgun start seemed to please everyone. Plausawa is unique in that the front 9 and the back 9 are two seemingly different courses. The front is an older more wide open layout and the back is a much newer layout with many challenging holes. The pin placements were tough and scoring was difficult. The weather was great, warm but not too hot, light winds and a mix of sun and clouds all made for a perfect day!

This year we had a record number of players — 56 in all! We also had many new hole sponsors as well as old faithful ones. Once again, the prizes and raffle after the tournament were great because of the generosity of the companies that sponsored holes or donated prizes.

This year, as always, the competition was tight. We once again had a tie at 7 under par (65) and score card matching was used to determine a winner. The team of Ray Cushman from the NHDES, Joe Wasiuk of Roy F. Weston and Roger Hall from the Nashua WTF, took first place overall. They each won a $50.00 gift certificate. Second place, also 7 under par (65), was the team of Roger Pinard, Ian Lapsley, Mike Prozo and Howard Tawney, all of the Sullivan County Home. They each received a $40.00 give certificate. Third place, at 4 under par (68), went to the team of Greg Weir of Seal Pro, Andy Poverchuch and Bob Mack of NE Environmental and Norm Plourde of PSG. They each received a $30.00 gift certificate. Fourth place, at 3 under par (69), went to the team of Bret Whitney of Green Mountain Engineers, Mark Simon of Simon Operations Services, and Harry Stewart and George Neill from the NHDES. They each received a $20.00 gift certificate. A big congratulations to all of our winners!

Prizes were also awarded for longest and straightest drives, closest to the pin and closest second shot. Each person received a $25.00 gift certificate. Closest to the pin went to Mike Prozzo of Sullivan County. Closest second shot went to Ray Cushman from the NHDES and longest drive went to Greg Weir of Seal Pro. Straightest drive went to Brian Conway of Mast Associates.

The chicken barbecue was excellent. It was during lunch that we raffled off the other prizes. There were many great items — drivers, utility woods, carts, bags, head covers, hats, etc., and enough so that just about everyone got something. Next years’ outing should be about the same date and at the same place. I would like to thank all our sponsors. Without you, this tournament would not be possible. I would also like to thank my new found committee members, Mike Hanscon, Joe Ducharme and George Neill. You helped bring this outing to new heights! I would also like to thank everyone else who helped out by putting up sponsor signs, assisting with cart & hole assignments and collecting signs at the end of the tournament. Special thanks to Patti Rogers of Nashua WTF, our awesome secretary, for all her help!

Well, hope to see you all next year and as always — Happy Golfing!!!

A very special thanks to all of the generous sponsors whose support of the 8th Annual NHWPCA Golf Tournament allowed us to fill the raffle table with merchandise and gift certificates for the tournament participants. In alphabetical order:

- Allied Colloids
- Aries Engineering
- Camp, Dresser & McKee
- Chemserve
- Dufresne-Henry, Inc.
- Eastern Analytical, Inc.
- The H.L. Turner Group, Inc.
- Hoyle, Tanner & Associates, Inc.
- Louis Berger & Associates
- The Maher Corporation
- N.E. Environmental Equipment
- N.E. Tank Systems
- Professional Services Group
- SealPro
- Simon Operations Services, Inc.
- Sullivan Associates
- Underwood Engineers
- Utility Pipeline Services
- Welch’s Water & Wastewater Services
- White Mountain Resources Mgmt., Inc.
- Woodard & Curran

Peterborough, NH
Concord, NH
Cambridge, MA
Milford, NH
Manchester, NH
Concord, NH
Bedford, NH
Manchester, NH
North Reading, MA
Boston, MA
Amenia, NY
Nashua, NH
Hooksett, NH
Waterbury, VT
Danvers, MA
Portsmouth, NH
Auburn, NH
Whitefield, NH
Ashland, NH
Concord, NH

**Maintenance Monitoring**

One of the benefits of performance contracting is that the contractor has a strong financial interest in ensuring that maintenance is properly performed. Poor maintenance can reduce savings or cause standards of service and comfort to deteriorate below contract requirements. Both of these results are potentially costly to the contractor. A schedule for regular maintenance activities should be established and monitored and comfort complaints should be used as a warning that closer attention may be needed.

Since maintenance responsibilities may be split between the contractor and the agency, equipment for which the contractor has maintained responsibility should be clearly and prominently marked.

**Summary**

This concludes our two-part series on performance contracting. The information presented is intended to provide a basic understanding of the performance contracting process, and the steps necessary to develop these projects. Specific project and solicitation requirements will vary for each municipality. Legal advice should be consulted before entering into any performance contract.
# COURSE ENROLLMENT FORM

**Fall 1997 DES Wastewater Operator Training**

<table>
<thead>
<tr>
<th>Date</th>
<th>Course</th>
</tr>
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<tbody>
<tr>
<td>SEPT 17</td>
<td>Developing a Request for Qualifications/Proposals (Limit 25)</td>
</tr>
<tr>
<td>SEPT 25</td>
<td>MTI Predictive Equipment Maintenance</td>
</tr>
<tr>
<td>OCT 1</td>
<td>NEIETC: Advanced Process Control</td>
</tr>
<tr>
<td>OCT 3</td>
<td>NHWPCA Fall Meeting</td>
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<tr>
<td>OCT 9</td>
<td>Injury Prevention in the Workplace</td>
</tr>
<tr>
<td>OCT 15</td>
<td>Maintenance &amp; Repair of Small Engines (Limit 25)</td>
</tr>
<tr>
<td>OCT 22</td>
<td>NPDES DMR’s and Reporting (Limit 25)</td>
</tr>
<tr>
<td>OCT 28-31</td>
<td>NEIETC: Basic Wastewater Treatment Technology Register directly w/NEIETC.</td>
</tr>
<tr>
<td>NOV 5</td>
<td>SCADA Systems for Wastewater Treatment Facilities</td>
</tr>
<tr>
<td>NOV 12</td>
<td>Hazardous Materials Training</td>
</tr>
<tr>
<td>NOV 18</td>
<td>Advanced Laboratory QA/QC</td>
</tr>
<tr>
<td>NOV 19</td>
<td>Laboratory Review (a.m.); NEWEA Voluntary Lab Analyst Exam (p.m.)</td>
</tr>
<tr>
<td>NOV 26</td>
<td>No training sessions Thanksgiving week</td>
</tr>
<tr>
<td>DEC 3</td>
<td>Applied Wastewater Math Review -All Grades</td>
</tr>
<tr>
<td>DEC 10</td>
<td>Certification Exam - All Grades Call (603) 271-3503 for an exam application</td>
</tr>
<tr>
<td>DEC 11</td>
<td>NHWPCA Winter Meeting</td>
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**NOTE:** See course description sheet for cost of each class. NO CASH ACCEPTED! Make checks payable to: **TREASURER-STATE OF NEW HAMPSHIRE** Send enrollment form w/payment to: State of New Hampshire DES, Water Division ATTN: Wastewater Operations Section 6 Hazen Drive, Concord, NH 03301

<table>
<thead>
<tr>
<th>Facility Name:</th>
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<tr>
<td>Facility Phone:</td>
<td>Date:</td>
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<tr>
<td>Facility Fax:</td>
<td>Type of Payment:</td>
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CONGRATULATIONS!!
To the 29 Newly Certified
New England Wastewater Laboratory Analysts

On June 9, 1997, NEWEA’s Laboratory Practices Commit-
tee (LPC) held its first review course and examination for its
voluntary Wastewater Laboratory Analyst Grade I certifica-
tion. This program was conducted as part of NEWEA’s Spring
meeting that was held in Portsmouth, NH on June 8-11. Bas-
ed on attendance and comments from the participants, it was
a huge success.

This two and one half hour review class was held in the
morning and was attended by more than 20 analysts, lab direc-
tors and training specialists from around New England. The
review was taught by Andy “Life is Good” Fish, the chair of
the LPC, along with Paul Fitzgibbons, vice-chair LPC, and Dr.
Gus Schlessinger, a member of LPC’s certification subcommit-
tee. The class briefly touched on all topics that are covered
on the Grade I exam and many participants questions were
answered.

The Grade I test was given that afternoon with 29 people
sitting for the examination. All 29 successfully completed the
exam and will be sent certification from NEWEA designating
them as Certified Wastewater Laboratory Analysts, Grade I.
Our sincere congratulations go out to all those analysts.

Comments from those who took both the review course and
test tailed the course as an excellent “brush-up” for the
test and further stated they would recommend it to all future
examinees. Although the review course is recommended, it
is not mandatory.

Additional review classes and tests for the Grade I certifica-
tion will be scheduled throughout the year as needed. Review
classes and tests for Grade I certification will start in
September. The goal of the LPC is to have at least one review
class and examination for each grade given once per year in
each New England state.

If you have any questions on the voluntary Certified Wast-
ewater Laboratory Analysis Certification Program you may call
Andy Fish, LPC chair, at 802-241-3739 or Paul Fitzgibbons,
LPC vice-chair, at 401-277-6780 ext. 118. If you would like
an information packet including an application, call the
NEWEA office at 508-658-4048. A study guide is available
and may be purchased for $10.00 from the NEWEA office.

The following is a list of NH individuals passing the
Wastewater Laboratory Analyst Voluntary Certification Ex-
am given at our Spring Meeting in Portsmouth on June 9,
1997. This was a Level I exam.

Michelle Bouchard
Sandra Colucci
Kristen Henderson
Carol Pynn
Virginia Repsher
Raymond Vermette
Jamie Wood
Michael Micucci
Papertech Corp., West Hopkinton
OMI, Inc., Dover
Rochester Wastewater Plant, Rochester
Haverhill WWTP, Haverhill, MA
(a Windham NH resident)
Claremont Wastewater Facility, Claremont
OMI, Dover WWTP, Dover
OMI, Biddeford, ME
(a Somersworth NH resident)
(a Dover NH resident)
The 1990's Sludge Farmer
Don't like your current job? Try Farming!