The City of Nashua WWTF to Host Annual Winter Meeting

By John C. Adie, Plant Operations Supervisor, Nashua WWTF

On December 6th 2013 the City of Nashua WWTF will be hosting the NHWPCA Annual Winter Meeting. The facility will be featuring the recently upgraded dewatering process and grit removal. The NWTF has an average daily flow capacity of 12 MGD, a 1.3 MG anaerobic egg shaped digester, and a 60 MGD Wet Weather flow treatment facility. Currently in progress is a secondary aeration upgrade.

Sludge thickening at the facility is performed by three gravity belt thickeners, and three 2-meter belt filter presses with an output of approximately 18 percent solids. The biosolids generated are handled by a third party and transported to land application sites. With rising costs and lower staffing levels, every wastewater treatment facility is challenged to perform. Performance is not only for regulatory agencies but also for the local rate payers. With these challenges for performance, Nashua moved forward with Wright-Pierce to develop the upgrades for the dewatering project along with grit removal. T-Buck Construction Company was awarded the dewatering project which is scheduled to be completed in January of 2014.

Nashua also realized that an upgrade to our secondary process was needed to enhance our treatment performance. The secondary upgrade begins with three Turblex blowers. Aeration tanks will receive coatings, new aeration diffuser systems and upgraded controls for optimizing dissolved oxygen. Secondary clarifiers will receive coatings of the launders, painting of the super structures and new drive units. These secondary upgrades were placed in motion with the services of Woodard & Curran. Penta Corporation was awarded the secondary upgrade project. This project is scheduled to be completed in the late summer of 2014.

Goals for Nashua with Wright-Pierce:

- Increase total solids concentration of the final sludge cake
- Reduce maintenance and personnel oversight of sludge processing equipment
- Decrease overall life cycle costs to operating sludge processing equipment
- Reduce chemical costs
- Reduce product handling and transportation costs
- Decrease energy costs
- Maximize grit removal to enhance downstream process and increase longevity of equipment

Goals for Nashua with Woodard & Curran:

- Decrease energy costs associated in aeration with addition of Turblex blowers
- Recondition aeration tanks and replace aeration grid system
- Enhance control of dissolved oxygen, reduce personnel oversight and save additional energy through newly designed aeration process control instrumentation
- Reconditioning and painting of secondary clarifiers and replacement of aging clarifier drive units
- Coating of secondary clarifier effluent launders
Stephanie Rochefort, Todd Gianotti, Mary Jane Meier, Steve Clifton, Gene Weeks, Kurt Robichaud & Ben Mosher. We ... for meaningful articles for the Wastewater Operator in a timely fashion. Send submission articles for THE COLLECTOR to: Stephanie Rochefort via email at srochefort@somersworth.com

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"THE COLLECTOR" is the Official Newsletter of the NHWPCA

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Thank You to Contributing Writers
John Adie, Paul Heirtzler, Bert Souliere,
George Carlson, Mike Carle, Tiejen Hynes,
Stephanie Rochefort, Steve Clifton, &
Nathan Lavallee.

WORDS FROM THE EDITOR

My family has a tradition that the birthday girl or boy gets to plan whatever they want to eat for a special birthday meal. Many years ago, my brother asked for Oreo Cookies and Cream ice cream. My mother and I went to every grocery store in a 20-mile radius looking for this ice cream and it was nowhere to be found! So, a premium brand of cookies and cream ice cream was purchased. The meal was going great until dessert, which was chocolate cake with chocolate frosting and ice cream. We all began to eat, feeling kind of let down by this ice cream filled with generic chocolate cookie pieces. Finally, my brother announced what we all were thinking, “it’s good, but it’s not Oreo cookies in here”. My mother began her defense, but I interrupted and asked my brother if he was sure that this flavor of ice cream even existed. His response was “I had it at the Dairy Barn”. Yikes – the Dairy Barn is our family’s nickname for the local ice cream stand that makes their own ice cream! For his next several birthdays, my mother purchased a quart of Oreo Cookies and Cream from the Dairy Barn. Now, there is a brand of ice cream available in the grocery store that has this flavor. I wanted to share this story because it’s a personal example of the “or equal clause” from long before we started talking about it in our field. Please do enjoy the article on this topic. As your newsletter editor, I’ve learned that the second, explanatory or alternate, line of a title is called a subtitle. I’ll buy a drink at the Winter Meeting for the first person who can tell me why I gave part I its subtitle!

Stephanie, Somersworth WWTF

For more information about the NHWPCA visit our website at www.nhw pca.org.
(Continued from cover)

Before selecting blowers from Turblex, Woodard & Curran and Nashua conducted interviews with six manufacturers of various blower technologies. An extensive evaluation of aeration system data and biological modeling was also performed to identify the actual aeration demand and properly size the blowers. Turblex blowers were ultimately selected due to their high efficiency, proven track record, and compatibility with the plant’s existing medium-voltage electrical system.

The first steps with Wright-Pierce were to pilot alternative dewatering equipment in order to evaluate the performance and life cycle costs. Two options were evaluated that represent the current state of the art in sludge dewatering technology; inclined screw press and rotary press. Each of these technologies was evaluated in terms of their ability to:

- Produce a drier sludge cake
- Reduce maintenance and personnel oversight
- Decrease electricity usage and chemical usage costs
- Minimize product handling and transportation costs

A thorough analysis was performed on each technology based on performance and the goals listed above. In addition, a detailed life cycle analysis was performed comparing the two new technologies to each other as well as to refurbishing the existing 23-year old BFPs. Based on the results of the pilot testing and life cycle cost analysis, the inclined screw press option was recommended as the best fit for Nashua. This installation will be the largest for the Huber Q800 Inclined Presses to date in the Northeast.

This contract also included:

- A new Volgolsan Rotamix Sludge Mixing System for the secondary digester
- Four Vaughan Rotary Lobe Sludge Feed Pumps
- Four progressive cavity Sepex polymer pumps
- Huber RS Grit System
- Sanitaire coarse bubble grit tank mixing

Representatives from Walker Wellington, Huber Technologies, Turblex Blower, Sanitaire and Vaughan Rotamix will be on hand to show and discuss this successful project.

Last but not least, the Annual Business Meeting will be held at the Crown Plaza in Nashua. The Wright-Pierce project will be presented by Andy Morrill, PE and the Woodard & Curran project will be presented by Eric Osborne, PE.

I hope that you all can attend!
Perspectives on the "Brand Name or Equal" Purchase Description – part 1
Some Pumps are More Equal than Others
Introduction by Paul Heirtzler, NHDES

DES has not promulgated rules on how to specify equipment in contracts for water pollution control or drinking water infrastructure that is financed with federal or state resources or grants. Instead, it relies on the Federal Acquisition Regulations (FAR) and notions of fairness, open competition and cost containment.

FAR 11.104 states a preference for use of “performance specifications” to encourage offerors to propose innovative solutions. Where a brand name or equal is specified, it is intended to provide a general description of the salient physical, functional, or performance characteristics of the brand name item that an “equal” item must meet to be acceptable.

DES’s standard General Conditions for Construction Contracts, Section 8, addresses use of the “or equal” clause in contract documents. FAR 11.105 (and DES policy) recognizes, however, that there are times when the specifying of a brand name product is acceptable. These may include occasions where the owner may have a number of a particular brand name products (pumps, for example) already in use and has a large stockpile of spare parts and procurement of an equal product would require the purchase and stockpiling of additional, non-compatible spare parts. In cases where the owner requires that the brand name equipment be specified, it must pay the difference in cost between the brand name and the equal equipment as state and federal programs will only participate in the price of the least cost alternative.

Effects from the Or-Equal Clause
Comparing Apples and Oranges
By Bert Souliere, Water Industries

For the designers - Regardless of the project type, new installation or replacement of existing equipment, the designer must first determine what the proper equipment is for the project, then also take into consideration the preferences of the end user. Once the equipment type of preference is determined, then comes the process of selecting the proper unit to accomplish the task based upon the specific site and system conditions. In many cases they will work alongside either the equipment manufacturer or their local representative to discuss all the details of the application and to develop what can sometimes be a long and rather involved specification to ensure that the equipment purchased in the end is up to the intended task.

Where the Or-Equal clause comes into play, particularly when they are forced to list alternate acceptable alternate manufacturers, is that in some cases it will require the designer to "loosen up" the specification or to ignore portions of the specification as a result of them being proprietary to a single manufacturer. One issue here is that often these proprietary items are what the operators and end users are specifically looking to integrate into their system either because it simplifies maintenance or represents a simplification of their day to day operations in some other way. The other issue that is posed is that many times the end user has standardized on a single equipment style for one of various reasons: They are familiar with the equipment and how to work on it which saves time, they have other identical units in the system which greatly reduces the numbers of parts that they need on the shelf to respond to an emergency situation, or they have a strong working relationship with the supplier and have found their service/expertise to be superior to others they have dealt with and they wish to maintain that. Availability and the ability to respond with parts or knowledge in an emergency situation can be an invaluable tool and is not something that every manufacturer/representative is capable of providing.

(Continue on page 9)
Industrial Pretreatment Program Rules Changes
By George Carlson, Industrial Pretreatment Supervisor, NHDES

Revised Standards for Pretreatment of Industrial Wastewater, Env-Wq 305 went into effect August 1, 2013. These can be found on the NHDES website at http://www.des.nh.gov under Rules/Regulatory.

The rules (formerly identified as Env-Ws 904) establish the New Hampshire Industrial Pretreatment Program for wastewater, which implements RSA 485-A:4, XV and RSA 485-A:5 by establishing requirements for owners of publicly-owned wastewater treatment plants to have and enforce sewer use ordinances and to require DES approval and local permitting for certain dischargers of industrial wastewater. The former rules were readopted by DES with the following amendments:

(1) The rules were renumbered as Env-Wq 305, edited for grammar and clarity, and statutory definitions moved to an Appendix so that rulemaking is not required if a statutory definition changes;

(2) Establish that a facility which discharges medical/infectious waste is a “significant indirect discharger” only if the municipality has designated the discharge as having a reasonable potential for adversely affecting the POTW’s operation or performance or for violating any pretreatment standard or requirement (i.e., such facilities are no longer automatically deemed to be significant indirect dischargers); See Env-Wq 305.03(w)(4)

(3) Revise the requirements for approvable municipal sewer use ordinances as follows:

A. Replace the requirement for discharges to not prevent beneficial use of sludge with a requirement for discharges to not prevent disposal of sludge in the manner used by the POTW; See Env-Wq 305.04(c)(3)

B. Add requirement that dental practices required to have an amalgam separator by Env-Wq 306 Standards for Management of Mercury Containing Amalgam must properly install and maintain the separator; See Env-Wq 305.04(l)

C. Add a requirement that grease interceptors be installed and maintained in accordance with local and state codes and a requirement that maintenance records be periodically provided to the POTW; See Env-Wq 305.04(m)

D. Revise Prohibited Wasted list to include:

1. Any medical/infectious or radiological waste designated by the municipality as having reasonable potential for adversely affecting the POTW - (rather than any medical/infectious, pharmaceutical waste, or radiological waste except as specifically authorized in a discharge permit). See Env-Wq 305.06(i)

2. Any pharmaceutical waste, except for such wastes as are required by federal law to be disposed of by flushing into a municipal sewer system. See Env-Wq 305.06

(4) Add to the conditions that apply to a Department approval of an industrial wastewater discharge request (IDR) that if the proposed discharge will be treated and discharged by a treatment plant (host POTW) that is not in the same municipality where the applicant is located (satellite municipality), the Department will not approve the request unless the host POTW agrees to accept the discharge. See Env-Wq 305.16 and form in Appendix C titled Host POTW Acknowledgement
The scholarship committee has to be the best committee to be on. Every year we get to give away money to help someone’s dreams come true. Okay, so that is a bit of hyperbole, but it is fun to give away money and some of the essays are pretty amusing to read.

Each year the committee sends out the announcement (actually Linda does a great job of putting the package together and sending them out) to dozens of New Hampshire high schools looking for qualified seniors to apply for a $1,000 scholarship. Our first priority in awarding the scholarship is the student’s chosen major. With a lack of new blood coming into the profession we try to help students who are committed to entering the wastewater field. As a member supported association we also give preference to members and relatives of members. We look at what colleges they plan on attending, by staying in New Hampshire we hope the applicant will contribute back to their local community. Lastly we look at their essay and grades. These give us insight to how they plan to use the scholarship and how they will make the most of their opportunity.

After the announcements go out we sit back and wait for the applications to roll in. As you might expect the bulk arrive on the deadline, which is early in March. This is when the committee gets into gear, reading through forms and essays, trading e-mails and picking the winner. Most years there is a clear winner. This past year was one of those easy years. Jeff O’Neill from Berlin is attending White Mountain Community College and majoring in wastewater studies.

This year, in addition to the student scholarship, we also gave away another $1,000 to help operators attend the Wastewater Management School put on by NHDES. We recognize that with today’s budgets a little help can make a difference in convincing an employer or town to let someone enroll in an extended course like this.

So, if you know of a high school senior who is looking for some help in fulfilling their dream of working with poo, we are here to help. We will be posting the application on NHWPCA’s web page in December.

The NHWPCA scholarship committee is pleased to award Jeff O’Neil this year’s $1,000 scholarship. Jeff graduated from Berlin High School where he played varsity hockey and baseball. He will be heading on to White Mountain Community College where he has been accepted to their Water Quality technology program.

He was drawn into the waste water field through an internship at the Berlin Pollution Control Facility. There Henry Noël (superintendent) gave him opportunities to experience the different aspects of working at a plant, from the pump stations to the centrifuge. This summer he could be found on top of Mt. Washington interning at their treatment facility.
Lessons That Can Be Learned From a NEAR MISS

By Tietjen Hynes – NHWPCA Safety Committee

If you have been in this business long enough, you have most likely been involved in or observed at least one safety-related NEAR MISS. These situations are normally not reported and the only value is that the operator hopefully will not make the same mistake again. The purpose of this article is to share with you a NEAR MISS in the hope that, by passing this information along, it will someday prevent an actual accident.

The Situation:
An operator was assigned to receive a chemical delivery from a tanker truck. The truck came in and, as he did every week, the operator directed the truck driver to connect to the Sodium Hypochlorite delivery station and signed the connection paperwork. Shortly thereafter, the truck driver returned to ask the operator when the delivery station had been moved, as last time he delivered on the other side of the building.

Since the Sodium Hypochlorite station had not been moved in all the years he had worked at the plant, the operator was quite surprised by the question. That is when he looked back at the paperwork he had signed and realized the delivery was for Sodium Bisulfite, not Sodium Hypochlorite. Had the truck driver not been paying attention and questioned the operator’s direction, these two highly reactive chemicals would have been mixed, resulting in an explosive release of heat and toxic chlorine gas.

What Went Wrong?
There were two problems that led to this NEAR MISS. First, the operator responsible for the chemical delivery signed the paperwork without reading it or querying the truck driver. He simply assumed the chemical was the same. It is never safe to make assumptions about chemicals.

Second, the delivery station was not properly labeled, so the truck driver could not confirm that he was connecting to the proper delivery port.

Corrective Action:
Accepting chemical deliveries is a serious responsibility. Operators assigned this high-level task need proper training in the potential hazards and the importance of paying close attention. Before signing off on any delivery or directing any delivery driver, the operator must confirm through both the manifest and verbal confirmation from the driver what chemical is being delivered, the quantity and the exact location of the delivery port.

All lines, tanks and delivery ports must be clearly labeled. Delivery stations can be remote from the tanks they serve, but they still require the same care in labeling as the storage tanks themselves. Proper labeling of the delivery station would have told the truck driver that he was at the wrong station before he made any connections or handed over any paperwork. Installing locks on delivery ports so that the operator has to actually accompany the driver and observe connection is recommended to provide an additional level of protection against chemical delivery hazards.

THINK SAFETY TODAY......BE ALIVE TOMORROW
There’s been a lot of scary stories in the news lately. First I read about an environmental laboratory that was fined $60,000 for various violations including failure to properly calculate holding times. Then I read about a person (not a company or municipality) that was sentenced to 40 months in prison for faking laboratory testing results! Well, I know that I’m accurate with my holding times and why would I miss out on the fun of analyzing wastewater samples by faking results, so I think I’m safe. But, it is definitely eye-opening to read about a laboratory individual receiving jail time. You think?

So, I’m going to take a few moments to talk about some of the highlights from my ethics training program here to make sure that we all stay out of jail.

The biggest problem is that nobody has yet invented a personal time-machine. My life would be better is so many ways if I had a personal time-machine. The lack of a personal time-machine forces many unethical laboratory workers to come up with other methods of time-travel. The easiest method of time-travel is to change the dates and/or times in the log-books so that you never exceed a holding time. Unfortunately this can land you in jail. If you are really having trouble with completing samples within holding times, you need to ask for help.

Some people may time-travel because they want to look good. Running lab samples is not a race. I run effluent pH and TRC samples a lot and those samples have a fifteen minute holding time. Quite often I use ten, twelve or even fourteen minutes of my holding time. If I notice you consistently running these samples in two minutes, I won’t be impressed and I probably won’t believe you. It’s okay to take your time to do a good job within the allowed holding time.

Another way to time-travel is to save time by cutting corners. Some of the laboratory methods that we follow have a lot of steps and take a lot of time. Would we still get accurate results if we didn’t calibrate the pH meter every day and didn’t pre-wash the TSS filter papers? I don’t know. We certainly couldn’t prove that the results were accurate without completing all the required steps. We may be able to drink our morning coffee while it’s still hot, but we won’t be producing quality data. Better to invest in a good thermal travel mug so that all the lab tests can be done correctly while your coffee waits. And I’ve heard that prison coffee is really lousy.

Some unethical lab analysts time-travel to the extent of just writing down numbers without doing any of the work at all. I’ve heard it doesn’t make any sense because we don’t use pencils in the lab. We should call it “pushing the pencil”, which cause we don’t use pencils in the lab. We should call it “pushing the fine-point black ink pen”. I think that these unethical lab analysts would prefer a personal cloning machine to a personal time machine. These people don’t want to be in the lab at all, so they just write numbers down to get out as soon as possible. If a personal clone was available, the clone could do all the work. Since that option isn’t available, the only two options are do the required work or go to jail.

If you ever find yourself in a situation where you are being required to try to do fifteen hours of work in an eight hour day and you cannot keep up, you must ask for help. Sometimes this may require going above your direct supervisor. It is wrong in a laboratory setting to put undue pressure on an analyst. It is also wrong to influence the results by telling an analyst that it would be best not to show any permit violations. If somebody has to get in trouble, make sure it isn’t you by not time-traveling in any way and not cutting corners!
Larry Spencer passed away October 19, 2013 at the age of 72. Larry served in the US Army during the Korean Conflict. He was one of the original Merrimack wastewater employees when the plant opened in May of 1970. He was initially hired as a third shift operator and became assistant superintendent in 1972. In February of 1973, Larry was the seventh operator to earn a Grade 3 NH wastewater operator certification. He earned his Grade 4 in May of 1979. He rose to Superintendent in 1980 upon the retirement of Ken Sherwood. Larry retired from the position in July 2005.

During his tenure, Larry oversaw many improvements to the facility, including the addition of a third final clarifier, a chemical upgrade from chlorine gas to sodium hypochlorite and a plant-wide electrical upgrade. Under his direction the plant converted from mechanical mixers to fine bubble aeration in the aeration basins and began the static pile compost facility in 1982. In the spirit of continuous improvement he oversaw the start of the current IPS in vessel compost facility operation in 1994. He also was involved with the design phase of the Phase I upgrade that included removal of a 30 year old trickling filter and installation of selectors in the aeration basins. Larry was instrumental in developing a skilled team of wastewater operators as the Merrimack plant’s technology evolved.

Larry's second passion was street rods and Corvettes. He was an avid car collector and car enthusiast. With his wife Lillian, he spent many wonderful days traveling in their motor home visiting different car shows. He owned several cars over the years including a 1964 split window Corvette, a 1984 t-top Corvette, a 1994 Trans Am convertible (OK, so it's not a Corvette!), a 1932 Chevy roadster (think the ZZ Top car) and a 1946 Willys Coupe, among others. He always enjoyed his cars and then made money on them when he sold them!

His colleagues will remember him as a good friend and mentor who taught them a great deal over the years. Larry was one of the pioneers in the field of wastewater treatment and particularly in learning to meet the challenges of treating brewery wastewater. He'll be missed!
For Your Reading Pleasure

By Steve Clifton, NHWPCA Newsletter Committee

From time to time, I will bring you suggestions for your reading pleasure related to our profession. This time of year we like to keep it light. I thought rather than provide you with a summary of an interesting tale, I would share with you what is the latest in my collection of wastewater reading pleasure to fortify me in the coming months. Perhaps Santa can make some room under the Christmas tree for one of these selections for you.

So settle in to a great read that is related to the wastewater profession. When you are done, you will gain more perspective and respect for a job that saves human lives every day.

The Wastewater Plant, by Dodge Winston

This is the first novel I ever heard about that is centered upon operators at a wastewater treatment plant. An ancient evil awakens during a record shattering storm and the operators will have to band together in order to survive. Surely there are parallels in life that will come to mind when reading this book.

Biological Wastewater Treatment – Principles, Modelling and Design

This book is published by the International Water Association (IWA) and its principle authors are Mogens Henze, Mark C.M. van Loosdrecht, George A. Ekama and Damir Brdjanovic. We all acknowledge that technology advances seem to come from other parts of the world and when reading this, you get a good understanding of why that is the case. If you buy any book concerning wastewater, this is the one to get. I believe it has all the components you would want to improve your knowledge and skill. I have to admit I also bought the video and it has provided countless hours of fun. Of course, this book states that trickling filters are fixed film and lagoons are another form of activated sludge. Once I read this, the older plants seem to have a new shiny luster to them. I guess it is called rebranding.

Nutrient Removal, Manual of Practice No 34

This is the book that has all the latest information on nutrient removal. The Water Environment Federation is a tremendous resource for the latest information on operation, maintenance, design and theory regarding wastewater. I cannot count the number of resources we have in our office that come from this Association. Go to their website and browse their tremendous selection. I am sure you will find something that interests you.

Have a happy and holy holiday, this year and well into the future.

Steve
By requiring that an Or-equal be listed directly and not requiring listed equipment to meet the full specification as written since they were listed, or by not allowing proprietary items to be considered when evaluating the equipment being submitted as equal it significantly hampers the designers ability to ensure the end user gets what they want and it hampers the end users ability to get what they need, be it the equipment or the support of the supplier. In some cases the funding agency will allow the end user to pay the difference between a listed Or-equal and the equipment that was designed around, but not all, and sometimes the end user does not have the money to bridge the gap and as a result they are forced to accept the cheaper alternative in order to move forward with the project.

For the bidders (suppliers) - From the perspective of the suppliers this is a rather sticky issue. It is understood that listing an Or-equal is proposed in the interest of controlling cost and trying to eliminate the possibility of paying an inflated price. It is also understood that when it comes to funded projects every dollar counts as the funding agencies are forced to try and spread the maximum benefit out of a limited pool of resources. But, by requiring the listing of the Or-equal and by limiting the ability of the designer and the end-user to disqualify Or-equal proposals and basing it on cost they put the supplier who worked on the project at a disadvantage. In general suppliers will work through and provide the designer with all the necessary information and act as a valuable resource to help avoid any pitfalls in the process. Typically the designer has a large scale project to work through while the supplier has a very small very focused area in which to specialize so they can be an invaluable resource in both data, material for design as well as a consultant in the process. This can be in the form of email or telephone calls, but many times includes extensive travel to the jobsite, to the designers office, to the end users facility to discuss and go over all the details. This can be a trip measure in minutes, or in just as many cases hours. Again, this is provided as a resource at no cost to any of the other parties involved, it is hoped that when the project bids they will receive the order and be able to recoup some of that time investment. This also serves to widen the gap between the equipment cost of the specifying supplier and the Or-equal supplier. In most cases the Or-equal supplier has no investment to try and recoup and as a result is already starting out at an advantage when it comes time to generate the equipment cost for the bid process. It has been suggested that this cost can and should be recouped through the sales of repair parts in the future, but this is not a feasible option for many reasons. In many cases the same Or-equal suppliers are quoting similar parts for lower cost as a result of less investment in the overall project. Also, for the reputable supplier there is the cost of maintaining an appropriate parts inventory to allow them to respond in an emergency situation when needed. Another large reason this isn't feasible is that the purpose of designing and working through the proper application of the equipment by nature is to minimize required maintenance as much as possible, thereby greatly decreasing the sales of repair parts on the whole.

For the operators/maintenance staff - It is of paramount importance that the end user/owner be actively informed about all the possible options of equipment manufactures that may be an option on the project. It is important to understand the key differences to prevent accepting a piece of equipment only to later find out it was misrepresented or was not as close to equal to that desired as they were led to believe. It is also important for them to understand if their system is coming from a "True Manufacturer" or is coming from a "Systems Packager".

In this case a true manufacturer would be one who produces all major components of a system. They may utilize smaller components from other suppliers to simplify the process and to reduce expense to the end user, but they are intimately familiar with every aspect of what they are supplying. In the event of an emergency it is expected that a true manufacturer would have the inventory and knowledge and resources to respond to any component in the system they have provided. A true manufacturer will generally offer a single warranty that covers the entire system.

A systems packager is an entity which will obtain the various components from other manufacturers that they feel suitable and package them together into a system. Many times a systems packager lacks the in depth knowledge of the major components to provide full support of the system and they sometimes will lack the inventory to respond to an emergency when they occur. In many cases they are an assembly house that orders in just the components required for a project and they carry little inventory to support the system after sale. Not to say that the original manufacturer won't have the components in stock, but it will require additional phone calls and additional time that in many cases the end user just won't have.

Stay tuned for an article in the next issue of the Collector to explore ideas to mitigate and ease the impacts on facility owners, operators and suppliers that arise in these cases.
Vermont’s Operator Exchange Report
By Nathan Lavallee, Chief Operator, Milton, Vermont

I had a great experience participating in the Operator Exchange with the NHWPCA. It was a two day whirlwind tour that brought me to three facilities on Thursday, September 19th and two on Friday, September 20th, followed up by the Fall NHWPCA meeting at Monadnock Country Club. The Operator Exchange is something I had always wanted to participate in, but could never seem to find the time. Last spring after hearing about it again I decided my schedule was going to be free, come hell or high water 2013 was the year I was going to participate! It wasn’t until later, after being selected, that I learned the exchange was with New Hampshire, the only other State I have been employed in the Water and Wastewater field. This presented me with an opportunity to say hello to old friends and like always with Operator Exchange make new friends along the way.

I come from an SBR activated sludge facility in Milton, Vermont, that currently treats 0.300 MGD, but we are permitted to 1.0 MGD. All but one of the facilities I toured were much larger than mine. Peterborough was similar in size, but they just went through an upgrade almost identical to that of the upgrade I personally experienced in Milton in 2006/2007 when we converted our 0.250 MGD lagoons to the 1.0 MGD SBR facility we have today.

My first stop was Lebanon and, as luck would have it, this is the facility in New Hampshire I was previously employed. Once there I had a chance to visit with old friends, including Superintendent Don Schagen. After a brief self-guided tour, in which I got caught up with old friends, Don Schagen took me around and showed me the changes they are going through with their current upgrade.

My next stop was just up the river a bit in the next town of Hanover. Here I met up with Kevin MacLean. They too had just recently gone through an upgrade and Kevin MacLean gave me a thorough walk through of their facility, followed by a nice lunch in Hanover.

I was then back on the road and on my way to the capital city of Concord. Once there I met up with Kristen Noel and she gave me a great tour of the Concord facility. There were a couple unique learning opportunities here. First, I had the chance to see and check out the bio-towers up close. Second, once the tour was over, I had the opportunity to walk back to the opposite side of the track through the tunnels.

It was then time to check into the hotel and get cleaned up, then head to dinner at the Red Blazer. Once there I had a chance to meet with the NHWPCA board of directors at the Red Blazer Restaurant for dinner. Dinner was excellent.

After a good night’s rest, I hit the road bright and early and headed for Manchester. I met with Harry Baldoumas at the Manchester Wastewater Treatment Facility and was treated to an awesome breakfast, followed by a nice tour of his facility. This place was huge, and to think the prior day I was amazed by the size and scope of the Concord facility.

I was then off to the Peterborough open house and the Fall meeting. The Peterborough facility was gorgeous and it still had that new plant smell. The Fall meeting was great, and gave me the opportunity to visit and say farewell to my new found friends.

Thanks NHWPCA for the hospitality and for the chance to visit old friends and make new friends. And in no particular order an extra thanks to those that helped make it happen: Fred McNeil, Kristen Noel, Kevin MacLean, Don Schagen and Harry Baldoumas.
**Septage Rules Re-adoption Update**

The Department of Environmental Services (DES) is in the process of re-adopting the Septage Management Rules, Env-Wq 1600. The "1600 Rules" regulate the management of septage including transportation, land application and disposal. During the most recent re-adoption, DES is not proposing any substantive changes to the current regulations. The few editorial changes that have been made will not impact wastewater treatment facilities or their septage receiving operations.

No substantive comments on the proposed rules were received at the public hearing on September 30th or during the public comment period that ended on October 15th. The next step in the re-adoption process is legislative review by the Joint Legislative Committee on Administration (JLCAR) which will include another opportunity for public comment. DES anticipates that JLCAR will take up the Septage Rules in late November.

**Congratulations and Thanks**

The newsletter committee would like to congratulate Dave Michelsen on his new job with the South Essex (MA) Sewerage District. Unfortunately, that means that he will not be able to continue to serve on the newsletter committee. Thanks to Dave for all the time that he devoted to The Collector. The newsletter committee now has an empty seat at its table that we’d love to fill! If you want to ease into being more involved with our Association, then this is the committee for you. If you want to get in touch with your inner muse and write articles, then this is the committee for you. If you want to hang out four times per year and brainstorm stories for the newsletter, then this is the committee for you. We meet at the centrally located NHDES building at a date/time that is convenient for the majority. We would love to be able to celebrate a new member (or two). Rumor has it that the editor makes really good cake…

**Especially For Our Female Operators**

_The Importance of Connections:_ In an evening class at Stanford University the last lecture was on the mind-body connection - the relationship between stress and disease. The speaker (head of psychiatry at Stanford) said, among other things, that one of the best things that a man could do for his health is to be married to a woman whereas for a woman, one of the best things she could do for her health was to nurture her relationships with her girlfriends. At first everyone laughed, but he was serious. Women connect with each other differently and provide support systems that help each other to deal with stress and difficult life experiences. Physically this quality "girlfriend time" helps us to create more serotonin - a neurotransmitter that helps combat depression and can create a general feeling of well-being. Women share feelings whereas men often form relationships around activities. We share from our souls with our sisters/mothers, and evidently that is very GOOD for our health. He said that spending time with a friend is just as important to our general health as jogging or working out at a gym. There's a tendency to think that when we are "exercising" we are doing something good for our bodies, but when we are hanging out with friends, we are wasting our time and should be more productively engaged—not true. In fact, he said that failure to create and maintain quality personal relationships with other humans is as dangerous to our physical health as smoking! So every time you hang out to schmooze with a gal pal, just pat yourself on the back and congratulate yourself for doing something good for your health! We are indeed very, very lucky. Sooooo let's toast to our friendship with our girlfriends. Evidently it's very good for our health.
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Apparently, YOU told Santa that you have been GOOD this year.......
Happy New Year