

JETCC Training Catalog

SPRING 2009



MAINE JETCC
 JETCC, P.O. Box 487, Scarborough, Maine 04070-0487

DATE	TOPIC	LOCATION
February 4	Hands-On Applications to Minimize Pump & Facility Maintenance.....	Kennebunkport*
February 12	Instrumentation Measurement & Control with Use of SCADA for Process Efficiency <i>with NEIWPCC</i>	Bangor*
February 24	Chemical Handling, Reporting & Emergency Preparedness	Lewiston*
February 26	Confined Space Entry	South Berwick*
February 26	Chemical Handling, Reporting & Emergency Preparedness	Presque Isle*
March 3	Asset Management Applications	Yarmouth*
March 4	BOD & TSS Review.....	Fairfield
March 12	PVC Valves, Connections & Joining.....	Orono*
March 18	DEP Issues Briefing.....	Augusta*
March 19	Hands-On Applications to Minimize Pump & Facility Maintenance.....	Jay*
March 24	BOD & TSS Review.....	Wells
March 25	Activated Sludge Process Control for Grade 3-5 Exam Preparation	Fairfield
Mar 31-May 5	Basic Wastewater Treatment (6 sessions).....	Biddeford
April 16	Using PowerPoint to Make Your Point	Portland
April 28	FOG Management Overview-Controlling Collection System Impacts & Disposal Options <i>with NEIWPCC</i>	Augusta

Programs listed here are approved by ME DEP for Wastewater Operator certification renewal credits.
 *Programs are approved by ME DHHS for Drinking Water Operator certification



Hands-On Applications to Minimize Pump & Facility Maintenance

Wednesday, Feb. 4
or
Thursday
March 19

This workshop is designed for water and wastewater personnel who are responsible for pump maintenance and reliability. In addition to receiving instruction in maintenance techniques, participants will learn how to solve common failures and improve pump efficiency.

The instructor will utilize a cutaway pump to explain common pump problems. Students will learn how attention during pump assembly and installation affects the long-term efficiency and reliability of pump components such as the bearing frame and housing, lubrication system, frame adapter, gland assembly, and pump casing. Drawing on his extensive experience in pump repairs, the instructor will review how normal pump use impacts bearing frame oil seepage, casing/impeller wear, keyway/key stock, coupling, pump base mounting, and pump base grouting.

There will also be a review of hands-on applications for fasteners, retaining products, and Magna-Crete concrete repair.

Instructor: Jim Hallene - Loctite/Henkel Corporation

February 4
Kennebunkport
Fire Station
 32 North Street
Kennebunkport, ME
 Tel: 207/967-2245
Course # J0924
 Registration Deadline:
 January 28, 2009

March 19
LaFleur's Restaurant
 Route 4
Jay, ME
 Tel: 207/897-2117
Course # J0932
 Registration Deadline:
 March 12, 2009

Both Locations:
 6 Hours
 8:30 a.m. to 3:30 p.m.
 Sign-in begins at 8:00 a.m.
Cost: \$95

Instrumentation Measurement & Control with Use of SCADA for Process Efficiency *with NEIWPCC*

Thursday
February 12

Producing high-quality water and wastewater effluents requires O&M personnel to have a thorough knowledge of in-line instrumentation and SCADA for process efficiency. This one-day course discusses the theory, application, and control of instrumentation used in the operation of wastewater treatment plants. The interface of instrumentation with SCADA systems, and the security of these programs against outside intrusions will also be discussed. Use of meters for level, flow, pressure and automated process control will be covered.

The instructors will discuss:

- Magnetic and ultrasonic flow meters.
- Bellows, diaphragms, and strain gauges.
- Capacitance, conductance and resistance level control.
- Pressure measurement and electrical elements.
- Manometers and bourdon tubes.
- SCADA system elements, operation and client/server architecture.
- PIF loops.

Instructors: Don Kennedy - NEIWPCC and Jeff Murray - Control Point, Inc.

Bangor WWTF
 760 Main Street
Bangor, ME
 Tel: 207/992-4474

Course # ETC 0944
 6 Hours

8:30 a.m. to 3:30 p.m.
 Sign-in begins at 8:00 a.m.

Cost: \$120
 Registration Deadline:
 February 5, 2009

Chemical Handling, Reporting and Emergency Preparedness

Many chemicals and substances in water and wastewater facilities are considered hazardous, and hence there are thorough safety, storage, and reporting procedures that must be followed. But deciphering the rules, guidelines, and documentation can be difficult. In the morning session of this course, the instructors will review what chemicals need to be reported and why, as well as explain EPCRA, CERCLA, the List of Lists, other associated tools, and the roles of various state agencies.

The afternoon session will outline other issues that water and wastewater facilities should consider given their role as part of our nation's critical infrastructure. Since 2001, EPA has been working with water distribution and treatment facilities offering them tools to help prepare for and respond to all hazards, such as natural disaster or terrorism. By educating them as first responders, getting training in ICS, working on vulnerability assessments and emergency response plans for their facilities, EPA has helped involve many water and wastewater operators in the emergency planning for their communities. One important achievement has been the launch of Water and Wastewater Agency Response Networks (WARNs) or mutual aid programs in each state. Other topics include preparedness issues related to the availability and operability of emergency generators and the need for prioritizing the delivery of drinking water and wastewater chemicals during a disaster.

Instructors: Robert Gardner - Maine Emergency Management Agency;
Jim Gaffey - US EPA New England

**Tuesday, Feb. 24
or
Thursday
Feb. 26**

**February 24
Ramada Inn
490 Pleasant Street
Lewiston, ME
Tel: 207/784-2331
Course # J0925
Registration Deadline:
February 17, 2009**

**February 26
Presque Isle Inn &
Convention Center
US Route One
Presque Isle, ME
Tel: 207/764-3321
Course # J0927
Registration Deadline:
February 19, 2009**

**Both Locations:
6 Hours
8:30 a.m. to 3:30 p.m.
Sign-in begins at 8:00 a.m.
Cost: \$95**

Confined Space Entry

Working in confined spaces can expose employees to potentially lethal conditions. Too often, employees do not follow proper management and rescue procedures to safeguard against the hazards of confined spaces. Understanding the risks and how to manage them could save lives.

This workshop includes an overview of OSHA regulations and NIOSH recommendations, as well as instruction in the identification of areas considered confined spaces as per the regulations and permit requirements. We will discuss written CSE programs along with the entry permit; roles and responsibilities; required training; and monitoring, protective, and rescue equipment. The instructor will also touch upon general Lock-Out/Tag-Out procedures while identifying some often overlooked sources of dangerous stored energy.

This course is designed for those who are seeking an introduction to CSE requirements or who wish to refresh safety skills.

Instructor: Bob Moody - E. J. Prescott

**Thursday
February 26**

**South Berwick Town Hall
180 Main Street
South Berwick, ME
Tel: 207/383-3300**

**Course # J0926
6 Hours
8:30 a.m. to 3:30 p.m.
Sign-in begins at 8:00 a.m.**

**Cost: \$95
Registration Deadline:
February 19, 2009**

Asset Management Applications

This six-hour class will expose utility leaders to a systematic process for managing their infrastructure. The instructor will cover how to document information and how that documentation may ensure ongoing, cost-effective delivery of services, and future improvement planning. Relationships of asset management to emergency response planning, vulnerability assessment, GASB 34, and the Water/Wastewater Agency Response Network (WARN) will be emphasized. Various software tools will be reviewed and the use of CUPSS will be detailed. All participants will receive a copy of the CUPSS software.

This course will benefit system trustees, operators, municipal officials, technical assistance providers, and regulators.

Instructor: Art Astarita - RCAP Solutions

**Tuesday
March 3**

**Yarmouth Town Hall
200 Main Street
Yarmouth, ME
Tel: 207/846-2415**

**Course # J0928
6 Hours**

**8:30 a.m. to 3:30 p.m.
Sign-in begins at 8:00 a.m.**

**Cost: \$95
Registration Deadline:
February 24, 2009**

BOD & TSS Review

The objective for this course is simple: to help operators learn everything they ever wanted to know about five-day biochemical oxygen demand. BOD is a chemical procedure for determining how fast biological organisms use up oxygen in a body of water, and it is used in water quality management and assessment, ecology, and environmental science. It is also used as a gauge of the effectiveness of wastewater treatment plants. The BOD test is used to evaluate waste loadings and the BOD-removal efficiency of the treatment process, as well as for compliance reporting purposes. Operators will learn how to correctly conduct BOD testing, a frequently confusing procedure, and be guided through the correct way to calculate the BOD seed correction and analytical results. The most common errors made when conducting the BOD test will be explained, and pointers for avoiding these errors will be provided. Operators will also be given useful checklists to use when conducting self-audits of BOD procedures.

In the Total Suspended Solids portion of the course, we will review the TSS procedure. Solid materials in wastewater can consist of organic and inorganic materials and microorganisms. These solids can increase BOD when discharged to receiving waters and provide places for microorganisms to escape disinfection. This class will help operators learn techniques to get better data from a test that seems deceptively simple.

Instructor: Matthew Sica - Maine Department of Health & Human Services

**Wednesday, March 4
or
Tuesday
March 24**

**March 4
John E. Dority Safety &
Performance Training
Center, Maine DOT
10 Mountain Ave
Fairfield, ME
Tel: 207/453-7377**

**Course # J0929
Registration Deadline:
February 25, 2009**

**March 24
Mather Auditorium,
Laudholm Farm, Wells
Reserve
342 Laudholm Farm Road
Wells, ME
Tel: 207/646-1555**

**Course # J0933
Registration Deadline:
March 17, 2009**

**Both Locations:
6 Hours
8:30 a.m. to 3:30 p.m.
Sign-in begins at 8:00 a.m.
Cost: \$95**

PVC Valves, Connections & Joining

This interactive training session covers the use of polyvinyl chloride—better known as PVC—from initial installation to repairs in the field. The specific focus will be on PVC valves, connections, and joining. Optimize your use of this durable and versatile material by increasing your understanding of the principles of its construction and application.

Through hands-on activities and discussion, the morning session will explain PVC valves and installation procedures. The afternoon session will focus on joining. Chemical resistance issues, safety and proper preparation, and handling of PVC and CPVC will be discussed.

Other topics include material considerations, types of valves, valve applications, advantages and limitations of PVC and CPVC, and pipe joining methods for sodium hypochlorite.

***Lunch is sponsored by Spears Manufacturing**

Instructor: Charles Jennings - Spears Manufacturing

**Thursday
March 12**

Orono Municipal Building
59 Main Street
Orono, ME
Tel: 207/866-2556

Course # J0930
6 Hours

8:30 a.m. to 3:30 p.m.
Sign-in begins at 8:00 a.m.

Cost: \$95
Registration Deadline:
March 5, 2009

DEP Issues Briefing

This session provides a forum for Maine DEP Division of Land and Water Quality Management staff and water pollution control professionals from throughout the state to meet and discuss timely topics.

This forum is an ideal opportunity to get up-to-date on DEP matters and the issues that affect the day-to-day operation of Maine's water pollution control facilities.

Topics include:

- Legislative Issues
- Sustainable Infrastructure Funding
- Federal Stimulus Update
- Phosphorus Rulemaking
- New Stormwater Requirements for Existing Development
- Multi-Sector Stormwater Program
- Status of Licensed Dischargers
- Regional Mercury TMDL and 319 Petition
- Atlantic Salmon Listing
- Sourcewater Protection
- Compliance Issues.

Instructors: Staff from Maine Department of Environmental Protection and Maine Department of Health and Human Services

**Wednesday
March 18**

**State Fire Marshal's
Training Room
Florian Hall**
45 Commerce Drive
Augusta, ME
Tel: 207/626-3875

Course # J0931
6 Hours

8:30 a.m. to 3:30 p.m.
Sign-in begins at 8:00 a.m.

Cost: \$95
Registration Deadline:
March 11, 2009

Activated Sludge Process Control for Grade 3-5 Exam Preparation

The activated sludge process can successfully be controlled using a minimum number of tests. These include sludge settleability, sludge concentration, oxygen uptake, microscopic examination, and clarifier blanket depth. The results obtained from these tests help the operator know the quality and quantity of activated sludge in the system. In this course, participants will learn how to apply the results of the various tests to determine aeration levels and rates for sludge return and wasting.

The morning session will include descriptions of the tests and how to use the results to determine process control changes. In the afternoon, actual demonstrations of the tests will show participants how the tests are properly conducted and applied. There will be demonstrations of new testing equipment that simplifies some of the tests and provides faster results for process control decisions.

The following tests will be demonstrated, with an explanation of how to use the results:

- Settleometer
- Determination of Sludge Concentration
- Oxygen Uptake Rate (OUR) and Specific Oxygen Uptake Rate (SOUR)
- Clarifier Blanket Depth and Sludge Concentration
- Microscopic Examination and Sludge Quality
- Oxidation-Reduction Potential (ORP)

Instructors: Dick Darling, P.E., Ken Jones and Don Albert - Maine Department of Environmental Protection

**Wednesday
March 25**

**John E. Dority Safety &
Performance Training
Center, Maine DOT**
10 Mountain Avenue
Fairfield, ME
Tel: 207/453-7377

Course # J0934
6 Hours

8:30 a.m. to 3:30 p.m.
Sign-in begins at 8:00 a.m.

Cost: \$95
Registration Deadline:
March 18, 2009

Basic Wastewater Treatment (6 Sessions)

This course provides thorough instruction in how to safely and effectively operate and maintain a wastewater treatment plant, and is an excellent means of preparing for the Maine Wastewater Operator I & 2 Exam. Through a combination of classroom presentations and tours of the treatment facilities in southern Maine, a wide variety of topics will be covered, including the reasons why waste must be treated, the roles and responsibilities of a treatment plant operator, the use of safe practices and procedures, and the equipment and processes used in wastewater facilities. Participants will learn how to operate and maintain racks, screens, comminutors, sedimentation tanks, trickling filters, rotating biological contactors, package activated sludge plants, oxidation ditches, ponds, and chlorination facilities. Other subjects to be covered include how to analyze and solve operational problems and how to perform mathematical calculations relating to wastewater treatment process control.

All participants will receive *Operation of Wastewater Treatment Plants (Volume I)*, prepared by California State University, Sacramento.

Instructors: Staff from Maine Department of Environmental Protection, local water pollution control facilities and industry consultants

**Tuesday afternoons
March 31
April 7, 14,
21, 28
May 5**

North Dam Mill
2 Main Street
Biddeford, ME
Tel: 207/286-4928

Course # J0935
24 Hours

12:30 p.m. to 4:30 p.m.
Sign-in begins at 12:00 noon

Cost: \$250
Registration Deadline:
March 24, 2009

Using PowerPoint to Make Your Point

This class will start with an explanation of basic presentation skills and the use of PowerPoint to deliver effective presentations. We will discuss the layout of the PowerPoint screen and the function of each section of the screen. Participants will learn how to develop a presentation using headers, bulleted text, pictures, charts, and tables. We will discuss editing and proofing text, formatting presentation text, and formatting bullets and numbers.

The instructor will explain how to customize presentations by editing the presentation master, changing the background colors, and adding pictures or graphics as the background for one or more slides. Participants will learn how to make and edit notes and create and print handouts.

If time permits, the instructor will discuss adding special effects, setting up a self-showing slide presentation, and using multiple monitors to show notes on the laptop screen while projecting the PowerPoint show to the audience.

Participants should be familiar with Microsoft Windows and the use of both a mouse and keyboard to navigate around a computer screen.

Instructor: Richard Darling, P.E. - Maine Department of Environmental Protection

**Thursday
April 16**

**Jeff Nixon Training Center
Portland Water District**
225 Douglas Street
Portland, ME
Tel: 207/774-5961

Course # J0936
6 Hours

8:30 a.m. to 3:30 p.m.
Sign-in begins at 8:00 a.m.

Cost: \$95
Registration Deadline:
April 9, 2009

FOG Management Overview- Controlling Collection System Impacts & Disposal Options *with NEIWPCC*

Fats, oil, and grease (FOG), primarily generated by restaurants and other institutional food service establishments, are major contributors to municipal wastewater collection system and onsite treatment system (septic system) blockages and overflows. As the environmental community moves to more stringently manage FOG, it is essential that there be adequate treatment capacity to manage the material removed from these wastewater systems.

This class will examine FOG impacts on collection systems, best management practices to prevent these impacts, and options for treatment and disposal of grease trap waste.

The course includes a tour of the Pat Jackson, Inc., private dewatering and in-vessel composting operation in Belgrade, Maine. Transportation to the facility tour will not be provided.

Instructor: Michael Jennings - New England Interstate Water Pollution Control Commission

**Tuesday
April 28**

Le Club Calumet
334 Northern Avenue
Augusta, ME
Tel: 207/623-8211

Course # ETC0945
6 Hours

8:30 a.m. to 3:30 p.m.
Sign-in begins at 8:00 a.m.

Cost: \$120
Registration Deadline:
April 21, 2009

Maine Wastewater Operator Exam: May 13, 2009

Applications must be received by March 27, 2009

For more information visit www.jetcc.org

We would like to acknowledge the following host facilities and businesses for covering the cost of program refreshments during the Spring & Fall 2008 training schedule.

JETCC sends a most grateful thank you to:

City of Ellsworth
Wells Sanitary District
Brewer Water Pollution Control Facility
McCain Foods
South Portland Water Resource Authority
Yarmouth Wastewater Treatment Facility
Boothbay Harbor Sewer District
Orono Water Pollution Control Facility
Bangor Wastewater Treatment Facility
Kennebunkport Wastewater Treatment Facility
Kennebec Water District
Spears Manufacturing
Augusta Sanitary District
Hydro International

Thank you also to:

Maine Department of Environmental Protection
Maine Department of Health and Human Services
Maine Wastewater Control Association
and
Maine Water Utilities Association
for continued support through partnership

Sponsor a JETCC Lunch!

Help Your Organization, Support Training in Maine.

Due to cuts in state funding, Maine's Joint Environmental Training Coordinating Committee is looking to cut costs so we can continue to provide superior training at reasonable prices.

Eliminating the lunches JETCC offers at programs would help, but the courses are often held in remote areas with few if any lunch options, and the lunch break provides an important networking opportunity. To maintain the lunches, JETCC has opened them up to sponsorship.

This cuts costs while providing the sponsor with invaluable exposure. Lunch sponsors are acknowledged with credit on the course materials as well as on the JETCC web site.

JETCC offers a variety of lunch sponsorship opportunities.

You may choose from these options:

- Lunch for a one-day training program
- Lunch for a multi-day training program
- Lunches for multiple programs

If you are interested in any sponsorship opportunities, please contact JETCC at 207/253-8020 or by email at jetcc@maine.rr.com.

Registration Form for 2009 JETCC Courses

MAIL TO: JETCC, P.O. Box 487, Scarborough, ME 04070-0487 • Phone: 207/253-8020, FAX: 207/771-9028

Course Title _____ Course Code* _____

*Note: For Joint NEIWPCC Courses, mail form to NEIWPCC at the address below.

Location _____ Date _____, 2009

Name _____ Company _____

Street Address _____

City/Town _____ State _____ ZIP _____

Phone _____ Fax _____ E-mail _____

Please indicate: Purchase Order # _____ Check # _____ Amount _____

WW Operator _____ DW Operator _____ Topics of Interest _____

CREDIT
CARD
FORM

Credit Card _____ 3-digit code (Visa only) _____
indicate Visa, Mastercard or Discover located on back of card

Credit Card # _____

Name on card _____ Expiration _____
month/year

Signature _____ Date _____

For joint JETCC/NEIWPCC courses, please check:

_____ **ETC0944 Instrumentation Measurement**
February 12, Bangor, ME

_____ **ETC0945 FOG Management Overview**
April 28, Augusta, ME

Mail payment for joint courses to:

NEIWPCC
116 John Street
Lowell, MA 01852-1124
Tel: 978/323-7929 • Fax: 978/323-7919

Registration Instructions

- **Copy the form above to submit your registration.**
- **Use one registration form for each course.**
- **For NEIWPCC courses only, please mail form to NEIWPCC office.**
- **Include all of the requested information.**
- **Non-Maine registrants add \$20 per registration for JETCC - only programs.**
- **Out-of-Country registrants please add \$20 per registration. Please make payment in U.S. dollars.**
- **Return completed form as designated.**

Courses and dates of courses are subject to change due to unavoidable scheduling conflicts.

Courses may be canceled by JETCC due to insufficient enrollment.

Program fees include lunch unless otherwise noted.

Late Registrations: Registration forms received after registration deadlines will incur an additional \$15 charge for full-day programs and \$10 for half-day programs. **Note:** There is a \$15 fee for checks returned due to insufficient funds.

Cancellation Policy: If you must cancel, four working days notice is required. Cancellations received after this date will incur a cancellation fee of \$20 for full-day programs and \$10 for half-day programs. If you do not cancel and do not attend, you are liable for the entire registration fee.

In Case of Inclement Weather: Please call host facility on the day of class to verify any schedule change. For joint NEIWPCC course cancellations call the NEIWPCC 24-Hour Training and Events Hotline at 866/824-9656.

NEIWPCC /JETCC
PO Box 487
Scarborough, ME 04070-0487

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NEIWPCC
Environmental Training Center

www.jetcc.org

JETCC Maine's Environmental Training Resource

The Joint Environmental Training Coordinating Committee (JETCC) was established in 1985 to coordinate environmental training to meet the needs of Maine's environmental professionals. JETCC continues to meet this goal by networking the training needs of the environmental work force with the best instructional and technical support available.

JETCC organizes and coordinates training in water pollution control and water quality protection. To ensure that training meets the needs of the environmental work force, JETCC uses focus groups to address issues and direction for training in specific environmental topics.

Where training is needed and not provided by other agencies or organizations, JETCC offers it. We take pride in our close working relationship with the Maine DEP, other regulatory agencies and related professional associations and training organizations. For issues dealing with water pollution control, JETCC works closely with the Maine Wastewater Control Association (MWWCA).

Our instructors are professional trainers, water pollution control professionals, water pollution control equipment and supply manufacturers' representatives, Maine DEP staff, regulatory agencies, municipal leaders and officials, engineering and consulting firms, and other qualified interested parties.

JETCC's training certificates are based on training hours that are awarded upon successful completion of each training program. These programs are approved by Maine DEP for initial, upgrade and renewal training credits toward the Maine DEP Wastewater Treatment Plant Operator Certification Program. Some of our programs are also approved by Maine Department of Human Services for Drinking Water Operator Certification and they are endorsed by Maine Water Utilities Association.

To offer more training in locations throughout the state, JETCC utilizes a local host system whereby interested individuals or organizations facilitate the program in localities where training will be offered.

BOARD OF DIRECTORS — Leonard Blanchette - Brunswick Sewer District - Board Chairman; Dennis Thayer - Wells Sanitary District - Vice Chairman; Brian Kavanah, Richard Darling & William Laflamme - Maine Department of Environmental Protection; Darold Wooley - Lincoln Sanitary District; Dana Peck - Peck Environmental Associates; John Hart - City of Saco WTP; Dan Welch - General Dynamics ATP; Nancy Beardsley - Maine Department of Health & Human Services

STAFF - Leeann L. Hanson - JETCC Coordinator Tom Groves - NEIWPCC Liaison Debbie Merrill - Administrative Assistant