

Operator Facts

TECHNICAL FACTS FOR WASTEWATER TREATMENT PLANT OPERATIONS

New York State Department of Environmental Conservation

Spring 2001

Volume 6, Number 1

Inside

Expired
Page 2

Selector Contact
Stabilization
Page 3

Upcoming
Training
Page 4

Job
Opportunities
Page 5

Our New
Address
Page 6

New
Operators
Page 7

ABC Date
Changes
Page 8



New and Improved FOAS Website

<http://www.dec.state.ny.us/website/dow/bwcp/index.html>

We have been busy developing the Operator Outreach website to give wastewater professionals better and easier access to the information and resources you need! The website includes the following —

- FOAS Staff Contacts and Links
- Our Approach to Providing Training and Technical Assistance
- Operator Certification Manual, Forms, Regulations, and Technical & Operational Guidance Series (TOGS)
- Training Schedules for Certification, Workshops, and Seminars
- ABC and Lab Exam Dates and Deadlines
- Renewal Guidelines and Procedures
- Currently Certified Operator Listing
- Certification School Curricula
- Technical Assistance Tales and Case Histories
- Andrew M. Weist Awards Information
- *Operator Facts*
- Frequently Asked Questions
- Links to Other Training Providers, Home Study Courses, Associations, Agencies, and References
- "Contact Us" Link for your Questions and Comments

We are continuing to add to the site and future additions will include the following —

- Nitrogen Removal Training Materials
- Wet Weather Operations Training Materials
- Technical Articles on Operations and Troubleshooting
- Five-Year Training Plan
- More Technical Assistance Tales



Let us know how our website can be improved to better serve you and what you need and want to see! Contact Robin Yasinsac, our Website Coordinator at rmyasins@gw.dec.state.ny.us, and let her know what you think about our Operator Outreach site.

Operator Facts

The purpose of this technical bulletin is to inform wastewater operators about various operational practices, problem-solving approaches, technical developments and training/certification issues.

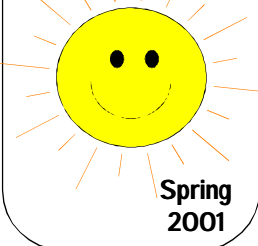
The bulletin is produced by:
Bureau of Watershed Compliance Programs,
Robert Cronin, P.E.
Director, BWCP,
Phillip T. Smith, P.E.
Chief, FOAS
Robin Yasinsac,
Coordinator

You are invited to submit technical articles or other information of interest to operators for publication in *OperatorFacts*.

Be sure to notify us of a change of address if you wish to continue to receive *Operator Facts* and Training Notices. Please include your certificate number.

The mention of any product or listing of any company's seminar is not an endorsement by this Department.

Send all correspondence to: *Operator Facts*, NYSDEC, 50 Wolf Road, Room 340, Albany, New York 12233-3506, Phone (518) 457-5968 or Fax (518) 457-7038.



Falsified Experience Statements Result in Revocation and Suspension

An investigation by the New York City Department of Environmental Protection and New York State DEC found several cases of operators, two supervisors and a training officer making falsified experience statements on certification applications. As a result of the investigation, nine people have or will receive penalties.

The certified operators who listed falsified operating experience on their applications had their certificates revoked. The two operators were Michael Krasnopolski and Prasanta Maitra. A third case is pending.

Three employees who submitted falsified applications but had not taken the ABC certification exam will have to wait one and a half years before they can

take the ABC exam. These people included Edward Calderon, Anthony Firriolo, and Michael Kalberer.

In addition, Michael Chang (supervisor), who signed and attested to two of the applications, had his certificate suspended. Garfield Carty, the training officer who helped prepare all the applications, also had his certificate suspended. The case involving another supervisor still is pending.

Part 650.10.b provides for certificate suspension or revocation when the operator obtained the certificate through fraud, deceit or through the submission of incorrect data on their application.



Expired — Waited Too Long?

We encourage operators not to wait until the last minute or let your certificate expire. Remember the following —

1. Expiration means you are not certified. Think of the civil service ramifications!

2. If the certificate expired, you still must complete the required training contact hours.

3. If the certificate has expired beyond one (1) year, you must take the *ABC Exam* and still complete the *required training* contact hours.

4. Renewal applications must be postmarked on or before the date of expiration. Similarly, expired operators must postmark the application prior to going beyond the one-year expiration period.

5. Renewal applications must be *complete*. We need an original (signed) application; faxes are not accepted. Include RTC numbers or course completion certificates.

Don't miss the renewal deadline!

Don't let the expiration go beyond one year, or you will have to take the ABC Exam again!

Selector-Contact Stabilization — A New Approach to Wastewater Treatment in New York State

Operating and maintaining today's wastewater treatment plants means addressing a range of issues and demands such as the following:

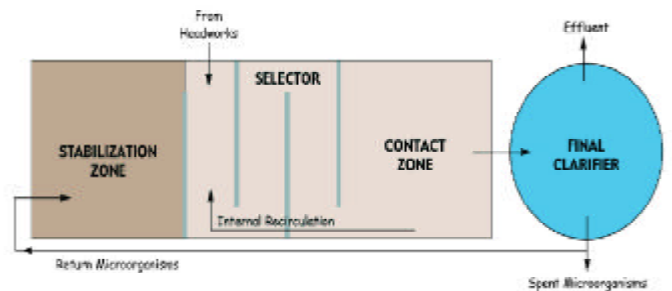
- continued economic and population growth
- aging infrastructure
- changing and more stringent regulations
- biosolids management restrictions
- permit compliance
- consent orders
- rising energy and operating costs
- process reliability
- costly process upgrades
- service interruptions during construction
- limited availability of land for plant expansion

Through a new approach available from the New York State Energy Research and Development Authority (NYSERDA) and O'Brien & Gere Engineers, Inc. there is an innovative, cost-saving alternative. The selector-contact stabilization process combines the benefits of two proven secondary treatment processes to meet operating and performance demands, and, at the same time, achieve significant capital and other cost savings.

BACKGROUND

In February 1993, O'Brien & Gere Engineers was retained by the Village of Fredonia to prepare a Facilities Plan for the wastewater treatment plant. The plant, constructed in the 1970s, was approaching its organic waste loading capacity, and its existing process equipment had been exhausted. In the Facilities Plan, O'Brien & Gere presented significant economic and performance benefits by combining two high-rate biological treatment process technologies. The anoxic-selector technology and the contact stabilization technology were integrated into a selector-contact stabilization process configuration.

The selector process consists of a staged anoxic selector at the inlet of the contact zone. In the selector system, wastewater passes through the aeration tanks of the plant as it normally would. (See diagram.) However, the wastewater that enters the baffle-wall section is met by a large population of specially selected microorganisms that consume pollutants more efficiently than the microbes found in the old configuration. Some of the microorganisms that leave the system at the end of the selector process are recirculated back through the baffle-wall section to be sure a high "worker" population is maintained.



Recirculating the wastewater through the baffles and maintaining the required food-to-"worker" loading in the selector section create ideal conditions for the specialized microorganisms to thrive and remove pollutants. A secondary benefit of these microorganisms is that they reduce the need to add chemicals to the wastewater for phosphorus removal, and a high population can be maintained within the system.

The potential benefits of the technology were attractive. However, because it was the first known application of this technology worldwide, O'Brien & Gere recommended that a full-scale demonstration of the process be performed. NYSERDA provided funding for a side-by-side, full-scale testing program, comparing the innovative selector-contact stabilization pro-

(continued on Page 6)

RENEWAL TRAINING & UPCOMING MEETINGS



News and Events

NYWEA, Inc.
126 North Salina Street - Suite 200
Syracuse, NY 13202
(315) 422-7811

National Events

WEFTEC 2001
Atlanta, GA
October 13-17, 2001

State Events

Legislative Forum
Albany, NY
May 8, 2001

Spring Technical Conference and Exhibition
Kerhonkson, NY
June 4-6, 2001

Long Island Chapter

Electrical Safety
Location - TBD
May 10, 2001

Capital Chapter

Spring Meeting - Wastewater Treatment Process
Lake George, NY
May 17, 2001

Operators Forum/Clambake
Saratoga, NY
September 14, 2001

Fall Meeting - Stormwater
Clifton Park, NY
October 25, 2001

Western Chapter

Greater Buffalo Environmental Conference
Buffalo, NY
April 23-24, 2001

April 25, 2001

Troubleshooting Aerated Lagoons

Location: Canton, NY
Contact Hours: 6
Cost: \$75
Contact: NYSDEC, Tim Miller at (518) 457-0810

May 8, 9, 15 & 16, 2001

Identifying & Quantifying Extraneous Flows in Sanitary Sewers

Location: Cook College, New Brunswick, NJ
Contact: Cook College (732) 932-9271

May 14-15, 2001

Identification of Filamentous Organisms in Activated Sludge

Location: Ulster County Community College
Contact Hours: 12
Cost: \$250
Contact: NYSDEC, Tim Miller at (518) 457-0810

July 24, 2001

Gravity Thickeners and Anaerobic Digestion

Location, Contact Hours, and Cost: TBA
Contact: NYSDEC, Joe Brilling at (518) 457-1633

Our New Phone Numbers as of 5/21/01 are:

Alan Cherubin	(518) 402-8155
G. Michael Coley	(518) 402-8086
Rich Malaczynski	(518) 402-8087
Tim Miller	(518) 402-8106
Gregg Gendron	(518) 402-8096
Phil Smith	(518) 402-8092
Bob Wither	(518) 402-8097
Robin Yasinsac	(518) 402-8168

Division of Water
Fax Number:
(518) 402-9029

Job Opportunities

The Rockland County Sewer District #1, Orangeburg, NY has three permanent staff engineering positions available which will be filled provisionally.

Engineer I. Job duties involve field inspection and supervision of construction and rehabilitation projects, assisting in preparing specifications and drawings (AutoCad knowledge a plus), subdivision reviews, supervision of sewer line hookups, surveying, inflow and infiltration surveys, and related duties assisting our staff of eight engineers. Requires a BS degree in Engineering, including at least 15 credits in Civil Engineering. Starting salary is \$43,973 yr., plus overtime eligibility.

Engineer III (Sewers). Requires a Professional Engineer's license and at least one year of engineering experience involving design and/or construction management of sewage treatment plants, sewer lines, pumping stations, etc., or related facilities. While the new 2001 management/union contract still is being negotiated, the starting salary is currently \$60,843 per year.

Compliance Administrator (Sewers). This regulatory compliance position requires a BS degree in Chemical or Environmental Engineering (or a related major) and five years of post-degree environmental compliance engineering, or a Master's degree and four years of experience. Candidates must also have earned at least 15 course credits in Chemistry and/or Chemical Engineering or related courses. Starting salary is \$51,744 per year.

Send resume to Bob Dworkin, Public Works Administrator, RCSD#1, Number 4, Route 340, Orangeburg, NY 10962. You may also phone (845) 365-6111 or fax Mr. Dworkin at (845) 365-6686.

Certification Courses

Basic Operations	
April 30-May 11, 2001 SUNY at Morrisville	(315) 684-6082
Basic Laboratory	
June 4-8, 2001 SUNY at Morrisville	(315) 684-6082
Activated Sludge	
April 23-26, 2001 SUNY at Morrisville	(315) 684-6082
April 30-June 4, 2001 Institute of Material Sciences	(845) 255-0757
Basic Supervision	
April 23-27, 2001 Great Lakes Laboratory-Buffalo	(716) 878-5422
Advanced Operations and Management	
May 7-11, 2001 Great Lakes Laboratory-Buffalo	(716) 878-5422
May-June 2001 NYCDEP	(212) 860-9316

February ABC Exam Results



Grade 1: 19 Candidates Passing Rate: 63 % Average Score: 74	Grade 2: 20 Candidates Passing Rate: 45 % Average Score: 70	Grade 3: 4 Candidates Passing Rate: 50 % Average Score: 68	Grade 4: 0 Candidates Passing Rate: 0 % Average Score: 0
Grade 1A: 7 Candidates Passing Rate: 86 % Average Score: 80	Grade 2A: 46 Candidates Passing Rate: 57 % Average Score: 72	Grade 3A: 29 Candidates Passing Rate: 45 % Average Score: 67	Grade 4A: 30 Candidates Passing Rate: 73 % Average Score: 75

Selector-Contact Stabilization
(continued from page 3)

cess to the conventional plug-flow extended aeration process at the Fredonia Wastewater Treatment Plant. This full-scale demonstration continued until the selector-contact stabilization concept was validated in the field.

Demonstrating Results

At the Fredonia Wastewater Treatment Plant subsequent design and construction of the full selector-contact stabilization process and the new fine-bubble aeration system yielded the following key benefits:

- doubled BOD₅ of additional process tanks
- (approximately \$1,200,000)
- 20 years
- (transfer efficiency increase)
- enhanced mixed-liquor settleability (SVI <
- improved final clarification
- enhanced biological phosphorus removal
- (approximately \$109,000 annually)

Project Continues

Based on the success of the project at the Village selector-contact stabilization process program to include site visits and feasibility studies at other wastewater municipal or industrial wastewater treatment plants that are compatible with the selector-contact stabilization pro-

Candidate facilities generally will have the following traits:

- extended air/plug-flow activated sludge process
- need for more efficient aeration
- flowrates generally less than 30 million

- subject to Total Oxygen Demand, or permit limitations on BOD₅
- subject to compliance issues (such as total suspended solids limitations)
- process equipment aging beyond its useful

Preliminary Feasibility Studies

Representatives from O'Brien & Gere will col- treatment plants and perform preliminary computer modeling to evaluate site-specific benefits. This mod- & Gere, and will be performed at no cost to the plant. For plants where the selector-contact stabiliza- velop engineering proposals to design systems. Additional funding may be available from NYSERDA and/

Questions

P.E., O'Brien & Gere Engineers, Inc., Syracuse, NY at (315) 437-6100, or e-mail mangiaja@obg.com or



Congratulations

To Our New Certified Operators!

Grade 1

Joseph Adebayo	New York City
Patrick J. Brown	Dutchess
Larry Castrovinci	New York City
Stephen F. Eckartz	New York City
Keith E. Heavey	New York City
Michael Iskhakov	New York City
Muhammad A. Islam	New York City
Camilo Madadsec	New York City
Patrick O'Leary	Nassau
Kim Provost	Clinton
Darryl Roosa	Fulton
Joseph Zeolla	New York City

Grade 1A

Paul J. Campbell	Delaware
David J. Carlin	Erie
Carl Gilpatrick, Jr.	Orange
David E. Jennings	Greene
James B. O'Connor	Rockland
Michael W. Scheller	Columbia

Grade 2

David J. Baldwin	Monroe
Wayne T. Bumstead	Putnam
Jeffery S. Drain	Livingston
Eric Griffin	Dutchess
Dennis P. Gunning	Nassau
Ronald Krandle	Rockland
John D. Raplee, Sr.	Schuyler
Tavish Rathbone	Otsego
Kenneth R. Taylor	Delaware

Grade 2A

Robert C. Allen	Suffolk
John C. Butler	Otsego
Martin Canning	New York City
Scott Conklin	Broome
Joseph G. Cornejo	Ulster
Miles R. Doelle	Putnam
Lewis E. Duvalsaint	New York City
Donald C. Earle	Oswego
Thomas Gallagher	Suffolk
Charles L. Griswold	Sullivan
Paul C. Gundersen	Onondaga
Mitchell Harmin	Sullivan
Todd A. Hibbard	Essex
Gene A. Hutchings	Oneida
David J. Laney	Genesee
Michael D. Lanning	Tioga

Russell L. Laquidara	Saratoga
Scott A. Marshall	Essex
Anthony Mingoelli	New York City
Robert Morace	Nassau
Kevin Wade Pratt	Essex
Paul Reinig	Nassau
Joseph W. Rotundo, Jr.	Suffolk
Scott Truhart	Clinton
Goran Zarkov	New York City
Robert L. Ziemer	Erie

Grade 3

Stephen R. McTarnaghan	Livingston
Richard M. Zifra	Erie

Grade 3A

Don Akamnonu	New York City
Stanley Batycki	New York City
Roger K. Baumgartner	Chautauqua
Terry L. Graffius	Wayne
Gary J. Janiga	Erie
Darin A. King	St. Lawrence
Nasir Mahmood	New York City
Robert K. Martin	Essex
John P. Meehan	Onondaga
William G. Schroder, Jr.	New York City

Grade 4A

Jon O. Aro	Westchester
Paul A. Christman	Fulton
James E. Davis	Fulton
Benjamin Fenner	Rockland
Joseph Gennarelli	Westchester
Michael P. Giannakos	New York City
William Grandner	New York City
Fred Hidde	Montgomery
Leroy Leuthauser, Jr.	Oneida
William A. Miller, Jr.	Broome
Anthony Paolicelli	Westchester
Edmund Pellegrino	Dutchess
Robert Spagna	Westchester
Louis Stocklas	Westchester
Donald Tuscano	Out of State
Richard A. Wager	Fulton
Charles Waldie	Westchester
Douglass E. Walton	Putnam
Raymond Waterbury	Westchester
Kenneth White	Dutchess
Steve Wilgermein	Westchester
Stanley Zmudzinski	Dutchess



ABC Exam Date Changes

To allow us and the regional offices more time to review filing deadlines for future operator certification examinations, the exam schedule and filing deadlines for the next two years have been arranged and are listed below. Please post this schedule at your treatment plant so all operators are aware of these changes.

The revised upcoming dates and deadlines for the ABC exam are as follows:

August 29, 2001
Filing Deadline: July 16, 2001

February 27, 2002
Filing Deadline: January 14, 2002

August 28, 2002
Filing Deadline: July 15, 2002

February 26, 2003
Filing Deadline: January 13, 2003

A filing deadline means that the application packet and check or money order only must be postmarked by the United States Postal Service or received at the regional office by the specified date.

**Wanted: Used Plate and Frame
Dewatering Press**
**Call: Jim Cunningham at
(315) 821-6202**

New York State DEC
Facility Operations Assistance Section
50 Wolf Road, Room 340
Albany, New York 12233-3506