

THE MAIN EVENT

A NEWSLETTER FOR OKLAHOMA WATER & WASTEWATER OPERATORS VOLUME 7 ISSUE 2 AUGUST 2006

New Protocol To Determine the Necessity for Pre-Distillation in Ammonia Analysis

In Method 4500-NH₃, “Nitrogen Ammonia” of Standard Methods for the Examination of Water and Wastewater, 18th, 19th, 20th Editions, Section A.1 “Introduction: Selection of Method” states, “Methods D, E, F, G, and H may be used with or without sample distillation.” The Federal requirement, however, is that distillation is required unless a facility can demonstrate that the distillation step in the analysis for ammonia (NH₃-N) in its wastewater is not necessary, i.e., the facility must show that the results of ammonia analysis with and without the pre-distillation step are comparable. This requirement for comparability data comes from Note 6 to Table I.B “List of Approved Inorganic Test Procedures” in 40 CFR §136.3.

Until now, however, the way a facility could produce the comparability data has not been well defined. The

Continued on Page 8

DEQ Reports Water Treatment Progress

The Oklahoma Department of Environmental Quality is reporting significant progress statewide in drinking water treatment related to the effects of the addition of chlorine for disinfection. Most public water supplies add chlorine during the treatment process to inactivate bacteria and other harmful microorganisms. Since the late 1920's, treatment plants have used chlorine to improve the safety of water supplies. However, the old axiom of “a little does a little good, so a lot will do a lot of good,” does not hold true in the case of adding this powerful chemical to drinking water. Balancing the proper dosage to disinfect the supply, while not causing odor, taste or health problems, is a constant challenge for water plant operators treating hundreds of thousands of gallons per day.

As water testing has advanced, it was discovered that when chlorine is injected during treatment it reacts with naturally occurring organic materials that pass through the filtration process, to create new chemical compounds with interesting names, such as trihalomethanes and haloacetic acids. These compounds are most often found in public water systems that rely on surface waters as their source, since lakes and rivers typically contain organic matter. While disinfection of the supply is necessary, medical research has indicated that long term exposure to high amounts of these unintended byproducts may raise the risks for certain cancers and reproductive problems.

In 1998, the U.S. Environmental Protection Agency announced the Stage 1 Disinfection Byproducts Rule (DBPR), pursuant to the 1996 amendments to the Safe Drinking Water Act, to address the health concerns over these contaminants. The purpose was to ensure the reduced exposure of the public to these potentially harmful compounds. The

Continued on Page 6

He Doesn't Work Here Anymore

It is Not Worth Your License

An operator can lose his license, be fined, and sentenced to prison for falsifying records.

Under Oklahoma state statutes, 59 O.S. § 1111, The DEQ shall have power to refuse to issue, renew, reinstate or reactivate, or after notice and opportunity for an individual proceeding as provided in the Administrative Procedures Act, the Oklahoma Environmental Quality Code. and rules of the Board, to revoke or suspend any certificate for good cause including but not limited to:

1. Gross inefficiency or incompetence;
2. Violation of any provisions of the Waterworks and Wastewater Works Operator Certification Act or applicable provisions of the Oklahoma Environmental Quality Code, rules promulgated there under or the terms of any certificate or order issued pursuant thereto; or

Continued on Page 6

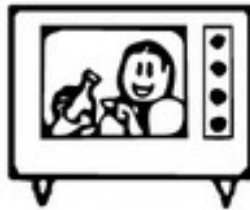
INTERACTIVE TV RENEWAL CLASSES

Water or Wastewater Operators may attend either a Water or a Wastewater four (4) hour renewal class for certification renewal. If an operator has a license in both water and wastewater, one four hour class is all that is necessary. ALL CLASSES ARE HELD ON FRIDAYS FROM 12:00 PM TO 4:00 PM. The training at the Midwest City location is held in the LIBRARY/MEDIA CENTER, RM 129 at Rose State College. If you have any questions, please contact Mark Kurklin at (405) 702-8148.

ATTENTION: Pre-Registration is Required! You must contact the receiving facility distance learning coordinator at the facility you plan to attend, and make a reservation by close of business on Tuesday before the Friday training. If you forget to pre-register, renewal training may not be available to you.

Wastewater

August none
 Sept 1
 Oct 6
 Nov 3
 Dec 1



Water

August none
 Sept 8
 Oct 13
 Nov 10
 Dec 8

ONENET LOCATIONS AND COORDINATORS

<u>FACILITY</u>	<u>LOCATION</u>	<u>CONTACT</u>	<u>PHONE NUMBER</u>
Autry Technology Center	ENID	Kay Snow	(580) 242-2750 Ext. 126
Cameron University-Lawton	LAWTON	Jeff Hagy	(580) 581-2419 or (580)-581-5551
East Central University	ADA (\$25 fee)*	Stanley Nnochirionye	(580) 310-5625
Eastern OK State College	WILBURTON	Keith Lewis	(918) 465-1782
High Plains Tech Center	WOODWARD	Vonda Phillips	(580) 571-6185
Cameron University-Duncan	DUNCAN	Cindy Meadows	(580) 255-7566
Kiamichi Technology Center	POTEAU	Kathy Davidson	(888) 567-6632 or 647-4525
SOSU McCurtain Co. Campus	IDABEL	Barbara Echols Burton	(888) 286-9431 Ext.202
Murray State College	TISHOMINGO	Priscilla Washington	(580) 371-2371 Ext. 123
Northeastern OK A&M	MIAMI	Cindy Bigby	(918) 540-6253
Oklahoma State University	TULSA	Larry Cochran	(918) 594-8424
Panhandle State University	GOODWELL	Estela Vedoy	(580)349-1550
Rose State College	MIDWEST CITY	Mark Kurklin	(405) 702-8148
Seminole Junior College	SEMINOLE**	Mark Kurklin	(405) 702-8148
S. E. OK State Univ.	DURANT	Clinton Freeman	(580) 745-2114
Stuart High School	STUART	Terry Beck	(918) 546-2474 Ext. 101
S. W. OK State Univ.	WEATHERFORD	Lessley Price	(580) 774-3149
S. W. OK State Univ.	SAYRE	Lessley Price	(580) 774-3149
Tricounty Tech Center	BARTLESVILLE	Veda Sisney	(918) 331-3331
University of Oklahoma	NORMAN	Mark Mitchell	(405) 325-3069
University of Science & Arts	CHICKASHA	Alan Todd	(405) 574-1277
University Center at Ponca City	PONCA CITY	Brenda Stacy	(580) 762-2856

* The fee for Ada should be paid at the receiving site.

**Pre-register with Mark Kurklin instead of Seminole Jr. College.

IF TECHNICAL DIFFICULTIES ARE EXPERIENCED DURING THE RENEWAL TRAINING, PLEASE CALL (405) 736-0327 or (405) 370-6424.

WRITTEN EXAM SESSIONS

Written Exam sessions begin at 8:30 a.m. Exam applications can be printed from the DEQ website, www.deq.state.ok.us. Exam applications are also available from the Operator Certification Section at (405) 702-8100. **Please be sure to use the current exam application (rev 7-2005), as our mail is no longer being forwarded from our old location. The old address may appear on old exam applications.** **PLEASE WRITE LEGIBLY.** Any combination of two D and/or C exams may be taken at the same exam session. **All exam applications must be postmarked three weeks before the exam session.** The nonrefundable and nontransferable application fee (\$40 per exam) must be mailed with your application. Exams can be rescheduled within 120 days; however, all fees are forfeited if an exam is not taken within 120 days. If you have questions, please call Angie Ratcliff at (405) 702-8150. **WITHIN THREE WEEKS OF EXAM COMPLETION, A REPORT OF YOUR EXAM RESULTS WILL BE MAILED TO YOUR HOME. IN ORDER TO PROTECT YOUR PRIVACY, RESULTS CANNOT BE GIVEN OVER THE PHONE.**

PLEASE DO NOT CALL FOR EXAM RESULTS

EXAM LOCATION	DATE	DEADLINE
Midwest City, Rose State College, Tom Steed Bldg., Hudiburg Drive	August 4	July 14
Tulsa, Tulsa Technology Center, 3850 North Peoria	August 11	July 21
Sulphur, Murray County REWD Center, 4000 W Highway 7	September 8	August 18
Oklahoma City, Clarion Meridian Hotel, 737 South Meridian	September 15	August 25
Midwest City, Rose State College, Tom Steed Bldg., Hudiburg Drive	October 6	September 15
Tulsa, Tulsa Technology Center, 3850 North Peoria	October 13	September 22
Clinton, Senior Citizen Center, 323 South 8th Street	October 20	September 29
Midwest City, Rose State College, Tom Steed Bldg., Hudiburg Drive	November 3	October 13
McAlester, Kiamichi AVTS, 301 Kiamichi Drive	November 17	October 27

ONLINE EXAM SESSIONS

The online exams are scheduled to take place directly after most regularly scheduled training classes. In order to take an online exam the student must complete the entire training class that is associated with that exam. As soon as each individual completes the exam, they will be able to view and print their results. **All students should contact the training facility/sponsor to confirm that an online exam will take place after the class.** The requirements necessary to be approved for the online exam are the same as for the written exams: an exam application must be completed and mailed with the application fee (\$40 per exam) to the DEQ three weeks prior to the exam date.

Order Form for Operator Certification Study Guides

Name _____
 Mailing Address _____
 City _____ State _____
 Zip Code _____
 Telephone # _____

Number of Study Guides:

Water _____ x \$4.00 each = \$ _____
 Wastewater _____ x \$4.00 each = \$ _____
 Distribution/Collection _____ x \$4.00 each = \$ _____

TOTAL AMOUNT ENCLOSED \$ _____

After completing this form, please clip out and return it with a check, money order, or purchase order made payable to the Operator Certification Section.

Please mail to:

Dept. of Environmental Quality
 Financial & Human Resources
 PO Box 2036
 OKC, OK 73101-2036

PLEASE ALLOW UP TO 3 WEEKS FOR DELIVERY.



WATER, WASTEWATER, DISTRIBUTION/ COLLECTION, AND LABORATORY CLASS SCHEDULES

For all Standard Classes, you must register with the **SPONSOR** for the course you want to attend at least two (2) weeks in advance. To take the exam, you must send your application to the DEQ and it must be postmarked no later than three (3) weeks before the exam date.

PLEASE REMEMBER TO CHECK WITH THE SPONSOR TO BE SURE THAT CLASSES WILL TAKE PLACE.

BEGINNING D LEVEL DAY CLASSES 8AM-5PM

LOCATION	SUBJECT	DATES	CREDIT	SPONSOR	PHONE
Oklahoma City	Water & Wastewater	Aug 1-3	24hrs	Accurate	800-516-5227
Oklahoma City	Water	Aug 1-3	16hrs	Accurate	800-516-5227
Tulsa	Water & Wastewater	Aug 1-3	24hrs	Accurate	800-516-5227
Tulsa	Water	Aug 1-3	16hrs	Accurate	800-516-5227
Oklahoma City	Wastewater	Aug 2-3	16hrs	Accurate	800-516-5227
Tulsa	Wastewater	Aug 2-3	16hrs	Accurate	800-516-5227
Midwest City	Wastewater	Aug 10-11	16hrs	Rose State	405-733-7488
Woodward	Water	Aug 14-15	16hrs	ORWA	405-672-8925
Midwest City	Water	Aug 23-24	16hrs	Rose State	405-733-7488
Midwest City	Water	Aug 31-1	16hrs	Rose State	405-733-7488
Elk City	Water & Wastewater	Sep 6-8	24hrs	OMUP	580-225-4995
Wayne	Water	Sep 11-12	16hrs	ORWA	405-672-8925
Midwest City	Water	Sep 21-22	16hrs	Rose State	405-733-7488
McAlester	Water	Sep 25-26	16hrs	ORWA	405-672-8925
Stillwater	Water & Wastewater	Sep 26-28	24hrs	Accurate	800-516-5227
Stillwater	Water	Sep 26-28	16hrs	Accurate	800-516-5227
Stillwater	Wastewater	Sep 27-28	16hrs	Accurate	800-516-5227
Midwest City	Wastewater	Sep 28-29	16hrs	Rose State	405-733-7488
Oklahoma City	Water & Wastewater	Oct 3-5	24hrs	Accurate	800-516-5227
Oklahoma City	Water	Oct 3-5	16hrs	Accurate	800-516-5227
Tulsa	Water	Oct 3-5	16hrs	Accurate	800-516-5227
Tulsa	Water & Wastewater	Oct 3-5	24hrs	Accurate	800-516-5227
Oklahoma City	Wastewater	Oct 4-5	16hrs	Accurate	800-516-5227
Tulsa	Wastewater	Oct 4-5	16hrs	Accurate	800-516-5227
Midwest City	Wastewater	Oct 11-12	16hrs	Rose State	405-733-7488
Afton	Water	Oct 23-24	16hrs	ORWA	405-672-8925
Stillwater	Water & Wastewater	Oct 31-2	24hrs	Accurate	800-516-5227
Stillwater	Water	Oct 31-2	16hrs	Accurate	800-516-5227
Stillwater	Wastewater	Nov 1-2	16hrs	Accurate	800-516-5227
Atoka	Water	Nov 6-7	16hrs	ORWA	405-672-8925



GENERAL TRAINING, TIMES DIFFER

LOCATION	SUBJECT	DATES	CREDIT	SPONSOR	PHONE
Bartlesville	Boardman Training	Aug 7-8	6hrs	ORWA	405-672-8925
Chickasha	Boardman Training	Aug 14-15	6hrs	ORWA	405-672-8925
Stillwater	Sampling	Nov 17	8hrs	Accurate	800-516-5227

INTERMEDIATE C LEVEL DAY CLASSES 8AM-5PM

LOCATION	SUBJECT	DATES	CREDIT	SPONSOR	PHONE
Stillwater	Distribution & Collection	Aug 1-3	24hrs	Accurate	800-516-5227
Stillwater	Wastewater	Aug 8-10	24hrs	Accurate	800-516-5227
Midwest City	Wastewater	Aug 17-18	16hrs	Rose State	405-733-7488
Midwest City	Water	Aug 24-25	16hrs	Rose State	405-733-7488
Oklahoma City	Wastewater	Sep 19-21	24hrs	Accurate	800-516-5227
Tulsa	Water	Sep 19-21	24hrs	Accurate	800-516-5227
Oklahoma City	Distribution & Collection	Sep 26-28	24hrs	Accurate	800-516-5227
Tulsa	Distribution & Collection	Sep 26-28	24hrs	Accurate	800-516-5227
Stillwater	Distribution & Collection	Oct 3-5	24hrs	Accurate	800-516-5227
Stillwater	Water	Oct 17-19	24hrs	Accurate	800-516-5227
Midwest City	Wastewater	Oct 19-20	16hrs	Rose State	405-733-7488
Oklahoma City	Distribution & Collection	Oct 31-2	24hrs	Accurate	800-516-5227
Tulsa	Distribution & Collection	Oct 31-2	24hrs	Accurate	800-516-5227
Oklahoma City	Water	Nov 7-9	24hrs	Accurate	800-516-5227
Stillwater	Wastewater	Nov 7-9	24hrs	Accurate	800-516-5227
Tulsa	Wastewater	Nov 12-14	24hrs	Accurate	800-516-5227

ADVANCED A & B LEVEL DAY CLASSES 8AM-5PM

LOCATION	SUBJECT	DATES	CREDIT	SPONSOR	PHONE
Midwest City	A Water	Aug 7-10	32hrs	Rose State	405-733-7488
Midwest City	B Water	Sep 12-15	32hrs	Rose State	405-733-7488
Midwest City	A Wastewater	Oct 9-12	32hrs	Rose State	405-733-7488
Midwest City	B Wastewater	Oct 24-27	32hrs	Rose State	405-733-7488

LABORATORY DAY CLASSES 8AM-5PM

LOCATION	SUBJECT	DATES	CREDIT	SPONSOR	PHONE
Chandler	C Wastewater Laboratory	Aug 7-10	32hrs	ORWA	405-672-8925
*Stillwater	C Water Laboratory	July 31-Aug 3	32hrs	Accurate	800-516-5227
Tulsa	C Wastewater Laboratory	Aug 14-17	32hrs	Accurate	800-516-5227
Midwest City	B Water Laboratory	Aug 15-18	32hrs	Rose State College	405-733-7488
Stillwater	A Wastewater Laboratory	Aug 21-25	40hrs	Accurate	800-516-5227
Stillwater	B Wastewater Laboratory	Aug 21-24	32hrs	Accurate	800-516-5227
Miami	B/A Water Laboratory	Aug 28-31	32hrs	ORWA	405-672-8925
Stillwater	A Water Laboratory	Aug 28-1	40hrs	Accurate	800-516-5227
Stillwater	B Water Laboratory	Aug 28-31	32hrs	Accurate	800-516-5227
Kingfisher	C Wastewater Laboratory	Sep 18-21	32hrs	ORWA	405-672-8925
Stillwater	C Wastewater Laboratory	Sep 18-21	32hrs	Accurate	800-516-5227
Midwest City	C Water Laboratory	Sep 26-29	32hrs	Rose State College	405-733-7488
Oklahoma City	C Wastewater Laboratory	Oct 16-19	32hrs	Accurate	800-516-5227
Tulsa	C Water Laboratory	Oct 16-19	32hrs	Accurate	800-516-5227
Midwest City	B Wastewater Laboratory	Oct 24-27	32hrs	Rose State College	405-733-7488
Tulsa	C Wastewater Laboratory	Nov 6-9	32hrs	Accurate	800-516-5227

* updated 7-24-06

WATERWORKS AND WASTEWATER WORKS ADVISORY COUNCIL MEETINGS

The Waterworks and Wastewater Works Advisory Council (Council) meetings begin at 10 a.m. at the Department of Environmental Quality located at 707 N. Robinson in Oklahoma City, OK. These meetings are open to the public and are held in the multipurpose room on the first floor. The remaining 2006 meeting will be held on September 22. Allen McDonald is the Chair and Donald Spence is the Vice-Chair of the Council.

DEQ Reports Water Treatment Progress, Continued

rule requires public water producers that disinfect with chlorine to sample their supply regularly throughout the distribution system for the amounts of these compounds. Implementation began in 2002 for large surface water systems with a population greater than ten thousand persons. Smaller surface systems were required to begin testing in 2004. The state Department of Environmental Quality is responsible for enforcing this regulation in Oklahoma.

Initial results of DBPR sampling statewide were disappointing. In 2002, fifty-two percent of the large surface water systems did not meet the rule requirements. Two years later, when small surface systems began to sample, the first quarter results indicated over two-thirds would have difficulty meeting compliance by the end of the year. Ultimately, for 2004, seventy-eight percent of the small systems failed to meet

the rule standards. "The good news is," explains Kay Coffey, DEQ Environmental Engineering Manager for Public Water Supply Enforcement, "with the determined efforts of the water systems, DEQ staff and other partners, the number of systems coming into compliance with the DBP regulations is increasing steadily."

DEQ moved quickly to help systems meet key provisions of the rule by assembling a "targeted technical assistance" program utilizing district staff, as well as contractors from the Oklahoma Rural Water Association and the Community Resource Group, a private, nonprofit organization that provides help to rural communities. Together the partners have fanned out across the state to assist those systems facing the most challenges in reaching compliance. Options available for systems to reduce DBP levels include: chlorine dosage adjustments to find optimum levels, additional treatment with a coagulant and/or granular activated

carbon to help further remove organics, periodic flushing of lines to reduce water age, and water line renovation to eliminate dead ends, which improves circulation and reduces chlorine contact time with organic material.

The hard work of all the entities involved is beginning to pay off. "We are seeing significant reductions in DBP contaminant level violations, particularly haloacetic acids, in sampling results from the first quarter of 2006," according to Dawn Grandits, DEQ Environmental Programs Specialist in the Public Water Supply Compliance Tracking Section, who coordinates DBP monitoring for the state. As of the end of the first quarter of this year, seventy-eight percent of large surface water systems, and thirty-seven percent of small surface systems have obtained compliance with the DBP Rule.

"The success of this program shows what can be accomplished when public and private partners at all levels work together for the benefit of the consumer,"

stated DEQ Executive Director, Steve Thompson "We're all on the same team when it comes to addressing the serious challenges we're facing with drinking water quality and quantity."

In time, DEQ staff believes one hundred percent is an attainable goal for this first stage of the DBP Rule in Oklahoma, although systems may occasionally hit a bump in the road because of fluctuating source water quality. Sometimes drinking water treatment may seem more like an art than a science, when trying to balance all factors involved. Since this latest rule is an unfunded mandate from the EPA, many systems will be searching for additional funding to make improvements necessary to meet the regulations. Results of all sampling for a particular public water system may be found in the Consumer Confidence Report that systems are required to publish each year, or consumers may find additional information by visiting the DEQ website at www.deq.state.ok.us.

IMPORTANT PHONE NUMBERS AND WEBSITES

- Water Quality Main Phone Number (405) 702-8100
- Water Quality Fax Number (405) 702-8101
- DEQ Website WWW.DEQ.STATE.OK.US
- SDWIS Website sdwis.deq.state.ok.us



He Doesn't Work Here Anymore, Continued

3. Fraud or misrepresentation in obtaining a certificate.

Oklahoma Rural Water Association, Inc.
 Western Hills Lodge at Sequoyah State Park (Hulbert, OK)
 Eight miles east of Wagoner, OK on Highway 51
 August 23-25, 2006



WEDNESDAY AUGUST 23, 2006

The Golf and Bass Tournaments begin at 11:00 am.
 Registration begins from 1:30-4:30 and continues on Thursday morning at 7:15am.

THURSDAY AUGUST 24, 2006 AND FRIDAY AUGUST 25, 2006

The Exhibit Hall is open from 7:30am to 5:00pm on Thursday and from 7:30am to 12:45pm on Friday. Various Training Sessions will take place on Thursday. These training sessions are approved for 6 hours of DEQ training. Four (4) more hours of DEQ approved training are available on Friday from 8:00am-12:45pm. A Bar-B-Q dinner will be held at 5:30pm on Thursday.

79th Annual Short School

The Oklahoma Water and Pollution Control Association (OWPCA) invites all operators to attend the 79th annual "short school". It will be held at the Clarion Convention Center at 737 S. Meridian in Oklahoma City, Oklahoma on September 12-15, 2006. There will be over 50 vendors in the Exhibit

Hall on Tuesday and Wednesday. Awards will be given on Wednesday during lunch time. Standard classes for operator certification will be held during short



school and DEQ examinations will be given on Friday September 15, 2006. The deadline to submit an exam application to the DEQ is August 25, 2006. There will be a golf

tournament preceding the short school, on Monday September 11, 2006. Tee off time is at 9:00 a.m. and admission is \$50. Proceeds will go towards the scholarship fund. For early registration, award nominations, and additional information, call (800) 776-9722, or go to www.owpca.com.

Home Study Correspondence Courses

California State University, Sacramento (CSUS) offers correspondence courses for operators. These training programs were prepared for the U.S. EPA by persons working in the field to help others develop the knowledge and skills necessary to do their jobs and to pass certification exams. California manuals are used as reference for Oklahoma operator certification exams. Nine (9) continuing education units (CEUs) are earned from CSUS upon successful completion of most courses. In Oklahoma, one (1) approved CEU is equal to ten (10) approved training hours. The manuals may also be purchased without enrolling in a correspondence course. For ordering information, please call CSUS at (916) 278-6142.

MSU Management Courses

Michigan State University (MSU) offers two management courses: Supervisory Management in the Water/Wastewater Field and Maintenance Management in the Water/Wastewater Field. A certificate from MSU for six (6) CEUs is awarded upon completion of each course. One (1) approved CEU is equal to ten (10) approved training hours. For enrollment information, call MSU at (800) 356-5705.

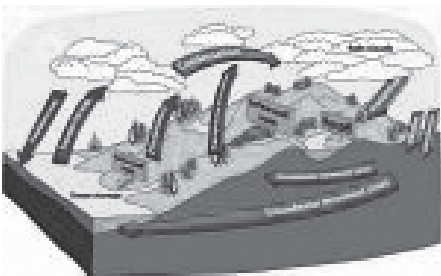
AUGUST 2006

THE MAIN EVENT, AUGUST 2006 8

New Protocol To Determine the Necessity for Pre-Distillation in Ammonia Analysis, Continued

Municipal Wastewater Enforcement Section of the Water Quality Division and the Laboratory Accreditation Section of the Customer Services Division have developed a new method for facilities to determine whether or not the pre-distillation step for ammonia analysis of wastewater is required. The method can be obtained from DEQ's Internet website at:

www.deq.state.ok.us/WQDnew/opdes/ammonia_protocol_24_apr_2006.pdf. If you have any questions about the new protocol, please contact your wastewater district engineer.



IN THIS ISSUE

- New Protocol To Determine the Necessity for Pre-Distillation in Ammonia Analysis, DEQ Reports Water Treatment Progress, and He Doesn't Work Here Anymore **Page 1**
- Interactive TV Renewal Classes: **Page 2**
- Exam Sessions and Study Guide Order Form: **Page 3**
- Water, Wastewater, Laboratory and Renewal Class Schedules: **Page 4-5**
- Advisory Council Meetings: **Page 5**
- DEQ Reports Water Treatment Progress, Continued; and He Doesn't Work Here Anymore, Continued: **Page 6**
- Home Study Correspondence Courses: **Page 7**
- New Protocol To Determine the Necessity for Pre-Distillation in Ammonia Analysis, Continued; and He Doesn't Work Here Anymore, Continued: **Page 8**

