



**Western Kentucky University
Technical Assistance Center for Water Quality
Center for Water Resource Studies**

**“Supporting Small Water Systems in
Meeting the Goal of Public Health Protection”**

<http://waterky.org>
(270) 745-2761

**Quarterly Progress Report
for the period
October 1, 2009 – December 31, 2009
EPA Assistance Agreement # EM-83440301-0**

Submitted to:
**U.S. Environmental Protection Agency
Office of Water
January 28, 2010**

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Introduction

The Technical Assistance Center for Water Quality (TACWQ) at Western Kentucky University (WKU) is funded through a grant from the US Environmental Protection Agency (EPA), and serves to support capacity development of small drinking water systems through a series of **utility management training** courses. The goal of the center is to help small systems meet the requirements of the Safe Drinking Water Act (SDWA) and ensure public health. While focused on solving local problems that can serve as national models, the TACWQ is impacting small systems throughout the country.

The work of the TACWQ supports EPA Strategic Plan Goal 2 of Clean and Safe Water, Objective 2.1: Protect Human Health and Sub-Objective 2.1.1: Water Safe to Drink by increasing the overall proficiency of community water system managers for providing safe water. The work outlined in this quarterly progress report reflects activities conducted during the first quarter of the project period, October 1 to December 31, 2009.

Utility Management Training

The goals of this project will be achieved by providing management training to individuals through a combination of classroom and on-line instruction, as well as communicating these offerings to their target audience.

Classroom Training

Classroom instruction will be offered through project partner Kentucky Rural Water Association (KRWA) via a suite of courses titled the Utility Management Institute (UMI). The UMI was created, in a collaborative effort between WKU and KRWA, to provide utility managers, and other utility personnel, with the opportunity to gain valuable knowledge and earn a university-based, professional designation in the field of management. These goals can be accomplished through the successful completion of six modern, practical management courses, specifically developed for public water utility personnel.

The UMI offers training to managers—and those interested in becoming managers—through a set of courses designed to be practical and applicable to small water systems. The following courses are proposed during the grant period:

Utility Management 101

This introductory course provides participants with an excellent foundation of utility management knowledge. It includes sections covering the historical background of water and wastewater service; drinking water and clean water regulations; utility organizational structures; basics in finance, personnel, and public relations; and the board/manager relationship.

Human Resource Management for Utilities

The HR functions of any organization are among the most challenging for managers. This course includes sections on personnel policies, hiring and firing, compensation and benefits, motivation and training, dealing with experts, and employee evaluation.

Utility Organization, Regulation and Law

This course provides in-depth instruction on utility organization and structure in Kentucky and nationally, sections on the SDWA and CWA, state agencies, trade organizations, and other laws affecting utility operations.

Utility Finance and Administration

This course offers sections on financial planning, budgeting, and reporting. Discussions include capacity development and utility rates, purchasing, cost of service considerations, uniform systems of accounts, and financing utility improvements and expansions.

Modern Technology and Utility Management

Technology allows every industry to make huge improvements in service and efficiency, if used appropriately. This course examines the latest technological advancements in the water and wastewater industry including: GIS/GPS, computer advancements, new treatment technologies, SCADA and telemetry, and security issues, as they relate to technology.

Public Relations in Utility Management

Until recently, public relations have been the most ignored aspect of public utility operations. This course explores the newfound importance of fostering positive relationships with both internal and external customers, governmental relations, and dealing with the media. All with the goal of improving the perceptions of others by telling the success stories of modern utilities.

The Utility Management Institute rewards its participants with the Utility Management Professional (UMP) designation after completion of all six courses. The UMI program maintains an official registry of participants and awards UMP certificates sanctioned by Western Kentucky University and the Kentucky Rural Water Association. The UMI is also recognized by the Kentucky Division of Water—Drinking Water Branch.

The projected timeline for completion of these activities is:

- Q1: The classroom version of *Utility Management 101* will be delivered.
- Q2: The classroom version of *Utility Organization, Regulation and Law* will be delivered.
- Q3: The classroom version of *Utility Finance and Administration* will be delivered.
- Q4: The classroom versions of *Human Resource Management for Utilities*, *Modern Technology and Utility Management*, and *Public Relations in Utility Management* will be delivered. A UMP alumni continuing education activity will also be conducted during the quarter.
- Q5: An article promoting the UMI will be written and submitted for review and publication.

The deliverables under this objective are:

For the classroom UMI instruction, our enrollment goal is to recruit 30 new students and confer 20 UMP designations during the project period. Six UMI courses will be delivered during the grant period. A final course agenda for each of the six course presentations will be included in the quarterly reports that are sent to EPA. An article describing the UMI's success will be written and submitted to the EPA Project Officer for review prior to submission for publication in a trade journal. Summary reports documenting the number of new students enrolled, the number of trained UMPs, and the results of the UMI course evaluations will be compiled and reported quarterly.

The UMI webpage developed in the previous grant period will be maintained to provide technical assistance providers from other states with information that promotes the concept of the Utility Management Institute. The number of website hits will be reported quarterly.

Progress toward these deliverables to date:

During the first quarter, the course entitled "Utility Management 101" was presented in Bowling Green, Kentucky on November 17-19, 2009 at the Carroll Knicely Conference Center. There were thirty-eight (38) students participating in this course, including twenty (20) new students. Course assessments continue to show a high level of satisfaction with the training. During the quarter, thirty-one (31) of the thirty-four (34) assessors rated the session at the two highest levels, very beneficial or beneficial.

New UMI brochures were mailed during the first quarter to promote the program and advertise the UMI class schedule for 2010. A copy of the brochure is attached.

The Utility Management Institute now claims a total of three hundred ninety-five (395) students. One hundred ninety-nine (199) of our students have now completed all six of the courses in the UMI Series and have been awarded the Utility Management Professional designation.

During the second quarter of FY 2010, the UMI course entitled "Utility Organization, Regulation and Law" will be presented in Cadiz, Kentucky on March 24-25, 2010 at Lake Barkley State Resort Park.

Web-Based Training

In addition to the UMI classroom instruction, on-line instruction will also be offered. The first class in the series, *Utility Management 101*, will be expanded and adapted to be offered via the Internet. This on-line course will be beta-tested prior to release to the certified operator community to ensure its viability. The curriculum will utilize on-line course delivery to provide options for non-traditional students, which will target existing operators. Content will include training on current rules and regulations, asset management, and other aspects of small water system operations.

This training, and any of the other courses that have been developed through the TACWQ, will be offered free of charge to a minimum of 100 operators. The TACWQ will apply for continuing education units (CEUs) through each applicable State that maintains the Operator Certification Program for those operators that complete the course on a first-come, first-served basis. Based on previous CEU requests in the state of Kentucky, it is possible for these operators to obtain all 24 CEUs needed to maintain certification by completing one course. This is critical given that many small systems do not have the travel budget to allow their operators to attend training, and cannot afford for their operator to be gone from the plant for any significant length of time. After the initial 100 students have completed the course(s), the program will be sustained by charging a course fee for the course(s).

The projected timeline for completion of these activities is:

- Q1: Work will begin on converting the classroom materials from this class to on-line content.
- Q2: On-line course development will continue during the quarter.
- Q3: The on-line version of *Utility Management 101* will be promoted to increase awareness of the program during the quarter.
- Q4: The on-line version of *Utility Management 101* will be offered.
- Q5: On-line versions of *Utility Management 101* and the other on-line training classes previously created by the TACWQ will continue to be offered and promoted during the quarter. State certification agencies will be contacted regarding requirements for operator CEUs.
- Q6: On-line versions of *Utility Management 101* and the other on-line training classes previously created by the TACWQ will continue to be offered and promoted during the quarter.

The deliverables under this objective are:

Utility Management 101 will be developed as an on-line class and offered to 100 operators free of charge. These operators will be able to apply for CEUs upon completion of the course. The number of operators trained and the number of CEUs earned will be reported quarterly.

Progress toward these deliverables to date:

During the first quarter, Educational Coordinator Christal Wade attended KRWA's Utility Management 101 course held in Bowling Green, KY from November 17-19, 2009. Based on this course and other UMI courses attended by TACWQ personnel, these materials will be converted into an on-line format in the coming quarters.

Communication/Outreach

A Stakeholder Advisory Committee (SAC) meeting will also be held during the grant year in order to ensure that activities, proposed and ongoing, of the TACWQ accurately reflect the needs of its constituents. The SAC provides advice to the TACWQ Director on strategic issues related to the mission of the TACWQ including insights on research directions and policy, and perspectives from the broader community and political scene.

The SAC is composed of several prominent leaders who span the scientific and technological breadth of the TACWQ. This includes one representative from the Kentucky Division of Water. See Appendix A for a list of current members. The SAC assembles annually at WKU for a one-day meeting including presentations from staff, group discussions, and tours. A written agenda is provided to the SAC in advance of each meeting, which includes an overview of the status of the TACWQ. At the close of the meeting, the SAC prepares a brief report for the TACWQ Director, including recommendations as appropriate. Food, travel and lodging are provided for the SAC members in return for their time and guidance.

The TACWQ will display a tabletop exhibit at relevant national, regional and state conferences and meetings, either independently or in conjunction with the entire TACNet. Meetings that will likely attract small water systems, such as those associated with Rural Water Associations, will be targeted. A list of possible venues is in Appendix B. One thousand training brochures will be created and distributed at conferences and to other technical assistance providers.

The TACWQ will maintain a resource website at <http://tacwq.waterky.org> that will include downloadable versions of previous TACWQ products and links to additional small water system resources, such as EPA and the other Technical Assistance Centers. WKU will also assume responsibility for the TACNet website, which was originally created by Montana State University and houses information regarding the products and services the TACNet consortium offers. WKU will actively promote TACNet by adding the TACNet logo and website link to materials and products produced.

The TACNet will likely convene in February 2010 in Washington, DC to discuss how to market our products further to small systems. TACWQ personnel will also make themselves available to attend meetings on emerging issues.

The projected timeline for completion of these activities is:

- Q1: WKU will work with fellow TAC Montana State University to move the maintenance of the tacnet.info website to WKU.
- Q2: TACWQ representatives will attend a TACNet planning meeting at EPA Headquarters in Washington, DC.
- Q3: The Stakeholder Advisory Committee meeting will likely convene during this quarter.
- Q4: TACWQ representatives will participate in conferences and exhibits to promote the TACNet.
- Q5: The tacnet.info website will continue to be maintained.
- Q6: Final grant reporting will be conducted.

The deliverables under this objective are:

To promote the Utility Management Training Program, copies of the quarterly and final reports will be routinely sent to Senator Mitch McConnell, representatives of the Kentucky Division of Water, and the Capacity Development Coordinator at EPA Region IV. A tabletop display will be exhibited at state and national conferences to promote the products and services of the

TACWQ and the TACNet as a whole. A Stakeholder Advisory Committee meeting will be held and the agenda, as well as the results of the meeting, will be reported to the EPA Project Officer. The TACNet website will be maintained and updated to advertise the many products and trainings available to small systems.

Progress toward these deliverables to date:

This report outlines the activities conducted by the TACWQ during the current grant period as of the end of the first quarter, December 31, 2009. It will be distributed to the sponsor, as well as other parties that have shown an interest in the work of the TACWQ.

During the first quarter, a graphic design student was hired to redesign the tacnet.info website. Comments were solicited from EPA on the current site and suggested improvements, and EPA's suggestions were compiled by Project Officer Stephen Hogue and sent to WKU via email on November 19, 2009. These suggestions are currently being incorporated into the new site.

In the coming quarter, TACWQ representatives plan to present information on utility management training at KRWA's Management Conference in Bowling Green in February, as well as give a presentation and exhibit a tabletop display at the Kentucky Water and Wastewater Operators Association (KWWOA) annual conference in Louisville in March.

Key Personnel

The project team consists of the Project Director, Core Staff, and Project Partner KRWA.

Project Director

Andrew Ernest, Ph.D., P.E. DEE, serves as Project Director. Dr. Ernest is the Director of the Center for Water Resource Studies at Western Kentucky University, as well as the Associate Dean of the Ogden College of Science and Engineering. He has a Ph.D. in Civil Engineering, is a Professional Engineer, and a Diplomate Environmental Engineer with specialty certification in water and wastewater. Dr. Ernest is responsible for the overall project management and interaction with the Sponsor's Project Officer.

Core Staff

The Core Staff is responsible for the day-to-day execution of project activities and the timely completion of work products and reports. The Core Staff acts as the integrator ensuring maximum coherence, synergy and efficiency between all project team components and concurrent activities.

Project Coordinator

Jana Fattic is the Project Coordinator for the TACWQ. The Project Coordinator is responsible to the Project Director for the coordination of all technical and programmatic activities of the TACWQ. The Project Coordinator is the central technical contact for the entire Project Team. The Project Coordinator compiles and submits quarterly technical and financial status reports to the EPA project officer.

Office Associate

Marsha Wallace has an extensive background in office management and budgeting. She serves as the Office Associate to the TACWQ Director, and is responsible for all administrative and budgetary functions of the TACWQ. The Office Associate is the central administrative contact for the entire Project Team.

Project Specialist

The Project Specialist provides management of on-line course development and content. Karla Andrew is the Project Specialist for the TACWQ. She has 18 years of experience in IT, the last 10 of which have been related to water resources. Her responsibilities with the TACWQ include technical support and IT project management, including on-line course development.

Applications Developer

Paige Davenport is the TACWQ's Applications Developer. The Applications Developer is responsible for developing and maintaining the on-line course format.

Educational Coordinator

Christal Wade is the Educational Coordinator for the Bowling Green Community College at WKU. She works in coordination with the operators taking the on-line classes and the states in which they have licenses, to ensure they achieve the needed CEUs.

Project Partner

Kentucky Rural Water Association

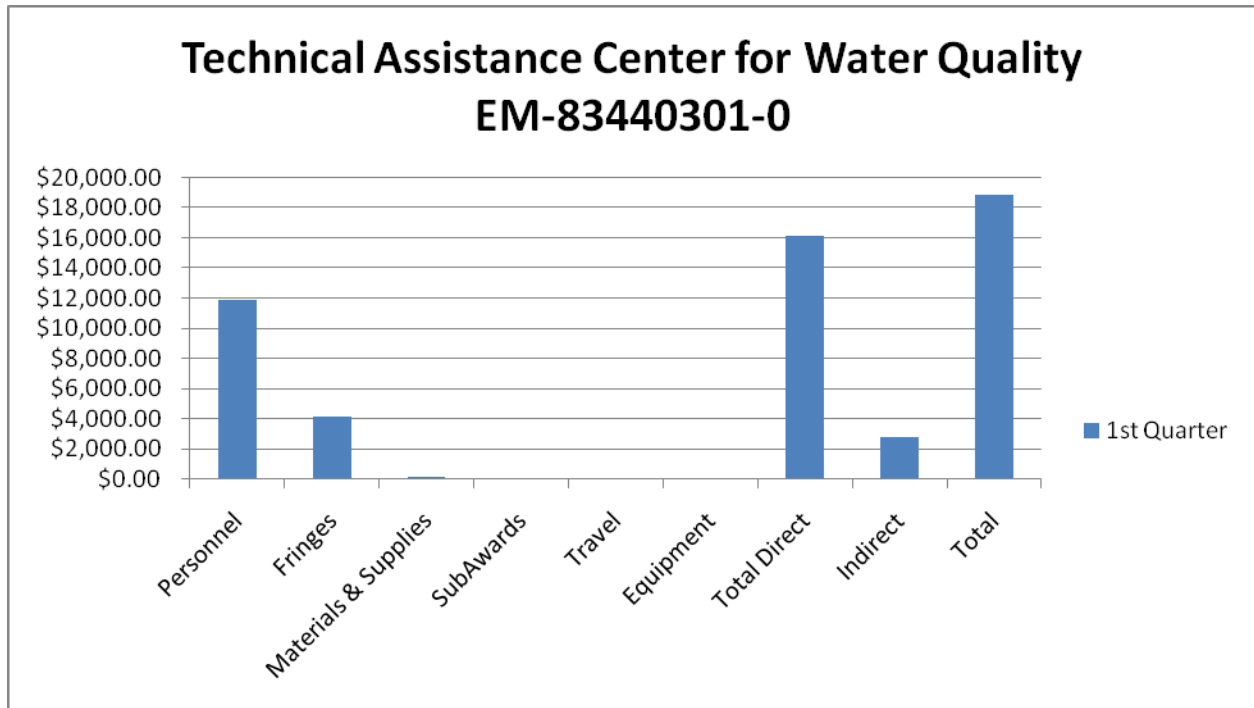
KRWA has extensive experience in traditional operator training settings, utility management and finance training programs. Their staff includes individuals who are experts in most aspects of drinking water and wastewater operations. Additionally, they have staff that can lecture or provide instruction on topics anywhere from Asset Management to Zebra Mussels.

Budget

Technical Assistance Center for Water Quality
 Agreement # EM-83440301-0

10-1-09/12-31-09
1st Quarter

Personnel	\$11,851.59
Fringes	\$4,133.63
Materials & Supplies	\$107.50
SubAwards	\$0.00
Travel	\$0.00
Equipment	\$0.00
Total Direct	\$16,092.72
Indirect	\$2,784.01
Total	\$18,876.73



Attachments



November 17-19, 2009

AGENDA

CARROLL KNICELY CONFERENCE CENTER Bowling Green, Kentucky

UTILITY MANAGEMENT 101

TUESDAY ≈ NOVEMBER 17, 2009

12:30 - 1:00 p.m.	Registration	
1:00 - 1:15 p.m.	Utility Management 101 Course/Institute Introduction	Andy Lange Kentucky Rural Water Assn.
1:15 - 2:00 p.m.	The History of Drinking Water & Wastewater Treatment – <i>From Sennacherib to Sedimentation</i>	Joe Burns Kentucky Rural Water Assn.
2:00 - 2:15 p.m.	BREAK	
2:15 - 3:00 p.m.	The Safe Drinking Water and Clean Water Acts	Randall Kelley Kentucky Rural Water Assn.
3:00 - 3:15 p.m.	BREAK	
3:15 - 4:15 p.m.	Recordkeeping for Managers	Clem Wethington Kentucky Rural Water Assn.

WEDNESDAY ≈ NOVEMBER 18, 2009

7:45 - 8:15 a.m.	Continental Breakfast	
8:15 - 9:15 a.m.	Utility Organization & Structure How Utilities are Created and Operated in Kentucky	Andy Lange Kentucky Rural Water Assn.
9:15 - 9:30 a.m.	BREAK	
9:30 - 10:30 a.m.	Rates Across Kentucky Results from KRWA Rate Survey	Andy Lange Kentucky Rural Water Assn.
10:30 - 11:30 a.m.	Check Fraud	Robert Mohon The Neil Group
11:30 a.m. - 1:00 p.m.	LUNCH ON YOUR OWN	

≈ over ≈

(Wednesday, cont.)

1:00 - 1:45 p.m.	Customer Information Program Share Your Utility's Customer Relations Efforts	Scott Clark Hardin Co. Water District #2
1:45 - 2:00 p.m.	BREAK	
2:00 - 3:00 p.m.	Territorial and Boundary Issues	Damon Talley, General Counsel Kentucky Rural Water Assn.
3:00 - 3:15 p.m.	BREAK	
3:15 - 4:15 p.m.	The Public Service Commission Regulated vs. Non-regulated	Jerry Wuetcher Public Service Commission

THURSDAY ≈ NOVEMBER 19, 2009

7:45 - 8:15 a.m.	Continental Breakfast	
8:15 - 9:15 a.m.	Board/Manager Relationships Intro to the "Water Board Bible" Series	Andy Lange Kentucky Rural Water Assn.
9:15 - 9:30 a.m.	BREAK	
9:30 - 10:30 a.m.	Kentucky's Labor Laws Part 1	Vernon Azevedo, P.E.
10:30 - 10:45 a.m.	BREAK	
10:45 - 11:45 a.m.	Kentucky's Labor Laws Part 2	Vernon Azevedo, P.E.
11:45 - 12:00 p.m.	Conclusion & Presentation of UMP Designations	Andy Lange Kentucky Rural Water Assn.

The Utility Management Institute (UMI) was created to provide utility managers, and other utility personnel, with the opportunity to gain valuable knowledge and earn a university-based, professional designation in the field of management. These goals can be accomplished through the successful completion of six modern, practical management courses, specifically developed for public water and wastewater utility personnel.

The UMI offers training to managers—and those interested in becoming managers—through a set of courses designed to be practical and applicable to water and wastewater utilities, regardless of size. The curriculum includes many appropriate course subjects that do not change substantially from year to year. For example, courses include:

- long-standing accounting and budgeting principles;
- basic state and federal legislative and regulatory provisions;
- tried-and-true methods for improving customer relations; and
- sections on the challenges of managing personnel.

However, the coursework was also designed with flexibility in mind. This freedom allows the instruction to remain topical by updating materials and presentations to reflect any changes occurring in the water and wastewater industry.

The Utility Management Institute rewards its participants with the prestigious Utility Management Professional (UMP) designation after completion of all six courses. The UMI program maintains an official registry of participants and awards UMP certificates sanctioned by Western Kentucky University and the Kentucky Rural Water Association. The UMI is also recognized by the Kentucky Division of Water Drinking Water Branch.

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utility management institute
Kentucky Rural Water Association
3251 Spring Hollow Avenue
P.O. Box 1424
Bowling Green, KY 42102-1424
Phone: 270.843.2291

2010

umi
utility management institute

OFFERING
A SERIES
OF
COURSES LEADING
TO THE

**UTILITY
MANAGEMENT
PROFESSIONAL
DESIGNATION**

Participating organizations —
Western Kentucky University
The Kentucky Rural Water Association

SCHEDULED UMI COURSES

UTILITY MANAGEMENT 101

3-Day Course

This introductory course provides participants with an overview of the utility management knowledge. Includes sections covering the historical background of water and wastewater service; drinking water and clean water regulations; utility organizational structures; basics in finance, personnel, and public relations; and the board/manager relationship. Normally, a prerequisite to enrollment in other courses in the Utility Management Series.

HUMAN RESOURCE MANAGEMENT FOR UTILITIES

2-Day Course

The HR functions of any organization are among the most challenging for managers. This course includes sections on personnel policies, hiring and firing, compensation and benefits, motivation and training, dealing with experts, and employee evaluation.

UTILITY ORGANIZATION, REGULATION AND LAW

2-Day Course

This course provides in-depth instruction on utility organization and structure in Kentucky and nationally. Sections on the 3Rs and the organization and other laws affecting utility operations. Participants will also explore how Kentucky measures up to the 3Rs and how they relate to utility service and public health protection.

UTILITY FINANCE AND ADMINISTRATION

2-Day Course

This course offers sections on financial planning, budgeting, and reporting. Discussions include capacity development and utility rates, purchasing, cost of service considerations, uniform systems of accounts, and financing utility improvements and expansions.

MODERN TECHNOLOGY AND UTILITY MANAGEMENT

1-Day Course

Technology allows every industry to make huge improvements in service and efficiency. If it is used appropriately. This course examines the latest technological advancements in the water and wastewater industry including GIS/GIS, computer applications, SCADA and telemetry, and security issues, as they relate to technology.

PUBLIC RELATIONS IN UTILITY MANAGEMENT

1-Day Course

Until recently, public relations have been the most ignored aspect of public utility operations. This course explores the newfound importance of fostering positive relationships with both internal and external relations and dealing with the media. All with the goal of improving the perceptions of others by telling the success stories of modern utilities.

CARROLL KINCIEY CONFERENCE CENTER
BOWLING GREEN, KENTUCKY
UTILITY MANAGEMENT
101

LAKE BARKLEY STATE RESORT PARK
CADIZ, KENTUCKY
UTILITY ORGANIZATION,
REGULATION, AND LAW

MOREHEAD CONFERENCE CENTER
MOREHEAD, KENTUCKY
UTILITY FINANCE
AND ADMINISTRATION

PINE MOUNTAIN STATE RESORT PARK
PINEVILLE, KENTUCKY
HUMAN RESOURCE
MANAGEMENT FOR UTILITIES

PENNYRILE FOREST
STATE RESORT PARK
DAWSON SPRINGS, KENTUCKY
MODERN TECHNOLOGY
AND UTILITY MANAGEMENT

CARROLL KINCIEY CONFERENCE CENTER
BOWLING GREEN, KENTUCKY
PUBLIC RELATIONS IN
UTILITY MANAGEMENT

GENERAL BUTLER STATE RESORT PARK
CARROLLTON, KENTUCKY
UTILITY MANAGEMENT
101

The Utility Management Institute, created with funding secured by Senator Mitch McConnell, is administered through USEPA and Western Kentucky University.

For more information, or to register, contact the Kentucky Rural Water Association at:

270.843.2291

www.krwa.org

Courses are conducted in the first 40 registrants.

No Expense Certificate forms are offered by the US.