

**GUIDANCE FOR MEETING OPERATOR CERTIFICATION
REQUIREMENTS PURSUANT TO THE SAFE DRINKING WATER ACT
WATER SUPPLY MANAGEMENT INFORMATION PAPER NO. IP-31-023
EXECUTIVE SUMMARY**

1. This information paper provides U. S. Army Directorate of Public Works (DPW) personnel and other pertinent environmental staff information on the new minimum water system operator certification requirements resulting from the 1996 Amendments to the Safe Drinking Water Act (SDWA). The Environmental Protection Agency developed minimum Federal requirements for State operator certification programs as a result of the 1996 Amendments to the SDWA. States will need to develop operator certification programs meeting these minimum requirements by 5 February 2001 or 20 percent of their funds from the State Revolving Loan Fund will be withheld. As a result, all approved State operator certification programs will require that government employees and contractors operating community and nontransient noncommunity water systems be certified. Individuals will need to meet minimum requirements in order to become certified.

2. Regulated Army water systems should prepare now to meet the minimum Federal operator certification program requirements by 5 February 2001. Environmental coordinators and DPW personnel will need to check with State drinking water administrators to determine if State certification programs will be more stringent than the Federal requirements discussed in this document. Executive agents and environmental program office personnel for overseas installations should use this document and investigate any available local operator certification programs in preparation for future requirements in the Overseas Environmental Baseline Guidance Document.

This information paper has been prepared under a partnership project between the U.S. Army Center for Health Promotion and Preventive Medicine, Water Supply Management Program, and the U.S. Army Environmental Center, Environmental Compliance Division. The author wishes to thank staff members who contributed to the development of this document.

TABLE OF CONTENTS

PARAGRAPH	PAGE
1. References	1
2. Purpose	1
3. Abbreviations and Terms.....	1
4. Use of This Document.....	1
5. Technical Assistance	1
6. Discussion.....	2
a. Importance of Safe Drinking Water	2
b. Operator Certification Programs	3
c. New Requirements for Water Systems	6
d. New Requirements for Operators Seeking Certification.....	6
e. Impact on Army Public Water Systems.....	8
7. Conclusions	10
8. Recommendations	11
 APPENDICES	
A. References.....	A-1
B. Definitions and Abbreviations	B-1
C. List of State Drinking Water Administrators and Operator Certification Program Officers.....	C-1
 TABLE. Existing State Operator Certification Programs, March 1998.....	4
 FIGURE. Example EPR for Operator Training Funds	9

**GUIDANCE FOR MEETING OPERATOR CERTIFICATION
REQUIREMENTS PURSUANT TO THE SAFE DRINKING WATER ACT
WATER SUPPLY MANAGEMENT INFORMATION PAPER NO. IP-31-023**

- 1. REFERENCES.** Appendix A contains a list of references.
- 2. PURPOSE.** The purpose of this information paper is to provide U. S. Army Directorate of Public Works (DPW) personnel and other pertinent environmental staff information on the new minimum operator certification requirements for *community and nontransient noncommunity water systems*.
- 3. ABBREVIATIONS AND TERMS.** Appendix B contains a list of acronyms, abbreviations and definitions of terms used in this document. Terms in the document that are further defined in Appendix B are italicized.
- 4. USE OF THIS DOCUMENT.** Environmental coordinators and DPW personnel should use this document to prepare their water systems and operators for minimum certification and qualification requirements. The document provides information as described in the Federal guidance for State drinking water program administrators entitled, “Final Guidelines for the Certification of Operators of Community and Nontransient Noncommunity Water Systems” (reference 1). Regulated water systems and operators of regulated water systems will need to meet all of the requirements described in this document at a minimum. State operator certification programs may impose more stringent requirements. Environmental coordinators and DPW personnel will need to consult their State operator certification programs, when completed, to determine any additional requirements for their regulated systems and operators.
- 5. TECHNICAL ASSISTANCE.** Additional assistance in meeting Federal and State drinking water regulations may be obtained from the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), Water Supply Management Program (WSMP) at DSN 584-3919 or commercial (410) 436-3919 or from the U.S. Army Environmental Center (USAEC), Environmental Compliance Division at DSN 584-7068 or commercial (410) 436-7068.

6. DISCUSSION.

a. IMPORTANCE OF SAFE DRINKING WATER.

(1) Importance of Safe Drinking Water. Both natural and man-made conditions threaten to pollute drinking water with potential contaminants. If not removed at some point prior to reaching the tap, consumers can experience short-term (acute) or long-term (chronic) health effects, depending upon the type and level of contaminant. Drinking water systems contain several barriers between the raw drinking water sources and the tap to protect consumers from such health effects. These are: *source water protection*, *treatment facilities*, proper operation and maintenance of the *treatment facilities and distribution systems*, effective monitoring programs, and competent, well-trained personnel involved in drinking water production.

(2) Impact of Operators on Safe Drinking Water. Drinking water system operators are directly involved in at least three of the five barriers of protection between potential drinking water contaminants and consumers that are listed above. Operators are responsible for the day to day operation of the *treatment facilities* that remove contaminants. They are also involved in operation and maintenance of the *distribution system*, and more often than not are responsible for monitoring the drinking water for both operational parameters and regulated contaminants. Competency of operators is critical for the maintenance of safe, optimal, and reliable operations of water *treatment facilities and distribution systems*, and ultimately for the protection of public health. State certification programs ensure that operators have the skills, knowledge, experience, education, and training required to operate drinking water systems.

(3) Regulations for Operators. The U.S. Environmental Protection Agency (EPA) has the responsibility for implementing Federal programs to ensure safe drinking water for the public. The Federal role in protecting consumers from drinking water contaminants ranges from development of minimum water quality standards to distribution of Federal funds to States for water system upgrade programs. The EPA has not, however, provided Federal quality criteria for drinking water system operators in the past. Such regulations were provided and enforced by State agencies responsible for protecting drinking water quality. The 1996 Amendments to the SDWA (reference 2) required the EPA to set a minimum Federal standard for State certification programs to ensure the following public health protection objectives:

(a) Customers of any *public water system* will be provided an adequate supply of safe, potable drinking water.

(b) Customers are confident that their drinking water is safe.

(c) *Public water system* operators are trained, certified and have knowledge and understanding of public health reasons for drinking water standards.

b. OPERATOR CERTIFICATION PROGRAMS.

(1) Existing State Certification Programs. All 50 States already have some form of an operator certification program. Idaho is the only State where certification is not yet mandatory. There is, however, a wide variation in program requirements and applicability. The following table contains a synopsis of existing State operator certification programs. Operators can expect some changes in existing certification requirements if their respective State's program does not currently meet recently finalized Federal guidelines. The table highlights those State's whose current program will require some change to meet the new minimum requirements.

(2) The 1996 SDWA Amendments, Section 1419. Prior to 1996, the SDWA did not address water system operator certification. The EPA had not developed a Federal certification program and operator requirements were determined at the State level. The 1996 SDWA Amendments, however, requires EPA for the first time to set minimum national standards for operator certification and recertification. Section 1419 of the 1996 SDWA Amendments (reference 2) States, "*(the EPA)* shall publish guidelines? specifying minimum standards for certification (and recertification) of the operators of *community and nontransient noncommunity public water systems.*" States with *primacy* are required to develop programs meeting these guidelines (or submit existing programs for approval) within 2 years of the effective date of the guidelines. The EPA is empowered by the Amendments to withhold 20 percent of a State's grant under the State Revolving Loan Fund (SRLF) unless the State has an approved program in effect by the deadline. The Federal mandate also provides for the first time, Federal funds for States to reimburse small systems (3,300 consumers or less) for expenses associated with operator certification. Both certification fees and training expenses can be reimbursed at the State's discretion (reference 2).

(3) Federal Baseline Standards for State Operator Certification Programs. On 5 February 1999, the EPA met the Federally imposed mandate by printing the "Final Guidelines for the Certification and Recertification of the Operators of Community and Nontransient Noncommunity Public Water Systems" in the Federal Register notice (reference 1). The guidelines provide minimum requirements for States to include in their operator certification program. States will need to have in effect an approved operator certification program by 5 February 2001 in order to receive all of their entitled funds under the SRLF grant program. In order for a State's program to be approved it must contain all requirements listed in the guidelines, the State attorney general must certify that the State has the authority to implement and enforce its operator certification program, and the program can be no less strict than any program which has been in place with in the State since February 1998 ("anti-backsliding" provision). By ensuring that each State operator certification program contains the minimum requirements as laid out in the guidelines, the EPA can better protect health by ensuring that individuals operating water

systems across the nation have the necessary education and training to provide safe drinking water.

Table. Existing State Operator Certification Program, March 1998.

Table. Existing State Operator Certification Program, March 1998, cont.

c. **NEW PERSONNEL REQUIREMENTS FOR WATER SYSTEMS.** Approved State operator certification programs will classify the State's *community water systems* (CWS) and *nontransient noncommunity water systems* (NTNCWS) based system characteristics, such as size, complexity, source, and number of consumers. Programs will impose minimum certification requirements for supervisory and other water system personnel of regulated systems. Owners of regulated systems will have to ensure that system personnel meet the following requirements:

- the operator in *direct responsible charge* (chief or highest supervisory operator) must have a valid (not expired) certification equal to or greater than the level of system classification [e.g., the chief operator at a Class III ground-water treatment system (where Class IV is the most complex water treatment system and Class I is the most simple water *distribution system*) would have to have a Class III or Class IV certification]
- any person making process control/system integrity decisions at a water system be a certified operator (Federal guidelines do not specify the level of certification required for these operators, but it is likely that State operator certification programs will require these operators at least be certified at the level of the system classification.)
- a certified operator must be either onsite or *available* for each *operating shift*.

d. **NEW REQUIREMENTS FOR OPERATORS SEEKING CERTIFICATION.**

(1) **Minimum Education and Experience.** Water system operators have a direct impact on human health through the drinking water that they produce in *public water systems*. In some cases, the population served by a *public water system* represents a large percentage of a State's population. Any individual with such a direct impact on human health must be competent. Federal guidelines now require that State operator certification programs impose a minimum education standards for individuals seeking certification. Operators must have:

- a high school diploma or a general equivalency diploma (GED) and
- a minimum amount of on-the-job experience, as defined by the State program.

The amount of experience required will vary appropriately for each level of certification, with more experience required to become certified to operate more complex water treatment systems. State programs may allow individuals to substitute on-the-job experience for the high school diploma/GED requirement, but that experience cannot also count toward the on-the-job experience requirement. States may also allow individuals to substitute post high school education for on-the-job experience and

credit can be given for experience in a related field (e.g., wastewater).

(2) Certification Exam. Approved State operator certification programs will require that operators pass a *validated exam* prior to receiving their certification. Exams will ensure that individuals have the skills, knowledge, ability, and judgement necessary to perform the duties of a water system operator at the level of certification they desire. Each level must have its own exam. Federal guidelines do not specify the required format of the exams, but do require that the exams be *validated* by a State appointed subject matter expert to ensure that the questions are appropriate for the given level of certification.

(3) Continuing Education. In addition to initial education and testing requirements, approved State operator certification programs will require that certified operators continue to learn and train about drinking water treatment and recent developments in the field. Operators will be required to renew their certification at least once every 3 years. In order to renew their certification, operators must receive a minimum level of training prior to certification renewal. Operators that fail to meet renewal requirements within 2 years of certification expiration will need to recertify. This may mean retaking the certification exam and paying initial certification fees again. Exact training requirements for renewal are left to the discretion of the State, but it is expected that requirements will vary with levels of certification. This will ensure that operators are receiving the training necessary to stay current on technological advances, regulations, and public health impacts of drinking water treatment. Any training or education used to meet the experience requirement described above cannot be used to meet the on-going education requirement for certification renewal.

(4) Grandparenting. The EPA stated in the Federal guidelines for operator certification, that they recognize “that there are many competent small system operators that may not meet the initial requirements to become certified” (reference 2). State programs that will result in certification requirements for previously unregulated operators will likely include some type of “*grandparenting*” program as recommended by the EPA in the Final Guidelines. Although large system operators were not specifically cited as being eligible for *grandparenting*, there are no Federal guidelines prohibiting such allowances. There are however, a number of other Federal stipulations for State *grandparenting* programs. Only existing operators will be eligible, and systems must apply for *grandparenting* for the operator in *responsible* charge within 2 years of the effective date of the State’s operator certification program. Grandparented certifications are not transferable between operators within a system or between systems for an operator. If a grandparented operator chooses to work for a different water system, he or she must meet the initial certification requirements. Also, if the classification of the system changes, any grandparented certifications become invalid. As a condition to any State grandparented certification, the operator must meet within a given time period all requirements to obtain certification renewal.

e. IMPACT ON ARMY PUBLIC WATER SYSTEMS.

(1) *Applicability.* Army facilities that operate a CWS or a NTNCWS will have to ensure that they comply with any State operator certification program changes resulting from the new Federal guidelines (reference 3 and 4). Many of these water systems may already be regulated by State operator certification programs. State programs may change, however, to meet the new Federal guidelines. Environmental coordinators should contact the State drinking water administrators or operator certification program officers (OCPOs) to determine what changes can be expected in the State's program as a result of these new Federal guidelines. Appendix C contains a list of State drinking water administrators and OCPOs (reference 5). At a minimum, environmental coordinators should prepare systems and operators to meet the requirements listed in this document.

(2) *Preparing for Certification.* State operator certification programs must meet minimum Federal guidelines by 5 February 2001. States may then allow operators and systems more time to comply with State certification programs. Once State programs are in effect, all government employees that operate regulated water systems will need to be properly certified. Contractors operating regulated government water systems will need to be properly certified, as well. This may mean changing written contracts in time to meet any compliance deadlines, and also may mean changes in contract costs. Contractors are likely to charge more for certified labor than non-certified. Once an environmental coordinator has determined what changes will take place in the State operator certification program, he or she should team up with appropriate personnel from the installations' utilities programs to assess which employees will need new certifications. These employees should be notified and should begin applying for any available grandfathering programs or begin preparing for certification at the appropriate level. Preparations for these changes should begin now with an estimated time of compliance of 5 February 2001. Environmental coordinators should be submitting Environmental Program Reports (EPRs) for training and related expenses now. The figure on the next page shows an example of a valid EPR for water system operator training expenses. Additionally, environmental coordinators for water systems serving 3,300 people or less should contact State drinking water administrators and/or OCPOs to determine availability of State funds for operator training expenses at small water systems [see paragraph 6b(2)].

(3) *Certification Requirements Overseas.* The 1992 Overseas Environmental Baseline Guidance Document (OEBGD) does not mention any type of operator certification requirements (reference 6). The draft revision of the OEBGD (which is expected to be finalized by July 1999) currently states that "Department of Defense (DOD) installations will ensure that personnel are appropriately trained to operate DOD water systems" (reference 7). Federal guidelines described in this document apply only to U.S. *public water systems* and operators. Future updates to the OEBGD, however, may likely include

more stringent and specific operator certification and qualification requirements as it is updated to reflect current regulations pursuant to the SDWA. Since the Federal guidelines do not specifically define

operator certification exam, renewal, and qualification requirements, DOD will need to rely upon existing host nation operator certification programs or will need to develop its own standardized program. Some countries may already contain operator certification requirements as a part of their Final Governing Standards if host nation regulations have such programs. If not, executive agents and environmental program office personnel should use this document and investigate any available local operator certification programs in preparation for future requirements in the OEBGD.

7. CONCLUSIONS.

a. The EPA developed minimum Federal requirements for State operator certification programs as a result of the 1996 Amendments to the SDWA. States will need to develop operator certification programs meeting these minimum requirements by 5 February 2001 or 20 percent of their funds from the SRLF will be withheld.

b. Operators in *direct responsible charge* of CWS and NTNCWS must be certified at a level equal to or greater than the classification level of the water system. Any person making process control or system integrity decisions at a water system must be certified and a certified operator must be onsite or *available* during each *operating shift* at a water system.

c. All government employees that operate regulated water systems will need to be properly certified. Contractors operating regulated government water systems will need to be properly certified, as well. This may mean changing written contracts in time to meet any compliance deadlines and also may mean changes in contract costs.

d. In order to become certified, an individual must have a high school diploma or a GED, have minimum on-the-job experience, and pass a validated exam. Individuals must continue training and education in order to renew their certification.

e. States will likely grandparent existing water system operators requiring them to meet initial certification requirements some time in the future.

f. Army CWS and NTNCWS should prepare now to meet the minimum Federal operator certification program requirements by 5 February 2001. Environmental coordinators and DPW personnel will need to check with State drinking water administrators to determine if State certification programs will be more stringent than the Federal requirements discussed in this document.

g. Overseas installations will likely be affected by DOD operator certification program requirements included in future updates of the OEBGD.

8. RECOMMENDATIONS.

a. Contact the State drinking water administrators or OCPOs to determine what changes can be expected in the State's program as a result of these new Federal guidelines.

b. Assess which employees will need new certifications. These employees should be notified and should begin applying for any available grandparenting programs or begin preparing to apply for certification at the appropriate level. Contracting offices will need to prepare any required changes in operating contracts.

c. Prepare EPRs for known and estimated operator certification fees and training expenses.

d. Executive agents and environmental program office personnel for overseas installations should use this document and investigate any available local operator certification programs in preparation for future requirements in the OEBCD.

JENNIFER L. FILIPPELLI
Environmental Engineer
Water Supply Management Program

Reviewed by:

Approved by:

JOHN K. BROKAW
Microbiologist Program Manager
Water Supply Management Program

JERRY A. VALCIK, P.E., DEE
Water Supply Management

**APPENDIX A
REFERENCES**

1. Final Guidelines, Final Guidelines for the Certification and Recertification of the Operators of Community and Nontransient Noncommunity Public Water Systems, 64 FR 5916, 5 February 1999.
2. Public Law 104-182, The Safe Drinking Water Act Amendments of 1996 , 104th Congress, 6 August 1996.
3. Army Regulation (AR) 200-1, Environmental Protection and Enhancement, 21 February 1997.
4. AR 420-49, Utility Services, 28 May 1997.
5. U.S. Environmental Protection Agency Information Package, “ Information for States on Recommended Operation Certification Requirements,”www.epa.gov/OGWDW/opcert/opcert.html, 9 March 1998.
6. Department of Defense (DOD), Overseas Environmental Baseline Guidance Document (OEBGD), Prepared by the DOD Overseas Environmental Task Force, October 1992.
7. Draft, DOD OEBGD, Prepared by the DOD Overseas Environmental Task Force, XXXX 1999.

APPENDIX B DEFINITIONS AND ABBREVIATIONS

Available - Based on system size, complexity, and source water quality, a certified operator must be onsite or able to be contacted as needed to initiate the appropriate action in a timely manner.

Community water system (CWS) - A public water system providing water to at least 15 service connections used by year-round residents or regularly serving at least 25 year-round residents.

Distribution system - Any combination of pipes, tanks, pumps, etc. which delivers water from the source(s) and/or treatment facility(ies) to the consumer.

Distribution system complexity - Examples include: pressure zones, booster stations, storage tanks, fire protection, chlorination, non-residential consumers, cross connection potential and/or demand variations.

Distribution system size - Examples include: population served, number of service connections, size of pipes total distance of pipe, and quantity of water distributed.

Grandparenting - The exemption for the existing operator(s) in responsible charge, as of the effective date of the State's regulation, from meeting the initial education and/or examination requirements for the class of certification the system has been assigned.

Non-transient non-community water system - A public water system that is not a community water system and that regularly serves at least 25 of the same persons over 6 months per year. Common types of NTNCWS are those serving schools, day care centers, factories, restaurants, and hospitals.

Operating shift - The period of time during which operator decisions that affect public health are necessary for proper operation of the system.

Primacy - The condition under which a State regulatory agency, health authority, or other designated agent administers and enforces drinking water regulations developed to be at least as stringent as Federal regulations. As of the printing date of this document, of the 50 States and the 7 U.S. territories governed by the SDWA (the District of Columbia, Puerto Rico, the Virgin Islands, American Samoa, Guam, the Commonwealth of Northern Mariana Islands, and the Republic of Palau), all have primacy except Wyoming and the District of Columbia.

Public water system - A system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Such term includes: any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system; and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. Such term does not include any “special irrigation district.”

Responsible charge - The operator(s) in responsible charge is defined as the person(s) designated by the owner to be the certified operator(s) who makes decisions regarding the daily operational activities of a public water system, water treatment facility and/or distribution system, that will directly impact the quality and/or quantity of the drinking water.

Source water protection - prevention of pollution of lakes, rivers, streams and ground water that serve as sources of drinking water. Development of a Source Water Protection Programs includes delineation of the area contributing to the source water, identification of potential sources of contamination to the source within that area, implementation of measures to manage these sources and future planning.

Treatment facility - Any place(s) where a CWS or NTNCWS alters the physical or chemical characteristics of the drinking water. Chlorination may be considered as a function of a distribution system.

Treatment facility complexity - Examples include: difficulty in controlling water quality, potential effect to the consumer and/or safety of the operator.

Treatment facility size - Examples include: population served, number of service connections, and/or plant flow.

Validated exam - An exam that is independently reviewed by subject matter experts to ensure that the exam is based on a job analysis and related to the classification of the system or facility.

ABBREVIATIONS

CWS - community water system

DOD - Department of Defense

DPW - Directorate of Public Works

EPA - U.S. Environmental Protection Agency

EPR - environmental program report

GED - general equivalency diploma

NTNCWS - nontransient noncommunity water system

OCONUS - outside Continental United States

OCPO - operator certification program officer

OEBCD - Overseas Environmental Baseline Guidance Document

SDWA - Safe Drinking Water Act

SRLF - State Revolving Loan Fund

USACHPPM - U.S. Army Center for Health Promotion and Preventive Medicine

USAEC - U.S. Army Environmental Center

APPENDIX C
LIST OF STATE DRINKING WATER ADMINISTRATORS
AND OPERATOR CERTIFICATION PROGRAM OFFICERS

WSMP IP No. 31-023May 1999

ALABAMA

Joe Alan Power
Chief
Department of Environmental Management
Water Supply Branch
P.O. Box 301463
Montgomery, AL 36130-1463
Phone: (334) 271-7773
Fax: (334) 279-3051

Mark Anderson
Operator Certification, Water Division
ADEM
PO Box 301463
Montgomery, AL 36130-1463
Phone: (334) 274-4221
Fax: (334) 279-3051

ALASKA

James Weise
Alaska Drinking Water Program Manager
Alaska Department of Environmental
Conservation
Division of Environmental Health
555 Cordova Street
Anchorage, AK 99501
Phone:(907) 269-7500
Fax: (907) 269-7655

Ken Smith
DEC
Operations Assistance Unit
410 Willoughby Avenue, Suite 105
Juneau, AK 99801-1795
Phone: (907) 465-5140
Fax: (907) 465-5177

ARIZONA

Robert Munari
Acting Manager
Drinking Water Section
Arizona Dept. of Environmental Quality
Office of Water Quality
P.O. Box 600
Phoenix, AZ 85012-2809
Phone: (602) 207-4644
Fax: (602) 207-4634

John J. Bulanowski, R.S.
Arizona DEQ
Operator Certification Program
3033 North Central Avenue, Room 214
Phoenix, AZ 85012-4634
Phone: (602) 207-4625
Fax: (602) 207-4634

ARKANSAS

Harold Seifert
Director, Engineering Division (Slot 37)
Arkansas Department of Health
4815 West Markham Street
Little Rock, AR 72205-3867
Phone: (501) 661-2623
Fax: (501) 661-2032

Martin Nutt
AR Drinking Water Advisory and Operator
Licensing Committee - Department of Health
4815 West Markham St. MS37
Little Rock, AR 72205-3867
Phone: (501) 661-2623
Fax: (501) 661-2032

CALIFORNIA

David Spath
Chief
California Department of Health Services
Division of Drinking Water and Environ. Mgt.
P.O. Box 942732-MS-216
Sacramento, CA 94234-4320
Phone: (916) 322-61 11
Fax: (916) 323-9869

John Moersfelder
Department of Health Services
Drinking Water Program, MS #92
P.O. Box 942732
Sacramento, CA 94234-7320
Phone: (916) 323-1472
Fax: (916) 323-0569
E-mail: JMOERSFE --- HWI

COLORADO

Jerry Biberstine
Manager, Drinking Water Section
CO Dept. of Public Health & Env.
WQCD-DW-B2
4300 Cherry Creek Drive South
Denver, CO 80222-1530
Phone: (303) 692-3500
Fax: (303) 782-0390

Sharon J. Ferdinandsen
Colorado Plant Operators Certification Board
4300 Cherry Creek Drive South
Denver, CO 80220
Phone: (303) 692-3558
Fax: (303) 782-0390

CONNECTICUT

Gerald Iwan
Chief
Connecticut Department of Public Health

Water Supplies Section
P.O. Box 340308
Hartford, CT 06134-0308
Phone: (860) 509-7333

WSMP IP No. 31-023May 1999

Fax: (860) 509-7359

DELAWARE

Ed Hallock
Program Manager
Delaware Division of Public Health
Dept. Of Health & Social Services
Jesse Cooper Building
P.O. Box 637
Dover, DE 19903
Phone: (302) 739-5410
Fax: (302) 739-3839

FLORIDA

Van Hoofnagle
Administrator
Florida Department of Environmental Protection
Drinking Water Section
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Phone: (850) 487-1762
Fax: (850) 487-3618

GEORGIA

Nolton Johnson
Chief
Georgia Environmental Protection Division
DNR - Drinking Water Program
Floyd Towers East, Room 1632
205 Butler Street, SE
Atlanta, GA 30334
Phone: (404) 656-5660
Fax: (404) 651-9590

HAWAII

Thomas Arizumi
Chief
Hawaii Department of Health
P.O. Box 3378
Honolulu, HI 96801
Phone: (808) 586-4258
Fax: (808) 586-4370

IDAHO

Lance Nielsen
Bureau Chief
Idaho Department of Health and Welfare
Division of Environmental Quality
Drinking Water Program
1410 North Hilton
Boise, ID 83706
Phone: (208) 373-0502
Fax: (208) 373-0576

ILLINOIS

Roger Selburg
Manager
Illinois EPA

Robert W. Rivard
Connecticut Department of Public Health
Water Supplies Section
P.O. Box 340308
Hartford, CT 06134-0308
Phone: (860) 509-7333
Fax: (860) 509-7359

Chad Hall
Office of Drinking Water
Division of Public Health
P.O. Box 637
Dover, DE 19903
Phone: (302) 739-5410
Fax: (302) 739-3839
E-mail: chhall@state.de.us

Steve Bullock
Florida Dept. of Environmental Protection
Water/Wastewater Operator Certification
Mail Station 3505
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Phone: (850) 488-8163
Fax: (850) 921-2769

Avarita L. Hanson
Executive Director
State Examining Boards
166 Pryor Street SW, Suite 303
Atlanta, GA 30303-3465
Phone: (404) 656-6719
Fax: (404) 651-9532

William Wong, Chief
Department of Health
Environmental Management Division
Safe Drinking Water Branch
919 Ala Moana Boulevard, Room 308
Honolulu, HI 96814-4920
Phone: (808) 586-4258
Fax: (808) 586-4370

Urban H. Wessels
IWWOCB, Inc.
900 7th Avenue North
P.O. Box 551
Lewiston, ID 83501-0551
Phone: (208) 743-8302
Fax: (208) 746-9667

Division of Public Water Supplies
P.O. Box 19276
Springfield, IL 62794-9276
Phone: (217) 785-8653

WSMP IP No. 31-023May 1999

Fax: (217) 782-0075

INDIANA

Patrick Carroll
Chief
Indiana Dept. of Environmental Management
Office of Water Management
Drinking Water Branch
P.O. Box 6015
Indianapolis, IN 46206-6015
Phone: (317) 308-3280
Fax: (317) 308-3339

IOWA

Darrell McAllister
Bureau Chief
Iowa Department of Natural Resources
Environmental Protection Division
Water Quality Bureau
Wallace State Office Building
900 East Grand Street
Des Moines, IA 50319-0034
Phone: (515) 281-8998
Fax: (515) 281-8895

KANSAS

Dave Waldo
Chief, Public Water Supply Section
Bureau of Water
Kansas Dept. of Health and Environment
Forbes Field, Bldg. 283
Topeka, KS 66620
Phone: (913) 296-5514
Fax: (913) 296-5509

KENTUCKY

Vicky Ray
Manager, Kentucky Dept. of Env. Protection
Division of Water
Drinking Water Branch
Frankfort Office Park
14 Reilly Road
Frankfort, KY 40601
Phone: (502) 564-3410
Fax: (502) 564-4245

LOUISIANA

Bobby Savoie
Public Health Executive Director
Div. of Environmental & Health Services
Louisiana Dept. of Health and Hospitals
Office of Public Health
P.O. Box 60630
New Orleans, LA 70160
Phone: (504) 568-5100
Fax: (504) 568-8185

Larry Fox
Operator Certification Program
P.O. Box 60630

Barbara Liebman
IL EPA, Compliance Assurance Section #19
1021 N. Grand Ave. East
P.O. Box 19276
Springfield, IL 62794-9276
Phone: (217) 785-0561
Fax: (217) 782-9891

Jacqueline Tyler
IDEM
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015
Phone: (317) 308-3307
Fax: (317) 308-3339

Dennis J. Alt
Iowa Department of Natural Resources
Wallace Building
900 East Grand Avenue
Des Moines, IA 50319-0034
Phone: (515) 281-8998
Fax: (515) 281-8895

Michael B. Tate
Department of Health and Environment
Forbes Field, Building 283
Topeka, KS 66620-0001
Phone: (913) 296-5504
Fax: (913) 296-5509

Lisa B. Detherage
Division of Water
Water Operator Certification Section
14 Reilly Road
Frankfort, KY 40601
Phone: (502) 564-3410
Fax: (502) 564-4245

New Orleans, LA 70160
Phone: (504) 568-5108
Fax: (504) 599-0199

WSMP IP No. 31-023May 1999

MAINE

Wallace Hinckley
Manager
Maine Department of Human Services
Drinking Water Program
Division of Health Engineering
IO State House Station
Augusta, ME 04333
Phone: (207) 287-2070
Fax: (207) 287-4172

Gary Geraway
Maine Drinking Water Program
IO State House Station
157 Capitol Street
Augusta, ME 04333-0010
Phone: (207) 287-5678
Fax: (207) 287-4172
E-mail: gary_geraway@state.me.us

MARYLAND

Saeid Kasraei
Program Manager
Maryland Dept. of the Environment
Public Drinking Water Program
Point Breeze Bldg. 40, Room 8L
2500 Broening Highway
Dundalk, MD 21224
Phone: (410) 631-3702
Fax: (410) 631-4894

Douglas H. John
Board of Waterworks & Waste Systems
Operators
2500 Broening Highway
Baltimore, MD 21224
Phone: (410) 631-3167
Fax: (410) 631-3168

MASSACHUSETTS

David Terry
Director
Department of Environmental Protection
Division of Water Supply
One Winter Street, 9th Floor
Boston, MA 02108
Phone: (617) 292-5770
Fax: (617) 292-5696

James Holeva
Division of Water Supply
Dept. of Environmental Protection
One Winter Street, 9th Floor
Boston, MA 02108
Phone: (617) 556-1191
Fax: (617) 292-5696
E-mail: Jholeva@state.ma.us

MICHIGAN

James Cleland
Chief, Michigan Dept. of Environmental Quality
Water Supply
Drinking Water & Radiological Prot. Div.
P.O. Box 30630
Lansing, MI 48909-8130
Phone: (517) 335-9216
Fax: (517) 335-8298

Eric Way
Environmental Assistance Division
2nd Floor, Town Center Building
333 South Capitol Avenue
Lansing, MI 48933
Phone: (517) 373-4752
Fax: (517) 373-3675

MINNESOTA

Gary Englund
Chief, Minnesota Department of Health
Drinking Water Protection
P.O. Box 64975
St. Paul, MN 55164-0975
Phone: (612) 215-0770
Fax: (612) 215-0978

Karla Peterson
Minnesota Department of Health
121 East 7th Street
P.O. Box 64975
St. Paul, MN 55164-0975
Phone: (612) 215-0761
Fax: (612) 215-0978

MISSISSIPPI

David Mitchell
Director
Mississippi State Department of Health
Division of Water Supply
P.O. Box 1700
Jackson, MS 39215-1700
Phone: (601) 960-7518
Fax: (601) 354-6115

Gail Bird
Division of Water Supply
2423 North State Street, Suite 241
P.O. Box 1700
Jackson, MS 39215-1700
Phone: (601) 960-7518
Fax: (601) 354-6115

MISSOURI

Jerry Lane
Director, Department of Natural Resources
Division of Environment Quality

Public Drinking Water Program
P.O. Box 176
Jefferson City, MO 65102
Phone: (573) 751-5331

WSMP IP No. 31-023May 1999

Fax: (573) 751-3110

MONTANA

Jim Melstad
Supervisor
Montana Dept. Of Envirom-ental Quality
Pen-nitting and Compliance Division
P.O. Box 200901
Helena, MT 59620-0901
Phone: (406) 444-5315
Fax: (406) 444-1374

NEBRASKA

Jack Daniel
Administrator, Nebraska Dept. of Reg. & Licensure
Nebraska Health and Human Services
Div. of Drinking Water and Env. Sanitation
P.O. Box 95007, 3rd Floor
Lincoln, NE 68509-5007
Phone: (402) 471-2541
Fax: (402) 471-6436

NEVADA

Alan Tinney
Chief, Bureau of Health Protection Services
Nevada State Health Division
505 East King Street, Room 103
Carson City, NV 89710
Phone: (702) 687-4750
Fax: (702) 687-5197

NEW HAMPSHIRE

Rene Pelletier
Administrator of Water Supply
Engineering Bureau
Department of Environmental Services
P.O. Box 95
Concord, NH 03302-0095
Phone: (603) 271-3139
Fax: (603) 271-3490

NEW JERSEY

Barker Hamill
Chief, NJ Department of Environmental Protection
Bureau of Safe Drinking Water
Division of Water Resources
P.O. Box CN-426
Trenton, NJ 08625
Phone: (609) 292-5550
Fax: (609) 292-1654

NEW MEXICO

Robert Gallegos
Program Manager
New Mexico Health and Environment Dept.

Gordon Belcher
Missouri DNR
Technical Assistance Program
205 Jefferson Street
P.O. Box 176
Jefferson City, MO 65102
Phone: (573) 526-6627
Fax: (573) 526-5808

Shirley Quick
Program Manager
MT Department of Environmental Quality
Permitting & Compliance Division
P.O. Box 200901
Helena, MT 59620-0901
Phone: (406) 444-2691
Fax: (406) 444-1374

JoAnn Wagner
Nebraska Department of Health
301 Centennial Mall, South
P.O. Box 95007
Lincoln, NE 68509
Phone: (402) 471-2541
Fax: (402) 471-6436

Steve Brockway
NV State Health Division
1179 Fairview Drive, Suite 101
Carson City, NV 89701-5405
Phone: (702) 687-3787
Fax: (702) 687-5197

Richard Skarinka
Engineering Bureau, Water Supply
6 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
Phone: (603) 271-3139
Fax: (603) 271-5171

Toni Osvai
NJ DEP
Administrator's Office
CN 420
428 E. State St., 3rd Floor
Trenton, NJ 08625-0420
Phone: (609) 984-7743
Fax: (609) 777-3211

Drinking Water Bureau
525 Camino De Los Marquez, Suite 4
Santa Fe, NM 87501
Phone: (505) 827-7536

WSMP IP No. 31-023May 1999

Fax: (505) 827-7545

NEW YORK

Michael Burke
Director, New York Department of Health
Bureau of Public Water Supply Protection
2 University Place, Room 41 0
Albany, NY 12203
Phone: (518) 458-6731
Fax: (518) 458-6732

NORTH CAROLINA

Jessica Miles
Chief
Division of Environment, Health,
and Natural Resources
Public Water Supply Section
P.O. Box 29596
Raleigh, NC 27605
Phone: (919) 733-2321
Fax: (919) 715-3242

NORTH DAKOTA

D. Wayne Kem
Environmental Engineer
North Dakota Dept. of Health
Div. of Municipal Facilities
P.O. Box 5520
Bismarck, ND 58506-5520
Phone: (701) 328-5211
Fax: (701) 328-5200

OHIO

John Sadzewicz
Chief
Ohio Environmental Protection Agency
Division of Drinking and Ground Waters
P.O. Box 1049
Columbus, OH 43216-1049
Phone: (614) 644-2752
Fax: (614) 644-2909

OKLAHOMA

Jon Craig
Director
Oklahoma Dept. of Environmental Quality
Water Quality Division
1 000 Northeast Tenth Street
Oklahoma City, OK 73117-1212
Phone: (405) 271-5205
Fax: (405) 271-7339

OREGON

David Leland
Manager, Department of Human Resources
Health Division

Patrick Hanson
New Mexico Environment Department
Facility Operations Section
P.O. Box 261 1 0
525 Caminos De Los Marcos
Santa Fe, NM 87502-61 10
Phone: (505) 827-2799
Fax: (505) 827-0160

William T. Powers
New York State Department of Health
Bureau of Public Water Supply Protection
2 University Place, Room 406
Albany, NY 12203-3313
Phone: (518) 458-6755
Fax: (518) 458-6732

John C. McFadyen
Operator Certification
Water Treatment Facilities Operation
2728 Capitol Blvd.
P.O. Box 27687
Raleigh, NC 27604
Phone: (919) 733-0379
Fax: (919) 715-3242

Craig Bartholomay
Department of Health
1200 Missouri Avenue
P.O. Box 5520
Bismarck, ND 58506-5520
Phone: (701) 328-6626
Fax: (701) 328-5200

Scott Ankrom
Ohio Environmental Protection Agency
Certification Unit
1800 Watermark Drive
P.O. Box 1049
Columbus, OH 43216-1049
Phone: (614) 644-2014
Fax: (614) 644-2329

Laird G. Hughes
Oklahoma DEQ
Operator Certification Unit
1000 NE 10th Street
Oklahoma City, OK 73117-1212
Phone: (405) 962-2383
Fax: (405) 962-2200

Drinking Water Program
P.O. Box 14450-0450
Portland, OR 97214
Phone: (503) 731-4317

WSMP IP No. 31-023May 1999

Fax: (503) 731-4077

PENNSYLVANIA

Frederick Marrocco
Acting Director
Department of Environmental Protection
Division of Drinking Water Management
P.O. Box 8467
Harrisburg, PA 17105-8467
Phone: (717) 787-9037
Fax: (717) 722-3249

RHODE ISLAND

June Swallow
Chief, Rhode Island Department of Health
Division of Drinking Water Quality
Cannon Building
3 Capitol Hill, Room 209
Providence, RI 02908-5097
Phone: (401) 277-6867
Fax: (401) 277-6953

SOUTH CAROLINA

Alton Boozer
Chief, Dept. of Health and Environmental Control
Bureau of Drinking Water Protection
2600 Bull Street
Columbia, SC 29201
Phone: (803) 734-5300
Fax: (803) 734-4661

SOUTH DAKOTA

Darron Busch
Administrator
Department of Env. and Natural Resources
Drinking Water Program
Joe Foss Building
523 East Capital Avenue
Pierre, SD 57501
Phone: (605) 773-3754
Fax: (605) 773-5286

TENNESSEE

W. David Draughon
Director
Division of Water Supply
Tennessee Dept. of Environment and Conservation
401 Church Street, 6th Floor, L& C Tower
Nashville, TN 37243-1549
Phone: (615) 532-0191
Fax: (615) 532-0503

George Burton
Oregon Health Division
Drinking Water Section
800 N.E. Oregon Street
Portland, OR 97232
Phone: (503) 731-4899
Fax: (503) 731-4077

Robert J. Slatick

Secretary to the Board
Pennsylvania DEP
Rachel Carson State Office Building
400 Market Street, Room 102
P.O. Box 8454
Harrisburg, PA 17105-8454
Phone: (717) 787-4827
Fax: (717) 783-0489

Robert Haviland
Department of Health
Office of Drinking Water Quality
3 Capitol Hill, Room 209
Caimion Building
Providence, RI 02908
Phone: (401) 277-3436
Fax: (401) 277-6953

William R. Moore
Executive Director
SC Environmental Certification Board
3700 Forest Drive, Suite 401
Columbia, SC 29204
Phone: (803) 737-9113
Fax: (803) 737-9255

Robert Kittay
DWP/DENR
523 E. Capitol Ave.
Foss Building - Lower Level
Pierre, SD 57501-3181
Phone: (605) 773-4208
Fax: (605) 773-5286
E-mail: robk@denr.state.sd.us

Sherry M. Messick
J.R. Fleming Training Center
2022 Blanton Drive
Murfreesboro, TN 37129
Phone: (615) 898-8090
Fax: (615) 898-8064

TEXAS

Steven Walden
Director, Texas Natural Resources Conservation
Commission
Water Utilities Division
P.O. Box 13087
Austin, TX 78711-3087
Phone: (512) 239-6020
Fax: (512) 239-6972

UTAH

Kevin Brown
Director
Utah Department of Environmental Quality
Division of Drinking Water
P.O. Box 144830
Salt Lake City, UT 84114-4830
Phone: (801) 536-4198
Fax: (801) 536-4211

VERMONT

Jay Rutherford
Director, Vermont Dept. of Env. Conservation
Water Supply Division
Old Pantry Building
103 South Main Street
Waterbury, VT 05671-0403
Phone: (802) 241-3400
Fax: (802) 241-3284

VIRGINIA

Allen Hammer
Director, Virginia Department of Health
Division of Water Supply Engineering
1500 East Main Street, Room 109-31
Richmond, VA 23219
Phone: (804) 786-5566
Fax: (804) 371-2891

WASHINGTON

Gregg Gruenenfelder
Director, Department of Health
Drinking Water Division
Airdustrial Center, Building 3
P.O. Box 47822
Olympia, WA 98504-7822
Phone: (360) 753-0323
Fax: (360) 664-4534

WEST VIRGINIA

Donald Kuntz
Director, Office of Environmental Health Services
Environmental Engineering Division
Morrison Building, 4th Floor
815 Quarrier Street, Suite 418
Charleston, WV 25301
Phone: (304) 558-2981
Fax: (304) 558-0691

Team Leader
Operator Certification Section (MC- 1 78)
TNRCC, P.O. Box 13087
Austin, TX 78711-3087
Phone: (512) 239-0178
Fax: (512) 239-6307

Ken Wilcock
Division of Drinking Water
150 North 1950 West
P.O. Box 144830
Salt Lake City, UT 84116-4830
Phone: (801) 536-4200
Fax: (801) 536-4211

Ruth Taylor
DEC Water Supply Division
Old Pantry Building
103 South Main Street
Waterbury, VT 05671-0403
Phone: (802) 241-3400
Fax: (802) 241-3284
E-mail: ruth@getwet.anr.state.vt.us

Nancy T. Feldman
Dept. of Professional & Occupational Regulation
Board for Waterworks and Wastewater Works
Operators
3600 West Broad Street
Richmond, VA 23230-4917
Phone: (804) 367-8590
Fax: (804) 367-2474

Cheryl L. Bergener
Water Works Operator Cert. Program
Dept. of Health
P.O. Box 47829
Olympia, WA 98504-7829
Phone: (360) 753-7433
Fax: (360) 664-4500

James E. Kay Jr. RS
Bureau of Public Health
815 Quarrier Street, Suite 418
Charleston, WV 25301-2616
Phone: (304) 558-2981
Fax: (304) 558-0691

Juanita Lopez

WSMP IP No. 31-023May 1999

WISCONSIN

Robert Krill
Director
Department of Natural Resources
Bureau of Drinking Water & Groundwater
P.O. Box 7921
Madison, WI 53707
Phone: (608) 266-0821
Fax: (608) 267-7650

Peg O'Donnell
Wisconsin DNR
P.O. Box 7921
Madison, WI 53707-7921
Phone: (608) 266-0498
Fax: (608) 267-5231
Email: odonnp@dnr.state.wi.us

WYOMING

Gary Beach
Administrator
DEQ - Water Quality
Herschler Building, 4th Floor West
Cheyenne, WY 82002
Phone: (307) 777-7781
Fax: (307) 777-5973

Louise Cordova
DEQ/WQD
4th Floor Herschler Building, 4W
122 West 25th Street
Cheyenne, WY 82002
Phone: (307) 777-7781
Fax: (307) 777-5973
E-mail: lcordo@missc.state.wy.us