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NATIONAL PUBLIC WATER SUPPLY SUPERVISION PROGRAM

FY 1992 COMPLIANCE REPORT



THE NATIONAL PUBLIC WATER SYSTEM SUPERVISION PROGRAM

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March 1993**

Office of Ground Water and Drinking Water

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The National Drinking Water Program: An Overview

The National Drinking Water Program: An Overview

EPA established the Public Water System Supervision (PWSS) Program under the authority of the 1974 Safe Drinking Water Act (SDWA). Under the SDWA and the 1986 Amendments, EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs). The Agency also regulates how often water systems monitor their water for these contaminants and report the monitoring results to the States or EPA. Generally, the larger the population served by a water system, the more frequent the monitoring and reporting (M/R) requirements. In addition, EPA requires PWSs to monitor for unregulated contaminants to provide data on occurrences for future regulatory development. Finally, EPA requires PWSs to notify the public when they have violated any of the regulations.

The SDWA applies to the 50 States, the District of Columbia, Indian lands, Puerto Rico, the Virgin Islands, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the Republic of Palau.

The SDWA allows States and Territories to seek EPA approval to administer their own PWSS Programs. The authority to run a PWSS Program is called primacy. To receive primacy, States must meet certain requirements

laid out in the SDWA and the regulations, including the adoption of drinking water regulations that are at least as stringent as the Federal regulations and a demonstration that they can enforce the program requirements. Of the 57 States and Territories, all but Wyoming and the District of Columbia have primacy. The EPA Regional Offices administer the PWSS Programs within these two jurisdictions.

The 1986 SDWA Amendments gave Indian Tribes the right to apply for and receive primacy. To receive primacy, a Tribe must meet the same requirements as a State. To date, no Tribes have requested primacy. Currently, EPA administers PWSS Programs on all Indian lands.

Primacy States report quarterly to EPA on their Public Water System (PWS) inventory statistics, the incidence of MCL and M/R violations, and the enforcement actions taken against violators. The EPA Regional Offices report this information for Wyoming, the District of Columbia, and all Indian lands. Regional offices also report Federal enforcement actions taken. EPA stores this data in an automated database called the Federal Reporting Data System (FRDS). This report is based largely on data retrieved from FRDS.

Sources of Drinking Water Contamination

Sources of Drinking Water Contamination

Contaminants may enter drinking water before, during, or after treatment by a water system. The majority of PWSs treat their water, as necessary, to ensure that their customers receive water which is safe to drink. Some of the sources of drinking water contaminants are as follows:

Before Treatment

- Bacteria from human or animal sources
- Turbidity in water caused by suspended matter such as clay, silt, and microscopic organisms
- Overflowing storm sewers
- Defective storage tanks
- Leaking hazardous landfills, ponds, and pits
- Saltwater intruding on depleted aquifers near seashores
- Pesticides, fertilizers, and other agricultural run-off
- Run-off from oil-slicked or salt-treated land
- Underground injection of hazardous wastes
- Naturally-occurring fluoride
- Decay products of radon, radium, and uranium

During Treatment

- By-products of disinfectants such as trihalomethanes

After Treatment

- Lead, copper, asbestos, and other materials from corroding pipes
- Bacteria and dirt entering through leaking pipes
- Improper connections with other systems that allow contaminants to enter drinking water pipes
- Permeation of contaminants through certain pipe materials

Drinking Water Standards and Public Water System Inventory

Drinking Water Standards

During FY 1992, regulations for 59 individual contaminants in five contaminant groups were in effect.¹ The five groups were:

- Microbiological standards (5)
- Turbidity (1)
- Inorganic chemicals (12)
- Organic chemicals (37)
 - 18 pesticides/PCBs
 - 18 volatile organic chemicals (VOCs)
 - 1 total trihalomethanes (TTHM), a by-product of chemical disinfection of drinking water
- Radionuclides (4)

During FY 1992, two major regulations became effective; the Phase II Rule and the Lead and Copper Rule. The Phase II Rule set MCLs for 28 new contaminants, revised the MCLs for 10 previously regulated contaminants, and deleted the MCL for 1 contaminant (i.e., silver). This rule also established the Standardized Monitoring Framework. Under this framework, monitoring and reporting on the Phase II contaminants began in January 1993.

The Lead and Copper Rule, promulgated June 1991, established treatment techniques for minimizing lead and copper in drinking water in lieu of an MCL. The M/R requirements for the Lead and Copper Rule became effective during January 1992 for PWSs serving > 50,000 people and during July 1992 for PWSs serving between 3,301 and 50,000 people. The entire rule became effective in December 1992.

In addition, the Phase V Rule was promulgated in July 1992. This rule established MCLs for 23 new contaminants and revised the MCL for 1 contaminant. The M/R requirements for this rule began January 1993 for systems with > 150 service connections and the MCLs will become effective in January 1994. M/R requirements for the smaller PWSs will begin in January 1996.

The M/R requirements which are established in regulations generally set requirements based on the PWS's source (i.e., surface or ground water), the number of people it serves, and its type. There are three types of PWSs. These are defined on page 8 of this report.

¹ This total does not include aldicarb, aldicarb sulfone, and aldicarb sulfoxide which are regulated under the Phase II Rule. At the time of the writing of this report, a court order was in place that stayed the regulation of these three contaminants.

Public Water System Inventory

Definitions

A Public Water System (PWS) provides piped water for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year. PWSs can be community, nontransient noncommunity, or transient noncommunity systems. Each type of PWSs is defined as follows.

A Community Water System (CWS) is a PWS that provides water to the same population year-round.

A Nontransient Noncommunity Water System (NTNCWS)¹ is a PWS that regularly serves at least 25 of the same people at least six months of the year. Examples of these systems include schools, factories, and hospitals that have their own water supplies.

A Transient Noncommunity Water System (TNCWS)¹ caters to transitory customers in non-residential areas such as campgrounds, motels, and gas stations.

All PWSs are required to monitor, report and comply with the MCLs for total coliform bacteria and nitrate. In addition, CWSs are required to monitor and report for chemicals and other regulated contaminants (e.g., pesticides) and to adhere to MCL requirements. Because NTNCWSs can contribute significantly to an individual's daily water intake, M/R and MCL requirements under new regulations [beginning with the Phase I Volatile Organic Chemical (VOC) Rule promulgated on July 8, 1987] apply to NTNCWSs as well as CWSs.

The following pages contain information on the number of PWSs, the source of their water (i.e., surface or ground), and the population served. This information is provided for all three types of PWSs.

¹FRDS separates NTNCWSs from TNCWSs. This report also uses the same designations.

Public Water System Inventory (cont.)

Distribution of Public Water Systems by Source

In FY 1992, 197,060 water systems in the 50 States, on Indian lands, and in U.S. Territories were classified as PWSs. The table below shows the distribution of CWSs, NTNCWSs, and TNCWSs by source.

Approximately 93 percent (182,996) of all PWSs obtain their water from a ground-water source. More specifically, about 82 percent (47,898) of CWSs, 97 percent (23,578) of NTNCWSs, and 98 percent (111,520)

of TNCWSs were served by ground-water sources in FY 1992. The remaining systems were served by surface sources such as lakes and rivers.

CWSs, which provide drinking water primarily to residential areas, account for 30 percent of all PWSs. NTNCWSs, such as schools and factories, make up approximately 12 percent of the PWSs. The remaining 58 percent of PWSs are TNCWSs.

Public Water System Inventory							
	CWSs		NTNCWSs		TNCWSs		All PWSs
Source*	Number of Systems (%)	Population Served (%)	Number of Systems (%)	Population Served (%)	Number of Systems (%)	Population Served (%)	Number of Systems (%)
Surface	10,768 (18%)	139,701,000 (57%)	777 (3%)	600,000 (10%)	2,519 (2%)	1,272,000 (8%)	14,064 (7%)
Ground	47,898 (82%)	105,482,000 (43%)	23,578 (97%)	5,610,000 (90%)	111,520 (98%)	14,802,000 (92%)	182,996 (93%)
Total	58,666 (100%)	245,183,000 (100%)	24,355 (100%)	6,210,000 (100%)	114,039 (100%)	16,074,000 (100%)	197,060 (100%)

FRDS 07 (1/12/93).

* Note: Purchased water is included.

Public Water System Inventory (cont.)

Distribution of Public Water Systems by Source (cont.)

CWSs serve approximately 245 million people. The remainder of the population receives its residential drinking water from private wells and other non-Federally regulated systems (i.e., those serving fewer than 15 service connections or 25 people). Virtually everyone in the 57 States and Territories and on Indian Lands, however, drinks water from one or more types of PWSs at some time during the year because, as previously explained, PWSs include schools, factories, restaurants, motels, churches, campgrounds, highway rest stops, and the like.

Definition of Public Water Systems Size Categories

EPA frequently analyzes PWS compliance trends based on five size categories. (Refer to the table on the right.) These five size categories will be used throughout the remainder of this report.

PWS Size Categories	
System Size	Population Served
Very Small	25-500
Small	501-3,300
Medium	3,301-10,000
Large	10,001-100,000
Very Large	More than 100,000

Public Water System Inventory (cont.)

Distribution of Community Water Systems by Size

EPA's oversight activities in FY 1992 were focused primarily on the 58,666 CWSs which served approximately 245,183,000 people. The following table presents the FY 1992 universe of CWSs.

Community Water Systems: Primary Source and Population Served								
System Size	Source*				Population Served By*			
	Surface Water	Ground Water	Total Number of CWSs	Percent of CWSs	Surface Water	Ground Water	Population Served by CWSs	Percent of Population Served by CWSs
Very Small	3,526	32,985	36,511	62%	715,000	4,854,000	5,569,000	2%
Small	3,678	10,838	14,516	25%	5,700,000	14,353,000	20,053,000	8%
Medium	1,746	2,505	4,251	7%	10,351,000	14,378,000	24,729,000	10%
Large	1,598	1,464	3,062	5%	45,990,000	39,045,000	85,035,000	35%
Very Large	220	106	326	1%	76,945,000	32,852,000	109,797,000	45%
Total	10,768	47,898	58,666	100%	139,701,000	105,482,000	245,183,000	100%

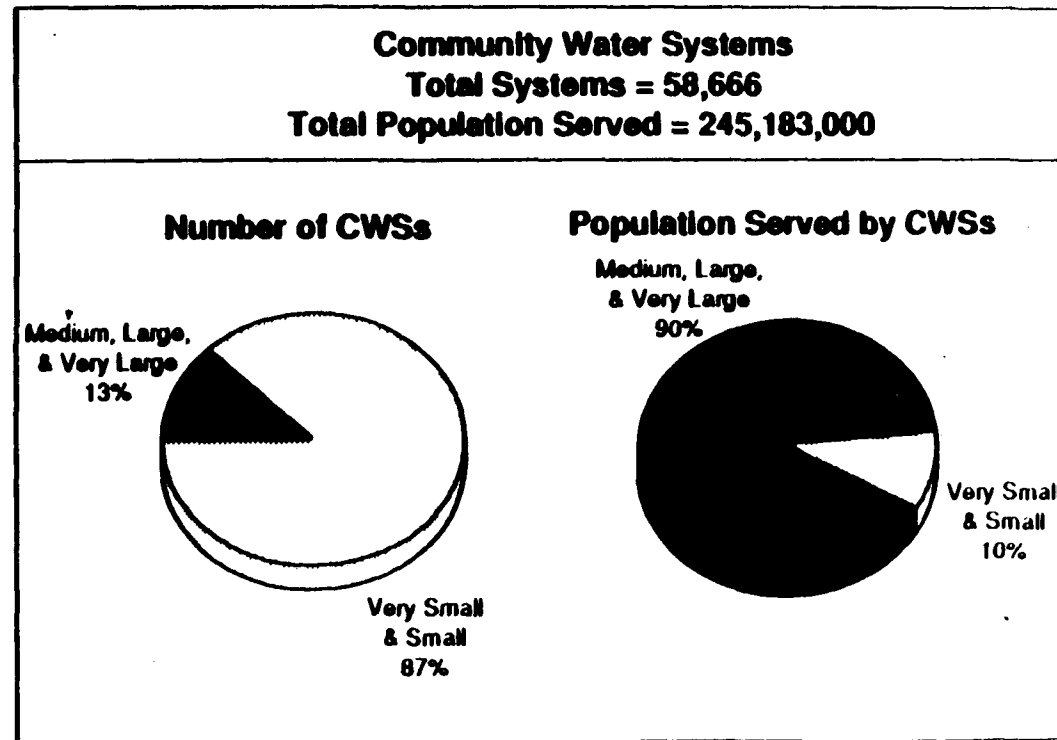
FRDS 07 (1/12/93).

*Note: purchased water is included

Public Water System Inventory (cont.)

Distribution of Community Water Systems by Size (cont.)

Eighty-seven (87) percent of CWSs are classified as very small or small, that is, they regularly serve 3,300 or fewer people. Although there are more than 51,000 very small and small systems, as shown in the table on page 11, these CWSs serve fewer than 26 million (10%) of the approximately 245 million customers of CWSs in the country. Conversely, the 326 very large systems, which comprise only 1 percent of the CWS universe, serve 45 percent of the customers supplied by CWSs.



Public Water System Inventory (cont.)

Distribution of Nontransient Noncommunity Water Systems by Size

In FY 1992, EPA and States continued to implement stricter requirements for the regulation of the 24,355 NTNCWSs. These systems serve approximately 6,210,000 people. The following table shows the FY 1992 universe of NTNCWSs.

Nontransient Noncommunity Water Systems: Primary Source and Population Served								
System Size	Source*				Population Served By*			
	Surface Water	Ground Water	Total Number of NTNCWSs	Percent of NTNCWSs	Surface Water	Ground Water	Population Served by NTNCWSs	Percent of Population Served by NTNCWSs
Very Small	563	20,956	21,519	88%	89,000	2,590,000	2,679,000	43%
Small	194	2,542	2,736	11%	238,000	2,399,000	2,637,000	43%
Medium	15	68	83	< 1%	80,000	357,000	437,000	7%
Large	5	12	17	< 1%	193,000	264,000	457,000	7%
Very Large	0	0	0	0%	0	0	0	0%
Total	777	23,578	24,355	100%	600,000	5,610,000	6,210,000	100%

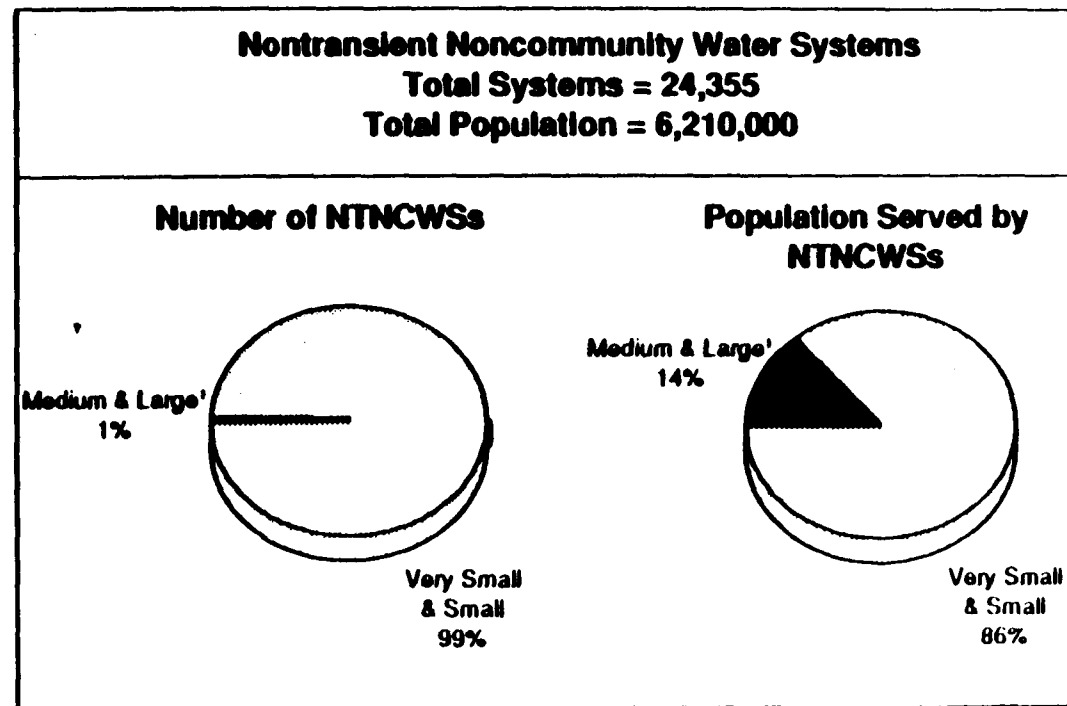
FRDS 07 (1/13/93)

*Note purchased water is included

Public Water System Inventory (cont.)

Distribution of Nontransient Noncommunity Water Systems by Size (cont.)

Like CWSs, most NTNCWSs regularly serve 3,300 or fewer people. Ninety-nine (99) percent of NTNCWSs are classified as very small or small. However, unlike smaller CWSs which provide water to only 10% of the population served by CWSs, very small and small NTNCWSs serve the majority (86 percent) of the population served by NTNCWSs



FRDS 07 (1/13/83).

*None of the NTNCWSs are very large systems (i.e., none serve more than 100,000 people)

Public Water System Inventory (cont.)

Distribution of Transient Noncommunity Water Systems by Size

In FY 1992, EPA and States began to place emphasis on the oversight of the 114,039 TNCWSs, especially those serving 500 persons or greater. TNCWSs serve approximately 16,074,000 people. The following table shows the FY 1992 universe of TNCWSs.

Transient Noncommunity Water Systems: Primary Source and Population Served								
System Size	Source*				Population Served By*			
	Surface Water	Ground Water	Total Number of TNCWSs	Percent of TNCWSs	Surface Water	Ground Water	Population Served by TNCWSs	Percent of Population Served by TNCWSs
Very Small	2,297	108,918	111,215	98%	244,000	8,233,000	8,477,000	53%
Small	172	2,380	2,552	2%	210,000	2,464,000	2,674,000	16%
Medium	37	174	211	< 1%	237,000	1,009,000	1,246,000	8%
Large	11	40	51	< 1%	271,000	1,028,000	1,299,000	8%
Very Large	2	8	10	< 1%	310,000	2,068,000	2,378,000	15%
Total	2,519	111,520	114,039	100%	1,272,000	14,802,000	16,074,000	100%

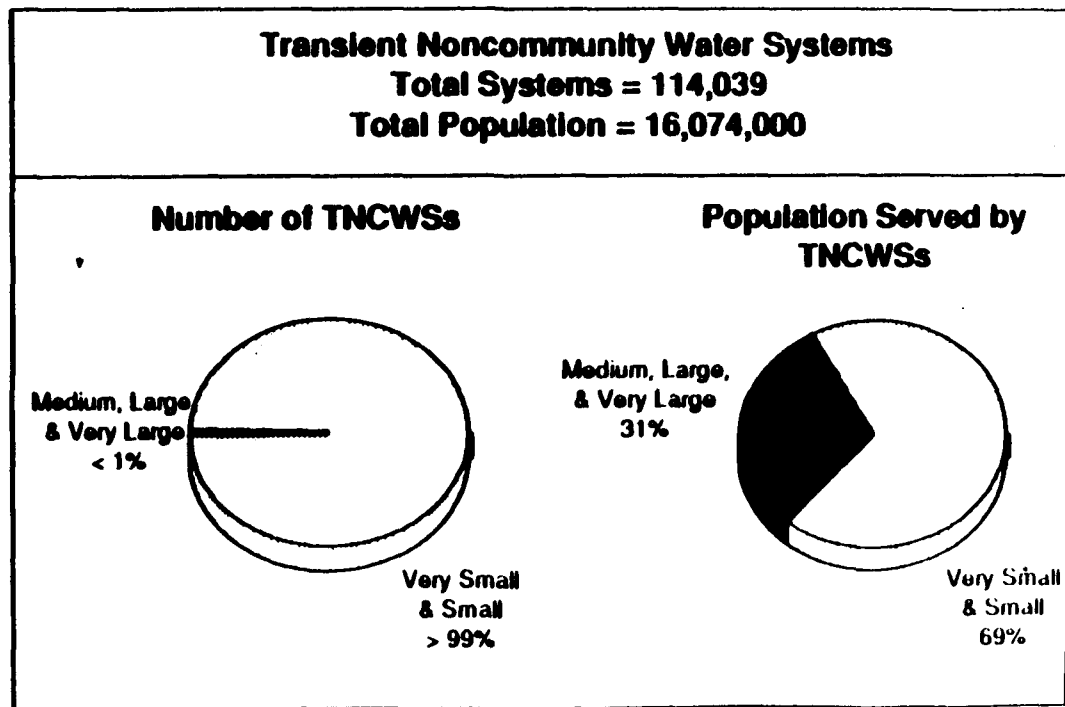
FRDS 07 (1/13/93)

*Note: purchased water is included

Public Water System Inventory (cont.)

Distribution of Transient Noncommunity Water Systems by Size (cont.)

Like CWSs and NTNCWSs, most TNCWSs regularly serve 3,300 or fewer people. Over ninety-nine (99) percent of TNCWSs are classified as very small or small. Like NTNCWSs, those very small and small TNCWSs regularly serve the majority (69 percent) of the population served by TNCWSs. However, almost one-third (31%) of the population that obtains water from TNCWSs was served by the 272 medium, large, and very large TNCWSs, which comprise < 1% of the TNCWSs.

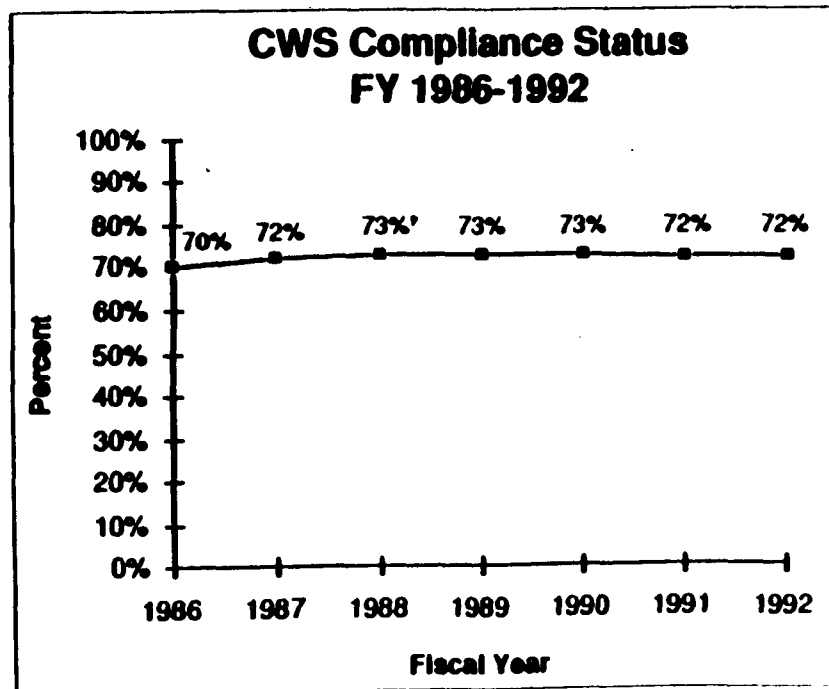


Compliance with Federal Regulations

Compliance With Federal Regulations - National Compliance Trends

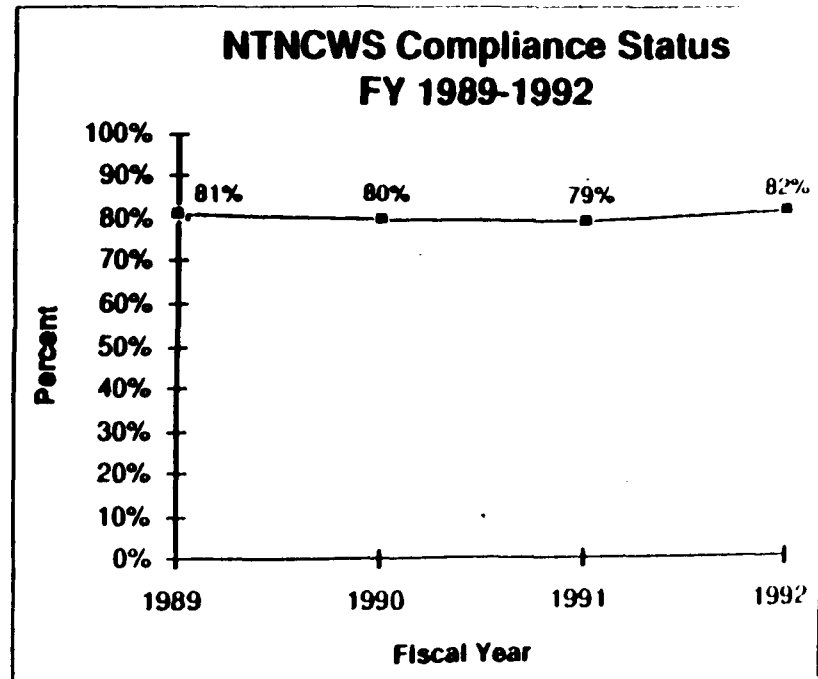
CWS Compliance Status

The compliance rate for CWSs has remained between 70% and 73% from FY 1986 to FY 1992. This means that for example, in FY 1992, 72% of the CWSs were in full compliance with EPA's regulations.



NTNCWS Compliance Status

The NTNCWS compliance rate has remained between 79% and 82% from FY 1989 to FY 1992. This rate was slightly higher than the compliance rate for CWSs; partly because NTNCWSs were subject to M/R and MCL requirements for fewer contaminants. However, with the promulgation of each new or revised rule, NTNCWSs are subject to the same requirements as CWSs of similar size.



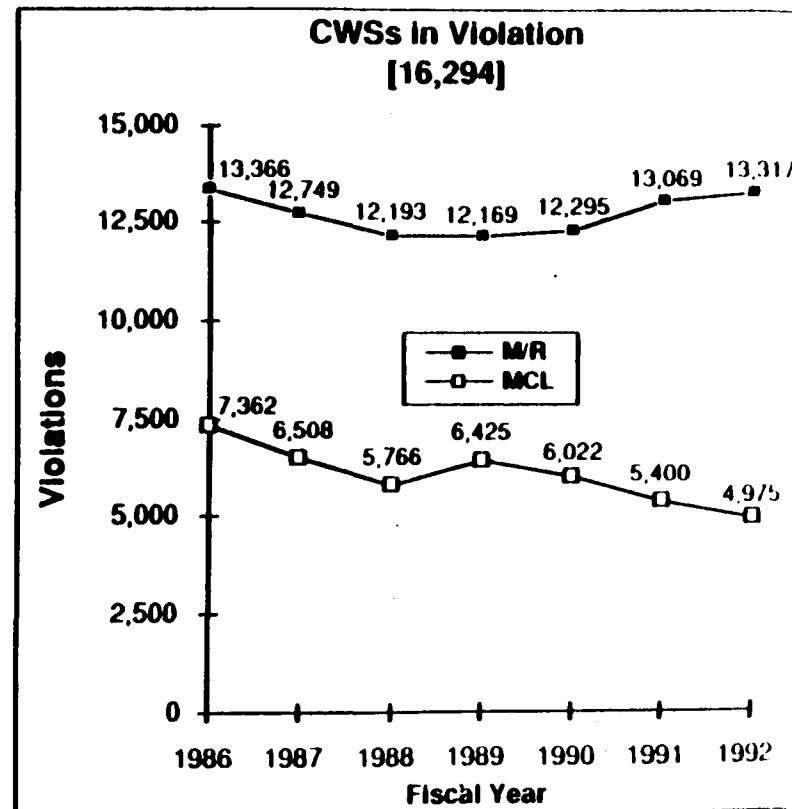
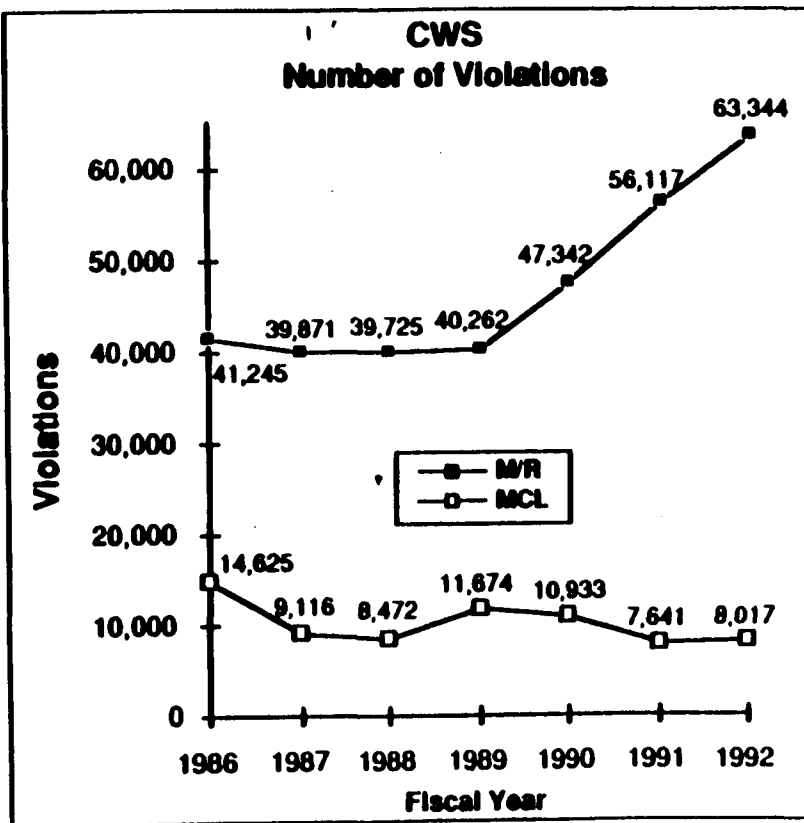
Compliance With Federal Regulations (cont.)

National Compliance Trends (cont.)

The charts on page 20 highlight the number of MCL and M/R violations reported to FRDS by CWSs over the last seven fiscal years. Both the total number of violations and the number of systems in violation declined somewhat from FY 1986 to FY 1988 while the inventory of CWSs increased steadily. Between FY 1988 and FY 1992, both the number of violations and the number of systems in violation rose due to the implementation of new regulations and more complete reporting. However, as demonstrated by the previous chart, the percent of the systems in full compliance remains approximately the same. The graphs on the next page also indicate that the number of systems in violation for failure to monitor is more than double the number of systems with MCL violations.

In FY 1992, approximately 8 percent of CWSs violated MCL standards while 23 percent of CWSs violated the M/R requirements.

Community Water Systems Compliance Trends FY 1986-1992



FRDS 07 (1/13/93).

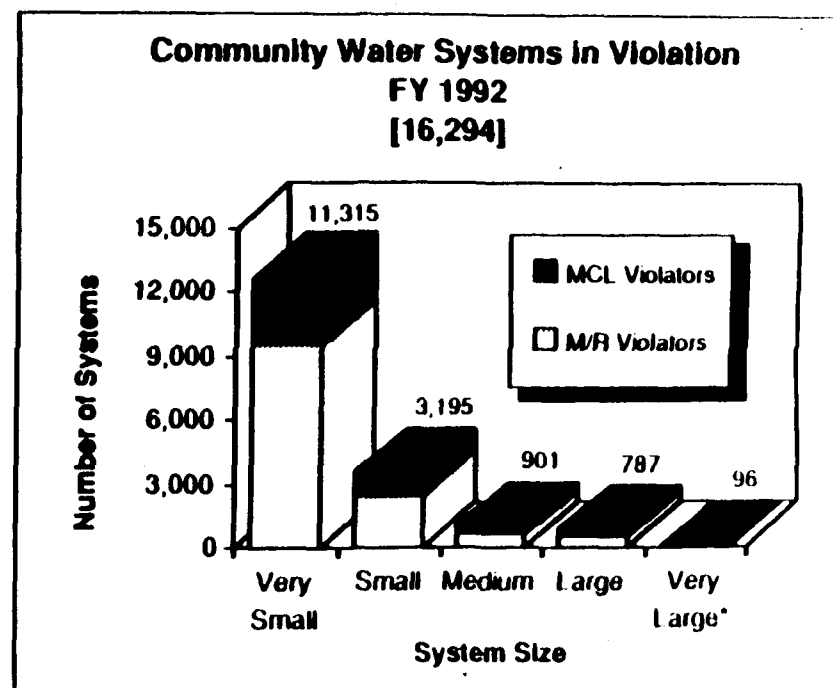
Note: The total number of systems in violation for FY 1992 equals 16,294. The number of M/R violations (13,317) plus the number of CWSs with MCL violations (4,975) in FY 1992 exceeds 16,294 (18,292) because 1,998 systems had both MCL and M/R violations.

Compliance With Federal Regulations (cont.)

FY 1992 National Compliance Profile - Community Water Systems

This chart shows the system size distribution of all CWSs that violated the MCL and/or M/R requirements during FY 1992. Eighty-nine (89) percent of the CWSs in violation in FY 1992 were very small or small PWSs; however, 87 percent of the CWSs in the inventory were very small or small.

High rates of noncompliance are particular problems for systems in Alaska and Puerto Rico. These systems are typically very small and small systems and face additional constraints that include cultural and language barriers, transportation difficulties, and more limited remedies than in other States. Seventy-three (73) percent of the CWSs in Alaska and 72 percent in Puerto Rico violated drinking water standards during FY 1992. Of these systems with FY 1992 violations, 96 percent in Alaska and 86 percent in Puerto Rico were very small or small systems.



FRDS 07 (1/13/93)

Note: Categories total more than actual number of systems in violation because some systems are both MCL and M/R violators.

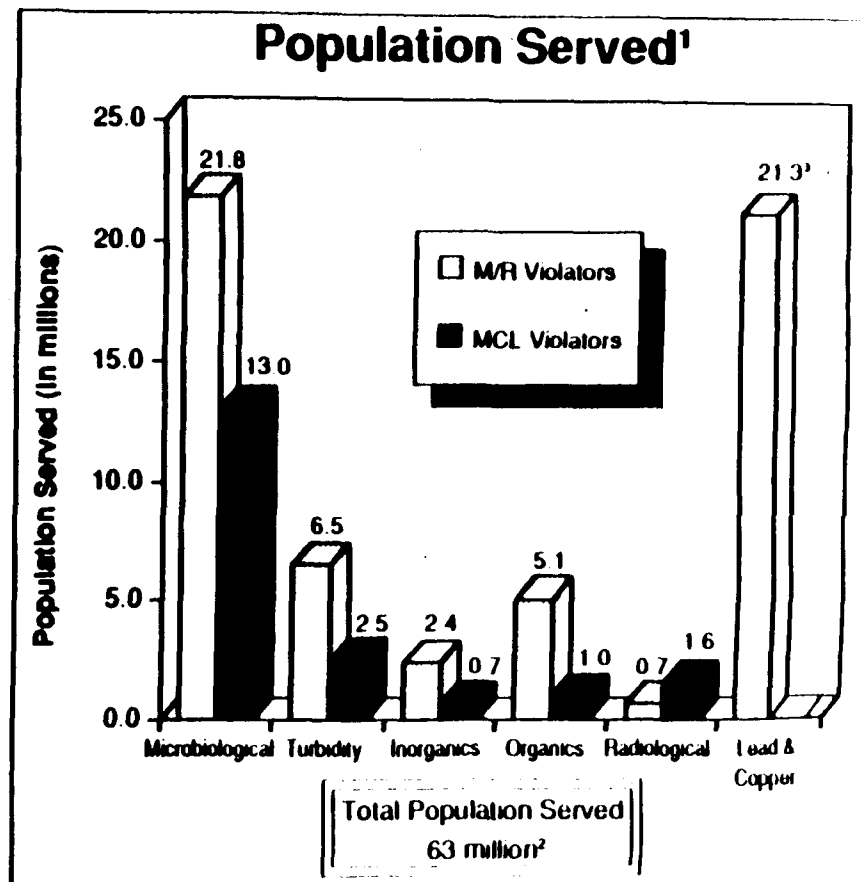
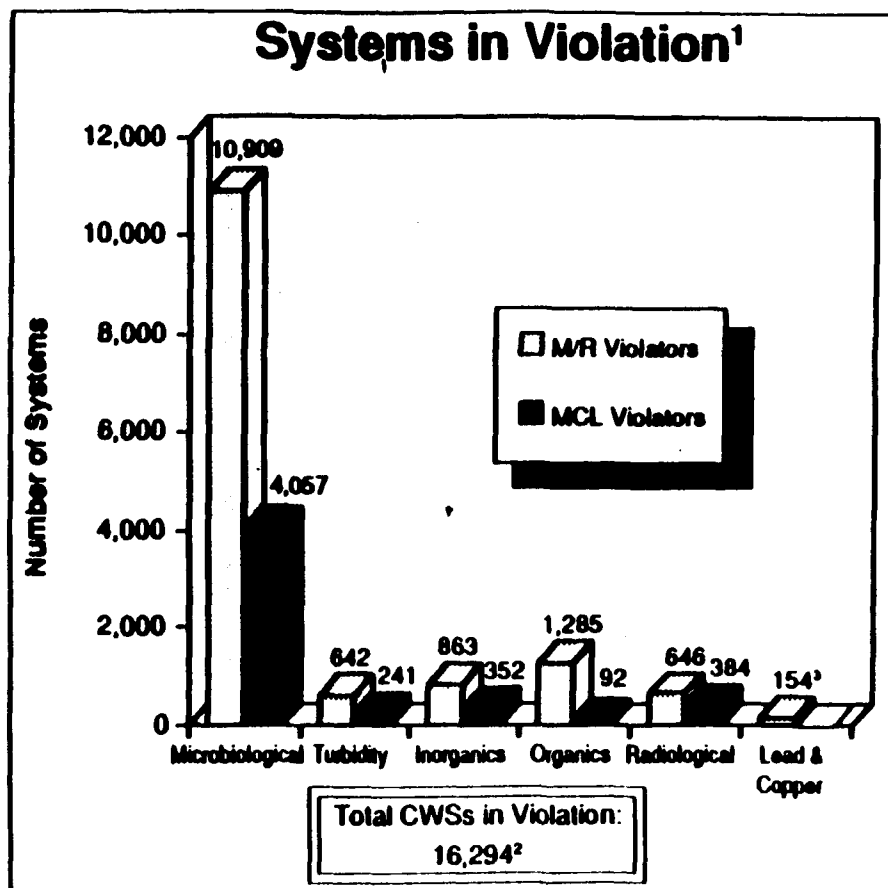
* For very large systems, 21 had MCL violations, 81 had M/R violations, and 6 had both MCL and M/R violations.

Compliance With Federal Regulations (cont.)

FY 1992 National Compliance Profile - CWSs (cont.)

The charts on the following page present the number of CWSs in violation of the MCL and/or M/R requirements for each of the five major contaminant groups, plus the Lead and Copper Rule. These charts demonstrate that the most common violations among CWSs tend to be of microbiological regulations. In FY 1992, 81 percent of the CWSs in violation failed to meet the microbiological requirements. Of these, 67 percent failed to meet the microbiological M/R requirements.

Community Water Systems in Violation by Contaminant Group FY 1992



FRDS (1/13/93).

¹Categories total more than actual systems and population served because some systems are both MCL and M/R violators.

²These totals reflect the true value (i.e., NO double counting) for CWSs in violation and population affected.

³Numbers reflect M/R requirements under the new Lead and Copper Rule. Under this rule, treatment technique(s) instead of an MCL are used to minimize lead and copper in drinking water.

Compliance With Federal Regulations (cont.)

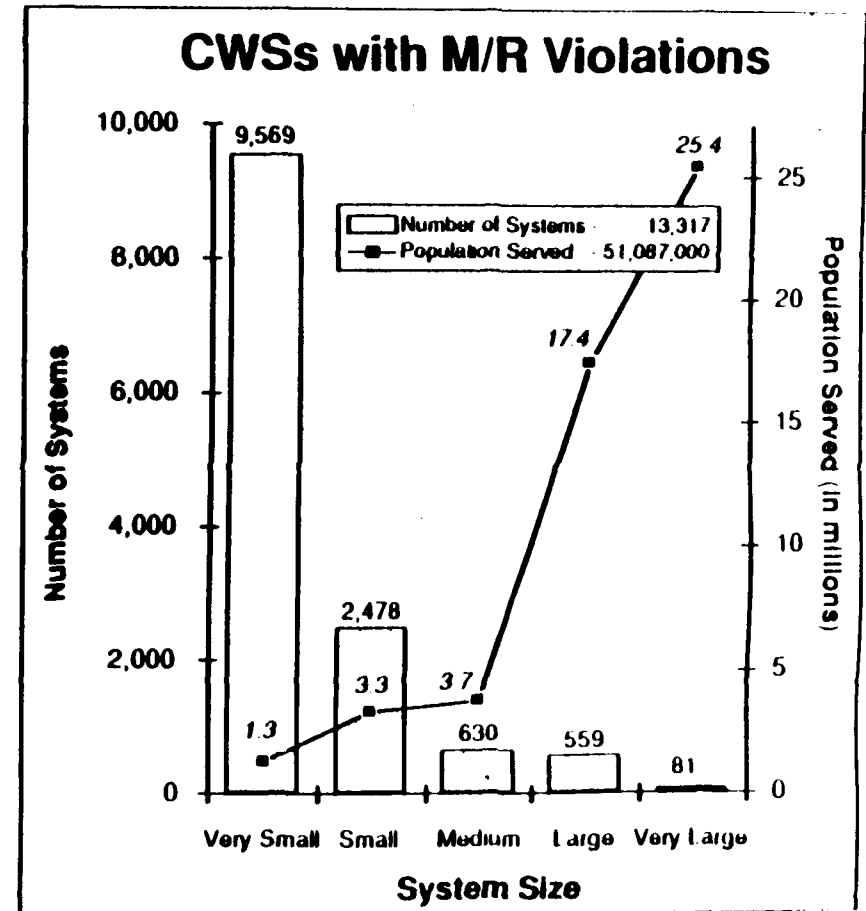
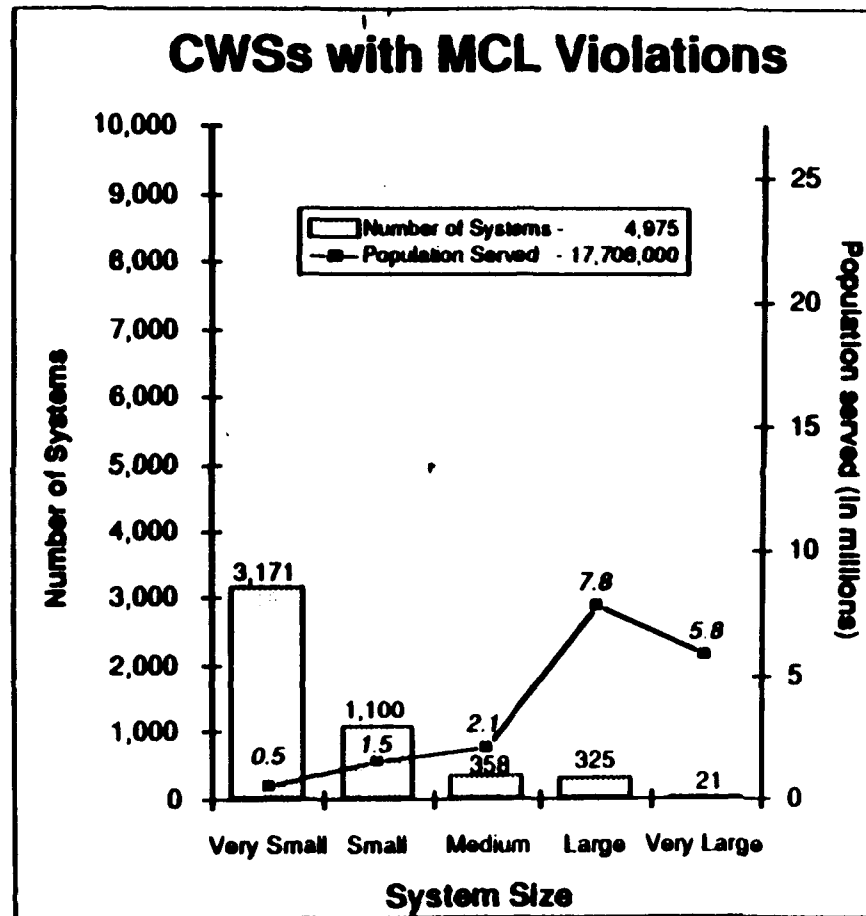
FY 1992 National Compliance Profile - CWSs (cont.)

In FY 1992, CWSs in violation of MCL standards served 17.7 million people, or about 7 percent of the total population receiving drinking water from CWSs. Fifty-one (51) million people, or 21 percent of the population served by CWSs, were served by CWSs with M/R violations. As evidenced by the charts on the following page, while the majority of systems in violation are very small and small CWSs, the largest proportion of the population affected is served by large and very large CWSs.

The set of charts located on page 26 display by size category the percent of CWSs in violation, and percent of population served by these CWSs in violation.

Population Served/Number of CWSs in Violation by System Size

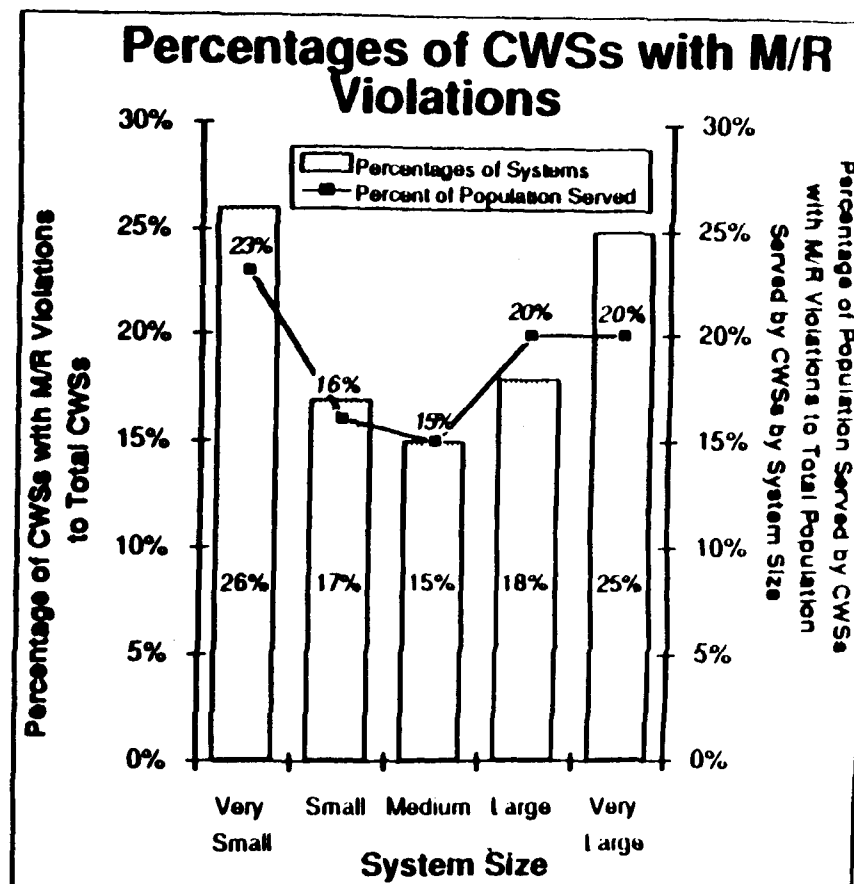
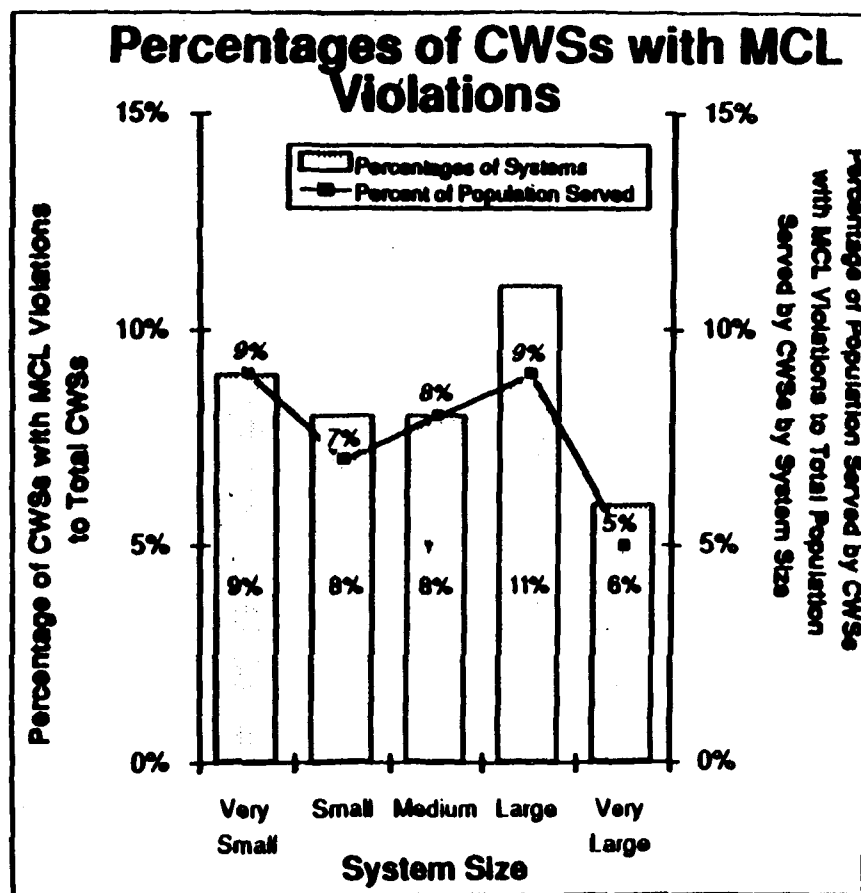
FY 1992



FRDS 07 (1/13/93)

Percentages by System Size of CWSs in Violation and Population Served by CWSs in Violation

FY 1992

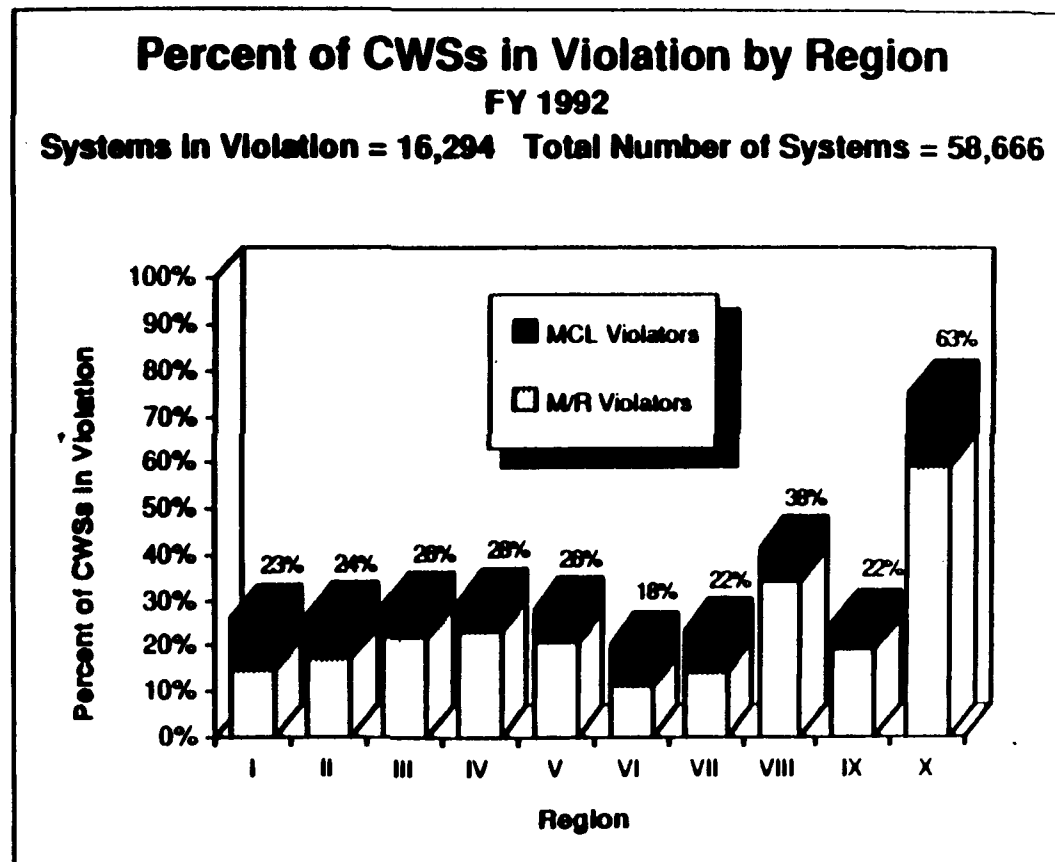


Note: The percentages contained in the columns of the bar chart reflect the percent of very small, small, medium, large and very large systems that had MCL violations and M/R violations, respectively. The percentages in the trend lines reflect the percent of population served by these very small, small, medium, large and very large systems that had MCL violations and M/R violations, respectively. For example, in FY 1992, 8% of the small CWSs had MCL violations, and 7% of the total population served by small CWSs were served by these small systems with MCL violations.

Compliance With Federal Regulations (cont.)

FY 1992 Regional Compliance Profile - CWSs (cont.)

The following chart shows the percent of CWSs in each Region that were in violation during FY 1992. As discussed earlier, this chart shows that CWSs are more often in violation of M/R requirements than MCL standards.



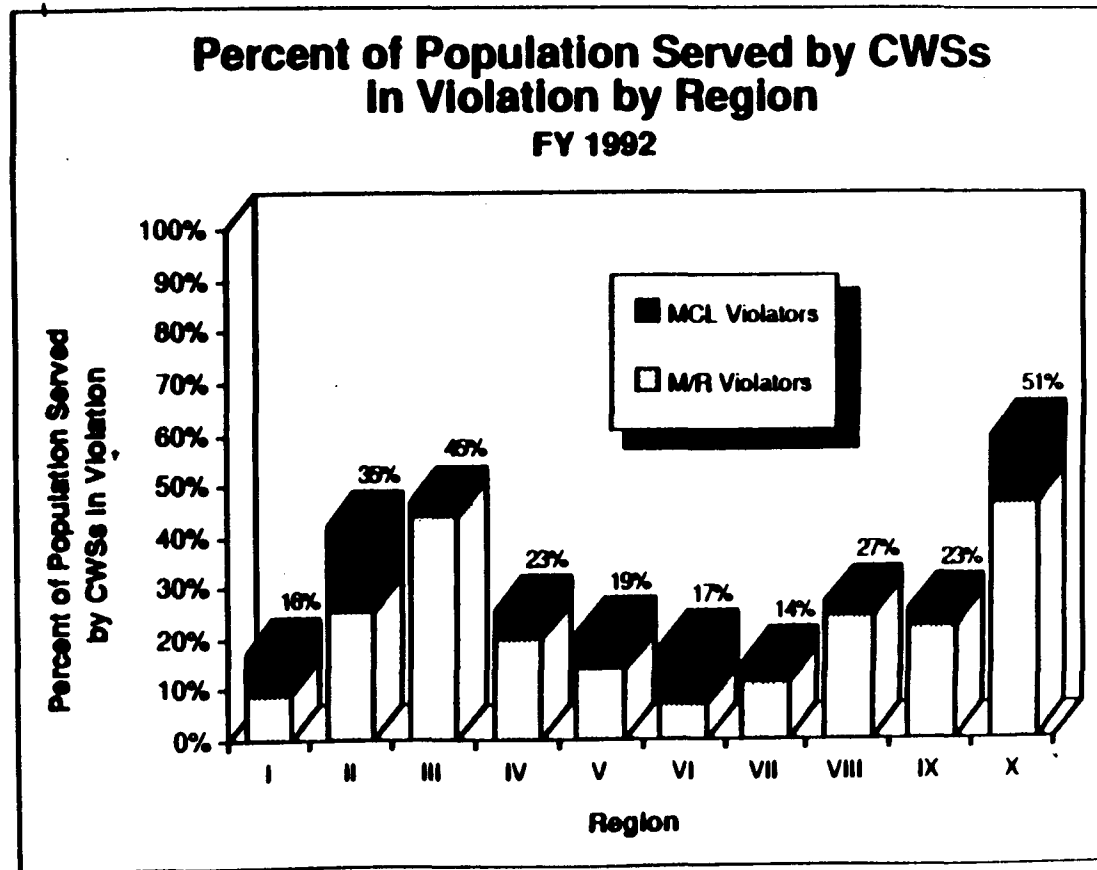
FRDS 07 (1/13/93)

Note: Categories total more than actual percentages of systems with violations because some systems are both MCL and M/R violators

Compliance With Federal Regulations (cont.)

FY 1992 Regional Compliance Profile - CWSs (cont.)

The following chart shows the regional profile of the percent of population served by CWSs that were in violation during FY 1992.



FRDS 07 (1/13/93)

Note: Categories total more than actual percentages of population served by systems with violations because some systems are both MCL and M/R violators.

Compliance With Federal Regulations (cont.)

FY 1992 National Compliance Profile - Nontransient Noncommunity Water Systems

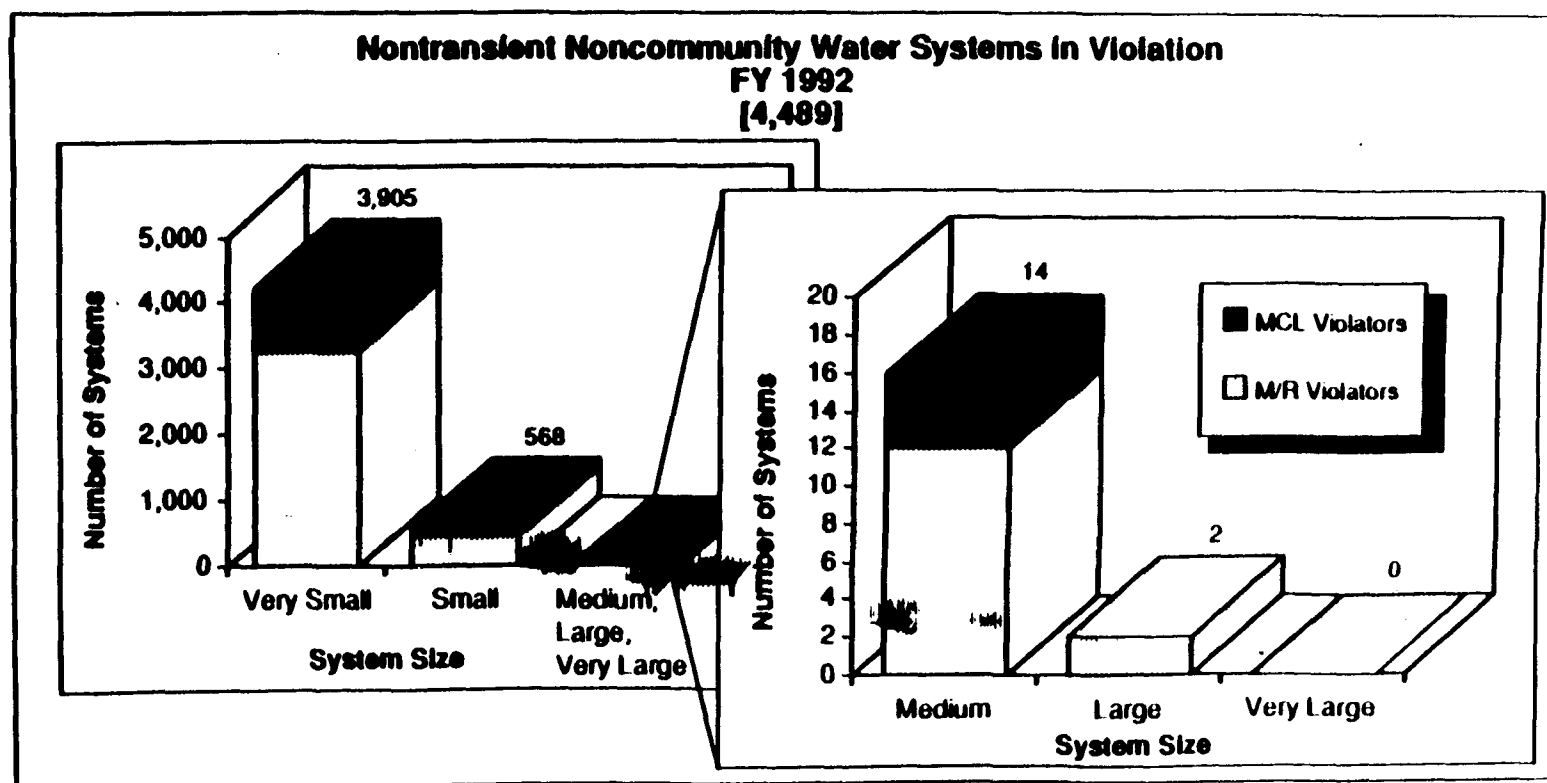
In FY 1992, 4,489 NTNCWSs violated MCL and/or M/R regulations. Approximately 4 percent of all NTNCWSs violated the MCL standards and 15 percent violated the M/R requirements.

The charts on page 31 present the number of NTNCWSs in violation of the MCL and/or M/R regulatory requirements for each of the five major contaminant groups. As with the CWSs, the most common violations for NTNCWSs are for microbiological regulations. In FY 1992, 84 percent of the systems in violation failed to meet the microbiological requirements. Of these, 70 percent failed to meet the microbiological M/R requirements.

Compliance With Federal Regulations (cont.)

FY 1992 National Compliance Profile - NTNCWSs (cont.)

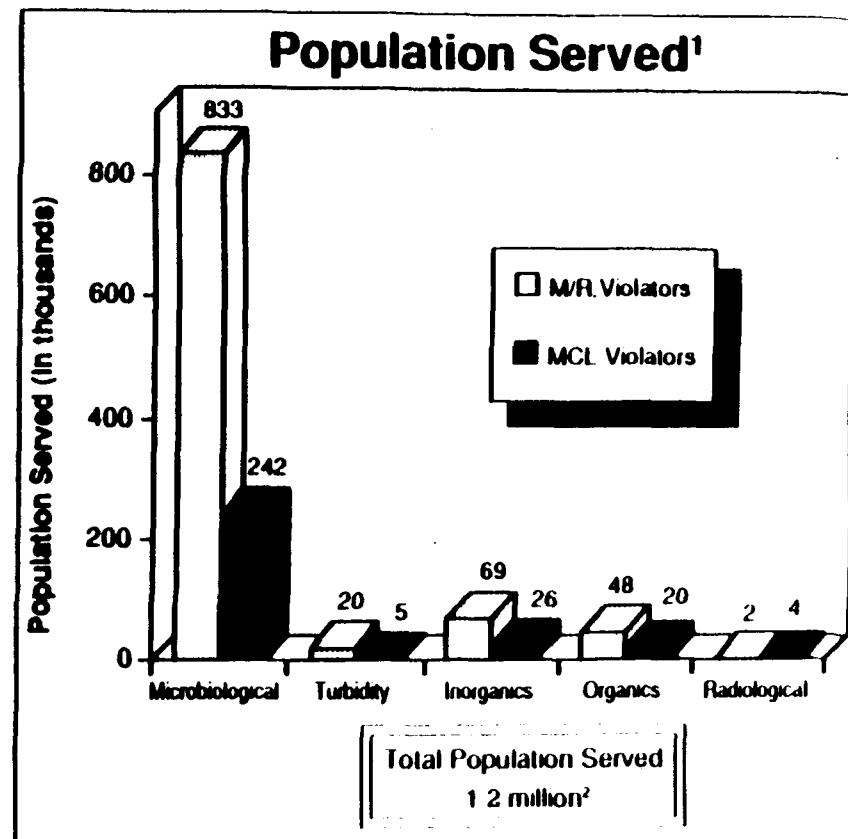
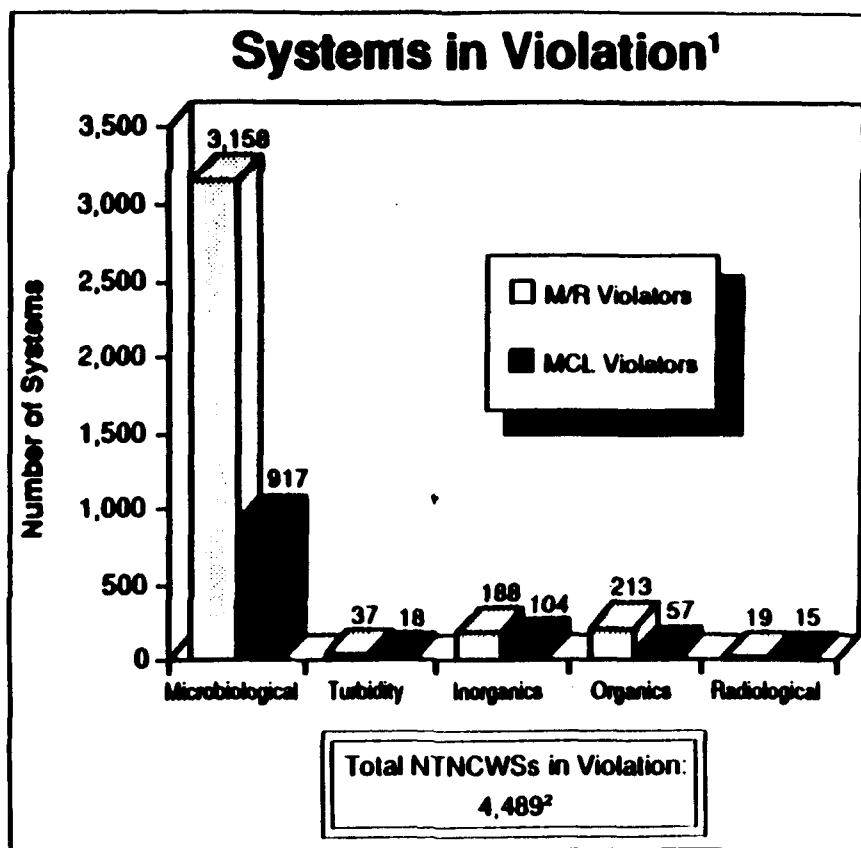
The following chart displays the system size distribution of NTNCWSs that violated the MCL and/or M/R regulations during FY 1992. As with CWSs, the vast majority of NTNCWSs in violation (>99%) are very small or small; however very small or small NTNCWSs comprise 99 percent of the NTNCWS universe.



FHDS 07 (1/1/93)

Note: Categories total more than actual number of systems in violation because some systems are both MCL and M/R violators

Nontransient Noncommunity Water Systems in Violation by Contaminant Group FY 1992



FRDS 07 (1/13/93)

¹Categories total more than actual systems and population served because some systems are both MCL and M/R violators

²These totals reflect the true value (i.e., NO double counting) for NTNCWSs in violation and population affected

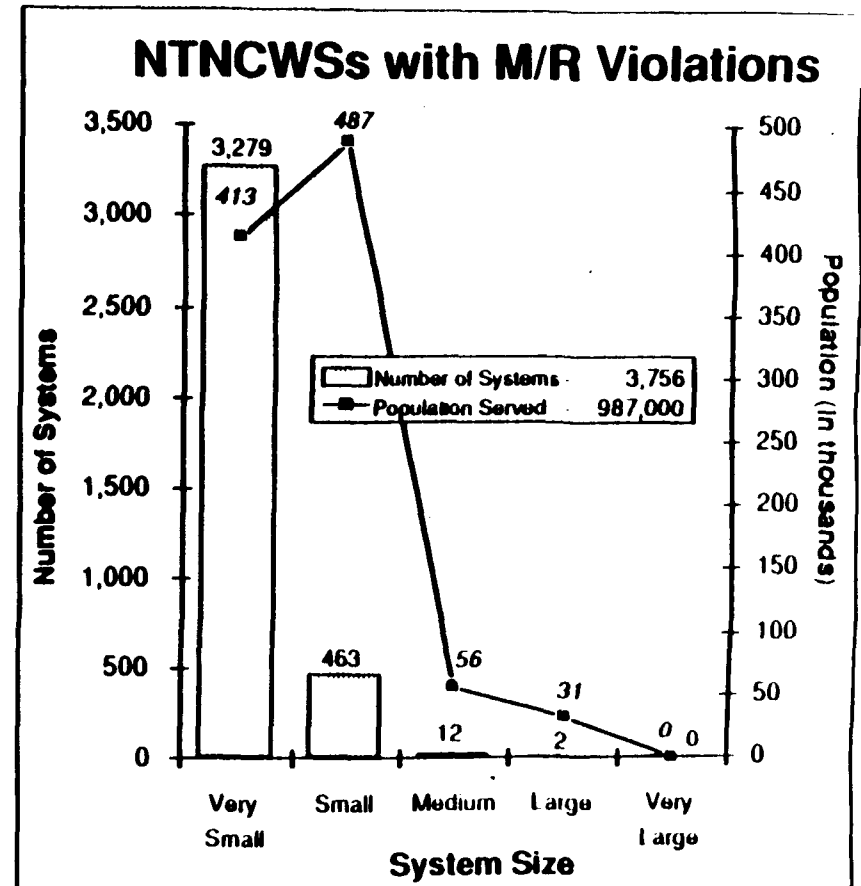
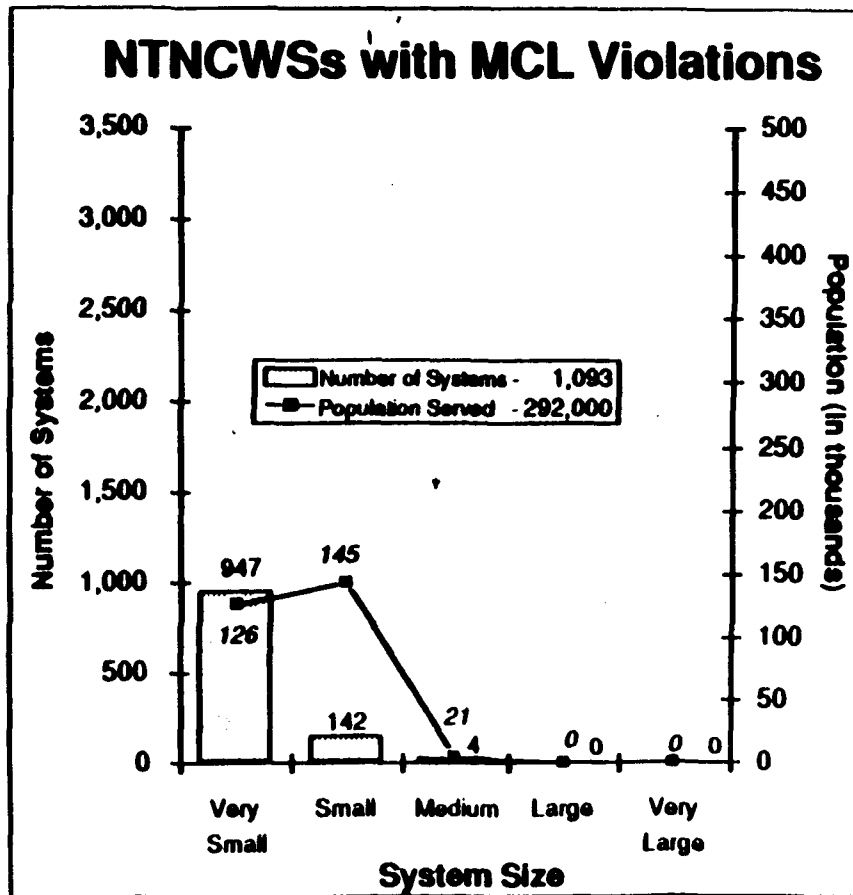
Compliance With Federal Regulations (cont.)

FY 1992 National Compliance Profile - NTNCWSs (cont.)

In FY 1992, NTNCWSs in violation of MCL standards served 292,000 people, or about 5 percent of the total population receiving drinking water from NTNCWSs. One (1) million people, or 16 percent of the population served by NTNCWSs, were served by NTNCWSs with M/R violations. As illustrated on the following page, the majority of NTNCWSs in violation are very small and small NTNCWSs, but unlike CWSs, the largest proportion of the population affected is served by these very small and small NTNCWSs. Large and very large NTNCWSs account for less than 1 percent of the NTNCWSs in violation.

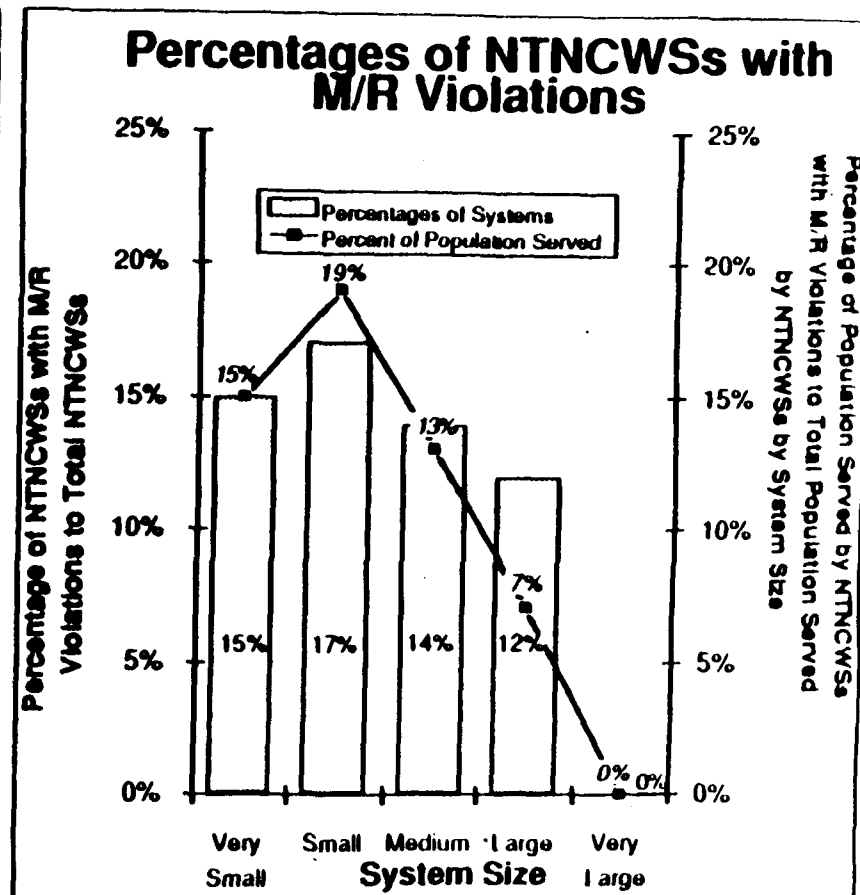
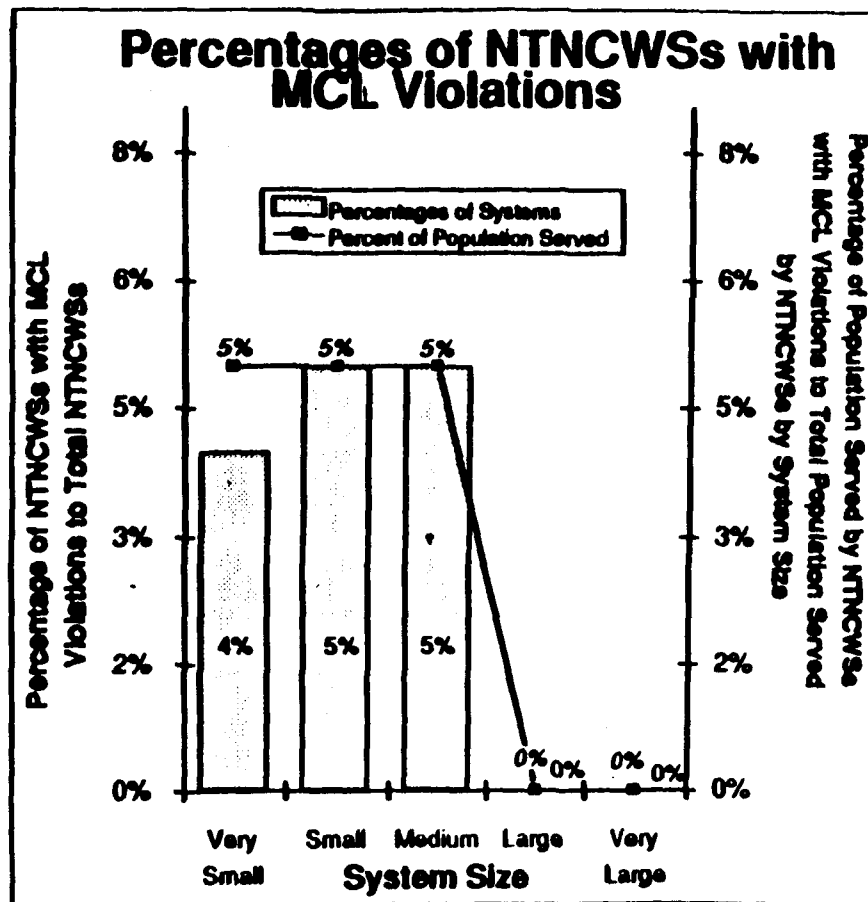
The charts on page 34 display by size category the percent of NTNCWSs in violation, and percent of population served by these NTNCWSs in violation.

Population Served/Number of NTNCWSs in Violation by System Size FY 1992



FRDS 07 (1/13/93)

Percentages by System Size of NTNCWSs in Violation and Population Served by NTNCWSs in Violation FY 1992

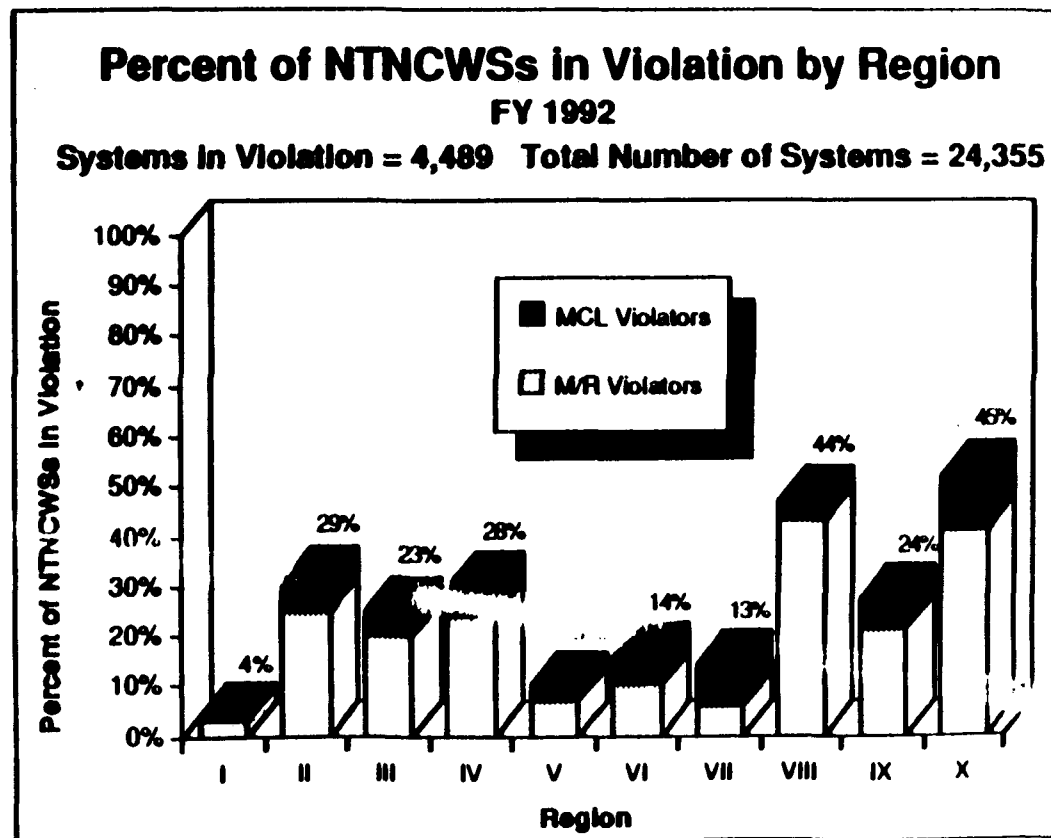


Note: The percentages contained in the columns of the bar chart reflect the percent of very small, small, medium, large and very large systems that had MCL violations and M/R violations, respectively. The percentages in the trend lines reflect the percent of population served by these very small, small, medium, large and very large systems that had MCL violations and M/R violations, respectively. For example, in FY 1992, 4% of the very small NTNCWSs had MCL violations, while 5% of the total population served by these small system MCL violators.

Compliance With Federal Regulations (cont.)

FY 1992 Regional Compliance Profile - NTNCWSs (cont.)

The following chart shows the percent of NTNCWSs in each Region that were in violation during FY 1992. The predominance of systems with M/R violations versus systems with MCL violations is more pronounced for NTNCWSs than for CWSs.



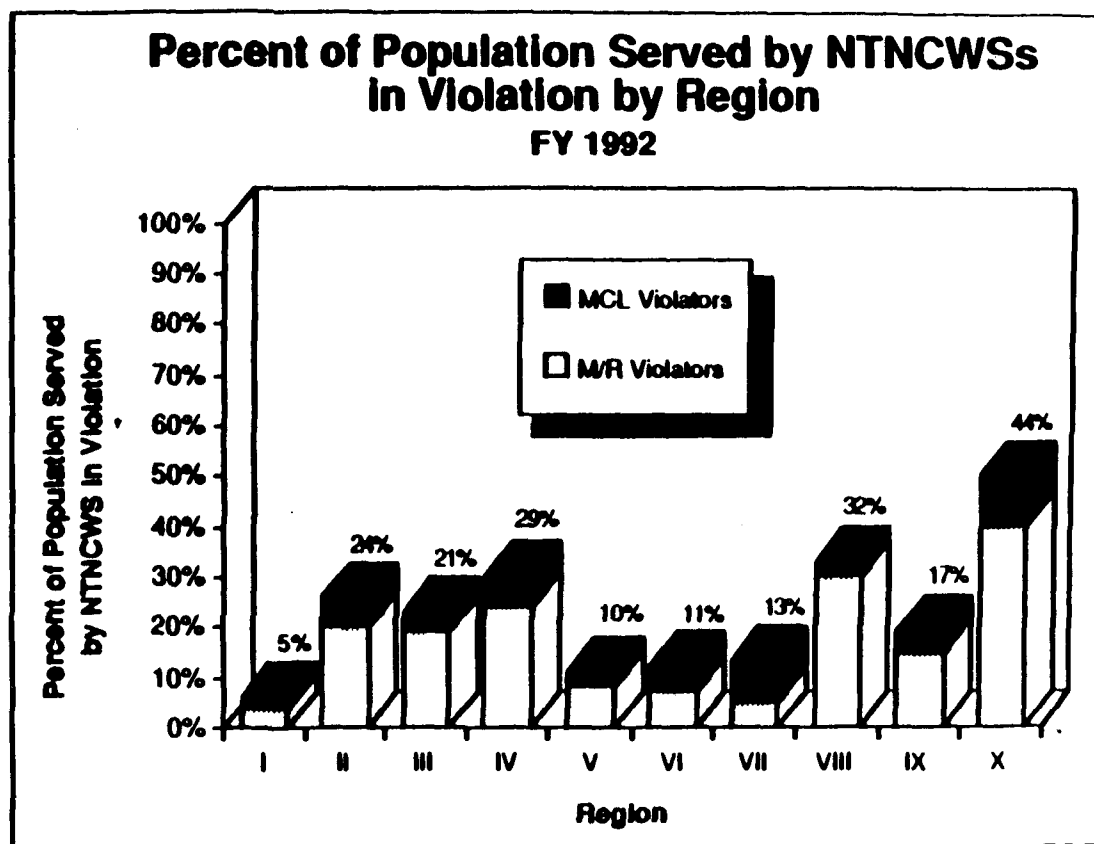
FRDS 07 (1/13/93)

Note: Categories total more than actual percentages of systems with violations because some systems are both MCL and M/R violators

Compliance With Federal Regulations (cont.)

FY 1992 Regional Compliance Profile - NTNCWSs

The following chart shows the regional profile of the percent of population served by NTNCWSs that were in violation during FY 1992.



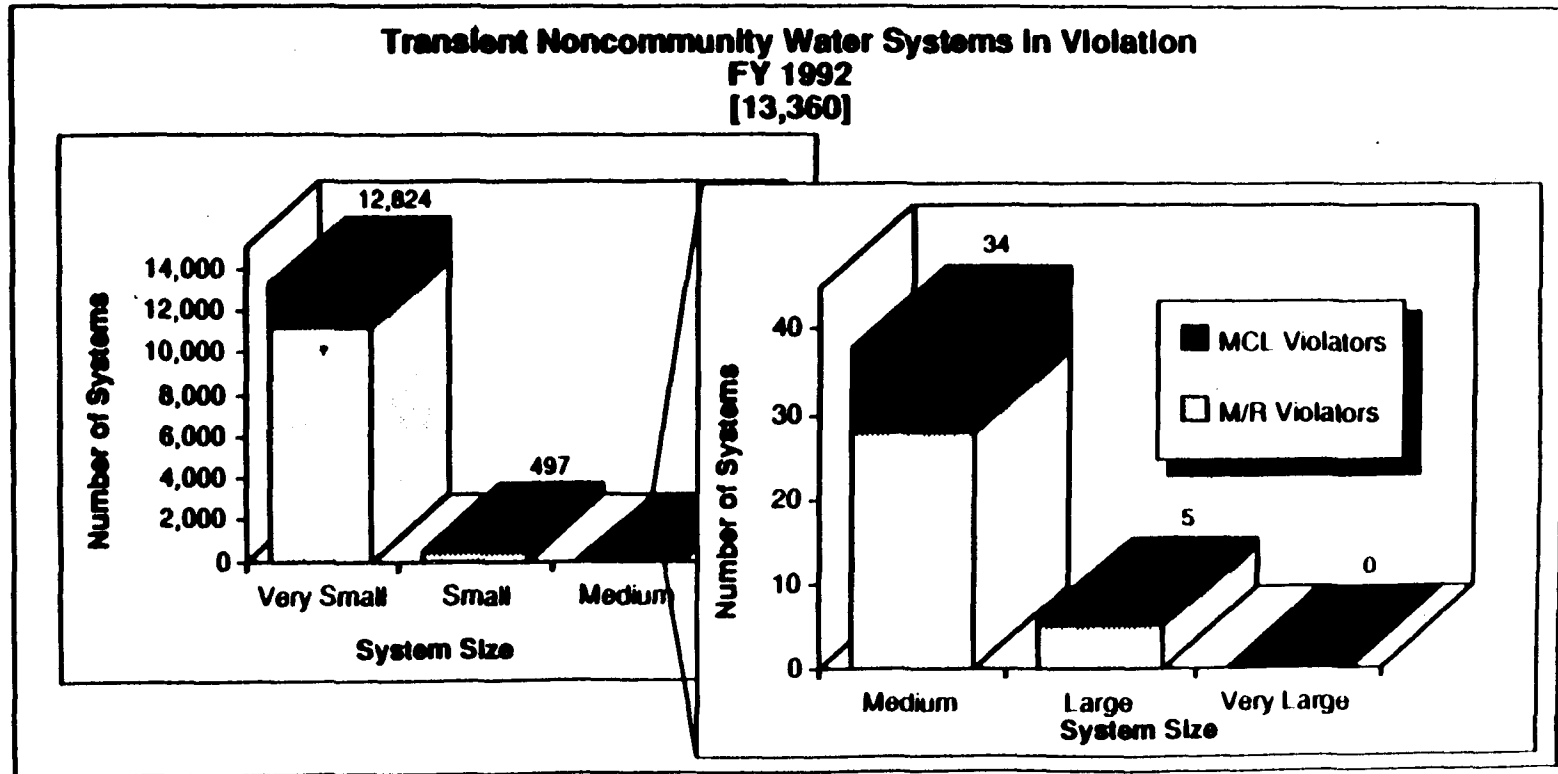
FRDS 07 (1/13/93)

Note: Categories total more than actual percentages of population served by systems with violations because some systems are both MCL and M/R violators

Compliance With Federal Regulations (cont.)

FY 1992 National Compliance Profile - Transient Noncommunity Water Systems

The following chart displays the system size distribution of Transient Noncommunity Water Systems (TNCWSs) that violated the MCL and/or M/R requirements during FY 1992. As with CWSs and NTNCWSs, the vast majority of TNCWSs in violation (>99%) are very small or small; however, very small systems comprise 99 percent of the TNCWS universe. Approximately 2 percent of the TNCWSs violated the MCL standards and 10 percent of the TNCWSs violated the M/R requirements.



FRDS 07 (1/13/93).

Note: Categories total more than actual number of systems in violation because some systems are both MCL and M/R violators.

Significant Noncompliance

Significant Noncompliance

FY 1992 National Profile

Significant noncompliers (SNCs) are CWSs, NTNCWSs and TNCWSs (those serving ≥ 500 persons) that have more serious, frequent, or persistent violations. SNCs are divided into microbiological/turbidity SNCs and chemical/radiological SNCs. The criteria which designate a system as an SNC vary by contaminant.

In order to be more protective of public health, the SNC definitions for microbiological/turbidity and chemical/radiological parameters were made more stringent. These new SNC definitions became effective at the start of FY 1991. Pages 40 and 41 include these new definitions.

Beginning on January 1, 1991, monitoring requirements under the new Total Coliform Rule (TCR) became effective; that is, TCR violations were beginning to be incurred and reported to FRDS. The first TCR SNCs were determined at the end of June 1991.

The chart on page 42 shows the trends for microbiological/turbidity and chemical/radiological SNCs from FY 1986 - FY 1990 under the old SNC definition. The number of microbiological/turbidity and chemical/radiological SNCs declined from FY 1986 - FY 1990. The chart on page 43 shows these trends during FY 1991 and FY 1992 which reflect the implementation of the more stringent SNC definition and the TCR SNC definition.

Note: The number of SNCs discussed in this text represent the number of systems that met the definition of SNC by quarter from FY 1986 to FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.) - SNC Definitions

Total Coliform Rule (TCR) MCL

MONTHLY MONITORING: ≥ 4 acute/monthly MCL violations in any 12 consecutive months.

QUARTERLY MONITORING: ≥ 3 acute/monthly MCL violations in any 4 consecutive quarters.

ANNUAL MONITORING: ≥ 2 acute/monthly MCL violations in any 2 consecutive periods.

Total Coliform Rule (TCR) M/R

MONTHLY MONITORING: In any 12 consecutive months, meeting one of the following criteria:

- ≥ 4 major repeat M/R violations
- ≥ 4 combined major repeat M/R and MCL violations
- ≥ 6 combined major repeat M/R, major routine M/R, and/or MCL violations
- ≥ 10 combined major/minor routine/repeat M/R and/or MCL violations

QUARTERLY MONITORING: In any 4 consecutive quarters, meeting one of the following criteria:

- ≥ 3 major repeat M/R violations
- ≥ 3 major repeat M/R, major routine M/R and/or MCL violations

ANNUAL MONITORING: In any 2 consecutive one-year periods, meeting one of the following criteria:

- ≥ 2 major repeat M/R violations
- ≥ 2 combined major repeat M/R, major routine M/R, and/or MCL violations

Turbidity MCL

MONTHLY MONITORING: ≥ 4 MCL violations in any 12 consecutive months.

QUARTERLY MONITORING: ≥ 2 MCL violations in any 4 consecutive quarters.

Turbidity M/R and Combined M/R and MCL

Monthly MONITORING: In any 12 consecutive months, having either of the following:

- ≥ 6 major M/R and/or MCL violations, or
- ≥ 10 major/minor M/R and/or MCL violations

QUARTERLY MONITORING: ≥ 3 major M/R and/or MCL violations in any 4 consecutive quarters.

ANNUAL MONITORING: ≥ 2 major M/R and/or MCL violations in any 2 consecutive one-year periods.

Chemical/Radiological MCL (excluding Nitrate)

Exceeds the short term acceptable risk to health level.

Nitrate MCL

> 10 mg/l.

Chemical/Radiological M/R

Fails to monitor for, or report the results of any regulated contaminant for ≥ 2 consecutive compliance periods.

Public Notification

Failure to provide public notification of the violation which caused the system to become a SNC.

Significant Noncompliance (cont.) - SNC Definitions

Surface Water Treatment Rule (SWTR)

UNFILTERED SYSTEMS

A system that has 3 or more major M/R violations in any 12 consecutive months.

FILTERED SYSTEMS

The M/R and treatment technique SNC definitions for filtered systems will become effective in FY 1993.

Lead and Copper Rule (Pb/Cu)

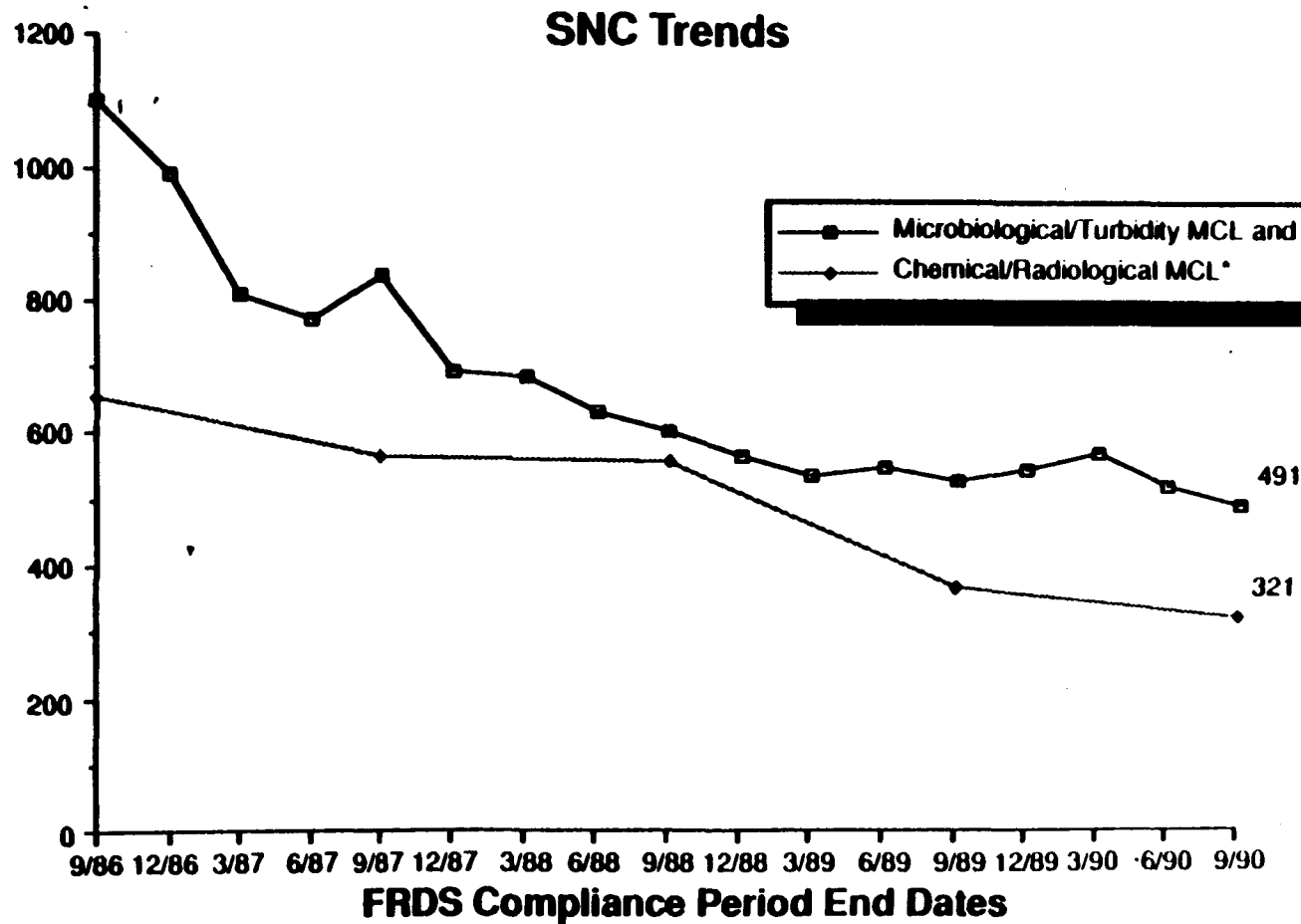
Effective beginning in FY 1993.

Notes

- (1) A "major" M/R violation (except for SWTR) occurs when no samples are taken or no results are reported during a compliance period. For SWTR, a major M/R violation occurs when at least 90% of the required samples are not taken or results reported during a reporting period.
- (2) A "minor" M/R violation (except for SWTR) occurs when an insufficient number of samples are taken or incomplete results are reported during a compliance period. For SWTR, a minor violation occurs when less than 100% but more than 90% of the required samples are not taken or results reported during a reporting period.
- (3) SNC definition is modified, if needed, to cover new regulations as they are promulgated.
- (4) For details on the SNC definition, please see the following memorandum:
 - (a) "Revised Definition of Significant Noncomplier (SNC) and the Model for Escalating Responses to Violations in the PWSS Program." May 22, 1990. [Water Supply Guidance #70]
 - (b) "Final SNC Definition for the TCR and proposed SNC Definition for the SWTR." December 19, 1990. [Water Supply Guidance #80]
 - (c) "Final SNC Definition for the SWTR." February 28, 1991 [Water Supply Guidance #82]
 - (d) "Final Guidance for the Lead and Copper - Definitions and Federal Reporting for Milestones, Violations, and SNCs " May, 1992.

Significant Noncompliance (cont.)

The chart below demonstrates that the number of SNCs for both microbiological/turbidity and chemical/radiological SNCs declined from FY 1987 through FY 1990. Microbiological/turbidity SNCs decreased more than 55 percent, while chemical/radiological MCL SNCs decreased almost 51 percent.



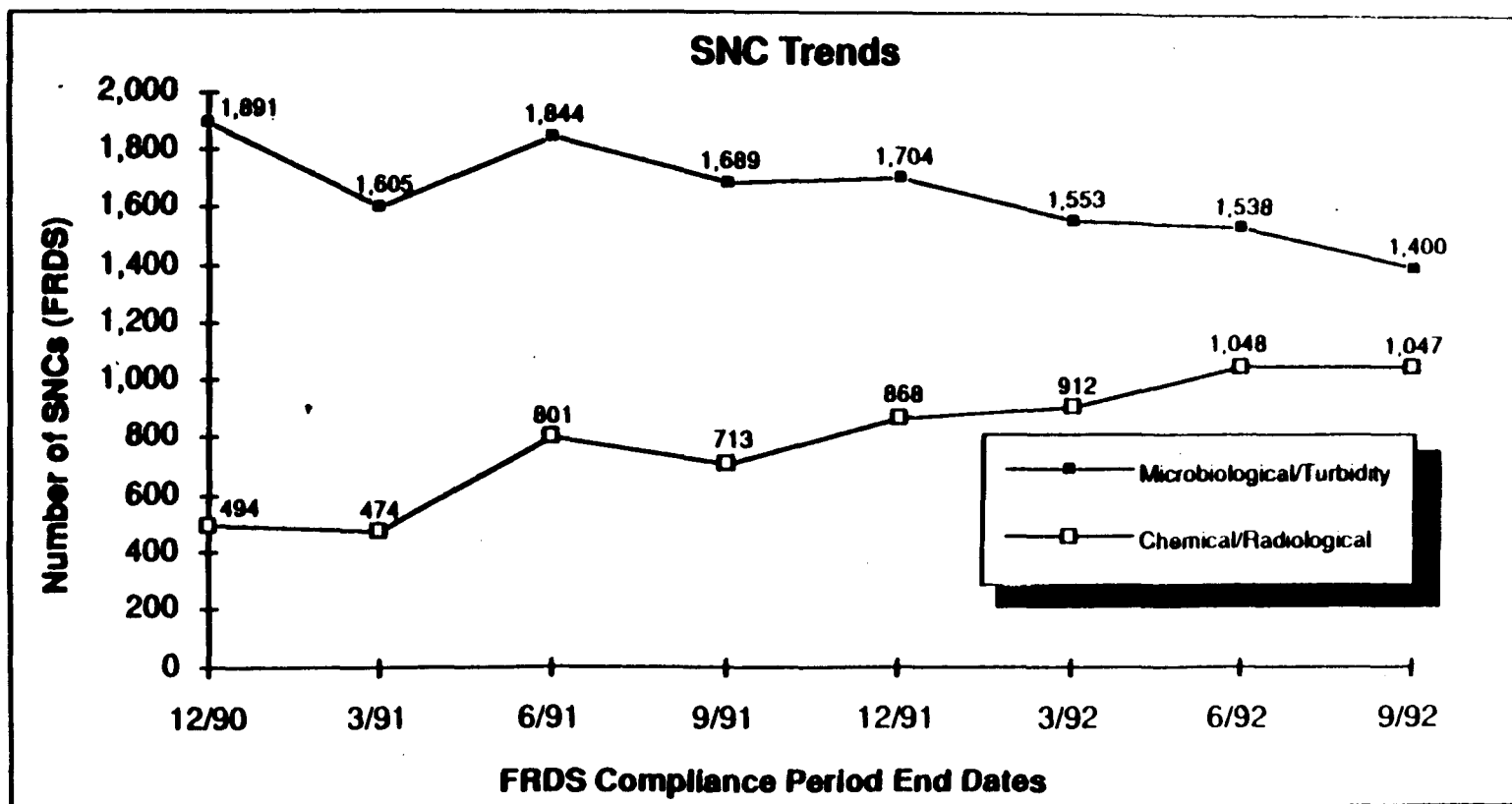
FRDS 41B and 41D, quarterly reports through 1990.

*Does not include Chemical/Radiological M/R SNCs.

Note: The number of SNCs portrayed in this graph represent the number of systems that met the definition of SNC by quarter from FY 1987 to FY 1990, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

The chart below shows that the number of microbiological/turbidity SNCs has declined from FY 1991 to FY 1992. However, the number of chemical/radiological SNCs has steadily increased, due largely to increased reporting. The number of SNCs dramatically rose from the end of FY 1990 to the beginning of FY 1991, due largely to the revised SNC definition for both microbiological/turbidity and chemical/radiological contaminants. The new SNC definition for the Total Coliform Rule was implemented for the FRDS compliance period ending 6/91. Overall, the number of microbiological/turbidity SNCs has steadily decreased in FY 1992.



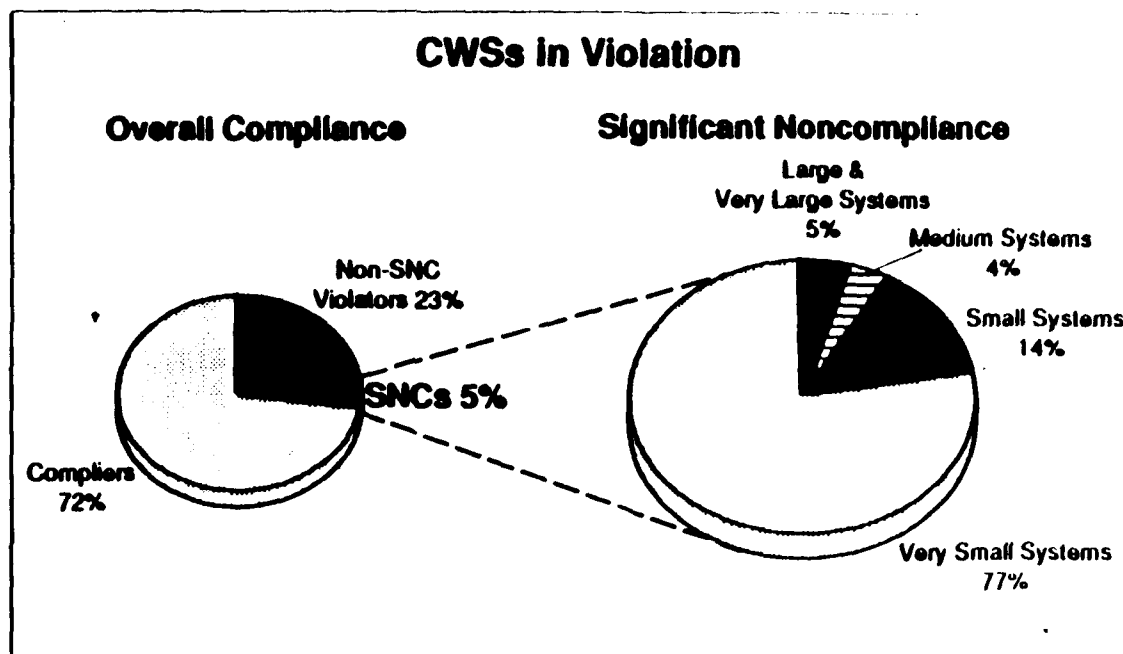
FRDS 42 and 43, quarterly reports through 1992

Note: The number of SNCs portrayed in this graph represent the number of systems that met the definition of SNC by quarter from FY 1991 to FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

FY 1992 National Profile (cont.)

The chart below shows that of the 58,666 CWSs, only 5 percent were in significant noncompliance in FY 1992. Of the 16,294 CWSs in violation in FY 1992, 19 percent were SNCs. Furthermore, 77 percent of the CWS SNCs in FY 1992 were very small water systems serving 500 or fewer people. Only 9 percent of the CWS SNCs served more than 3,300 people.



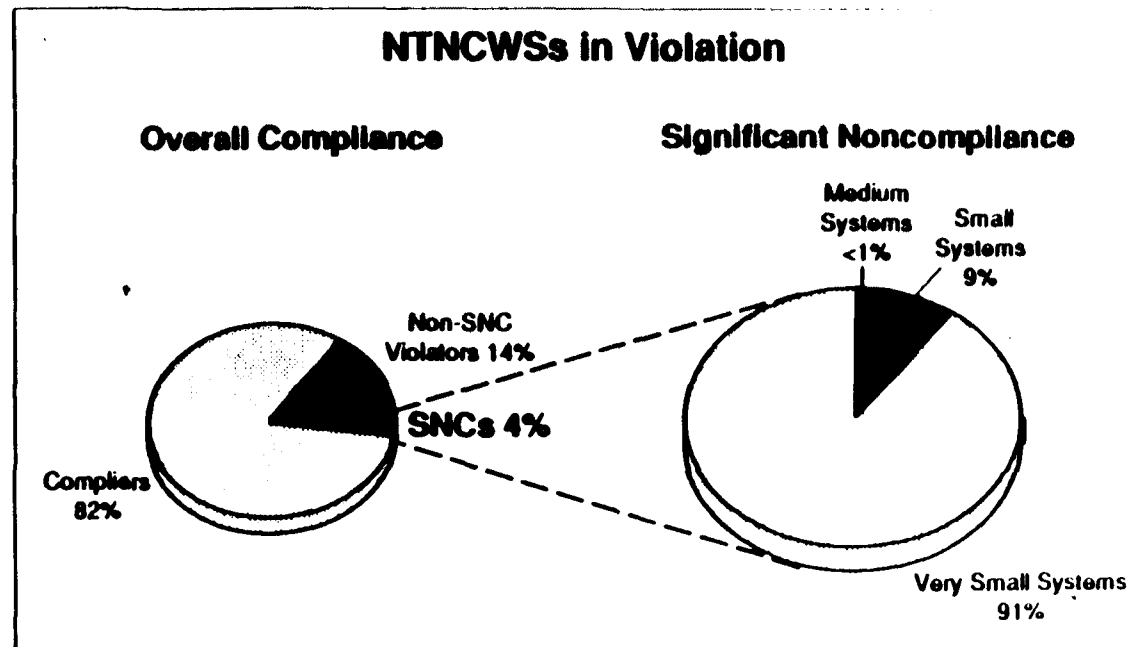
FRDS 07 (1/23/93).

Note: The number of SNCs portrayed in this chart represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

FY 1992 National Profile (cont.)

Approximately 4 percent of all NTNCWSs were in significant noncompliance in FY 1992. Of the 4,489 NTNCWSs in violation in FY 1992, 21 percent were SNCs. Furthermore, 51 percent of the SNCs in FY 1992 were very small water systems serving 500 or fewer people. Less than 1 percent of the SNCs served more than 3,300 people. None of the NTNCWS SNCs were large or very large systems (i.e., served more than 10,000 or more than 100,000 people, respectively).



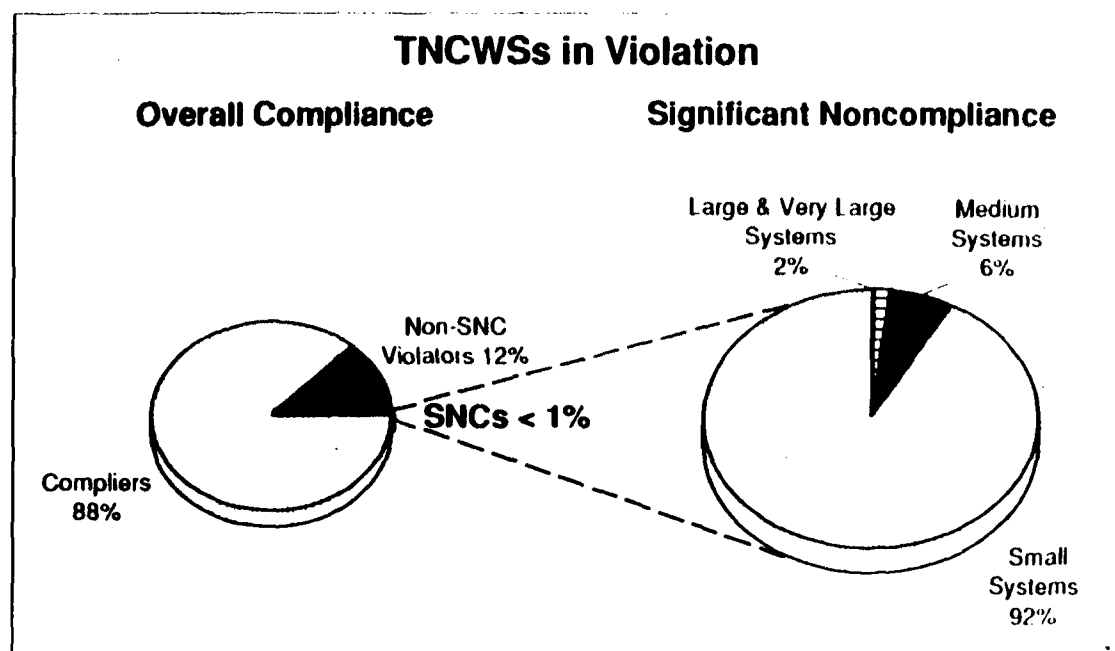
FRDS 07 (1/15/93).

Note: The number of SNCs portrayed in this chart represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

FY 1992 National Profile (cont.)

Beginning in FY 1992, transient noncommunity systems serving 500 or more persons were subject to the SNC definition. Less than 1 percent of all TNCWSs were in significant noncompliance in FY 1992. Of the 13,360 TNCWSs in violation in FY 1992, only 1 percent were SNCs.



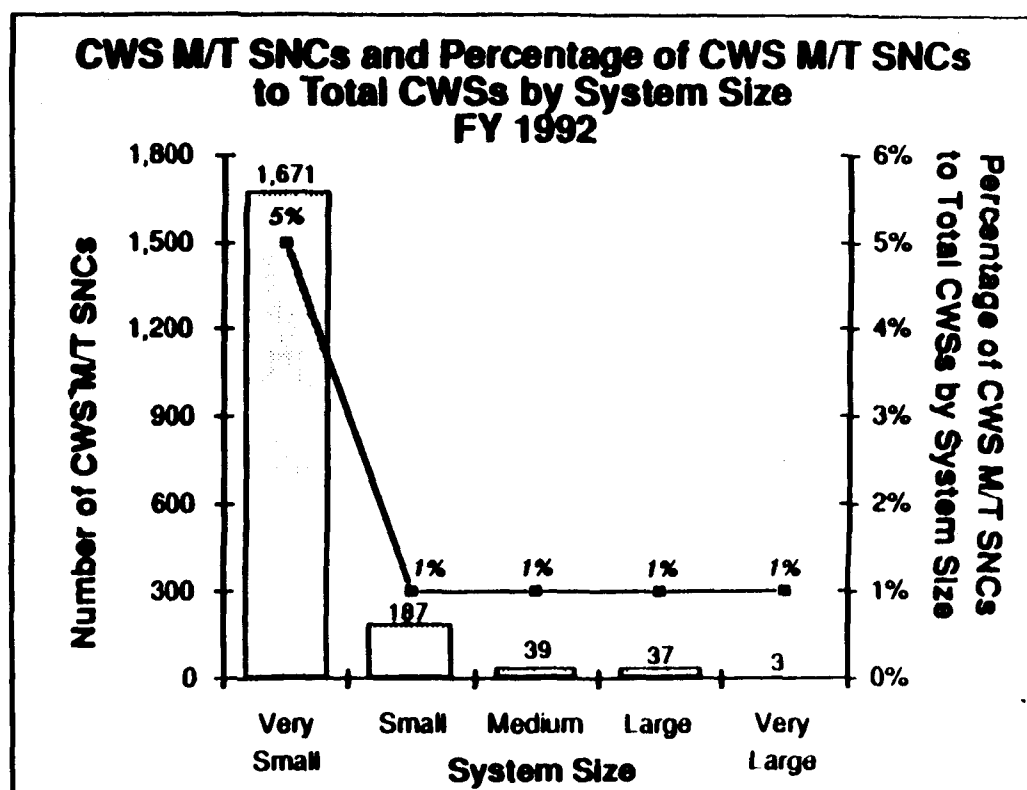
FRDS 07 (1/15/93).

Note: The number of SNCs portrayed in this chart represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

CWS Microbiological/Turbidity Significant Noncompliers

In FY 1992, 1,937 CWSs (3%) were SNCs for microbiological or turbidity requirements. Of these SNCs, 81 percent were classified as microbiological SNCs, 10 percent were turbidity SNCs, and 9 percent were both microbiological and turbidity (M/T) SNCs. Eighty (80%) percent of CWSs in significant noncompliance for these requirements violated the microbiological M/R requirements. Very small and small CWSs comprise 1,858 or 96 percent of the M/T SNCs.



The percentages in this chart reflect the percent of very small, small, medium, large, and very large CWSs that are M/T SNCs. For example, although very small systems account for the majority of M/T SNCs, only 5% of all very small CWSs are SNCs. Similarly, only 1 percent of all small, medium, large and very large CWSs are M/T SNCs.

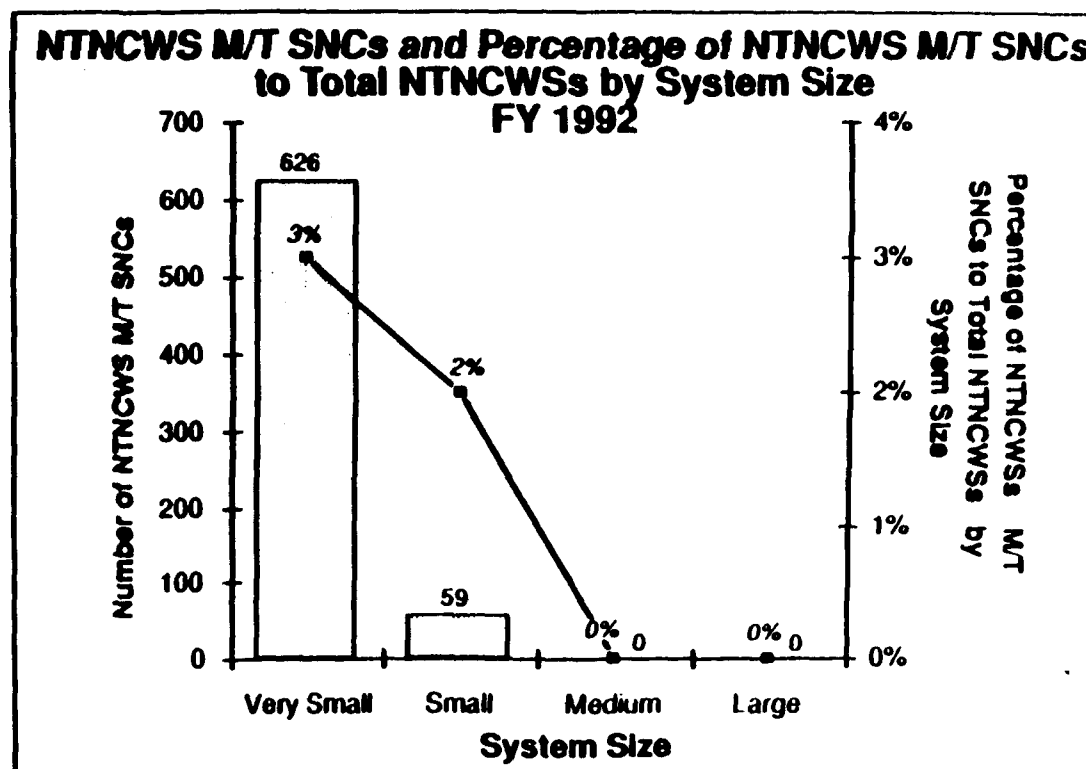
FRDS 07 (1/15/93)

Note: The number of SNCs portrayed in this graph represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

NTNCWS Microbiological/Turbidity Significant Noncompliers

In FY 1992, almost 3 percent of all NTNCWSs were SNCs of microbiological or turbidity requirements. Ninety-seven (97) percent of these were classified as microbiological SNCs, 2 percent were turbidity SNCs, and 1 percent were both microbiological and turbidity (M/T) SNCs. Ninety (90%) percent of NTNCWSs in significant noncompliance for these requirements violated the microbiological M/R requirements. All of the M/T NTNCWS SNCs were very small or small systems. However, only 3 percent of all very small system and 2 percent of all small NTNCWSs, respectively, were M/T SNCs.



The percentages in this chart reflect the percent of very small, small, medium, and large NTNCWSs that are M/T SNCs. This chart does not include a category for very large NTNCWSs because none of the NTNCWSs serve more than 100,000 people.

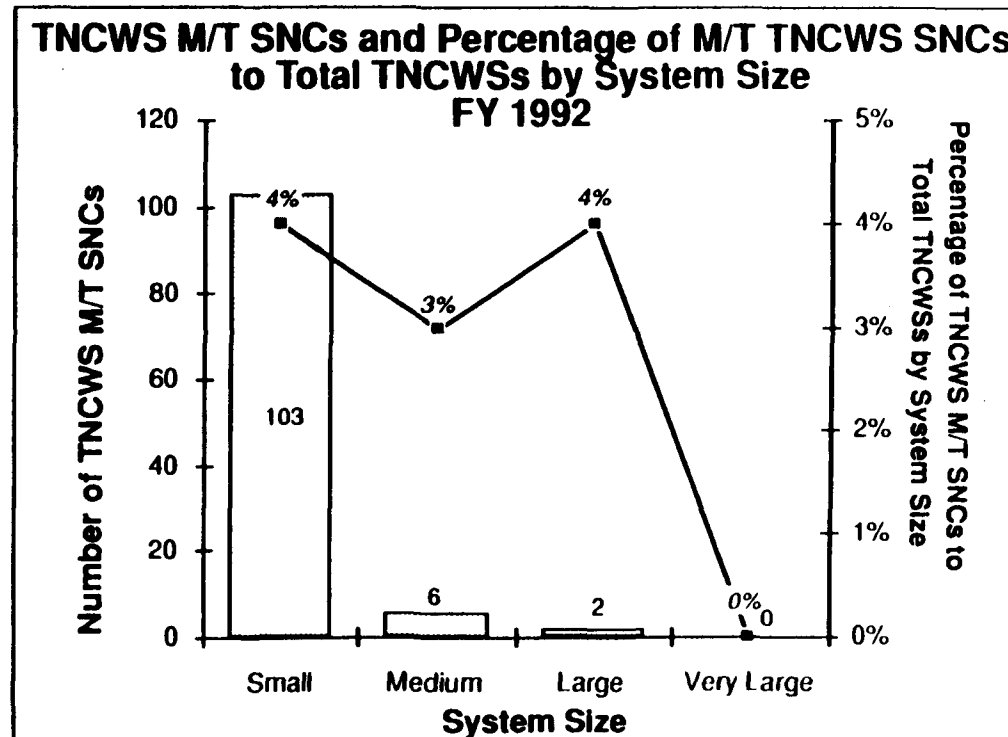
FRDS 07 (1/15/93).

Note: The number of SNCs portrayed in this graph represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

TNCWS Microbiological/Turbidity Significant Noncompliers

Beginning in FY 1992, TNCWSs serving 500 or more persons were subject to the SNC definition. In FY 1992, less than 1 percent of all TNCWSs were SNCs of microbiological or turbidity requirements. Ninety-two (92) percent of these were classified as microbiological SNCs, 5 percent were turbidity SNCs, and 3 percent were both microbiological and turbidity (M/T) SNCs. Eighty-two (82) percent of TNCWSs in significant noncompliance for these requirements violated the microbiological M/R requirements. Small TNCWSs comprised 93 percent of the M/T SNCs for TNCWSs.



The percentages in this chart reflect the percent of small, medium, large, and very large TNCWSs that are M/T SNCs. For example, although small systems account for the majority of M/T SNCs, only 4% of all small TNCWSs are SNCs. Similarly only 3 percent of all medium and 4 percent of all large TNCWSs are M/T SNCs. None of the very large TNCWSs were M/T SNCs.

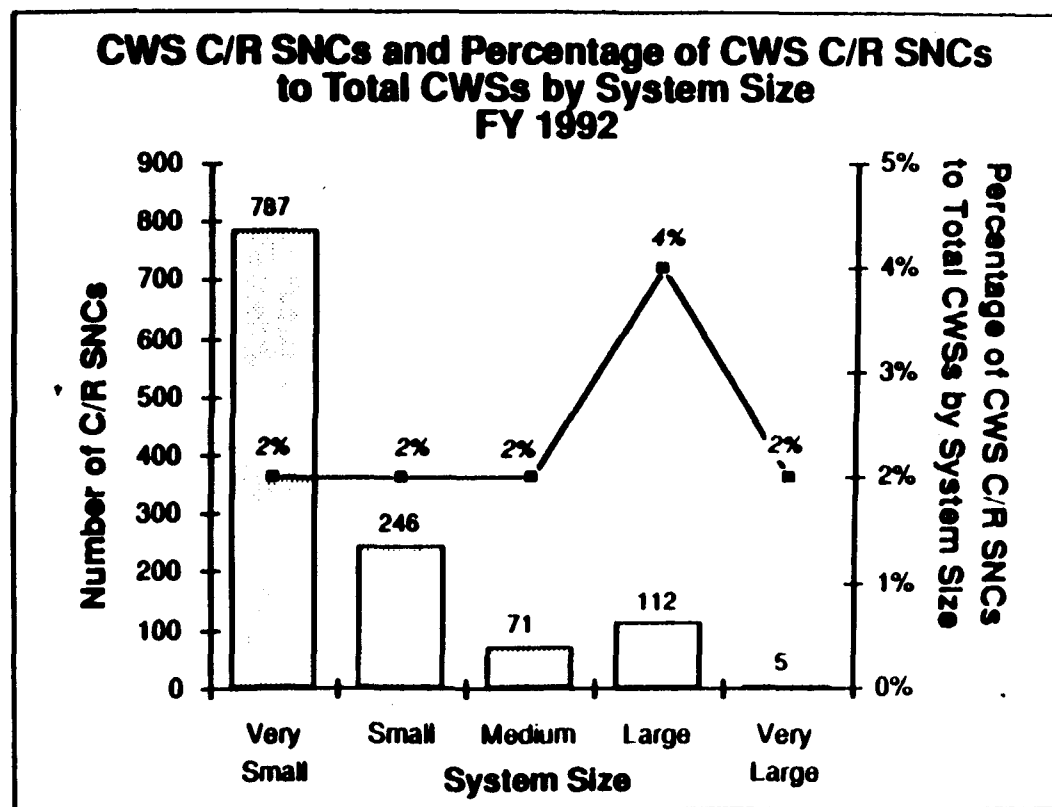
FRDS 07 (1/15/93)

Note: The number of SNCs portrayed in this graph represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

CWS Chemical/Radiological Significant Noncompliers

In FY 1992, 1,221 CWSs were SNCs for chemical or radiological requirements. Forty-three (43) percent were classified as chemical/radiological (C/R) MCL SNCs, 56 percent were C/R M/R SNCs, and 1 percent were both C/R MCL and M/R SNCs. As the following graph shows, 85 percent of the C/R SNCs were very small or small CWSs. Two (2) percent of all very small, small, medium and very large CWSs were C/R SNCs. Four (4) percent of all large CWSs were C/R SNCs.



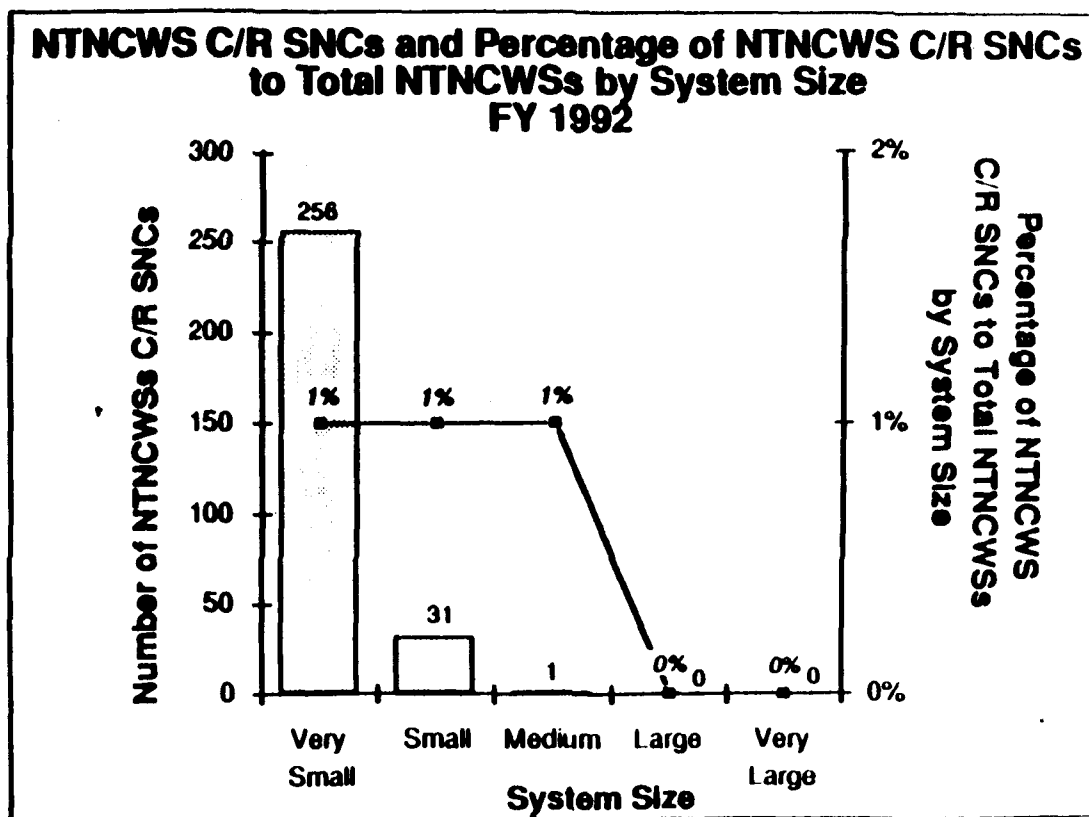
FRDS 07 (1/23/93)

Note: The number of SNCs portrayed in this graph represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

NTNCWS Chemical/Radiological Significant Noncompliers

In FY 1992, 288 NTNCWSs were SNCs for chemical or radiological requirements. Forty-five (45) percent were classified as chemical/radiological (C/R) MCL SNCs, 51 percent were C/R M/R SNCs, and 4 percent were both C/R MCL and M/R SNCs. As the following graph shows, almost 100 percent of the C/R SNCs were very small or small NTNCWSs. NTNCWS C/R SNCs represent only 1 percent of all very small, small and medium NTNCWSs.



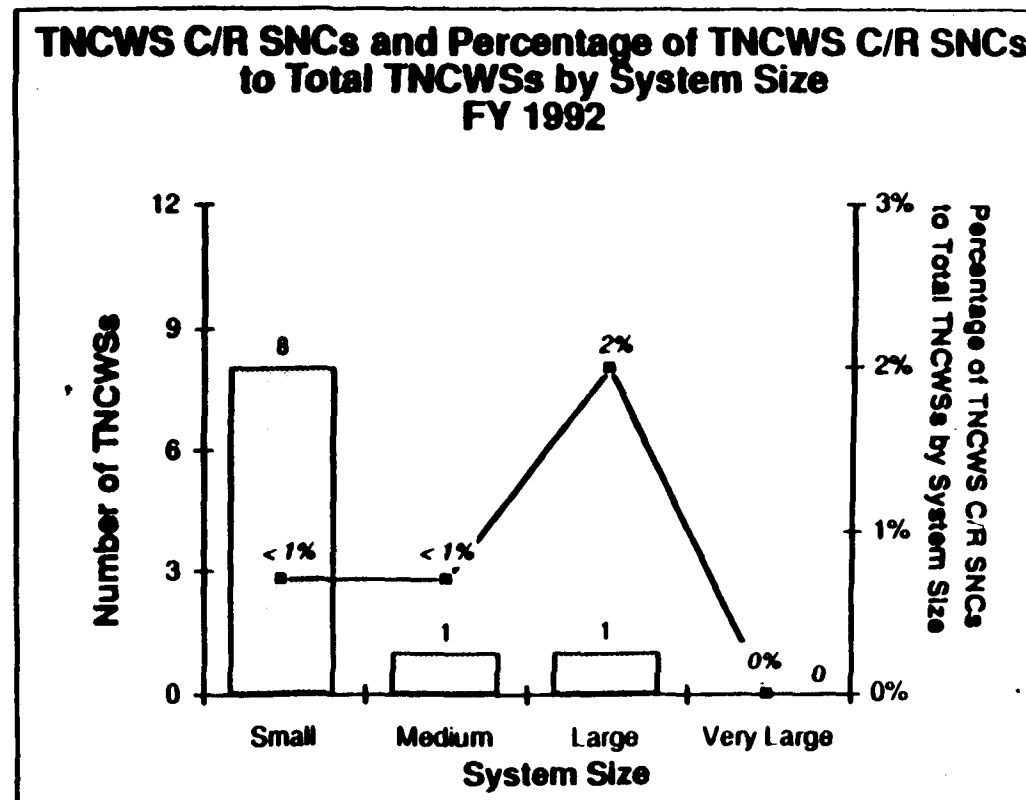
FRDS 07 (1/15/93)

Note: The number of SNCs portrayed in this graph represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

TNCWS Chemical/Radiological Significant Noncompliers

In FY 1992, 10 TNCWSs (< 1%) were SNCs for nitrate requirements. Sixty (60) percent were classified as nitrate MCL SNCs, and 40 percent were nitrate M/R SNCs. As the following graph shows, 80 percent of the C/R SNCs were small TNCWSs. Very small TNCWSs are not included in the SNC definition.



FRDS 07 (1/15/93)

Note: The number of SNCs portrayed in this graph represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

Chemical/Radiological MCL Significant Noncompliers

The table below shows the distribution of the chemical/radiological MCL SNCs by individual contaminant category and type of public water system. A total of 663 systems (543 CWSs, 114 NTNCWSs, and 6 TNCWSs) were C/R MCL SNCs in FY 1992. The numbers in the table total more than 663 because some systems violated standards for more than one contaminant.

Chemical/Radiological MCL SNCs By Contaminant Violated and Type of PWS									
Contaminant	SNCs				Contaminant	SNCs			
	CWS	NTNCWS	TNCWS ¹	Total		CWS	NTNCWS	TNCWS	Total
Arsenic	6	0	N/A	6	TTHM	22	0	N/A	22
Barium	12	0	N/A	12	p-Dichlorobenzene	0	0	N/A	0
Cadmium	16	0	N/A	16	Vinyl Chloride	1	4	N/A	5
Chromium	4	0	N/A	4	1,1-Dichloroethylene	4	9	N/A	13
Fluoride	49	0	N/A	49	1,2-Dichloroethane	1	4	N/A	5
Lead	36	0	N/A	36	1,1,1-Trichloroethane	2	3	N/A	5
Mercury	8	0	N/A	8	Carbon Tetrachloride	2	0	N/A	2
Nitrate	193	73	6	272	Trichloroethylene	16	20	N/A	36
Selenium	29	0	N/A	29	Benzene	6	6	N/A	12
Silver ²	4	0	N/A	4					
Endrin	7	0	N/A	7	Tetrachloroethylene	0	0	N/A	0
Lindane	5	0	N/A	5	Gross Alpha	19	0	N/A	19
Methoxychlor	8	0	N/A	8	Combined Radium	82	0	N/A	82
Toxaphene	8	0	N/A	8	Gross Beta	1	0	N/A	1
2,4-D	8	0	N/A	8					
2,4,5-TP (Silvex)	6	0	N/A	6					

FRDS (1/23/93).

¹The SNC definitions for chemical and radiological contaminants are not applicable (N/A) to TNCWSs with the exception of nitrate for systems serving > 500 persons.

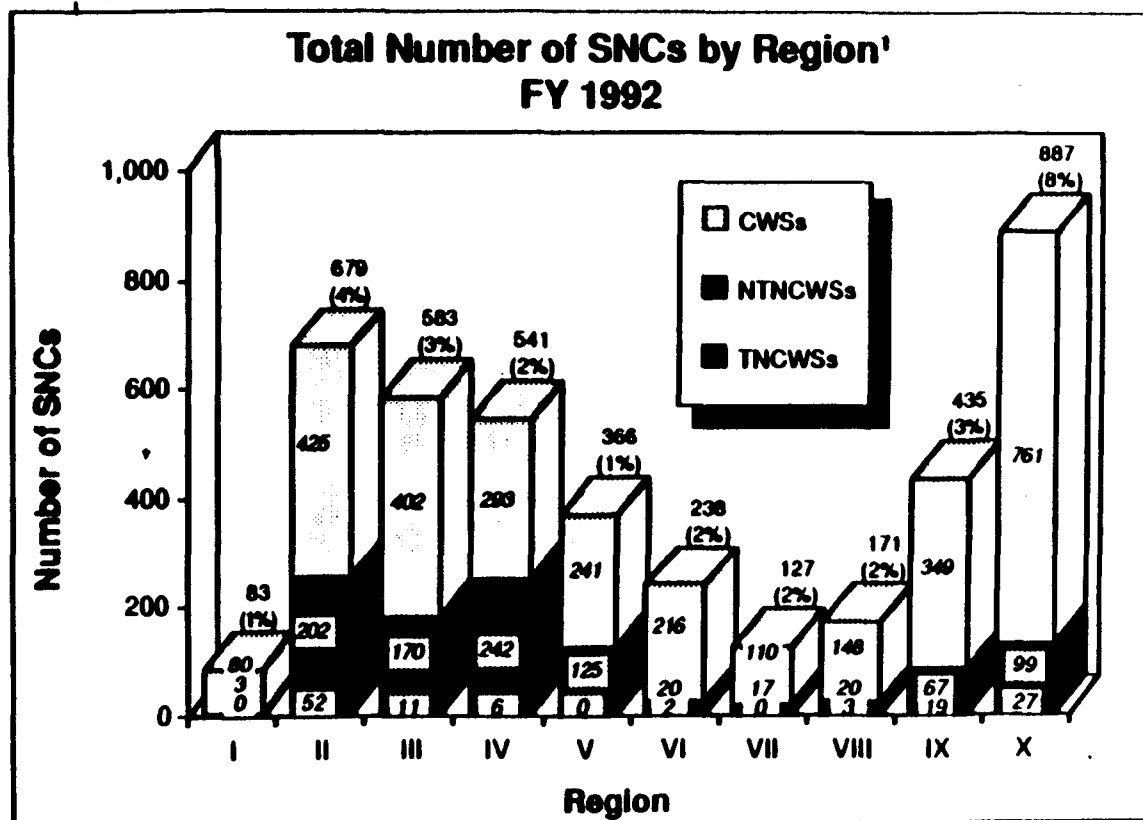
²During 1992, the Phase II Rule became effective. In this rule, the MCL for silver is eliminated.

Note: The number of SNCs portrayed in this chart represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

FY 1992 Regional Profile - Total Number of Significant Noncompliers

The following chart shows total number of SNCs (4,110) in the ten EPA Regions for FY 1992. This total includes CWSs, NTNCWSs, and TNCWSs. In addition, the percent of all PWS types that are SNCs are shown in parentheses.



FRDS 07 (1/15/93).

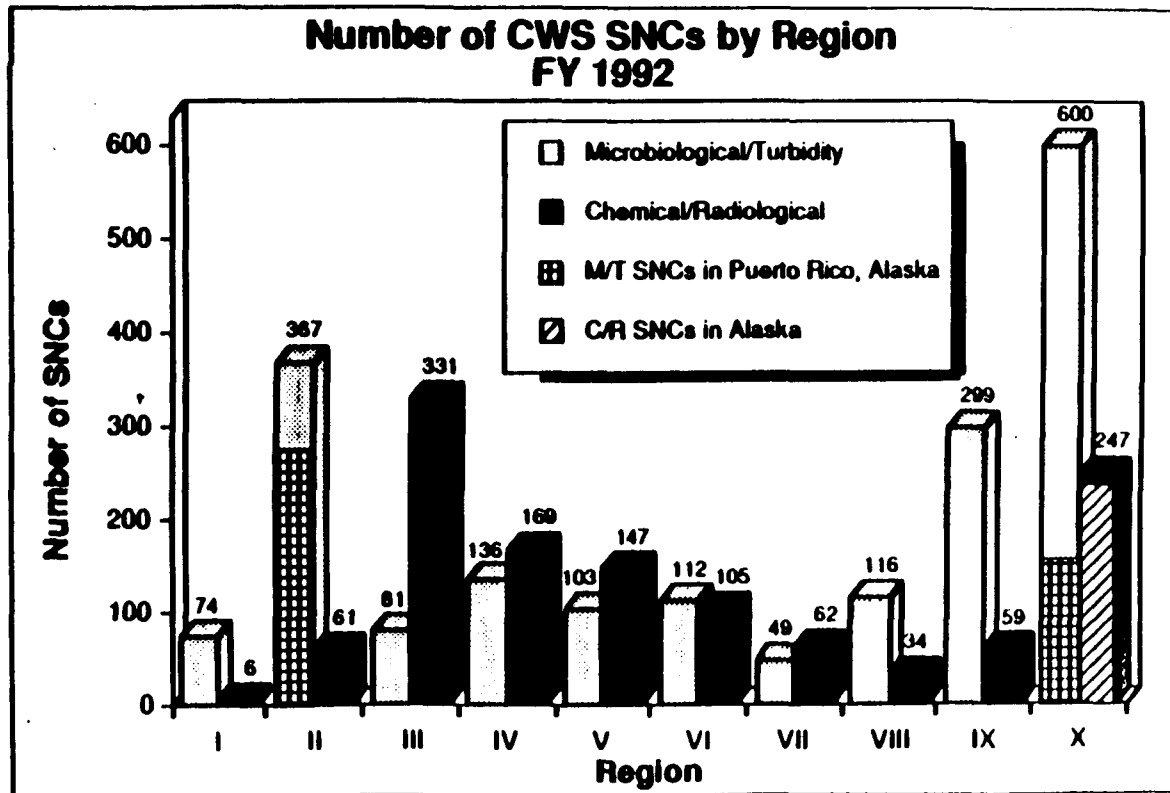
¹ These totals reflect the true value (i.e., NO double counting) for the number of PWSs that are FY 1992 SNCs in FRDS.

Note: The number of SNCs portrayed in this chart represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

FY 1992 Regional Profile - CWS Significant Noncompliers

The following chart shows significant noncompliance in the ten EPA Regions in FY 1992. The area shaded with cross-hatching represents the proportion of SNCs in Region II and Region X attributed respectively to Puerto Rico and Alaska. As discussed earlier, these systems often face cultural and language barriers, transportation difficulties, and more limited resources than in other areas. Whereas nationally, only five (5) percent of CWSs are in significant noncompliance, 61 percent (271) of the CWSs in Puerto Rico are SNCs. Similarly, in Alaska, 43 percent (311) of the CWSs are SNCs.



FRDS 07 (1/12/93).

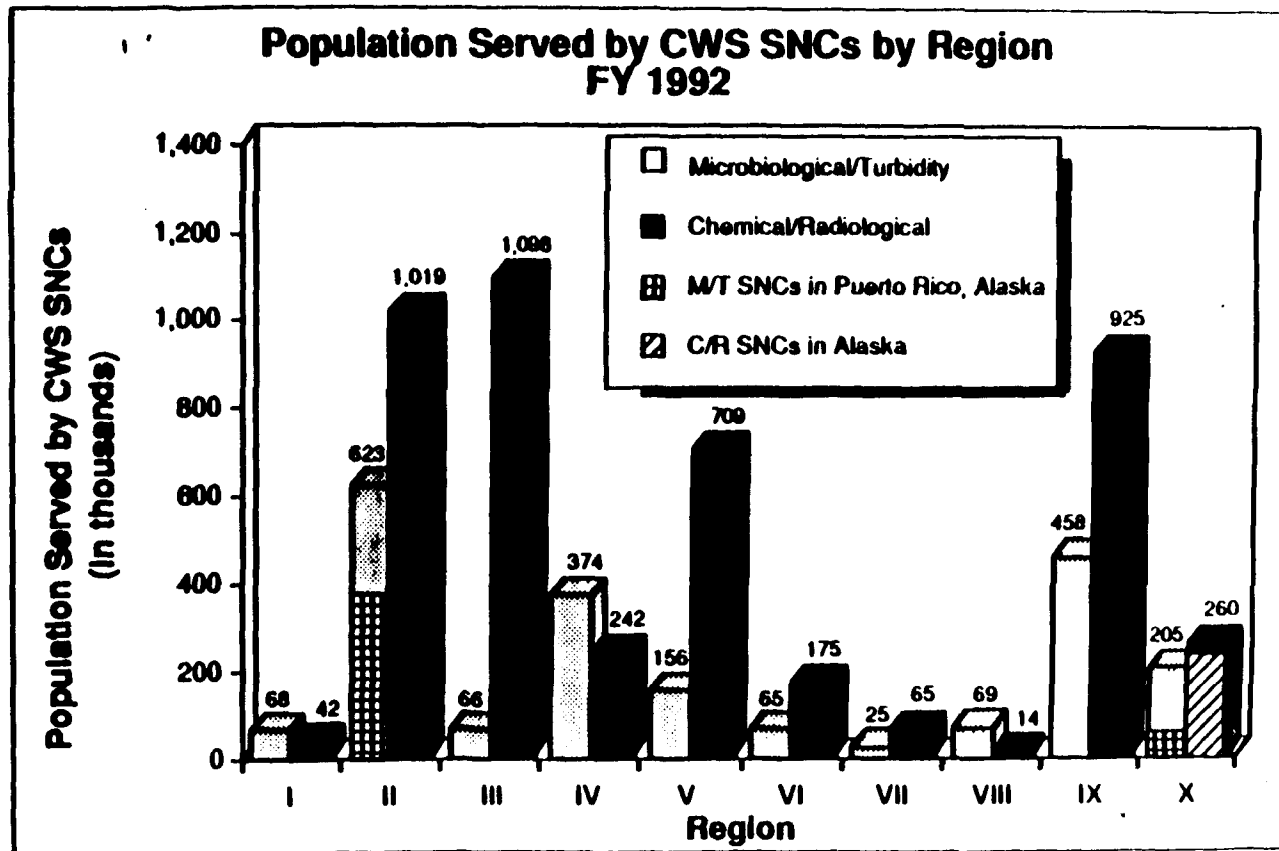
* These totals reflect the true value (i.e., NO double counting) for the number of PWSs that are FY 1992 SNCs in FRDS.

Note: The number of SNCs portrayed in this chart represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

FY 1992 Regional Profile - CWS Significant Noncompliers

The following chart shows population affected by CWS SNCs in the ten EPA Region in FY 1992.



FRDS 07 (1/15/93).

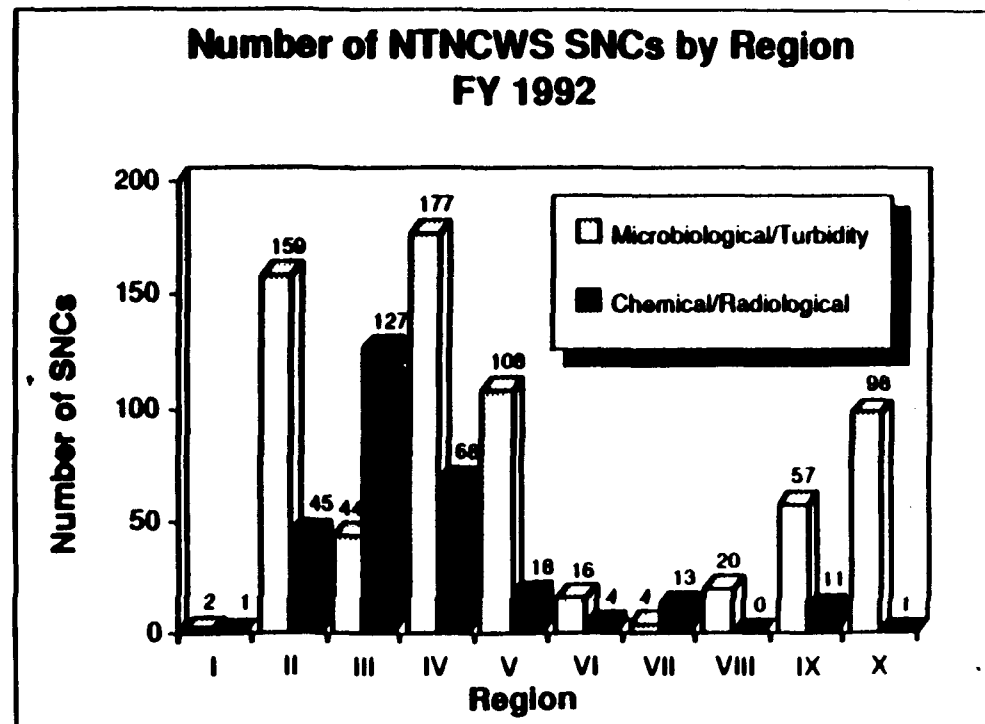
¹ These totals reflect the true value (i.e., NO double counting) for the number of PWSs that are FY 1992 SNCs in FRDS.

Note: The number of SNCs portrayed in this chart represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

FY 1992 Regional Profile - NTNCWS Significant Noncompliers

The distribution of NTNCWSs that met the definition of SNC in FY 1992 is shown by Region in the chart below.



FRDS 07 (1/15/93).

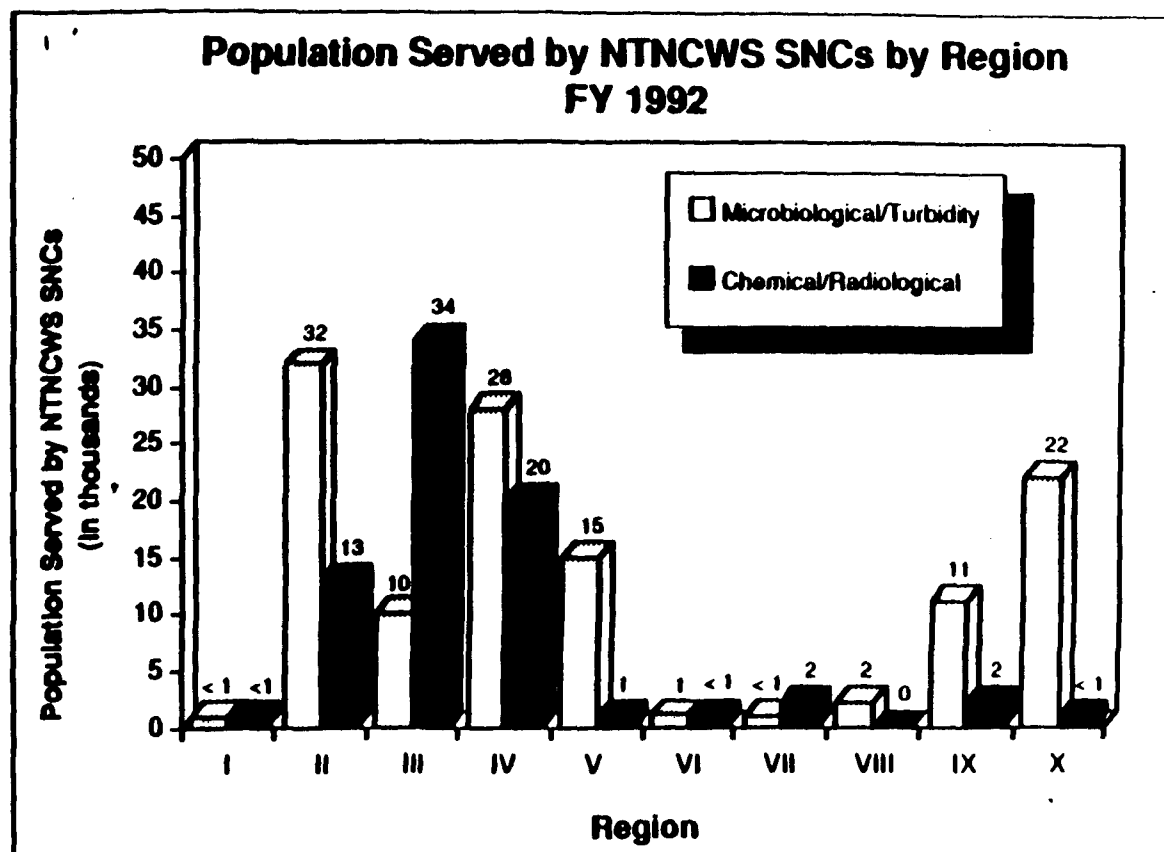
¹ These totals reflect the true value (i.e., NO double counting) for the number of PWSs that are FY 1992 SNCs in FRDS.

Note: The number of SNCs portrayed in this chart represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

FY 1992 Regional Profile - NTNCWS Significant Noncompliers

The chart below displays population affected by NTNCWS SNCs in the ten EPA Regions in FY 1992.



FRDS 07 (1/15/93).

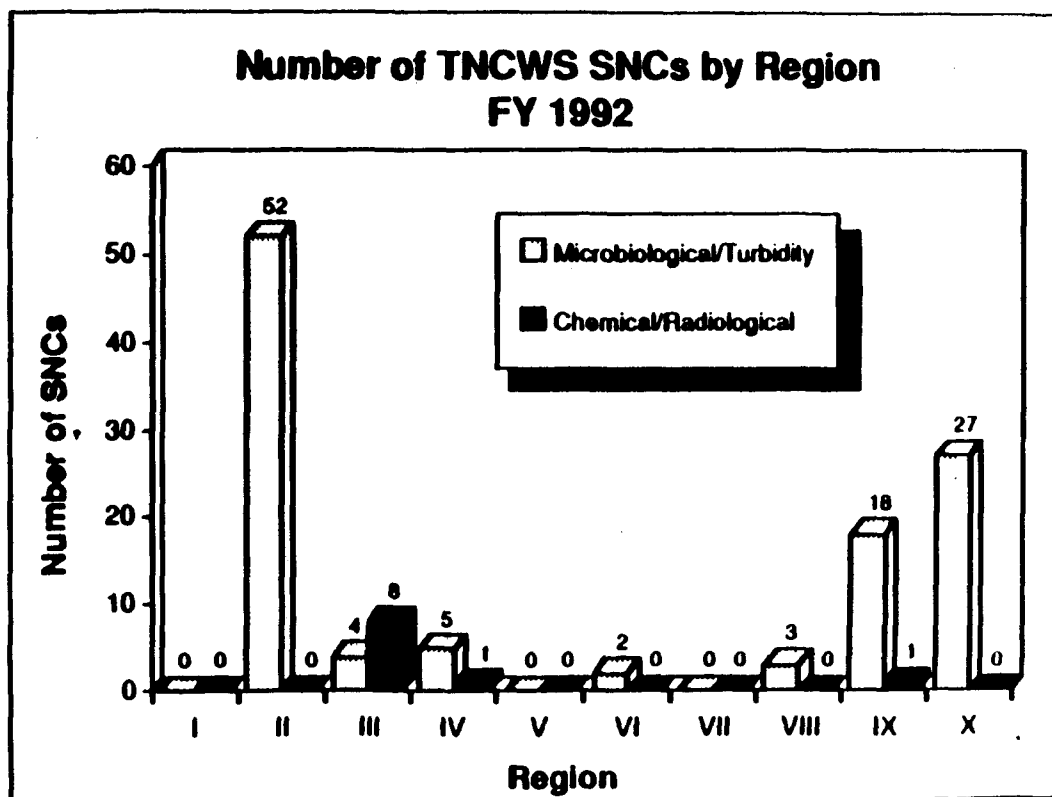
* These totals reflect the true value (i.e., NO double counting) for the number of PWSs that are FY 1992 SNCs in FRDS.

Note: The number of SNCs portrayed in this chart represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

FY 1992 Regional Profile - TNCWS Significant Noncompliers

The distribution of TNCWSs that met the definition of SNC in FY 1992 is shown by Region in the chart below.



FRDS 07 (1/15/93).

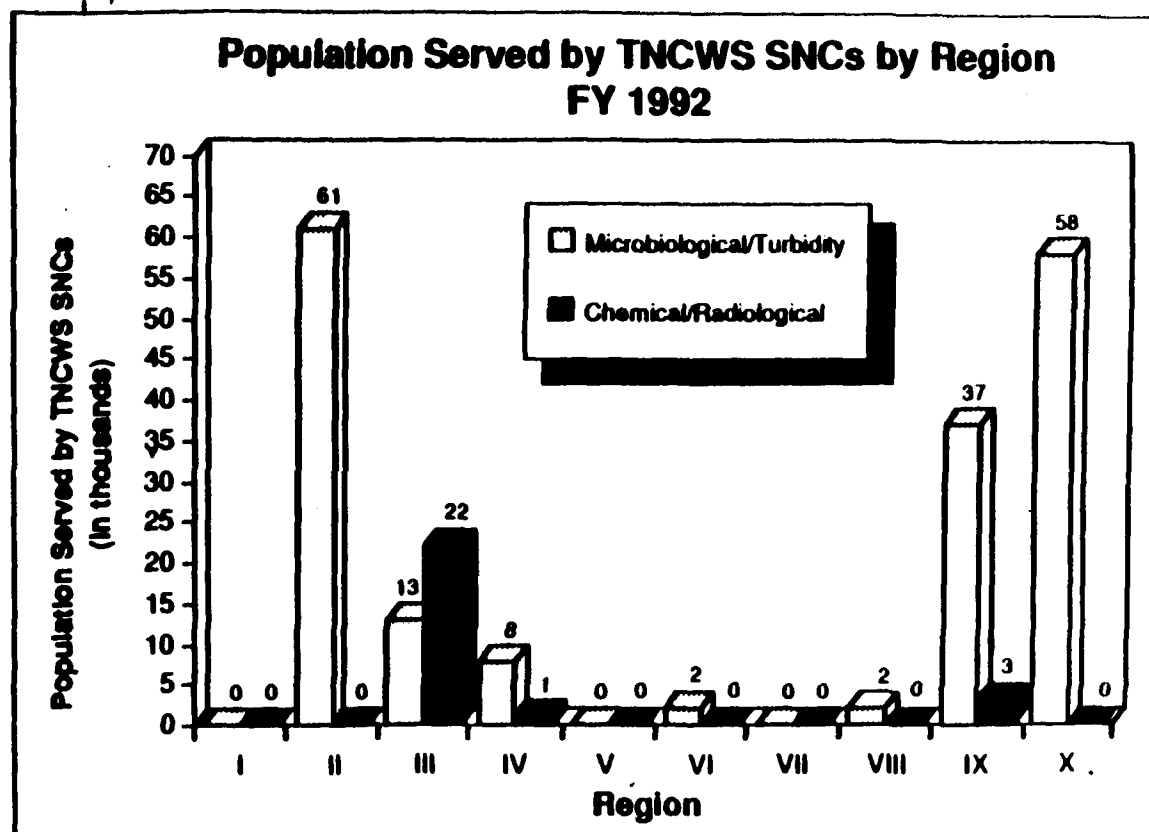
¹ These totals reflect the true value (i.e., NO double counting) for the number of PWSs that are FY 1992 SNCs in FRDS.

Note: The number of SNCs portrayed in this chart represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

FY 1992 Regional Profile - TNCWS Significant Noncompliers

The chart below portrays the population served by TNCWS SNCs in the ten EPA Regions in FY 1992.



FRDS 07 (1/15/93).

¹ These totals reflect the true value (i.e., NO double counting) for the number of PWSs that are FY 1992 SNCs in FRDS.

Note: The number of SNCs portrayed in this chart represent the number of systems that met the definition of SNC in FY 1992, based on violation data in FRDS. These numbers include SNCs that have been addressed by State or Federal enforcement actions, have returned to compliance, or were deactivated.

Significant Noncompliance (cont.)

Timely and Appropriate Actions

Once a system is classified as an SNC, it is EPA's policy that the system be addressed in a timely and appropriate fashion. In FY 1992, an appropriate enforcement action was any of the following:

- Bilateral Compliance Agreement,
- State/Federal Administrative Order,
- State/Federal Civil Referral, or
- State/Federal Criminal Filing.

To be considered timely, an action must have been taken against either a microbiological/turbidity or chemical/radiological SNC within six months.

A system also is considered to be addressed in a timely and appropriate fashion, if within six months, the State or EPA indicates that the system has returned to compliance, no longer meets the definition of a PWS, or has incorrect violations in FRDS.

A system that was not addressed in a timely fashion becomes an "exception" and a high priority for Federal action. The charts on the following page show the number and percent of SNCs and exceptions resolved during FY 1988 - FY 1992. The percentages for resolution of new microbiological/turbidity SNCs addressed in a timely and appropriate manner increased from 54 percent in FY 1988 to 61 percent in FY 1990. In

FY 1991, with the implementation of a more stringent SNC definition and the inclusion of NTNCWSs, the resolution rate decreased slightly to 57 percent but the number of systems addressed increased significantly from 472 in FY 1990 to 3,411 systems in FY 1991. In 1992, with the implementation of the new SNC definition for the Total Coliform Rule, the resolution rate decreased slightly to 54 percent.

The resolution of systems that are microbiological/turbidity exceptions has increased in rate and number from 48 percent (555) in FY 1990 to 71 percent (1,516) in FY 1992. The resolution rate for chemical/radiological exceptions also increased significantly in rate and number from 60 percent (130) in FY 1990 to 76 percent (545) in FY 1992. Traditionally, systems that are exceptions are difficult to resolve because the vast majority of these systems are very small or small and lack the financial and technical capabilities to comply with the complex requirements of the SDWA and its regulations. In addition, exceptions systems in Alaska and Puerto Rico face further constraints due to cultural differences. Nine (9%) percent and 30 percent of exceptions that remained unresolved at the end of the fiscal year were located in Alaska and Puerto Rico, respectively.

Source: Timely and Appropriate Reports, FY 1988 to FY 1992.

Significant Noncompliance (cont.)

Timely and Appropriate Actions (cont.)

Resolution of SNCs										
SNC Type	FY 88		FY 89		FY 90		FY 91		FY 92	
	Number Systems	Percent Resolved	Number Systems	Percent Resolved	Number Systems	Percent Resolved	Number Systems	Percent Resolved	Number Systems	Percent Resolved
Microbiological/Turbidity	1,283	54%	334	54%	472	61%	3,411	57%	1,895	54%
Chemical/Radiological	3,161	43%	147	82%	99	81%	691	65%	803	42%

Resolution of Exceptions										
Exception Type	FY 88		FY 89		FY 90		FY 91		FY 92	
	Number Systems	Percent Resolved	Number Systems	Percent Resolved	Number Systems	Percent Resolved	Number Systems	Percent Resolved	Number Systems	Percent Resolved
Microbiological/Turbidity	536	32%	396	56%	555	48%	1,524	66%	1,516	71%
Chemical/Radiological	N/A	N/A	190	31%	130	60%	327	54%	545	76%

Note: An SNC or exception is considered resolved if an appropriate enforcement action has been taken, the system has returned to compliance, was deactivated, or based on further investigation, was not an SNC.

Source: Timely and Appropriate Reports, FY 1988-1992

Enforcement

Enforcement

The table on page 65 shows the distribution of State and Federal enforcement actions taken in FY 1992 against all violators of the SDWA. The data on State actions were derived from the number of unique enforcement actions that were reported to the Federal Reporting Data System (FRDS). Numbers for Federal actions were taken from monthly reports submitted by the EPA Regional Offices.

Prior to FY 1992, numbers of State actions were manually reported to EPA Headquarters as part of the quarterly reports to the Strategic Targeted Activities for Results System (STARS). STARS is an automated reporting system for the Agency's program management office. However, in an effort to improve the quality of the information that is reported to the national data system (FRDS), and encourage comprehensive reporting to FRDS of all required data, the numbers of FY 1992 State enforcement actions are based on numbers of actions that have been reported to FRDS.

The majority of State enforcement actions taken in FY 1992 were administrative orders (73 percent). Bilateral compliance agreements (BCAs) made up 22 percent of the State enforcement actions taken in FY 1992. Civil referrals to State Attorneys General comprised 4 percent of State actions.

The number of notices of violation (NOVs) issued in FY 1992 was lower than in FY 1991 because several Regions issued a large number of NOVs as part of their FY 1991 special enforcement initiatives.

During FY 1992, the number of proposed administrative orders (PAOs), final administrative orders (FAOs), complaints for penalty (CFPs) and active cases rose by 21 percent from FY 1991. In addition, EPA increased its use of Section 1431 emergency orders by 50 percent.

The majority of Federal enforcement actions taken in FY 1992 were NOVs (61 percent). PAOs and FAOs made up 22 percent and 14 percent, respectively, of the Federal enforcement actions taken. CFPs and civil or criminal litigation comprised 2 percent of the Federal actions. Section 1431 orders accounted for the remainder of the Federal actions.

Enforcement (cont.)

State & Federal Enforcement Actions: FY 1992

REGION	I	II	III	IV	V	VI	VII	VIII	IX	X	National Totals
Bilateral Compliance Agreements	7	42	31	27	18	31	55	13	2	77	303
Administrative Orders	43	418	26	102	18	133	223	6	3	37	1,009
Civil Referrals	0	0	0	29	2	6	10	4	0	0	51
Criminal Cases Filed	0	0	1	0	0	15	0	0	0	4	20
TOTAL STATE ACTIONS¹	50	460	58	158	38	185	288	23	5	118	1,383
Notices of Violation	53	20	219	160	144	461	3	248	84	93	1,485
Proposed Administrative Orders	9	134	21	32	27	218	4	32	28	34	539
Final Administrative Orders	2	33	11	25	14	173	5	32	26	31	352
Emergency Orders	1	0	0	1	0	0	2	4	0	1	9
Complaints for Penalty	0	2	0	2	4	13	1	10	0	0	32
Active Cases ²	7	1	1	0	1	3	0	6	0	0	19
TOTAL FEDERAL ACTIONS³	72	190	252	220	190	868	15	332	138	159	2,436

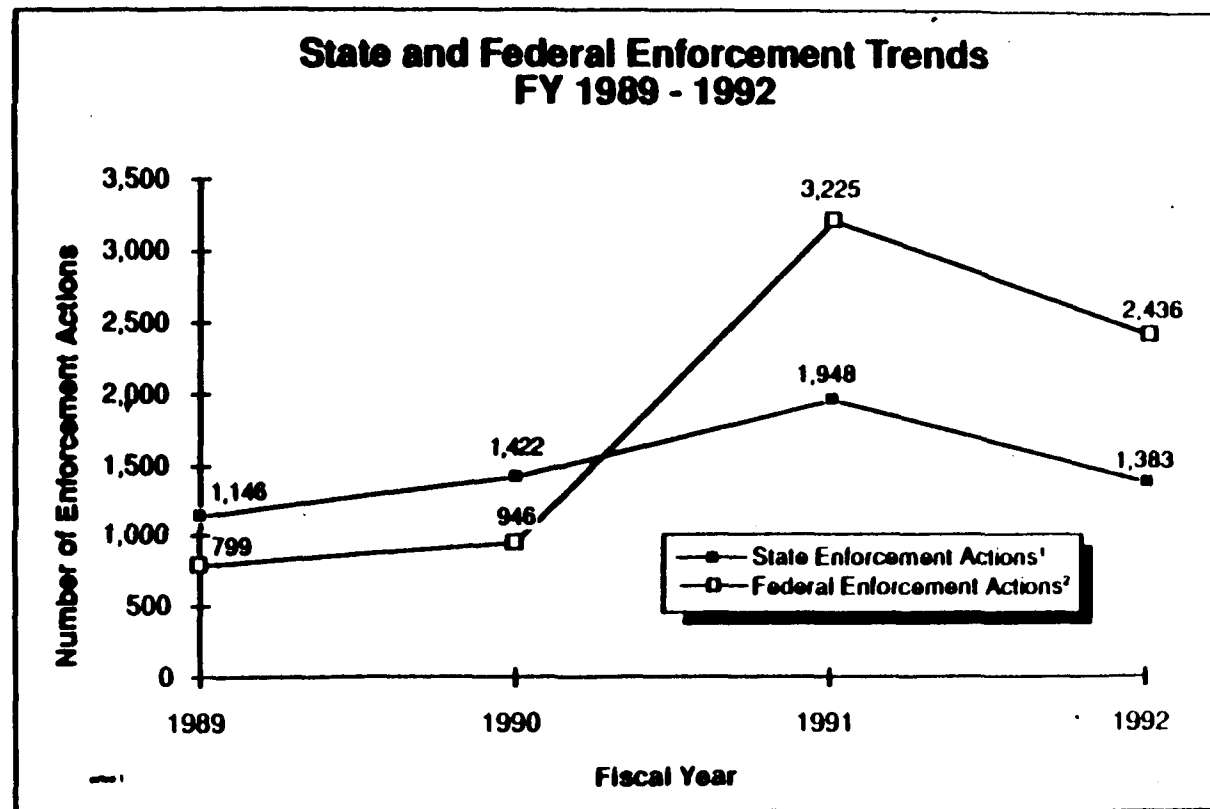
¹Source: FRDS 17 (1/15/93).

²Active means any case that was referred, being litigated, or settled. Of the 19 active cases during FY 1992, 13 were civil cases (6 new referrals and 7 cases in progress), and 6 were criminal cases.

³Source: PWSS Enforcement Activity Report for FY 1992.

Enforcement (cont.)

The graph below shows the total number of State and Federal actions from FY 1989 to FY 1992. The high number of Federal actions in FY 1991 was due to the large number of NOV's issued as part of special enforcement initiatives in several Regions. FY 1992 was a record year for the number of PAOs, FAOs, CFPs, and active cases, increasing by 21 percent from FY 1991.



¹State enforcement actions include bilateral compliance agreements, State administrative orders, civil referrals, and criminal cases filed

²Federal enforcement actions include notices of violation, Federal proposed and final administrative orders, emergency orders, complaints for penalty, and active cases

PWSS Compliance and Enforcement Program Direction

PWSS Compliance and Enforcement Program Direction

FY 1992

In FY 1992, EPA and the States took several actions to strengthen their enforcement programs. These initiatives included:

- Increased emphasis on data quality and timeliness of reporting to FRDS
- Continued implementation of a new data verification protocol to identify problems in compliance determination and reporting data to FRDS -- data verifications were conducted in 12 States in FY 1992
- Increased use of NOV's in several EPA Regions to systems in violation
- Development of a strategy for enforcing requirements of Surface Water Treatment and Lead and Copper Rule
- Conference of State Attorneys General, State Drinking Water Administrators, and EPA to focus attention on the drinking water enforcement program
- Development of an Enforcement Management System (EMS)
- Issuance of guidance on the use of EPA's emergency authorities under Section 1431 of the SDWA.

FY 1993 and Beyond

EPA and the States will continue to work on strengthening their program in FY 1993 and beyond. Expected initiatives include:

- Development of Region-specific plans to improve enforcement programs
- Continued work to improve the accuracy and completeness of FRDS data, including follow-up on data verifications conducted in FY 1991 and FY 1992
- Initiatives to enforce new regulations, especially the Surface Water Treatment and Lead and Copper Rules
- Increased use of EPA's Section 1431 authorities in accordance with guidance issued in FY 1992
- Implementation of EMS
- Increased emphasis on civil judicial actions (largest penalty of \$67,000 was obtained against a PWS in FY 1992)
- Additional analysis of State enforcement programs
- Development of a formal inspection program.

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