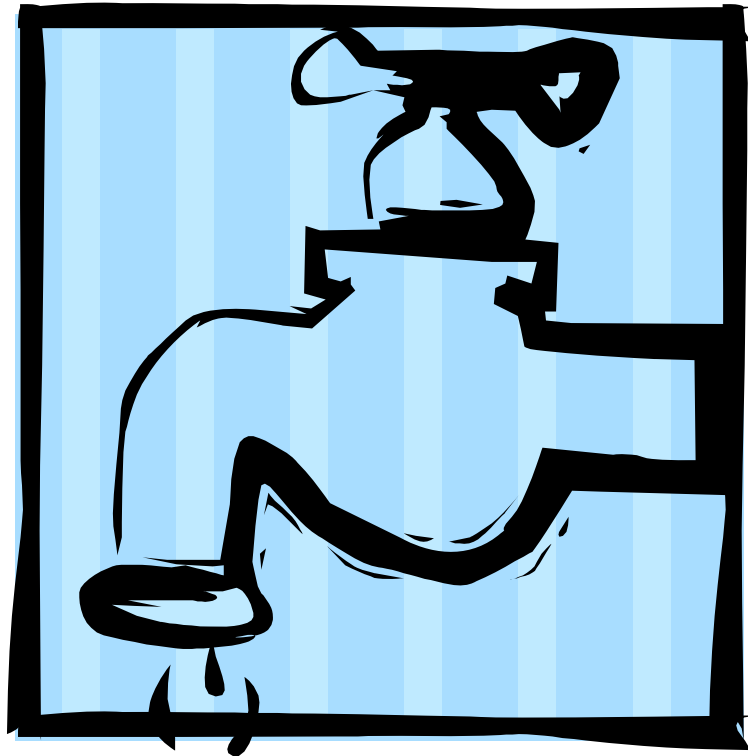


# Bureau of Water

South Carolina Department of Health and Environmental Control

## **SOUTH CAROLINA PUBLIC WATER SYSTEM COMPLIANCE REPORT:**

Calendar Year 2009



June 2010



South Carolina Department of Health  
and Environmental Control

**South Carolina Department of Health and Environmental Control:**

***South Carolina Public Water System Annual Compliance Report  
for Calendar Year 2009***

Table of Contents

	<u>Page No.</u>
<b>List of Figures.....</b>	<b>ii</b>
<b>Executive Summary.....</b>	<b>1</b>
<b>Introduction.....</b>	<b>2</b>
<b>General Information on SC Public Water Systems.....</b>	<b>4</b>
<b>Information on Violations, Compliance, and Enforcement.....</b>	<b>5</b>
<b>Information on Variances and Exemptions.....</b>	<b>13</b>
<b>Conclusions .....</b>	<b>14</b>
<b>Report Distribution and Availability.....</b>	<b>18</b>

**Appendix A: Violation Table for Calendar Year 2009**

**Appendix B: System-Specific Maximum Contaminant Level/Treatment Technique  
Violations Table for Calendar Year 2009**

## LIST OF FIGURES

	<u>Page No.</u>
<b>Figure 1</b> <b>Public Water System Enforcement Actions – Significant Non-Compliance (SNC) Systems for Calendar Year 2009.....</b>	6
<b>Figure 2</b> <b>Public Water System Enforcement Actions - All Systems with Violations for Calendar Year 2009.....</b>	8
<b>Figure 3.1</b> <b>Public Water System Violations - Calendar Years 2005 - 2009.....</b>	10
<b>Figure 3.2</b> <b>Public Water System Violations - M/R v. MCL/TT for Calendar Years 2005 - 2009.....</b>	11
<b>Figure 3.3</b> <b>Public Water System Violations - By Violation Category for Calendar Years 2005 - 2009.....</b>	12
<b>Figure 4.1</b> <b>Public Water System Violations - Water Quality Violations by System Type for Calendar Year 2009.....</b>	16
<b>Figure 4.2</b> <b>Public Water System Violations - Total Violations by System Type for Calendar Year 2009.....</b>	17

The 1996 Safe Drinking Water Act Amendments require all primacy states to compile and submit annual compliance reports to the U.S. Environmental Protection Agency (USEPA). This is the **thirteenth** annual report submitted under these amendments and covers calendar year **2009**.

Of the State of South Carolina's 1,489 federally-defined public water systems (PWS), over **99%** were considered to be in significant compliance with drinking water regulatory requirements in calendar year 2009.. Of the less than 1% of systems or [six systems] that were considered to be in significant noncompliance (SNC): one system was granted a State Variance/Exemption; one has been sent a Notice of Violation (NOV); one system had a Technical Assistant Visit conducted; one system had a Compliance Meeting conducted; and two systems have issued Public Notice.

There were 137 systems that incurred a total 215 violations during 2009. Of the 137 systems that incurred violations, 97, or approximately **71%**, of the systems incurred only a single violation during the year. 47 systems had Maximum Contaminant Level (MCL) violations for bacteriological contamination. 30 of the 47 systems that had MCL violations or approximately **64%**, were one-time occurrences.

South Carolina is achieving an overall **99%** compliance rate for bacteriological monitoring and reporting requirements. With such high rates of monitoring compliance, it is expected that more occurrences of minor bacteriological contamination would be identified. Many times these MCL violations can be attributed to work being performed on distribution lines or on wells and are not indicative of the quality of the source itself. In further reviewing the bacteriological data for this report, it was clear that the majority of the violations were seen in groundwater [*i.e.*, well] systems. Another trend noted was that most of the systems are considered small PWSs that collect one routine sample per month or quarter. All systems, regardless of size, are required to complete additional sampling and make public notification in response to such MCL violations. The South Carolina Department of Health and Environmental Control's (SCDHEC) Bureau of Water evaluates the results of the bacteriological analyses to identify persistent water quality problems.

Of the remaining systems with MCL violations for contaminants other than bacteria, one system exceeded the MCL for Benzene; one systems exceeded for Trichloroethylene; four system exceeded for Fluoride; one systems exceeded for Arsenic; two exceeded for nitrate; seven exceeded for Radium 226/228; and one exceeded for Gross Alpha activity.

**June 2010**

**Annual Compliance Report - Page 1**

**INTRODUCTION**

In 1975, SCDHEC was approved by the USEPA to be the primacy agency responsible for

the regulatory oversight and enforcement of South Carolina's public drinking water program. This primacy was obtained shortly following the adoption of the 1974 *Safe Drinking Water Act* by the U.S. Congress.

As the primacy agency, SCDHEC is responsible for ensuring that all Public Water Systems (PWSs) monitor for contaminants and report these results according to both state and federal regulatory requirements. In addition, SCDHEC is responsible for certifying that these results are within regulatory limits and that the public is informed of any MCL exceedances. [Note: Refer to page 5 for definitions].

A major part of maintaining this primacy designation is verifying that PWSs are completing all requirements in an appropriate manner and, if not, taking timely and appropriate enforcement action to correct the problems. A state's primacy status is reviewed each time a new federal rule is adopted. In periods between these major reviews, the USEPA conducts periodic evaluations to ensure that the State is effectively and appropriately overseeing the program.

The *1996 Amendments to the Safe Drinking Water Act* included a provision for an annual report by the States. The basis, requirements, and applicability of this provision are found in Section 1414[c][3][A][i-ii]. This section reads, in general, as follows:

*IN GENERAL - Not later than January 1, 1998, and annually thereafter, each State that has primary enforcement responsibility under Section 1413 shall prepare, make readily available to the public, and submit to the Administrator an annual report on violations of National Primary Drinking Water Regulations by public water systems in the State, including violations with respect to [I] maximum contaminant levels, [II] treatment requirements, [III] variances and exemptions, and [IV] monitoring requirements determined to be significant by the Administrator after consultation with the States [emphasis added].*

*DISTRIBUTION - The State shall publish and distribute summaries of the report and indicate where the full report is available for review.*

This report for calendar year **2009** has been prepared to meet this requirement and to serve as information to the citizens of South Carolina regarding drinking water supplies. As further required by this provision of the 1996 Amendments, the **fourteenth** report covering calendar year **2010** will be submitted to the USEPA no later than **July 1, 2011**.

The data sets used for this report are taken largely from the USEPA database, the Safe Drinking Water Information System [SDWIS/Fed], to which primacy States are required to submit quarterly updates regarding PWS inventory statistics, the incidence of MCL exceedances, major monitoring and treatment technique violations, and enforcement actions taken against those systems

with violations. To ensure the accuracy of these data, SCDHEC has cross-referenced all information in the State-maintained database with the information in SDWIS/State, corrected any discrepancies, and reported the actual number and type of violations.

One of the public right-to-know provisions of the 1996 Amendments of the SDWA deals with Consumer Confidence Reports (CCR). All Community PWSs are required to complete a report to their consumers detailing specific information to include the source of their water, the types of treatment used, and details regarding any violations or contaminant detections in the water during the previous calendar year. The first CCR covered calendar year 1998 and earlier. Each subsequent report is due by July 1st of each year and will cover the most recent data available to the PWS.

**June 2010**

**Annual Compliance Report - Page 3**

**GENERAL INFORMATION ON SC PUBLIC WATER SYSTEMS**

For the purposes of this report, all water systems addressed will be those that meet the federal definition of a PWS. This definition specifies that such systems are those that provide water via piping or other constructed conveyances for human consumption to **at least fifteen [15] service**

**connections [taps] or to an average of at least twenty-five [25] people for at least sixty [60] days each year** [emphasis added]. These systems are divided into three classifications: **Community [C]** water systems serve approximately the same year-round population [e.g., towns and cities]; **Non-transient non-community [P]** water systems serve at least twenty-five [25] of the same people for at least six [6] months of the year [e.g., schools and industries]; and, **Transient non-community [N]** water systems serve mobile populations [e.g., rest stops, parks, and campgrounds].

At the time of this report, South Carolina had 1489 federally-defined PWSs. Categorized by type, there are 609 Type C systems, 134 Type P systems and 746 Type N systems. Currently, approximately 3,500,000 residents of South Carolina are being provided their drinking water from Type C water systems.

There are two types of source water classifications for these systems: **ground water and surface water**. Ground water systems are those systems depending on wells to provide their drinking water supply; while surface water systems are those systems that depend on lakes, rivers, and streams for their drinking water supply. Currently, 403 of the State's Type C water systems [more than **66%** of the total number] are classified as groundwater systems; however, approximately **3.0** million people in the State [approximately **86%** of the total population served by Type C systems] actually receive their drinking water from surface water systems, even though there are fewer surface water systems in South Carolina.

Not included in this report are **State-defined PWSs**. These are water systems that do not meet the Federal definition of a PWS, but serve more than a single-family dwelling. SCDHEC regulates these systems and provides monitoring services that are protective of public health concerns, but monitoring for these systems is not as comprehensive as that required for Federal systems.

In 1994, the *State Safe Drinking Water Act* was amended to add a fee provision. This provision allowed SCDHEC to charge a fee to PWSs that provides for monitoring services as well as other activities necessary to retain primacy. Upon the enactment of this legislation, SCDHEC began conducting most of the monitoring required for public water systems. This means that SCDHEC is charged with scheduling, ensuring proper sample collection, and analytical testing for all of the water systems. The only compliance monitoring not currently done by SCDHEC is the routine bacteriological compliance monitoring for the Type C and P systems.

**June 2010**

**Annual Compliance Report - Page 4**

### **INFORMATION ON VIOLATIONS, COMPLIANCE, AND ENFORCEMENT**

This report identifies specific categories of violations. These include the following:

1. **Maximum Contaminant Level (MCL)** - Violations that occur when national limits

set by the USEPA on contaminants seen in drinking water are exceeded. They are designed to ensure the water is safe for human consumption;

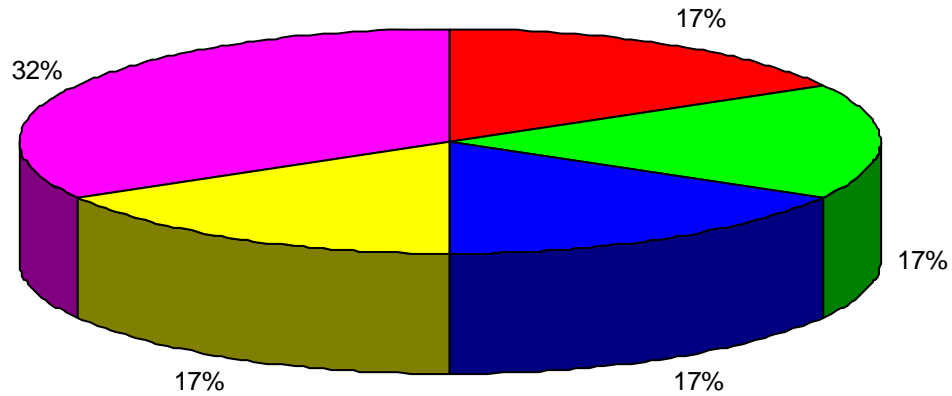
2. **Treatment Technique (TT)** - Violations that occur when special limits set by the USEPA under some regulations in lieu of MCLs are exceeded. They are designed to control unacceptable levels of certain contaminants such as viruses, bacteria and turbidity; and,
3. **Significant Monitoring (M/R)** - Violations that occur when no samples are taken or no results are reported during a specific compliance period. In the case of surface water systems that must adhere to the *Surface Water Treatment Rule*, a significant or major monitoring violation occurs when fewer than 10% of the required samples are taken or no results are reported during a compliance period.

There were 137 systems that incurred a total of 215 violations during 2009. Of the 137 systems that incurred violations, 97, or approximately **71%**, of the systems incurred only a single violation during the year. 47 systems had Maximum Contaminant Level (MCL) violations for bacteriological contamination. 30 of the 47 systems that had MCL violations or approximately **64%**, were one-time occurrences.

Six systems were considered to be in significant non-compliance. One system was granted a State Variance/Exemption; one has been sent a Notice of Violation (NOV); one system had a Technical Assistant Visit conducted; one system had a Compliance Meeting conducted; and two systems have issued Public Notice. . **[Figure 1]**

While actions taken against SNC systems are a component of our Enforcement program, they do not encompass the entire effort. Another crucial part of the enforcement process is the issuance of formal Notices of Violation [NOV] when a violation occurs. The issuance of these NOV's also requires that public notice be made and informs the water system that further enforcement action may be taken should additional violations occur. During 2009, 72 systems of the 137 systems incurring violations, or approximately **53%**, returned to compliance after the issuance of an NOV.

## Public Water System Enforcement Actions SNC Systems for Calendar Year 2009



- |   |   |
|---|---|
| <span style="color: red;">■</span> Granted State Variance - 1 System      | <span style="color: green;">■</span> Notice of Violation - 1 System |
| <span style="color: blue;">■</span> Technical Assistance Visit - 1 System | <span style="color: yellow;">■</span> Compliance Meeting - 1 System |
| <span style="color: magenta;">■</span> Public Notice - 2 Systems          |   |

When PWSs continue to incur violations they are referred to the Drinking Water Enforcement Section so that appropriate action can be taken to remedy the situation and return the systems to compliance. SCDHEC issued Orders to 14 PWSs, or approximately **10.2%**, of the 137

PWSs incurring violations in 2009. 72 PWSs, or approximately **52.6%** have returned to compliance. Three or approximately **2.2%** are either no longer in operation, reduced to State defined PWS or the source with contamination is no longer in operation. Two of the systems or approximately **1.5%** were granted variances for nitrates. Two of the systems or approximately **1.5%** are in the enforcement process and the remaining 44 PWSs, or approximately **32%** have had warning letters sent, but have not had a significant number of violations which would require them to be referred to Enforcement for action. **[Figure 2]**

The overall strategy in the Drinking Water Enforcement Program is to take the appropriate enforcement action to bring about compliance prior to a system reaching the point of SNC or, of course, any time a public health or environmental threat exists. As a result of this effort, we are seeing that more and more PWSs respond immediately and pro-actively upon notification of initial violations, as is illustrated by the information presented in the previous paragraph.

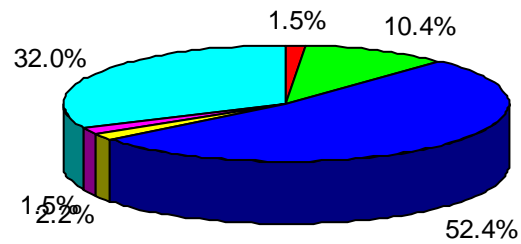
In addition to a strong enforcement program, SCDHEC implements a comprehensive sanitary survey program. This program consists of an inspection of the entire water system whereby the inspector looks for operational and maintenance deficiencies that are in violation of regulatory requirements or may cause problems within the water system. This is an excellent way to judge how each water system in the State is performing, allowing us to find and correct deficiencies before a violation occurs, and to offer the system hands-on technical assistance.

Another way SCDHEC is able to identify and help correct deficiencies is through bacteriological oversight monitoring. SCDHEC collects samples from PWSs that have been shown to have bacteriological issues in their distribution system.

In conjunction with the State's PWSs, SCDHEC is developing and implementing well head and source water protection programs. These programs are designed to help the PWSs locate potential contamination sources that may impact the water source and begin protecting against those now, rather than waiting until contamination appears at the consumer's tap. This effort, too, will go a long way in protecting both our ground and surface waters.

**FIGURE 2**

**Public Water System Enforcement  
Actions  
All Systems with Violations for  
Calendar Year 2009**



- In Enforcement - 2 Systems
- Consent Orders - 14 Systems
- Returned to Compliance (RTC) - 72 Systems
- No Longer In Operation/State System - 3 Systems
- Waivers - 2 Systems
- Warning Letters (NOV) - 44 Systems

In late 1998 and early 1999, SCDHEC began issuing Water System Operating Permits to all existing PWSs. These operating permits are the mechanisms by which the capacity development approach is being implemented. Capacity development [formerly known as “viability”] is designed to focus on a water system’s ability to meet the technical, managerial, and financial responsibilities of complying with applicable laws and regulations. Each operating permit requires the submission of a business plan whenever a system receives an overall unsatisfactory rating on an SCDHEC sanitary survey inspection. This unsatisfactory rating may also be the trigger for an enforcement action, if one is not already underway with the system. Using the capacity development and enforcement tools in tandem will enable SCDHEC to ensure that a PWS is indeed viable and in turn, ensure that the system will be able to maintain compliance with current and future regulatory requirements.

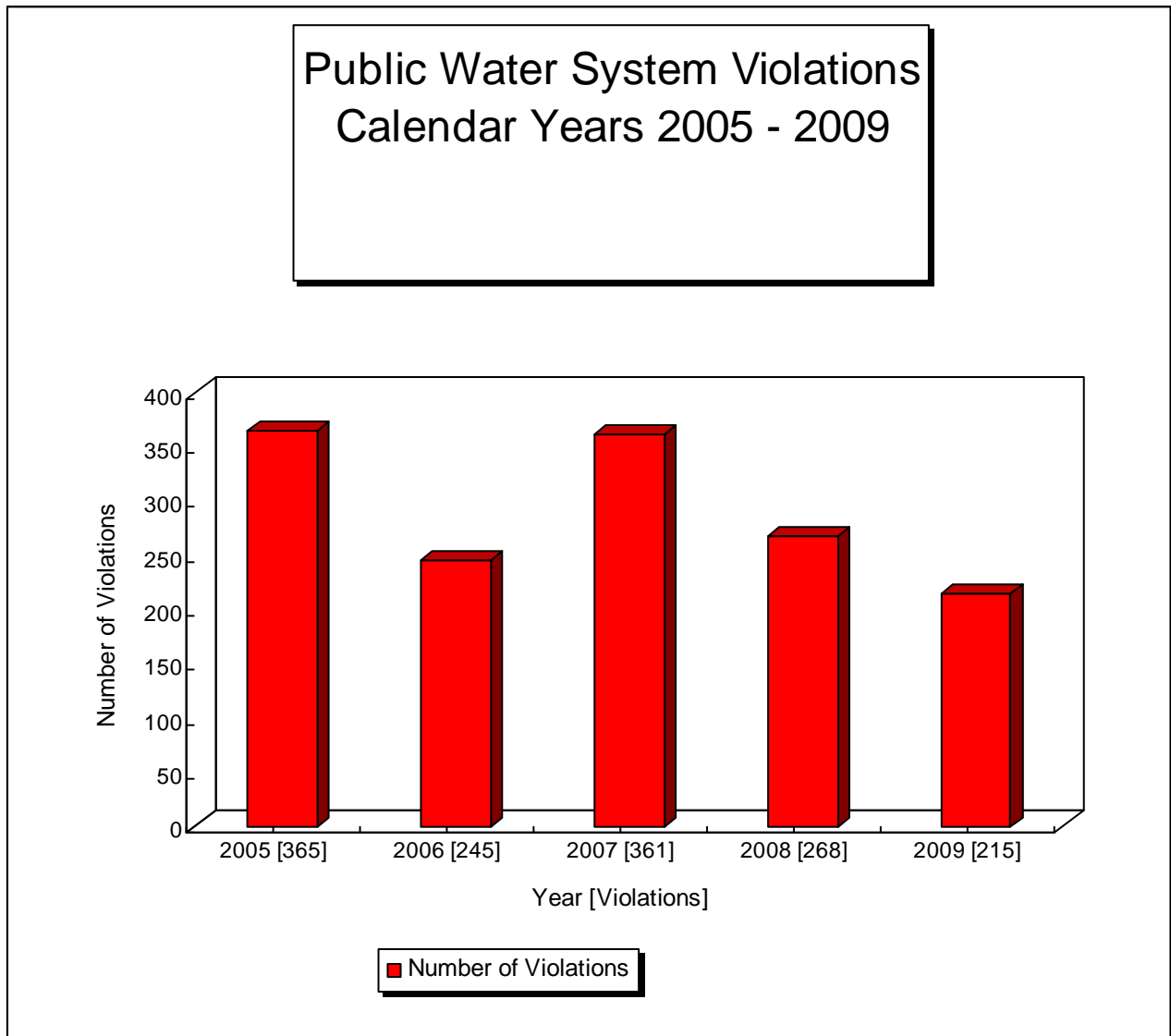
**Appendix B** contains a list of those PWSs that incurred an MCL violation during 2009. The number and type of violations for calendar year 2009 are available in **Appendix A**.

The State had a total of 137 PWSs with a 215 violations. **[Figure 3.1]** 113 of the violations were for water quality. While five were treatment technique violation and the remaining 97 were monitoring/reporting violations. **[Figure 3.2]** There was a total of 120 violations for bacteriological; 37 chemical (including radionuclides); one lead and copper; five surface water treatment rule (SWTR), and 52 for Consumer Confidence Report. **[Figure 3.3]**

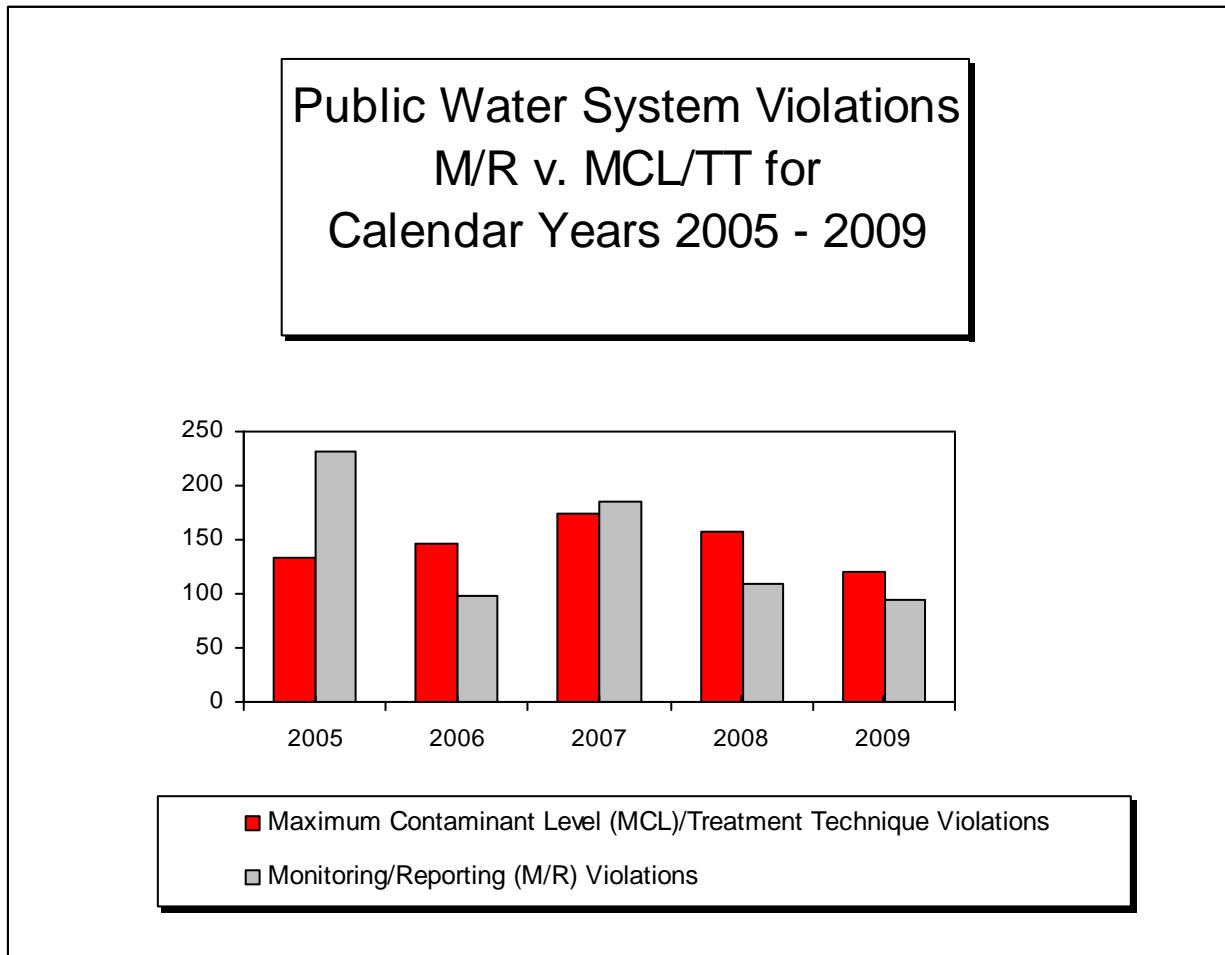
## SNC DEFINITIONS

<b>Chemical/Radiological Rule</b>	<ol style="list-style-type: none"> <li>1. 01 MCL - One or more MCL</li> <li>2. 02 MCL - One or more MCL</li> <li>3. 03 M/R - Two consecutive major M/R</li> </ol>
<b>Lead and Copper Rule</b>	<ol style="list-style-type: none"> <li>1. 51 - Initial Tap Monitoring - One initial tap</li> <li>2. CCT/SOWT - One OCCT/SOWT plus 1 or more exceedance</li> <li>3. PE – One PE plus one or more sample exceedance</li> </ol>
<b>SWTR</b>	<ol style="list-style-type: none"> <li>1. Failure to filter after notification of need – 1 or more</li> <li>2. Unfiltered Major M/R - 3 or more major M/R</li> <li>3. Unfiltered Combined Major and/or Minor M/R 5 or more major and/or minor M/R</li> <li>4. Filtered TT - 3 or more TT</li> <li>5. Filtered TT + Major M/R - 3 or more TT plus major M/R</li> <li>6. Filtered TT + Major &amp; Minor M/R - 5 or more TT plus major and/or minor M/R</li> </ol>
<b>TCR - Monthly or more frequent</b>	<ol style="list-style-type: none"> <li>1. MCL - Four or more acute/monthly MCL violations</li> <li>2. MCL/Major Repeat - 4 or more major repeat M/R violations or 4 or more combined major repeat M/R and MCLs</li> <li>3. MCL/Major M/R - 6 or more combined major repeat M/R major routine M/R, and/or MCL violations</li> <li>4. MCL/Major &amp; Minor M/R - 10 or more combined major repeat M/R, major routine M/R, and or MCL</li> </ol>
<b>Quarterly</b>	<ol style="list-style-type: none"> <li>1. MCL - 3 or more acute/monthly MCL</li> <li>2. MCL/Major Repeat - 3 or more major repeat M/R, OR 3 or more combined major repeat M/R and MCL</li> <li>3. MCL/Major M/R - 3 or more combined major repeat M/R and/or MCL violations</li> </ol>
<b>Annual</b>	<ol style="list-style-type: none"> <li>1. MCL - Two or more acute/monthly MCL</li> <li>2. MCL/Major Repeat - 2 or more major repeat M/R OR 2 or more combined major repeat M/R and MCL</li> <li>3. MCL/Major M/R - Two or more combined major repeat M/R, major routine M/R, and/or MCL violations.</li> </ol>
<b>Turbidity Rule</b>	<ol style="list-style-type: none"> <li>1. MCL</li> <li>2. MCL/Major M/R</li> <li>3. MCL/Major and Minor M/R</li> </ol>
<b>IE&amp;LT1 SWTR</b>	<p>Filtered - 6 or more TT 6 or more TT, major M/R 10 or more TT, major/minot M/R</p> <p>Disinfection Profiling Uncovered Reservoir</p>
<b>Stage 1 DBP Monthly or more frequent</b>	<ol style="list-style-type: none"> <li>4 or more MCL</li> <li>6 or more MCL and/or 8 major M/R</li> <li>10 or more MCL and/or major/minor M/R</li> </ol>
<b>Quarterly</b>	<ol style="list-style-type: none"> <li>2 or more MCL, MRDL, TT and/or major M/R</li> <li>3 or more MCL, MRDL, TT and or major/minor M/R</li> </ol>
<b>Yearly or less</b>	Fails to collect or report all required samples
<b>Chlorine Dioxide Consumer Confidence Reporting</b>	<p>Four non-acute or 1 acute Complete Failure to Report</p>

**FIGURE 3.1**

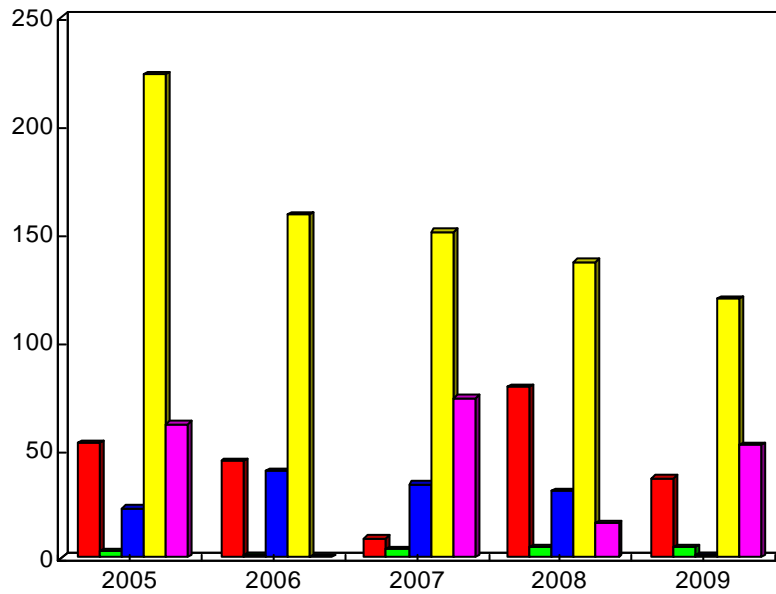


**FIGURE 3.2**



**FIGURE 3.3**

**Public Water System Violations  
By Violation Category for  
Calendar Years 2005 - 2009**



■ Chemicals   ■ Surface   ■ Lead & Copper   ■ Bacteriological   ■ CCR

## **INFORMATION ON VARIANCES AND EXEMPTIONS**

Variations and exemptions to specific requirements of the *Safe Drinking Water Act Amendments of 1996* may be granted under certain circumstances. If, due to the characteristics of the water sources available, a PWS cannot meet an MCL, SCDHEC, as a primacy agency can grant a variance to that system for a specific regulatory requirement on the condition that the system install the best available technology, treatment technique, or means deemed available provided that SCDHEC finds that such a variance will not result in an unreasonable risk to health. At the time the variance is granted, SCDHEC must give the PWS a schedule whereby it must achieve compliance with the MCL. Small PWSs [those serving 3,300 or fewer consumers] may be granted variances if they cannot afford [must be demonstrated to the standards of the USEPA] to comply with certain MCLs [excluding bacteriological requirements] by means of treatment, alternative water source, or consolidation. These PWSs must, however, install and operate an approved small system variance technology. As previously stated, this small system variance must also ensure adequate protection of human health and must be reviewed at least once every five (5) years for continued variance eligibility.

SCDHEC may also exempt a PWS from complying with an MCL, treatment technique or both if its non-compliance results from extenuating circumstances [*e.g.*, financial hardship, system already in operation on the date of promulgation of the regulations, or new system with no other reasonable source of drinking water]. Exemptions must also be protective of human health and must require that the PWS come into compliance as soon as is practically possible but not later than three (3) years after the applicable regulatory compliance date.

**During calendar year 2009, SCDHEC granted a variances to a TNCWS and a NTNCWS for nitrates. These two systems do not routinely provide water to children who are more susceptible to nitrate contamination. These two systems are required to maintain Public Notice as well so that women expecting a child will not consume the water. Nitrate(s) can be a cause of blue-baby syndrome. No other water source is currently available to either system for them to connect to. The systems have been notified that the water cannot exceed 20 mg/l at anytime. This level is twice the MCL.**

## CONCLUSIONS

This report is designed to provide the consumers in the State of South Carolina information useful in assessing the quality of their drinking water and the success of SCDHEC's compliance and enforcement activities. It is hoped that by disseminating this information, consumers will become more aware of their individual water providers and water quality. Consumers should feel free to ask questions of their PWS or of SCDHEC.

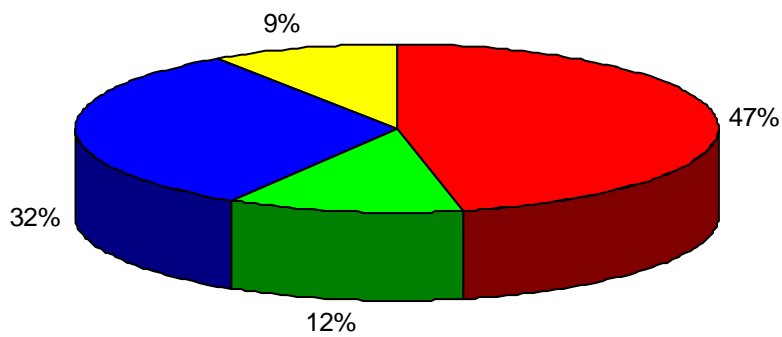
**Appendix A** provides a detailed presentation of the type and number of violations that occurred during calendar year 2009. In addition, **Appendix B** gives a complete list of PWSs that incurred water quality violations during the same time period. When reviewing the information in these Appendices, here are a few facts that may help in interpreting the meaning of these numbers:

1. Of the 66 possible violation categories included, nine categories were violated by South Carolina's PWSs. The actual number of violations, 215 noted in calendar year 2009, is less than **1%** of the potential number of violations.
2. The largest number of violations, 78 were for bacteriological MCLs. It is also useful to note that 30 or **38%** of these MCL exceedances were one-time occurrences and were corrected immediately.
3. 19 radionuclide MCL violations were noted during 2009. These violations occurred in seven PWSs which utilized groundwater as their source. It was from these wells that naturally occurring radionuclides entered the PWSs. These PWSs have been required to inform their customers of the quality of the water and that action is being taken to either add treatment, replace the well(s) or to obtain another suitable water source. The PWSs and SCDHEC are continuing to work toward bringing these PWSs back into compliance.
4. 42 M/R violations for bacteriological were noted during 2009. These violations occurred in 29 PWS. It is useful to know that most of the PWSs included in this report must monitor monthly, which makes for a higher percentage of possible violations.
5. Water quality violations noted in this report were attributed as follows: 29 Type C PWSs incurred 55 violations; seven Type P PWSs incurred 14 violations; 25 Type N PWSs incurred 38 violations; and four PWS incurred 11 violations that are no longer federally defined PWS. **[Figure 4.1]** For overall violations [water quality and M/R]; 90 Type C PWSs incurred 133 violations; 15 Type P PWSs incurred 31 violations; and, 28 Type N PWSs incurred 41 violations; and four PWS incurred ten **[10]** violations that were reduced from being a federally defined PWS. **[Figure 4.2]**
6. A total of 614 PWSs were required to complete an annual Consumer Confidence Report (CCR) and submit a copy to the Department by July 1, 2009. 52 PWSs failed to submit their report on time. All 52 PWSs have returned to compliance.

excellent job in providing quality drinking water for South Carolinians. Of the State's 1489 PWSs 1352 PWSs or approximately **91%** were in full compliance with all of the regulatory requirements during calendar year 2009. There was 137 or **9%** of the PWSs that had violations, but were not in significant non-compliance. Less than **1%** of the State's PWSs were in significant non-compliance.

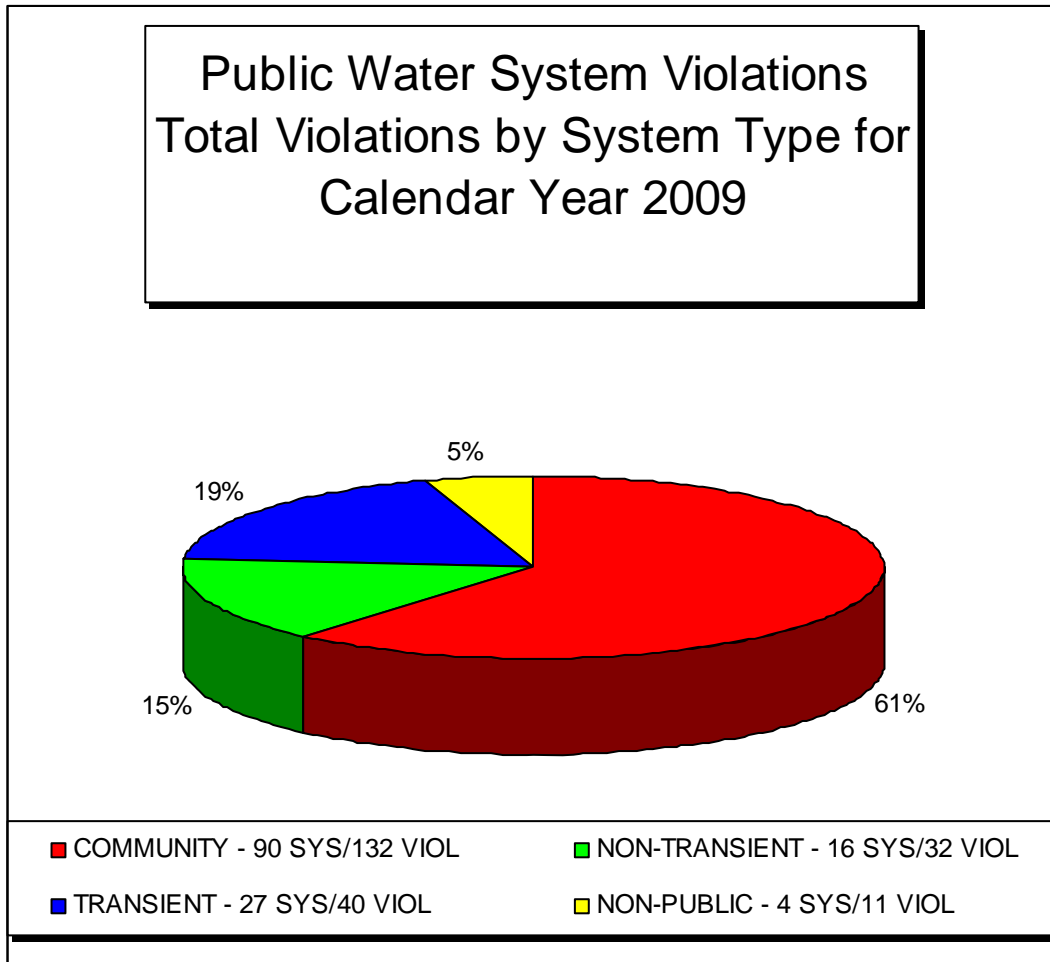
**FIGURE 4-1**

**Public Water System Violations  
Water Quality Violations by System Type for  
Calendar Year 2009**



■ COMMUNITY - 29SYS/55 VIOL	■ NON-TRANSIENT - 7SYS/14 VIOL
■ TRANSIENT - 25SYS/38VIOL	■ NON-PUBLIC - 4SYS/11VIOL

**FIGURE 4-2**



## **REPORT DISTRIBUTION AND AVAILABILITY**

Notification of the availability of this report was accomplished through a SCDHEC press release, and through the Internet on the Bureau of Water web page.

Copies of this report or previous years' reports may be obtained by contacting Mr Bruce Bleau with SCDHEC's Bureau of Water at (803) 898-4154 or by fax at (803) 898-3795 or by email at [bleaup@dhec.sc.gov](mailto:bleaup@dhec.sc.gov) or by writing to 2600 Bull Street Columbia, South Carolina 29201. The report will be made available on the Bureau of Water web page at [www.scdhec.gov/water](http://www.scdhec.gov/water). Any additional information not contained in this particular report may be obtained through SCDHEC's Freedom of Information Office at (803) 898-3880 or by writing to the above address. The USEPA will be compiling a national summary of state reports that will be made available after completed and can be obtained through the USEPA-Region IV office at 61 Forsyth Street SW, Atlanta, Georgia 30303-8960 or through the above named SCDHEC contact.

**APPENDIX A**  
**VIOLATIONS TABLE FOR**  
**CALENDAR YEAR 2009**

**APPENDIX A**

**SOUTH CAROLINA  
CALENDAR YEAR 2009  
MAXIMUM CONTAMINANT LEVEL EXCEEDANCES**

<b>SDWIS CODE</b>	<b>CONTAMINANT</b>	<b>MCL</b>	<b># OF VIOL</b>	<b># OF SYS WITH VIOL</b>
<b>ORGANICS</b>				
2990	Benzene	.005 mg/l	1	1
2984	Trichloroethylene (TCE)	.005	1	1
1005	Arsenic	.01 mg/l	1	1
1040	Nitrate	10.0 mg/l	2	2
1025	Fluoride	4.0 mg/l	13	4
<b>RADIONUCLIDES</b>				
4000	GROSS ALPHA	15 pCi/l	1	1
4010	RADIUM 226/228	5 pCi/l	16	7
<b>BACTERIOLOGICAL</b>				
21	ACUTE	PRESENCE	4	4
22	NON-ACUTE	PRESENCE	43	74
<b>TOTAL</b>			<b>82</b>	<b>97</b>

**SIGNIFICANT MONITORING/REPORTING VIOLATIONS**

<b>SDWIS CODE</b>	<b>CONTAMINANT</b>	<b># OF VIOL</b>	<b># OF SYS WITH VIOL</b>
<b>BACTERIOLOGICAL</b>			
23	Monitoring/Reporting	42	22
<b>SWTR (FILTERED SYSTEMS)</b>			
46	Total Carbon	5	2
<b>LEAD &amp; COPPER</b>			
51	Initial lead and copper tap M/R	1	1
<b>TOTAL</b>		<b>48</b>	<b>25</b>

**CONSUMER CONFIDENCE REPORT**

<b>SDWIS CODE</b>	<b>CONTAMINANT</b>	<b># OF VIOL</b>	<b># OF SYS WITH VIOL</b>
<b>CCR</b>			
71	Consumer Confidence Report	52	52

**Filtered Systems:** Water systems that have installed filtration treatment.

**Lead and Copper Rule:** This rule established national limits on lead and copper in drinking water. Lead and copper corrosion pose various health risks when ingested at any level, and can enter drinking water from household pipes and plumbing fixtures.

**Maximum Contaminant Level (MCL):** The highest amount of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. MCLs are defined in milligrams per liter (parts per million) (mg/L) unless otherwise specified.

**Organic Contaminants:** Carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally get into water through runoff from cropland or discharge from factories. EPA has set legal limits on 54 organic contaminants.

**Radionuclides:** Radioactive particles, which can occur naturally in water or result from human activity. EPA has set legal limits on four type of radionuclides: radium 226, radium 228, gross alpha, and uranium.

**Gross Alpha:** SDWIS Contaminant Code 4000 for alpha radiation above MCL of 15 picocuries/liter (pCi/L). Gross alpha includes radium 226 but excludes radon and uranium.

**Combined Radium 226/228:** SDWIS Contaminant Code 4010 for combined radiation from these two isotopes above MCL of 5 pCi/L.

**Surface Water Treatment Rule (SWTR):** The SWTR establishes criteria under which water systems supplied by surface water sources, or ground water sources under the direct influence of surface water, must filter and disinfect their water.

**Total Coliform Rule (TCR):** The TCR establishes regulations for microbiological contaminants in drinking water. These contaminants can cause short-term health problems. If no samples are collected during the one month compliance period, a significant monitoring violation occurs.

**Acute MCL:** SDWIS violation code 21 indicates that the system found fecal coliform or E.coli, potentially harmful bacteria in its water, thereby violating the rule.

**Non-Acute MCL:** SDWIS violation code 22 indicates that the system found total coliform in samples of its water at a frequency or at a level that violates the rule. For systems collecting fewer than 40 samples per month, more than one positive sample for total coliform is a violation. For systems collecting 40 or more samples per month, more than 5% of the samples positive for total coliform is a violation.

**Major routine and follow-up monitoring:** SDWIS violation code 23 show that a system did not perform any monitoring.

**Treatment Techniques:** A water disinfection process that EPA requires of an MCL for contaminants that laboratories cannot adequately measure. Failure to meet other operational and system requirements under the SWTR and Lead and Copper Rules have also been included in this category of violation for purposes of this report.

**Violation:** A failure to meet any state or federal drinking water regulation.

**APPENDIX B**

**SYSTEM-SPECIFIC MAXIMUM CONTAMINANT**

**LEVEL/TREATMENT TECHNIQUE**

**VIOLATIONS TABLE FOR**

**CALENDAR YEAR 2009**

**APPENDIX B**

**COMMUNITY  
NON-ACUTE BACTERIOLOGICAL**

<b>SYS #</b>	<b>SYSTEM</b>	<b>COUNTY</b>	<b>STATUS</b>
0260037	C&H HOME PARK	AIKEN	NOV
1470109	WILLOWGLEN ACADEMY	KERSHAW	NOV
2450021	MATHEWS HEIGHTS	GREENWOOD	NOV
2510007	FURMAN, TOWN OF	HAMPTON	NOV
2510009	GIFFORD, TOWN OF	HAMPTON	RTC
3020001	LAURENS COUNTY W&S COMM	LAURENS	NOV
3050008	RANCH ROAD WATER	LAURENS	NOV
3210001	LEXINGTON, CITY OF	LEXINGTON	NOV
3250024	AAA – HILTON SOUND	LEXINGTON	NOV
3250065	CRYSTAL PINES	LEXINGTON	NOV
3420002	WALLACE WATER CO	MARLBORO	NOV
3820001	BULL SWAMP RURAL WATER CO	ORANGEBURG	RTC
4060021	PERCIVAL ESTATES MHP	RICHLAND	RTC
4060024	PINE VALLEY COMMUNITY	RICHLAND	CO
4060055	NORTH GATE MHP	RICHLAND	RTC
4150007	AAA – PERRY WATER SYSTEM	SALUDA	NOV
4360021	WHISPERING PINES MHP	SUMTER	RTC
4650019	LOST COLONY S/D	YORK	RTC
4660008	MCAFEES MHP	YORK	RTC
4660112	FOREST ESTATES MHP	YORK	NOV

**FLUORIDE**

0860023	STRAWBERRY MHP	BERKELEY	CO
2660048	OCEAN LAKES LTD	HORRY	DEL SITE

**GROSS ALPHA**

0150014	USSC – PURDY SHORES	ABBEVILLE	CO
---------	---------------------	-----------	----

**COMBINED RADIUM 226/228**

0150014	USSC – PURDY SHROES	ABBEVILLE	CO
1320004	ALLIGATOR RURAL WATER CO	CHESTERFILED	CO
1620001	DARLINGTON CO W&SA	DARLINGTON	NOV
3250028	USSC – DUTCHMAN ACRES	LEXINGTON	CO
3250075	JMW&SC – MILL POND	LEXINGTON	DEL SYS
4050008	USSC – CHARLESWOOD S/D	RICHLAND	CO
4370050	WATEREE CORRECTION INSTITUTE	SUMTER	CO

<b>SYS #</b>	<b>SYSTEM</b>	<b>COUNTY</b>	<b>STATUS</b>
		<b>BENZENE</b>	
4650011	KINGS COURT S/D	YORK	RTC
		<b>TRICHLOROETHYLENE</b>	
4310501	SHAW AFB	SUMTER	ENF
		<b>ARSENIC</b>	
3250005	CWS – LAKEWOOD ESTATES	LEXINGTON	CO
		<b>TOTAL CARBON</b>	
3620002	NEWBERRY CO W&SA	NEWBERRY	CO
		<b>NON-COMMUNITY NON-TRANSIENT ACUTE BACTERIOLOGICAL</b>	
4170001	L&B CARE HOME	SALUDA	CO
		<b>NON-ACUTE BACTERIOLOGICAL</b>	
2070675	CAMP LONGRIDGE	FAIRFIELD	RTC
2770105	ROBERTSVILLE SENIOR CENTER	JASPER	RTC
4170001	L&B CARE HOME	SALUDA	CO
		<b>NITRATE</b>	
3030005	LAURENS PROVING GROUNDS	LAURENS	WAIVER
		<b>FLUORIDE</b>	
0874002	HWY 88 BUSINESS PARK	BERKELEY	ENF
1070916	BOONE HALL PLANTATION	CHARLESTON	CO

**ACUTE BACTERIOLOGICAL**

<b>SYS #</b>	<b>SYSTEM</b>	<b>COUNTY</b>	<b>STATUS</b>
0770927	SHELDON CONVENIENCE STORE	BEAUFORT	NOV
3670800	SALUDA RIVER RESORT	NEWBERRY	NOV
3870419	AM BLOUNT COTTAGES	ORANGEBURG	NOV

**NON-ACUTE BACTERIOLOGICAL**

0170200	YODER'S RESTAURANT	ABBEVILLE	NOV
0170875	HIGH MEADOWS CC	ABBEVILLE	RTC
0170902	LOWNDESVILLE COUNTRY STORE	ABBEVILLE	RTC
0472001	WENDELLS DIPPING BRANCH	ANDERSON	RTC
0770927	SHELDON CONVENIENCE STORE	BEAUFORT	NOV
0970201	STUMPHOLE LANDING	CALHOUN	RTC
1570600	SCPRT – COLLETON WAYSIDE	COLLETON	NOV
1971001	J W YONCE 303	EDGEFIELD	NOV
1971002	J W YONCE 404	EDGEFIELD	NOV
2370802	BEECH SPRINGS CG	GREENVILLE	CO
2470875	THE GOLF CLUB @ STAR FORT INC	GREENWOOD	NOV
3270206	MIDSTATE AUTO AUCTION	LEXINGTON	NOV
3270802	SIESTA COVE RV PARK MARINA	LEXINGTON	NOV
3279014	MR J CONVENIENCE STORE	LEXINGTON	RTC
3670800	SALUDA RIVER RESORT	NEWBERRY	NOV
3770650	USFS – ANDREW PICKENS RS	OCONEE	NOV
3770659	SCPRT – OCONEE STATION	OCONEE	NOV
3870418	BELLS MARINA 1	ORANGEBURG	RTC
3870419	AM BLOUNT COTTAGES	ORANGEBURG	NOV
3970677	ROCKY BOTTOM CAMP – BLIND	PICKENS	RTC
4070914	BLYTHEWOOD STOP-N-SHOP	RICHLAND	RTC
4070935	S&S CORNER MART	RICHLAND	RTC
4171005	MPP FRICK CAMP	SALUDA	RTC
4670988	STACY'S GARDEN CENTER	YORK	NOV

**NITRATE**

0240004	WEYERHAUSER COMPANY	AIKEN	WAIVER
---------	---------------------	-------	--------