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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of	)	Docket Nos. 50-390
Tennessee Valley Authority	)	50-391

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2 - ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT - 1999

In accordance with the requirements of the WBN Unit 1 Technical Specifications, Section 5.9.2, "Annual Radiological Environmental Operating Report," and the WBN Offsite Dose Calculation Manual (ODCM), Administrative Control Section 5.1, the 1999 Annual Radiological Environmental Monitoring Program (REMP) results and Data Supplement for WBN are enclosed. The REMP implements 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

The report, which is prepared by TVA's Environmental Radiological Monitoring and Instrumentation group at the Western Area Radiological Laboratory (WARL) in Muscle Shoals, Alabama describes and summarizes the results of radioactivity measurements taken in the vicinity of WBN during the fourth full year of plant operations. The results of the analysis from the environmental samples indicated that exposure to members of the general public, which may have been attributable to the operation of WBN, were negligible. The majority of environmental radioactivity measured

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by this program was due to naturally occurring radioactive materials or radionuclides commonly found in the environment.

It should be noted that the Environmental Protection Agency (EPA) discontinued the Interlaboratory Comparison Program. TVA replaced the EPA Program by participating in an environmental level cross-check program available through Analytics Incorporated. Those results are provided in the appendix.

If you should have any questions concerning this matter, please contact me at (423) 365-1824.

Sincerely,

P. L. Pace
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Annual Radiological Environmental Operating Report

Watts Bar
Nuclear Plant
1999

ANNUAL ENVIRONMENTAL RADIOLOGICAL OPERATING REPORT
WATTS BAR NUCLEAR PLANT
1999

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION

April 2000

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EXECUTIVE SUMMARY

This report describes the radiological environmental monitoring program conducted by TVA in the vicinity of the Watts Bar Nuclear Plant (WBN) in 1999. WBN Unit 1 achieved initial criticality in January 1996 and received a full power operating license on February 7, 1996. Commercial operation began on May 27, 1996. The program includes the collection of samples from the environment and the determination of the concentrations of radioactive materials in the samples. Samples are taken from stations in the general area of the plant and from areas that should not be influenced by plant operations. Material sampled includes air, water, milk, foods, vegetation, soil, fish, clams, sediment, and direct radiation levels. Results from stations near the plant are compared with concentrations from control locations and with preoperational measurements to determine potential impacts of plant operations.

The majority of environmental radioactivity measured by the program was due to naturally occurring radioactive materials or radionuclides commonly found in the environment as a result of atmospheric fallout and the operation of other nuclear facilities in the area. Trace levels of a small number of radionuclides of the type that can be produced from the operation of a nuclear power plant were detected in a few of the samples collected and analyzed for the WBN monitoring program. Low levels of Co-60 and Cs-137 were measured in samples of bottom sediment and Cs-137 was detectable in some of the fish samples. In addition, Co-58, Co-60, Sb-125, Cs-134 and Cs-137 were identified in sediment collected from the onsite Yard Holding Pond. The level of activity measured in these samples would result in no measurable increase over background in the dose to the general public.

INTRODUCTION

This report describes and summarizes the results of radioactivity measurements made in the vicinity of WBN and laboratory analyses of samples collected in the area. The measurements are made to comply with the requirements of 10 CFR 50, Appendix A, Criterion 64 and 10 CFR 50, Appendix I, Section IV.B.2, IV.B.3 and IV.C and to determine potential effects on public health and safety. This report satisfies the annual reporting requirements of WBN Technical Specification 5.9.2 and Offsite Dose Calculation Manual (ODCM) Administrative Control 5.1. Estimates of the maximum potential doses to the surrounding population from radioactivity measured both in plant effluents and in environmental samples are summarized in this report. In addition to reporting the data prescribed by specific requirements, other information is included to help correlate the significance of results measured by this monitoring program to the levels of environmental radiation resulting from naturally occurring radioactive materials.

Naturally Occurring and Background Radioactivity

Most materials in our world today contain trace amounts of naturally occurring radioactivity. Approximately 0.01 percent of all potassium is radioactive potassium-40. Potassium-40 (K-40), with a half-life of 1.3 billion years, is one of the major types of radioactive materials found naturally in our environment. Naturally occurring radioactive materials have always been in the environment. Other examples of naturally occurring radioactive materials are beryllium (Be)-7, bismuth (Bi)-212 and 214, lead (Pb)-212 and 214, thallium (Tl)-208, actinium (Ac)-228, uranium (U)-238 and 235, thorium (Th)-234, radium (Ra)-226, radon (Ra)-222, carbon (C) -14, and hydrogen (H)-3 (generally called tritium). These naturally occurring radioactive materials are in the soil, our food, our drinking water, and our bodies. The radiation from these materials makes up a part of the low-level natural background radiation. The remainder of the natural background radiation comes from outer space. We are all exposed to this natural radiation 24 hours per day.

It is possible to get an idea of the relative hazard of different types of radiation sources by evaluating the amount of radiation the U.S. population receives from each general type of radiation source. The information below is primarily adapted from References 2 and 3.

U.S. GENERAL POPULATION AVERAGE DOSE EQUIVALENT ESTIMATES

Source	Millirem/Year Per Person
Natural background dose equivalent	
Cosmic	27
Cosmogenic	1
Terrestrial	28
In the body	39
Radon	200
Total	295
Release of radioactive material in natural gas, mining, ore processing, etc.	5
Medical (effective dose equivalent)	53
Nuclear weapons fallout	less than 1
Nuclear energy	0.28
Consumer products	0.03
Total	355 (approximately)

As can be seen from the table, natural background radiation dose equivalent to the U.S. population normally exceeds that from nuclear plants by several hundred times. This indicates that nuclear plant operations normally result in a population radiation dose equivalent which is insignificant compared to that which results from natural background radiation. It should be noted that the use of radiation and radioactive materials for medical uses has resulted in a similar effective dose equivalent to the U.S. population as that caused by natural background cosmic and terrestrial radiation.

Electric Power Production

Nuclear power plants are similar in many respects to conventional coal burning (or other fossil fuel) electrical generating plants. The basic process behind electrical power production in both types of plants is that fuel is used to heat water to produce steam which provides the force to turn

turbines and generators. In a nuclear power plant, the fuel is uranium and heat is produced in the reactor through the fission of the uranium. Nuclear plants include many complex systems to control the nuclear fission process and to safeguard against the possibility of reactor malfunction. The nuclear reactions produce radionuclides commonly referred to as fission and activation products. Very small amounts of these fission and activation products are released into the plant systems. This radioactive material can be transported throughout plant systems and some of it released to the environment.

Paths through which radioactivity from a nuclear power plant is routinely released are monitored. Liquid and gaseous effluent monitors record the radiation levels for each release. These monitors also provide alarm mechanisms to prompt termination of any release above limits.

Releases are monitored at the onsite points of release and through the radiological environmental monitoring program which measures the environmental radiation in outlying areas around the plant. In this way, the release of radioactive materials from the plant is tightly controlled, and verification is provided that the population is not exposed to significant levels of radiation or radioactive materials.

The WBN ODCM, which describes the program required by the plant Technical Specifications, prescribes limits for the release of radioactive effluents, as well as limits for doses to the general public from the release of these effluents.

The dose to a member of the general public from radioactive materials released to unrestricted areas, as given in NRC guidelines and the ODCM, is limited as follows:

Liquid Effluents

Total body	$\leq$3 mrem/year
Any organ	$\leq$10 mrem/year

Gaseous Effluents

Noble gases:

Gamma radiation	≤10 mrad/year
Beta radiation	≤20 mrad/year

Particulates:

Any organ	≤15 mrem/year

The EPA limits for the total dose to the public in the vicinity of a nuclear power plant, established in the Environmental Dose Standard of 40 CFR 190, are as follows:

Total body	≤25 mrem/year
Thyroid	≤75 mrem/year
Any other organ	≤25 mrem/year

Appendix B to 10 CFR 20 presents annual average limits for the concentrations of radioactive materials released in gaseous and liquid effluents at the boundary of the unrestricted areas. Table 1 of this report presents the annual average concentration limits for the principal radionuclides associated with nuclear power plant effluents. The table also presents (1) the concentrations of radioactive materials in the environment which would require a special report to the NRC and (2) the detection limits for measured radionculides. It should be noted that the levels of radioactive materials measured in the environment are typically below or only slightly above the lower limit of detection.

SITE/PLANT DESCRIPTION

The WBN site is located in Rhea county, Tennessee, on the west bank of the Tennessee River at Tennessee River Mile (TRM) 528. Figure 1 shows the site in relation to other TVA projects. The WBN site, containing approximately 1770 acres on Chickamauga Lake, is approximately 2 miles south of the Watts Bar Dam and approximately 31 miles north-northeast of TVA's Sequoyah Nuclear Plant (SQN) site. Also located within the reservation are the Watts Bar Dam and Hydro-Electric Plant, the Watts Bar Steam Plant (not in operation), the TVA Central Maintenance Facility, and the Watts Bar Resort Area.

Approximately 16,000 people live within 10 miles of the WBN site. More than 80 percent of these live between 5 and 10 miles from the site. Two small towns, Spring City and Decatur, are located in this area. Spring City, with a population of approximately 2,200, is northwest and north-northwest from the site, while Decatur, with about 1,400 people, is south and south-southwest from the plant. The remainder of the area within 10 miles of the site is sparsely populated, consisting primarily of small farms and individual residences.

The area between 10 and 50 miles from the site includes portions of the cities of Chattanooga and Knoxville. The largest urban concentration in this area is the city of Chattanooga, located to the southwest and south-southwest. The city of Chattanooga has a population of about 160,000, with approximately 80 percent located between 40 and 50 miles from the site and the remainder located beyond 50 miles. The city of Knoxville is located to the east-northeast, with not more than 10 percent of its 165,000 plus people living within 50 miles of the site. Three smaller urban areas of greater than 20,000 people are located between 30 and 40 miles from the site. Oak Ridge is approximately 40 miles to the northeast, the twin cities of Alcoa and Maryville are located 45 to 50 miles to the east-northeast, and Cleveland is located about 30 miles to the south.

Chickamauga Reservoir is one of a series of highly controlled multiple-use reservoirs whose primary uses are flood control, navigation, and the generation of electric power. Secondary

uses include industrial and public water supply and waste disposal, commercial fishing, and recreation. Public access areas, boat docks, and residential subdivisions have been developed along the reservoir shoreline.

WBN consists of two pressurized water reactors. WBN Unit 1 received a low power operating license (NPF-20) on November 9, 1995, and achieved initial criticality in January 1996. The full operating license (NPF-90) was received on February 7, 1996. WBN Unit 2 remains in a layup and construction condition.

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Most of the radiation and radioactivity generated in a nuclear power reactor is contained within the reactor itself or one of the other plant systems. Plant effluent radiation monitors are designed to monitor radionuclides released to the environment. Environmental monitoring is a final verification that the systems are performing as planned. The monitoring program is designed to most efficiently monitor the pathways between the plant and the people in the immediate vicinity of the plant. Sample types are chosen so that the potential for detection of radioactivity in the environment will be maximized. The Radiological Environmental Monitoring Program (REMP) for WBN is outlined in Appendix A.

There are two primary pathways by which radioactivity can move through the environment to humans: air and water (see Figure 2). The air pathway can be separated into two components: the direct (airborne) pathway and the indirect (ground or terrestrial) pathway. The direct airborne pathway consists of direct radiation and inhalation by humans. In the terrestrial pathway, radioactive materials may be deposited on the ground or on plants and subsequently ingested by animals and/or humans. Human exposure through the liquid pathway may result from drinking water, eating fish, or by direct exposure at the shoreline. The types of samples collected in this program are designed to monitor these pathways.

A number of factors were considered in determining the locations for collecting environmental samples. The locations for the atmospheric monitoring stations were determined from a critical pathway analysis based on weather patterns, dose projections, population distribution, and land use. Terrestrial sampling stations were selected after reviewing such things as the locations of dairy animals and gardens in conjunction with the air pathway analysis. Liquid pathway stations were selected based on dose projections, water use information, and availability of media such as fish and sediment. Table A-2 (Appendix A, Table 2: This notation system is used for all tables and figures given in the appendices.) lists the sampling stations and the types of samples

collected from each. There were no modifications made to the WBN monitoring program in 1999. Program modifications in previous years were described in Appendix B of the annual report. To maintain a consistent format, Appendix B is included in this report with the statement that no modifications were made in 1999. Exceptions to the sampling and analysis schedule are described in Appendix C.

To determine the amount of radioactivity in the environment prior to the operation of WBN, a preoperational radiological environmental monitoring program was initiated in December 1976 and operated through December 31, 1995. Measurements of the same types of radioactive materials that are measured currently were assessed during the preoperational phase to establish normal background levels for various radionuclides in the environment.

The preoperational monitoring program is a very important part of the overall program. During the 1950s, 60s, and 70s, atmospheric nuclear weapons testing released radioactive material to the environment causing fluctuations in background radiation levels. This radioactive material is the same type as that which is produced by the operation of the WBN reactor. Preoperational knowledge of preexisting radionuclide patterns in the environment permits a determination, through comparison and trending analyses, of whether the operation of WBN is impacting the environment and thus the surrounding population.

The determination of environmental impact during the operating phase also considers the presence of control stations that have been established in the environment. Results of environmental samples taken at control stations (far from the plant) are compared with those from indicator stations (near the plant) to aid in the determination of the impacts from WBN operation.

All samples are analyzed by the radioanalytical laboratory of TVA's Environmental Radiological Monitoring and Instrumentation group located at the Western Area Radiological Laboratory (WARL) in Muscle Shoals, Alabama. Analyses are conducted in accordance with written and

approved procedures and are based on accepted methods. A summary of the analysis techniques and methodology is presented in Appendix D. Data tables summarizing the sample analysis results are presented in Appendix H. The Data Supplement to this report contains the results of all measurements made as a part of this program.

The radiation detection devices and analysis methods used to determine the radionuclide content of samples collected in the environment are very sensitive to small amounts of radioactivity. The sensitivity of the measurement process is defined in terms of the lower limit of detection (LLD). A description of the nominal LLDs for the Radioanalytical Laboratory is presented in Appendix E.

The Radioanalytical Laboratory operates under a comprehensive quality assurance/quality control program to monitor laboratory performance throughout the year. The program is intended to detect any problems in the measurement process as soon as possible so they can be corrected. This program includes equipment checks to ensure that the radiation detection instruments are working properly and the analysis of quality control samples which are included alongside routine environmental samples. In 1999, the laboratory participated in a blind cross-check program administrated by a vendor. This cross-check program was used to replace the discontinued Environmental Protection Agency (EPA) Interlaboratory Comparison Program. Samples split with the State of Tennessee provide an additional verification of the overall performance of the laboratory. A complete description of the program is presented in Appendix F.

DIRECT RADIATION MONITORING

Direct radiation levels are measured at a number of stations around the plant site. These measurements include contributions from cosmic radiation, radioactivity in the ground, fallout from atmospheric nuclear weapons tests conducted in the past, and any radioactivity that may be present as a result of plant operations. Because of the relatively large variations in background radiation as compared to the small levels from the plant, contributions from the plant may be difficult to distinguish.

Direct radiation levels measured in the area around the WBN site in 1999 were consistent with levels from previous years and with levels measured at other locations in the region.

Measurement Techniques

Direct radiation measurements are made with thermoluminescent dosimeters (TLDs). When certain materials are exposed to ionizing radiation, many of the electrons which become displaced are trapped in the crystalline structure of the material. They remain trapped for long periods of time as long as the material is not heated. When heated (thermo-), the electrons are released, producing a pulse of light (-luminescence). The intensity of the light pulse is proportional to the amount of radiation to which the material was exposed. Materials which display these characteristics are used in the manufacture of TLDs.

From 1977 through 1989, TVA used a Victoreen dosimeter consisting of a manganese activated calcium fluoride (Ca_2F:Mn) TLD material encased in a glass bulb. In 1989, TVA began the process of changing from the Victoreen dosimeter to the Panasonic Model UD-814 dosimeter, and completely changed to the Panasonic dosimeter in 1990. This dosimeter contains four elements consisting of one lithium borate and three calcium sulfate phosphors. The calcium sulfate phosphors are shielded by approximately 100 mg/cm^2 plastic and lead to compensate for the over-response of the detector to low energy radiation.

The TLDs are placed approximately one meter above the ground, with two or more TLDs at each station. Sixteen monitoring points are located around the plant near the site boundary; one location in each of the 16 compass sectors. An additional 16 monitoring points are located approximately 5 miles from the plant in each of the 16 sectors. Dosimeters are also placed at the perimeter and remote air monitoring sites and at additional locations out to approximately 32 miles from the site. The environmental TLD locations are listed in Table A-3. The TLDs are exchanged every 3 months and the accumulated exposure is read with a Panasonic Model UD-710A automatic reader interfaced with a computer system for data analysis.

Since the calcium sulfate phosphor is much more sensitive than the lithium borate, the measured exposure is taken as the median of the results obtained from the nine calcium sulfate phosphors in three detectors. The values are corrected for gamma response, system variations, and transit exposure, with individual gamma response calibrations for each element. The system meets or exceeds the performance specifications outlined in Regulatory Guide 4.13 for environmental applications of TLDs.

Since 1974, TVA has participated in intercomparisons of environmental dosimeters conducted by the U. S. Department of Energy and other interested parties. The results, shown in Table 2, demonstrate that direct radiation levels determined by TVA are generally within ten percent of the calculated or known values.

Results

Results are normalized to a standard quarter (91.25 days or 2190 hours). The monitoring locations are grouped according to the distance from the plant. The first group consists of locations within 1 mile of the plant. The second group lies between 1 and 2 miles, the third group between 2 and 4 miles, the fourth group between 4 and 6 miles, and the fifth group is made up of monitoring points more than 6 miles from the plant. Past data have shown that the average

results from groups greater than 2 miles from the plant are essentially the same. Therefore, for purposes of this report, locations 2 miles or less from the plant are identified as "onsite" and all others are considered "offsite."

The quarterly gamma radiation levels determined from the TLDs deployed around WBN in 1999 are summarized in Table H-1. The results from all measurements at individual stations are presented in Table H-2. The exposures are measured in milliroentgens (mR). For purposes of this report, one milliroentgen, one millirem (mrem) and one millirad (mrad) are assumed to be numerically equivalent. The rounded average annual exposures are shown below. For comparison purposes, the average direct radiation measurements made in the preoperational monitoring program for the period of 1990 to 1995 are also shown.

Annual Average
Direct Radiation Levels
WBN
mR/Year

	1999	Preoperational Average
Onsite Stations	65	65
Offsite Stations	59	57

The data in Table H-1 indicate that the average quarterly radiation levels at the WBN onsite stations are approximately 1.4 mR/quarter higher than levels at the offsite stations. This difference is consistent with levels measured for the preoperation and construction phases of TVA nuclear power plant sites where the average levels onsite were generally 2-6 mR/quarter higher than levels offsite. The causes of these differences have not been isolated; however, it is postulated that the differences are probably attributable to combinations of influences such as natural variations in environmental radiation levels, earth-moving activities onsite, and the mass of concrete employed in the construction of the plant. Other undetermined influences may also play a part.

Figure H-1 compares plots of the data from the onsite or site boundary stations with those from the offsite stations over the period from 1990 through 1999. The results reported in 1999 are consistent with direct radiation levels reported in previous years. There is no indication that WBN activities increased the background radiation levels normally observed in the areas surrounding the plant.

ATMOSPHERIC MONITORING

The atmospheric monitoring network is divided into three groups identified as local, perimeter, and remote. Four local air monitoring stations are located on or adjacent to the plant site in the general directions of greatest wind frequency. Four perimeter air monitoring stations are located between 6 to 11 miles from the plant, and two remote air monitors are located out to 15 miles. The monitoring program and the locations of monitoring stations are identified in the tables and figures of Appendix A. The remote stations are used as control or baseline stations.

Results from the analysis of samples in the atmospheric pathway are presented in Tables H-3 and H-4. Radioactivity levels identified in this reporting period are consistent with background and preoperational program data. There is no indication of an increase in atmospheric radioactivity as a result of WBN.

Sample Collection and Analysis

Air particulates are collected by continuously sampling air at a flow rate of approximately 2 cubic feet per minute (cfm) through a 2-inch glass fiber filter. The sampling system consists of a pump, a magnehelic gauge for measuring the drop in pressure across the system, and a dry gas meter. This allows an accurate determination of the volume of air passing through the filter. This system is housed in a building approximately 2 feet by 3 feet by 4 feet. The filter is contained in a sampling head mounted on the outside of the monitor building. The filter is replaced weekly. Each filter is analyzed for gross beta activity about 3 days after collection to allow time for the radon daughters to decay. Every 4 weeks composites of the filters from each location are analyzed by gamma spectroscopy.

Gaseous radioiodine is collected using a commercially available cartridge containing TEDA-impregnated charcoal. This system is designed to collect iodine in both the elemental form and as organic compounds. The cartridge is located in the same sampling head as the air particulate

filter and is downstream of the particulate filter. The cartridge is changed at the same time as the particulate filter and samples the same volume of air. Each cartridge is analyzed for I-131 by gamma spectroscopy analysis.

Rainwater is collected by use of a collection tray attached to the monitor building. The collection tray is protected from debris by a screen cover. As water drains from the tray, it is collected in one of two 5-gallon containers inside the monitor building. A 1-gallon sample is removed from the container every 4 weeks. Any excess water is discarded. Rainwater samples are held to be analyzed only if air particulate samples indicate the presence of elevated levels or if fallout is expected. For example, rainwater samples were analyzed during the period of fallout following the accident at Chernobyl in 1986. Since no plant-related air activity was detected in 1999, no rainwater samples from WBN were analyzed in this reporting period.

Results

The results from the analysis of air particulate samples are summarized in Table H-3. Gross beta activity in 1999 was consistent with levels reported in previous years. The average gross beta activity measured for air particulate samples was 0.021 pCi/m^3 for both indicator and control locations. The annual averages of the gross beta activity in air particulate filters at these stations for the period 1977-1999 are presented in Figure H-2. Increased levels due to fallout from atmospheric nuclear weapons testing are evident in the years prior to 1981 and a small increase from the Chernobyl accident can be seen in 1986. These patterns are consistent with data from monitoring programs conducted by TVA at other nuclear power plant construction sites. Comparison with the same data for the preoperational period of 1990-1995 indicates that the annual average gross beta activity for air particulates as measured in the 1999 monitoring program was consistent with preoperational data.

Only natural radioactive materials were identified by the monthly gamma spectral analysis of the air particulate samples. As shown in Table H-4, I-131 was not detected in any charcoal cartridge samples collected in 1999.

TERRESTRIAL MONITORING

Terrestrial monitoring is accomplished by collecting samples of environmental media that may transport radioactive material from the atmosphere to humans. For example, radioactive material may be deposited on a vegetable garden and be ingested along with the vegetables or it may be deposited on pasture grass where dairy cattle are grazing. When the cow ingests the radioactive material, some of it may be transferred to the milk and consumed by humans who drink the milk. Therefore, samples of milk, vegetation, soil, and food crops are collected and analyzed to determine potential impacts from exposure through this pathway. The results from the analysis of these samples are shown in Tables H-5 through H-13.

A land use survey is conducted annually between April and October to identify the location of the nearest milk animal, the nearest residence, and the nearest garden of greater than 500 square feet producing fresh leafy vegetables in each of 16 meteorological sectors within a distance of 5 miles from the plant. This land use survey satisfies the requirements 10 CFR 50, Appendix I, Section IV.B.3. From data produced by the land use survey, radiation doses are projected for individuals living near the plant. Doses from air submersion are calculated for the nearest residence in each sector, while doses from drinking milk or eating foods produced near the plant are calculated for the areas with milk-producing animals and gardens, respectively. These dose projections are hypothetical extremes and do not represent actual doses to the general public. The doses projected as a result of the 1999 land use survey are presented in Appendix G.

Sample Collection and Analysis

Milk samples are collected every 2 weeks from three indicator dairies and from at least one of three control dairies. Milk samples are placed on ice for transport to the radioanalytical laboratory. A specific analysis for I-131 and a gamma spectral analysis are performed on each sample and once per quarter samples are analyzed for Sr-89 and Sr-90.

Samples of vegetation are collected every 4 weeks from one farm that had milk producing animals in the past. In addition, samples are also collected every 4 weeks from one dairy farm

and from one control station. The samples are collected by cutting or breaking enough vegetation to provide between 100 and 200 grams of sample. Care is taken not to include any soil with the vegetation. The sample is placed in a container with 1650 ml of 0.5N NaOH for transport back to the laboratory for I-131 analysis. A second sample of between 750 and 1000 grams is also collected from each location. After drying and grinding, these samples are analyzed by gamma spectroscopy. Once each quarter, the sample is ashed after the gamma analysis is completed and analyzed for Sr-89 and Sr-90.

Soil samples are collected annually from the air monitoring locations. The samples are collected with either a "cookie cutter" or an auger type sampler. After drying and grinding, the sample is analyzed by gamma spectroscopy. When the gamma analysis is complete, the sample is ashed and analyzed for Sr-89 and Sr-90.

Samples representative of food crops raised in the area near the plant are obtained from individual gardens, corner markets, or cooperatives. Types of foods may vary from year to year as a result of changes in the local vegetable gardens. In 1999 samples of cabbage, corn, green beans, potatoes, tomatoes, were collected from local vegetable gardens. In addition, apples were collected from a local farm. Samples of the same food products grown in areas that would not be effected by the plant were collected as control samples. The edible portion of each sample is analyzed by gamma spectroscopy.

Results

The results from the analysis of milk samples are presented in Table H-5. All I-131 values were below the established nominal LLD of 0.4 pCi/liter. Sr-90 was detected in levels above the nominal LLD of 2.0 pCi/liter in only one sample. The concentration was 2.5 pCi/liter. This level is consistent with concentrations measured in samples collected in the preoperational radiological environmental monitoring program and with concentrations reported in milk as a result of fallout from atmospheric nuclear weapons tests (Reference 1). Figure H-3 displays the average Sr-90 concentrations measured in milk since 1976. The concentrations have steadily decreased as a result of the 28-year half-life of Sr-90 and the washout and transport of

the element through the soil over the period. The only other radionuclides detected in the analysis of milk samples were naturally occurring radionuclides. The predominant isotope reported in milk samples was the naturally occurring K-40. An average of approximately 1350 pCi/liter of K-40 was identified in all milk samples.

Results from the analysis of vegetation samples are presented in Table H-6. Sr-90 was identified in four samples from indicator locations with an average concentration of 28.1 pCi/kg. The average concentration for samples from control locations was 25.0 pCi/kg. The highest concentrations of radionculides identified in vegetation were for the naturally occurring isotopes K-40 and Be-7. The concentrations of Sr-90 were consistent with preoperational data and represent the levels of Sr-90 in the environment as the result of fallout from past nuclear weapons testing.

Consistent with most of the environment, Cs-137 was detected in all but one of the soil samples collected in 1999. The maximum concentration of Cs-137 was 0.63 pCi/g. The concentrations were consistent with levels previously reported from fallout. All other radionuclides reported were naturally occurring isotopes. The results of the analysis of soil samples are summarized in Table H-7.

A plot of the annual average Cs-137 concentrations in soil is presented in Figure H-4. Like the levels of Sr-90 in milk, concentrations of Cs-137 in soil are steadily decreasing as a result of the cessation of weapons testing in the atmosphere, the 30 year half-life of Cs-137, and transport through the environment.

All radionuclides reported in food samples were naturally occurring. The maximum K-40 value was 3,930 pCi/kg in potatoes. The results are reported in Tables H-8 through H-13.

LIQUID PATHWAY MONITORING

Potential exposures from the liquid pathway can occur from drinking water, ingestion of edible fish and invertebrates, or from direct radiation exposure from radioactive materials deposited in the river sediment. The aquatic monitoring program includes the collection of samples of river (surface) water, groundwater, drinking water supplies, fish, Asiatic clams (no known human consumption), and bottom and shoreline sediment. Samples from the reservoir are collected both upstream and downstream from the plant.

Results from the analysis of the liquid pathway samples are presented in Table H-14 through H-23. Radioactivity levels in water, fish, and shoreline sediment were consistent with background and/or fallout levels previously reported. Low levels of Co-60, and Cs-137 were measured in samples of bottom sediment and Cs-137 was identified in fish samples and in shoreline sediment. There is no direct exposure pathway to the public through radioactivity in bottom sediment. The levels of Cs-137 in fish and shoreline sediment are consistent with preoperational data. Results for the sediment sampling conducted in the onsite Yard Holding Pond and Low Volume Waste Treatment Pond are discussed later in this section.

Sample Collection and Analysis

Samples of surface water are collected from the Tennessee River using automatic sampling systems from two downstream stations and one upstream station. A timer turns on the system at least once every 2 hours. The line is flushed and a sample collected into a composite container. A l-gallon sample is removed from the container at 4-week intervals and the remaining water is discarded. Each sample is analyzed for gamma-emitting radionculides and for gross beta activity. The samples are composited quarterly and analyzed for Sr-89, Sr-90, and tritium.

Samples are also collected by an automatic sampling system at the first two downstream drinking water intakes. These samples are collected in the same manner as the surface water samples. These monthly samples are analyzed for gamma-emitting radionuclides and for gross beta activity. Quarterly composites are analyzed for Sr-89, Sr-90, and tritium. The samples collected

by the automatic sampling device are taken directly from the river at the intake structure. Since the sample at this point is raw water, the upstream surface water sample is used as a control sample for drinking water.

Groundwater is sampled from one onsite well down gradient from the plant and one onsite well up gradient from the plant. The onsite wells are sampled with a continuous sampling system. The samples are composited by location quarterly and analyzed for gross beta activity, for gamma-emitting radionuclides, for Sr-89, Sr-90 and for tritium content. In addition, a grab sample is collected quarterly from a private well in an area unaffected by WBN. The grab sample is also analyzed for gross beta activity, gamma-emitting radionuclides, Sr-89, 90 and for tritium.

Samples of commercial and game fish species are collected semiannually from each of two reservoirs: the reservoir on which the plant is located (Chickamauga Reservoir) and the upstream reservoir (Watts Bar Reservoir). The samples are collected using a combination of netting techniques and electrofishing. The ODCM specifies analysis of the edible portion of the fish. To comply with this requirement, filleted portions are taken from several fish of each species. Crappie is collected as a game species and channel catfish and smallmouth buffalo are sampled as commercial species. The samples are analyzed by gamma spectroscopy.

Bottom sediment is collected semiannually from selected Tennessee River Mile (TRM) locations using a dredging apparatus or divers. Samples of shoreline sediment are also taken from recreation areas in the vicinity of the plant. The samples are dried, ground, and analyzed by gamma spectroscopy.

Samples of sediment are also collected from the onsite Yard Holding Pond and Low Volume Waste Treatment Pond. A total of five samples were collected in 1999.

Samples of Asiatic clams are collected semiannually from one location downstream from the plant and one location upstream. Enough clams are collected to produce approximately 50 grams of wet flesh. The flesh is separated from the shells and the dried flesh samples are analyzed by gamma spectroscopy.

Results

Gross beta activity was detectable above the nominal LLD in most of the surface water samples. The gross beta concentrations averaged 2.7 pCi/liter in downstream samples and 2.5 pCi/liter in upstream samples. These levels were consistent with results found during the preoperational monitoring program and agreed with previously reported levels resulting from fallout or naturally occurring isotopes. A summary table of the results is shown in Table H-14.

No fission or activation products were identified in drinking water samples. Average gross beta activity at downstream stations was 2.8 pCi/liter while the average for upstream stations was 2.5 pCi/liter. The results are shown in Table H-15. Trend plots of the gross beta activity in surface water and drinking water samples from 1977 through 1999 are presented in Figure H-5.

Only naturally occurring radionuclides were identified in ground water samples. Gross beta concentrations in samples from the onsite indicator location averaged 5.3 pCi/liter, while concentrations from the control locations averaged 2.7 pCi/liter. These results were consistent with the well water results from the preoperational program in that the down gradient well has always produced higher gross beta activity than the samples from the control locations. The results are presented in Table H-16.

Measurable levels of Cs-137 were identified in a total of five fish samples. The maximum concentration measured for indicator (downstream) samples was 0.04 pCi/g, while the maximum for upstream samples was 0.07 pCi/g. Other radioisotopes found in fish were naturally occurring, with the most notable being K-40.

The results are summarized in Tables H-17, H-18, and H-19. Trend plots of the annual average Cs-137 concentrations measured in fish samples are presented in Figure H-6. The Cs-137 activities are consistent with preoperational results produced by fallout or effluents from other nuclear facilities.

Two radionuclides of the type produced in nuclear power plants were identified in bottom sediment samples. These radionuclides were Co-60 and Cs-137. There was no Co-60 detected in sediment collected downstream of plant. One sample from upstream location contained Co-60 at a concentration of 0.04 pCi/gm. A total of four downstream and two upstream samples contained measurable concentrations of Cs-137. The average concentration of Cs-137 measured in bottom sediment collected downstream of WBN was 0.38 pCi/gm while the average concentration for the upstream samples was 1.58 pCi/gm. Results from the analysis of bottom sediment samples are shown in Table H-20.

The only manmade radionuclide identified in samples of shoreline sediment was Cs-137. The average concentration measured in samples from the downstream location was 0.06 pCi/gm. There was no measurable Cs-137 in samples from the upstream sampling point. The presence of Cs-137 in shoreline sediment is consistent with previously reported results. The results for the analysis of shoreline sediment is presented in Table H-21. Trend plots of the average concentration of Cs-137 in bottom and shoreline sediment are presented in Figure H-7.

Consistent with previous monitoring conducted for the onsite ponds, Cs-137 was detected in most of the samples. The average of the Cs-137 levels measured in sediment from the onsite ponds was 0.38 pCi/gm. In addition to the Cs-137, Co-58, Co-60, Cs-134 and Sb-125 were detected in varying concentrations in samples collected from the Yard Holding Pond. Measurable Co-58 at a concentration of 0.04 pCi/gm was detected in one sample. Two samples contained measurable levels of Co-60 with highest concentration being 0.58 pCi/gm. One sample contained Sb-125 at 0.28 pCi/gm and Cs-134 was measured in one sample at a concentration of 0.25 pCi/gm. The results for the analysis of pond sediment samples are provided in Table H-22.

The concentrations of radionuclides in the sediment in the Yard Holding Pond are most likely deposited in the sediment as a result of back flow from the plant discharge. The back flow

occurs into the Yard Holding Pond if discharge to the river has to be temporarily halted. Since these radionuclides were present in relatively low concentrations and confined to the Yard Holding Pond located in the owner controlled area not open to the general public, the presence of these radionuclides would not represent any increased risk of exposure to the general public.

Only naturally occurring radionuclides were detected in samples of Asiatic clams. The results from the analysis of clams samples is presented in Table H-23.

ASSESSMENT AND EVALUATION

Potential doses to the public are estimated from measured effluents using computer models. These models were developed by TVA and are based on guidance provided by the NRC in Regulatory Guide 1.109 for determining the potential dose to individuals and populations living in the vicinity of the plant. The doses calculated are a representation of the dose to a "maximum exposed individual." Some of the factors used in these calculations (such as ingestion rates) are maximum expected values which will tend to overestimate the dose to the "hypothetical" person. In reality, the expected dose to actual individuals is significantly lower.

The area around the plant is analyzed to determine the pathways through which the public may receive an exposure. As indicated in Figure 2, the two major ways by which radioactivity is introduced into the environment are through liquid and gaseous effluents.

For liquid effluents, the public can be exposed to radiation from three sources: drinking water from the Tennessee River, eating fish caught in the Tennessee River, and direct exposure to radioactive material due to activities on the banks of the river (recreational activities). Data used to determine these doses are based on guidance given by the NRC for maximum ingestion rates, exposure times, and distribution of the material in the river. Whenever possible, data used in the dose calculation are based on specific conditions for the WBN area.

For gaseous effluents, the public can be exposed to radiation from several sources: direct radiation from the radioactivity in the air, direct radiation from radioactivity deposited on the ground, inhalation of radioactivity in the air, ingestion of vegetation which contains radioactivity deposited from the atmosphere, and ingestion of milk from animals which consumed vegetation containing deposited radioactivity. The concentrations of radioactivity in the air and the soil are estimated by computer models which use the actual meteorological conditions to determine the distribution of the effluents in the atmosphere. Again, as many of the parameters as possible are based on actual site specific data.

Results

The estimated doses to the maximum exposed individual due to radioactivity released from WBN in 1999 are presented in Table 3. These estimates were made using the concentrations of the liquids and gases measured at the effluent monitoring points. Also shown are the regulatory limits for these doses and a comparison between the calculated dose and the corresponding limit. The maximum calculated whole body dose equivalent from measured liquid effluents as presented in Table 3 is 3.5E-03 mrem/year, or less than one percent of the limit. The maximum organ dose equivalent from gaseous effluents is 8.9E-03 mrem/year. This value is less than 0.1 percent of the ODCM limit. A more complete description of the effluents released from WBN and the corresponding doses projected from these effluents can be found in the WBN Annual Radioactive Effluent Release Report.

The estimated increase in radiation dose equivalent to the general public resulting from the operation of WBN is negligible when compared to the dose from natural background radiation. The results from each environmental sample are compared with the concentrations from the corresponding control stations and appropriate preoperational and background data to determine influences from the plant. During this report period, Cs-137 was detected in sediment, soil, and fish collected for the WBN program and Sr-90 was measured in milk and vegetation samples. The concentrations measured were consistent with levels measured through out the preoperational monitoring program.

Dose estimates were made from concentrations of radioactivity found in samples of environmental media. Inhalation, ingestion and direct exposure dose estimates for persons at the indicator locations were essentially identical to those determined for persons at control stations. More than 99 percent of the doses to the public produced by radionuclides in the environmental media sampled in the WBN program were contributed by the naturally occurring radionuclide K-40 and by Sr-90 and Cs-137. The concentrations of Sr-90 and Cs-137 are consistent with levels measured in TVA's preoperational radiological environmental monitoring programs.

The samples of pond sediment were not included in the assessment of doses from environmental radionuclides. As discussed earlier, these radionuclides were contained in the sediment from the Yard Holding Pond which is in the owner controlled area and would not present an exposure pathway for the general public.

Conclusions

It is concluded from the above analysis of environmental samples and from the trend plots presented in Appendix H, that exposure to members of the general public which may have been attributable to WBN is negligible. The radioactivity reported herein is primarily the result of fallout or natural background. Any activity which may be present in the environment as a result of plant operations does not represent a significant contribution to the exposure of Members of the Public.

REFERENCES

1. Merril Eisenbud, Environmental Radioactivity, Academic Press, Inc., New York, NY, 1987.

2. National Council on Radiation Protection and Measurements, Report No. 93, "Ionizing Radiation Exposure of the Population of the United States," September 1987.

3. United States Nuclear Regulatory Commission, Regulatory Guide 8.29, "Instruction Concerning Risks from Occupational Radiation Exposure," July 1981.

4. Hansen, W.G., Campbell, J. E., Fooks, J. H., Mitchell, H.C., and Eller C.H., Farming Practices and Concentrations of Emission Products in Milk, U.S. Department of Health, Education, and Welfare; Public Health Service Publication No. 999-R-6, May 1964.

Table 1

COMPARISON OF
PROGRAM LOWER LIMITS OF DETECTION WITH THE REGULATORY LIMITS FOR
MAXIMUM ANNUAL AVERAGE EFFLUENT CONCENTRATIONS
RELEASED TO UNRESTRICTED AREAS
AND REPORTING LEVELS

	Concentrations in Water, pCi/Liter			Concentrations in Air, pCi/Cubic Meter		
	Effluent Concentration[1]	Reporting Level[2]	Lower limit of Detection[3]	Effluent Concentration[1]	Reporting Level[2]	Lower limit of Detection[3]
H-3	1,000,000	20,000	300	100,000		
Cr-51	500,000		45	30,000		0.02
Mn-54	30,000	1,000	5	1,000		0.005
Co-58	20,000	1,000	5	1,000		0.005
Co-60	3,000	300	5	50		0.005
Zn-65	5,000	300	10	400		0.005
Sr-89	8,000		5	1,000		0.0011
Sr-90	500		2	6		0.0004
Nb-95	30,000	400	5	2,000		0.005
Zr-95	20,000	400	10	400		0.005
Ru-103	30,000		5	900		0.005
Ru-106	3,000		40	20		0.02
I-131	1,000	2	0.4	200	0.9	0.03
Cs-134	900	30	5	200	10	0.005
Cs-137	1,000	50	5	200	20	0.005
Ce-144	3,000		30	40		0.01
Ba-140	8,000	200	25	2,000		0.015
La-140	9,000	200	10	2,000		0.01

Note: 1 pCi = 3.7×10^{-2} Bq.

Note: For those reporting levels that are blank, no value is given in the reference.

1 Source: Table 2 of Appendix B to 10 CFR 20.1001-20.2401

2 Source: WBN Offsite Dose Calculation Manual, Table 2.3-2

3 Source: Table E-1 of this report.

Table 2
Results from the
Intercomparison of Environmental Dosimeters

Year	TVA Results mrem	Average, all Respondents mrem	Calculated Exposure (See Note 1) mrem	% Difference TVA: Calculated	% Difference Respondents: Calculated
Field Dosimeters					
74	15.0	16.3	16.3	-8.0	0.0
77	30.4	31.5	34.9	-12.9	-9.7
79	13.8	16.0	14.1	-2.1	13.5
81	31.8	30.2	30.0	6.0	0.7
82	43.2	45.0	43.5	-0.7	3.4
84	73.0	75.1	75.8	-3.7	-0.9
86a	33.2	28.9	29.7	11.8	-2.7
86b	9.4	10.1	10.4	-9.6	-2.9
93a	24.4	26.4	27.0	-9.6	-2.2
93b	27.6	26.4	27.0	2.2	-2.2
96a	16.9	18.9	19.0	-11.1	-0.5
96b	17.6	18.9	19.0	-7.4	-0.5
Low Irradiated Dosimeters					
74	27.9	28.5	30.0	-7.0	-5.0
79	12.1	12.1	12.2	-0.8	-0.8
86	18.2	16.2	17.2	5.8	-5.8
93a	24.9	25.0	25.9	-3.9	-3.5
93b	27.8	25.0	25.9	7.3	-3.5
High Irradiated Dosimeters					
77	99.4	86.2	91.7	8.4	-6.0
79	46.1	43.9	45.8	0.7	-4.1
81a	84.1	75.8	75.2	11.8	0.8
81b	102.0	90.7	88.4	15.4	2.6
82a	179.0	191.0	202.0	-11.4	-5.4
82b	136.0	149.0	158.0	-13.9	-5.7
84a	85.6	77.9	79.9	7.1	-2.5
84b	76.8	73.0	75.0	2.4	-2.7
93a	67.8	69.8	72.7	-6.7	-4.0
93b	80.2	69.8	72.7	10.3	-4.0
96a	60.7	55.2	58.1	4.5	-5.0
96b	59.4	55.2	58.1	2.2	-5.0

Notes: 1. The calculated exposure is the "known" exposure determined by the testing agency.

Table 3

Maximum Dose Due to Radioactive Effluent Releases
Watts Bar Nuclear Plant
1999
mrem/year

Dose From Liquid Effluents

Type	1999 Dose	NRC Limit	Percent of NRC Limit
Total Body	3.47E-3	3	< 1.0
Any Organ	4.66E-3	10	< 1.0

Doses From Gaseous Effluents

Type	1999 Dose	NRC Limit	Percent of NRC Limit
Noble Gas (Gamma)	1.31E-02	10	< 1.0
Noble Gas (Beta)	8.13E-03	20	< 1.0
Any Organ	8.92E-03	15	< 1.0

Total Cumulative Dose

Type	1999 Dose	EPA Limit	Percent of EPA Limit
Total Body or Any Other Organ	2.19E-02	25	< 1.0
Thyroid	2.01E-02	75	< 1.0

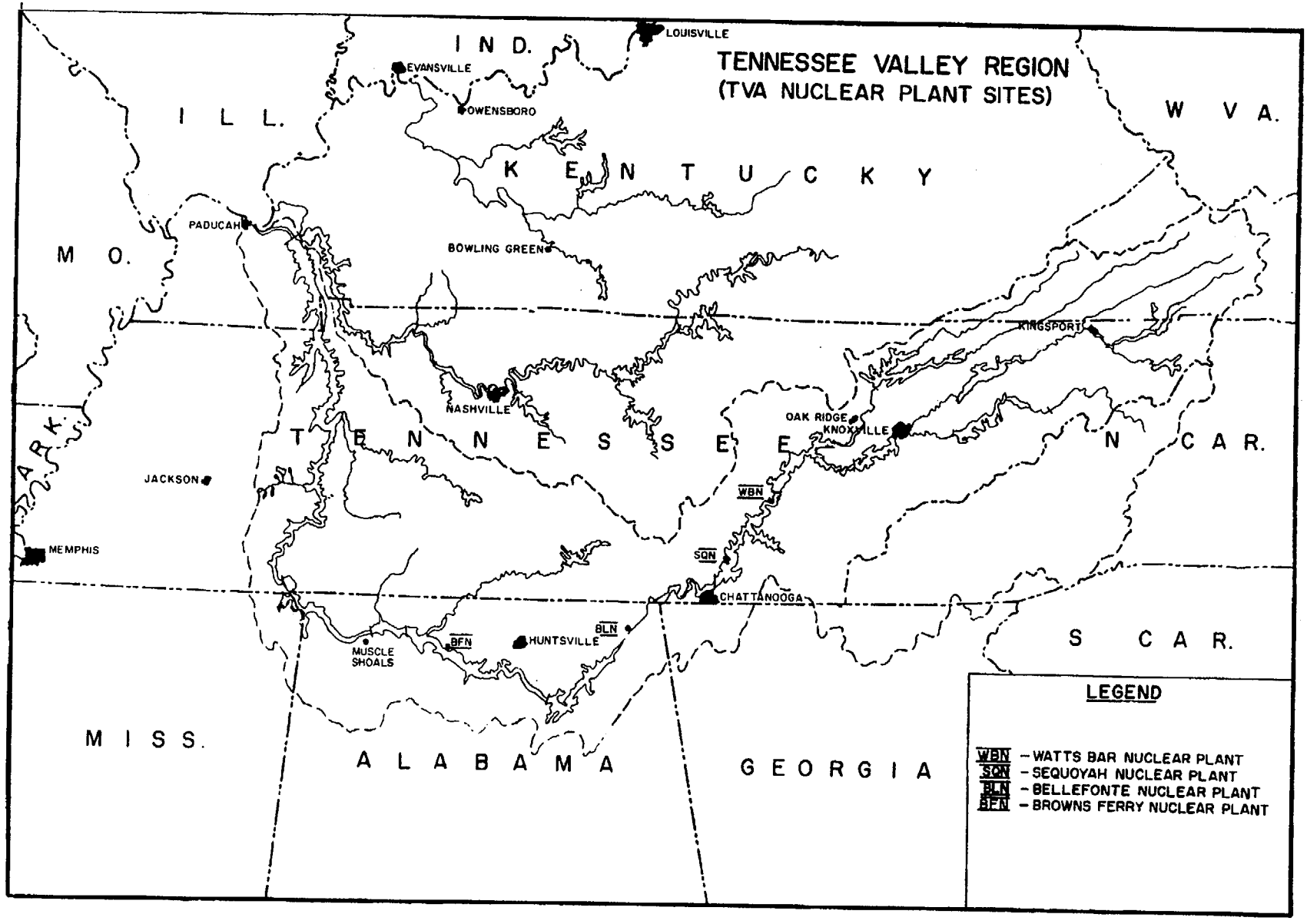
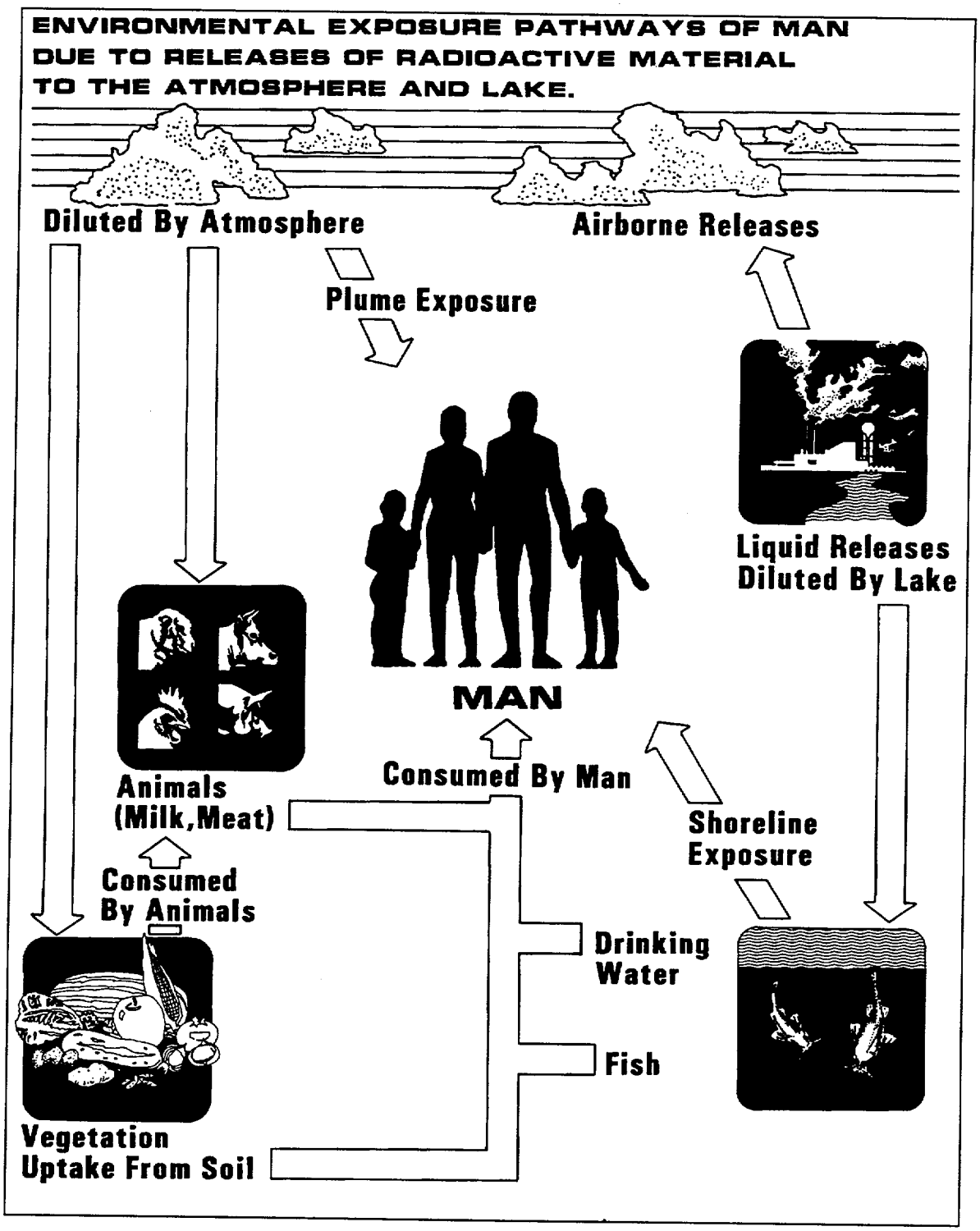

TENNESSEE VALLEY REGION
(TVA NUCLEAR PLANT SITES)
LOUISVILLE
EVANSVILLE
OWENSBORO
PADUCAH
BOWLING GREEN
KINGSPORT
NASHVILLE
OAK RIDGE
KNOXVILLE
JACKSON
MEMPHIS
WBN
SQN
CHATTANOOGA
BLN
BFN
HUNTSVILLE
MUSCLE SHOALS
I N D.
I L L.
K E N T U C K Y
W V A.
M O.
T E N N E S S E E
N C A R.
S C A R.
M I S S.
A L A B A M A
G E O R G I A
LEGEND
WBN - WATTS BAR NUCLEAR PLANT
SQN - SEQUOYAH NUCLEAR PLANT
BLN - BELLEFONTE NUCLEAR PLANT
BFN - BROWNS FERRY NUCLEAR PLANT

Figure 1

Figure 2


ENVIRONMENTAL EXPOSURE PATHWAYS OF MAN
DUE TO RELEASES OF RADIOACTIVE MATERIAL
TO THE ATMOSPHERE AND LAKE.
Diluted By Atmosphere
Airborne Releases
Plume Exposure
Liquid Releases
Diluted By Lake
MAN
Consumed By Man
Animals
(Milk,Meat)
Shoreline
Exposure
Consumed
By Animals
Drinking
Water
Fish
Vegetation
Uptake From Soil

APPENDIX A

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM AND SAMPLING LOCATIONS

Table A-1

WATTS BAR NUCLEAR PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Exposure Pathway and/or Sample	Number of Samples and Locations[b]	Sampling and Collection Frequency	Type and Frequency of Analysis
1. AIRBORNE			
a. Particulates	4 samples from locations (in different sectors) at or near the site boundary (LM-1, 2, 3, and 4).	Continuous sampler operation with sample collection weekly (more (frequently if required by dust loading).	Analyze for gross beta radioactivity greater than or equal to 24 hours following filter change. Perform gamma isotopic analysis on each sample if gross beta is greater than 10 times yearly mean of control sample. Composite at least once per 31 days (by location) for gamma scan.
	4 samples from communities approximately 6-10 miles from the plant (PM-2, 3, 4, and 5).		
	2 samples from control locations greater than 10 miles from the plant (RM-2 and 3).		
b. Radioiodine	Samples from same locations as air particulates.	Continuous sampler operation with filter collection weekly.	I-131 at least once per 7 days. Analysis is performed by gamma spectroscopy.
c. Rainwater	Samples from same locations as air particulates.	Rainwater collected continuously with composite sample taken monthly.	Analyzed for gamma activity only if radioactivity in other media indicates the presence of increased levels of fallout.
d. Soil	Samples from same locations as air particulates.	Once per year.	Gamma scan, Sr-89, Sr-90 once per year.

Table A-1

WATTS BAR NUCLEAR PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM[a]

Exposure Pathway and/or Sample	Number of Samples and Locations[b]	Sampling and Collection Frequency	Type and Frequency of Analysis
2. DIRECT	2 or more dosimeters (TLDs) placed at or near the site boundary in each of the 16 sectors.	At least once per 92 days.	Gamma dose at least once per 92 days.
	2 or more dosimeters placed at stations located approximately 5 miles from the plant in each of the 16 sectors.		
	2 or more dosimeters in at least 8 additional locations of special interest, including at least 2 control stations.		
3. WATERBORNE			
a. Surface	2 samples downstream from plant discharge (TRM 517.9 and TRM 523.1).	Collected by automatic sequential-type sampler[c] with composite samples collected over a period of approximately 31 days.	Gross beta and gamma scan of each composite sample. Composite for Sr-89, Sr-90, and tritium analysis at least once per 92 days.
	1 sample at a control location upstream from plant discharge (TRM 529.3).		
b. Ground	One sample adjacent to plant (well No. 1).	Collected by automatic sequential-type sampler[c] with composite samples collected over a period of approximately 31 days.	Composited for gross beta, gamma scan, Sr-89, Sr-90 and tritium at least once per 92 days.

Table A-1

WATTS BAR NUCLEAR PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM[a]

Exposure Pathway and/or Sample	Number of Samples and Locations[b]	Sampling and Collection Frequency	Type and Frequency of Analysis
b. Ground (Continued)	1 sample from ground water source up gradient (well No. 5).	Same as well No. 1.	Gross beta, gamma scan, Sr-89, Sr-90 and tritium at least once per 92 days.
	1 sample from ground water source up gradient (Farm L).	Grab sample at least once per 92 days.	Same as above.
c. Drinking	1 sample at the first two potable surface water supplies downstream from the plant (TRM 503.8 and TRM 473.0).	Collected by automatic sequential-type sampler[c] with composite sample collected monthly.	Gross beta and gamma scan on each composite. Quarterly composite also analyzed for tritium, Sr-89, and Sr-90.
	1 sample at a control location TRM529.3[d].		
d. Sediment	1 sample in the area immediately downstream of plant discharge (TRM 527.4).	At least once per 184 days.	Gamma scan of each sample.
	2 additional samples downstream of plant discharge (TRM 518.0 and 496.5).		
	1 sample at a control location upstream from plant discharge (TRM 532.1).		

Table A-1

WATTS BAR NUCLEAR PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM[a]

Exposure Pathway and/or Sample	Number of Samples and Locations[b]	Sampling and Collection Frequency	Type and Frequency of Analysis
e. Sediment from shoreline.	1 sample downstream from plant Discharge (TRM 513.0). 1 sample from a control location upstream from plant discharge (TRM 530.2).	At least once per 184 days.	Gamma scan of each sample.
f. Pond Sediment	1 sample from at least three locations in the Yard Holding Pond.	At least once per year.	Gamma scan of each sample.
5. INGESTION			
a. Milk	3 samples from farms and/or dairies in the immediate vicinity of the plant (Farms L, Mu and N). 1 or more samples from control locations (Farms B, C, and/or S). (Also used at SQN).	Every 2 weeks.	I-131 and gamma analysis on each sample. Sr-89 and Sr-90 once per quarter.
b. Fish	At least one sample of each monitored species from Chickamauga and Watts Bar Reservoirs.	At least once per 184 days. One sample of each of the following species: Channel Catfish Crappie Smallmouth Buffalo	Gamma scan on edible portions.

Table A-1

WATTS BAR NUCLEAR PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Exposure Pathway and/or Sample	Number of Samples and Locations[b]	Sampling and Collection Frequency	Type and Frequency of Analysis
c. Clams	1 sample downstream of plant discharge. 1 sample at a control location upstream from plant discharge.	At least once per 184 days.	Gamma scan on flesh only.
d. Vegetation (Pasturage and grass)	2 samples from farms from which milk is or has been obtained (Farms L and OH).	Monthly	I-131 analysis and gamma scan of each sample. Sr-89 and Sr-90 Analysis at least once per 92 days.
	1 sample from a control location (Farm S; also used for SQN).	Monthly	
e. Food Products	1 sample each of principal food products grown at private gardens and/or farms in the immediate vicinity of the plant.	Annually at time of harvest. The types of foods available for sampling will vary. Following is a list of typical foods which may be available: Cabbage, Lettuce and/or Greens Corn Green Beans Potatoes Tomatoes	Gamma scan on edible portion.

a. The sampling program outlined in this table is that which was in effect at the end of 1999.
b. Sample locations are shown on Figures A-1, A-2, A-3.
c. Samples shall be collected by collecting an aliquot at intervals not exceeding 2 hours.
d. The samples collected at TRMs 503.8 and 473.0 are taken from the raw water supply, therefore, the upstream surface water sample will be considered the control sample for drinking water.

Table A-2
WATTS BAR NUCLEAR PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM
SAMPLING LOCATIONS

Map Location Number[a]	Station	Sector	Approximate Distance (Miles)	Indicator (I) or Control (C)	Samples Collected[b]
2	PM-2	NW	7.0	I	AP,CF,R,S
3	PM-3	NNE	10.4	I	AP,CF,R,S
4	PM-4	NE/ENE[c]	7.6	I	AP,CF,R,S
5	PM-5	S	6.2	I	AP,CF,R,S
6	RM-2	SW	15.0	C	AP,CF,R,S
7	RM-3	NNW	15.0	C	AP,CF,R,S
8	LM-1	SSW	0.5	I	AP,CF,R,S
9	LM-2	N	0.5	I	AP,CF,R,S
10	LM-3	NNE	1.9	I	AP,CF,R,S
11	LM-4	SE	0.9	I	AP,CF,R,S
12	Farm L	SSW	1.3	I[d]	M,V,W
15	Farm B	E	15.0	C	M
16	Farm C	SSW	16.0	C	M
17	Farm S	SW	19.5	C	M,V
18	Well #1	S	0.6	I	W
19	Farm Mu	ESE	3.7	I	M
20	Farm N	ESE	4.1	I	M
21	Farm OH	WSW	4.8	I	V
22	Well #5	N	0.5	C	W
25	TRM 517.9	--	9.9[e]	I	SW
25a	TRM 518.0	--	9.8[e]	I	SD
26	TRM 523.1	--	4.7[e]	I	SW
27	TRM 529.3	--	1.5[e]	C	SW,PW[f]
28	TRM 532.1	--	4.3[e]	C	SD
29	TRM 527.4	--	0.4[e]	I	SD
31	TRM 473.0 (C. F. Industries)		54.8[e]	I	PW
32	TRM 513.0	--	14.8[e]	I	SS
33	TRM 530.2	--	2.4[e]	C	SS
35	TRM 503.8 (Dayton)	--	24.0[e]	I	PW
36	TRM 496.5	--	31.3[e]	I	SD
38	Chickamauga Reservoir			I/C	F,CL
39	Watts Bar Reservoir			C	F
81	Yard Pond	SSE/S/SSW	Onsite	I	PS

a. See Figures A-1, A-2, and A-3
b. Sample codes:
AP = Air particulate filter
CF = Charcoal filter
CL = Clams
F = Fish
M = Milk
PW = Public Water
PS = Pond Sediment
R = Rainwater
S = Soil
SD = Sediment
SS = Shoreline sediment
SW = Surface water
V = Vegetation
W = Well water
c. Station located on the boundary between these two sectors.
d. A control for well water.
e. Distance from the plant discharge (TRM 527.8)
f. The surface water sample is also used as a control for public water.

Table A-3
WATTS BAR NUCLEAR PLANT
THERMOLUMINESCENT DOSIMETER (TLD) LOCATIONS

Map[a] Location Number	Station	Sector	Approximate Distance (miles)	Onsite (On)[b] or Offsite (Off)
2	NW-3	NW	7.0	Off
3	NNE-3	NNE	10.4	Off
4	ENE-3	ENE	7.6	Off
5	S-3	S	6.2	Off
6	SW-3	SW	15.0	Off
7	NNW-4	NNW	15.0	Off
10	NNE-1A	NNE	1.9	On
11	SE-1A	SE	0.9	On
12	SSW-2	SSW	1.3	On
14	W-2	W	4.8	Off
15	E-3	E	15.0	Off
40	N-1	N	1.2	On
41	N-2	N	4.7	Off
42	NNE-1	NNE	1.2	On
43	NNE-2	NNE	4.1	Off
44	NE-1	NE	0.9	On
45	NE-2	NE	2.9	Off
46	NE-3	NE	6.1	Off
47	ENE-1	ENE	0.7	On
48	ENE-2	ENE	5.8	Off
49	E-1	E	1.3	On
50	E-2	E	5.0	Off
51	ESE-1	ESE	1.2	On
52	ESE-2	ESE	4.4	Off
54	SE-2	SE	5.3	Off
55	SSE-1	SSE	0.6	On
56	SSE-2	SSE	5.8	Off
57	S-1	S	0.7	On
58	S-2	S	4.8	Off
59	SSW-1	SSW	0.8	On
60	SSW-3	SSW	5.0	Off
62	SW-1	SS	0.8	On
63	SW-2	SW	5.3	Off
64	WSW-1	WSW	0.9	On
65	WSW-2	WSW	3.9	Off
66	W-1	W	0.9	On
67	WNW-1	WNW	0.9	On
68	WNW-2	WNW	4.9	Off
69	NW-1	NW	1.1	On
70	NW-2	NW	4.7	Off
71	NNW-1	NNW	1.0	On
72	NNW-2	NNW	4.5	Off
73	NNW-3	NNW	7.0	Off
74	ENE-2A	ENE	3.5	Off
75	SE-2A	SE	3.1	Off
76	S-2A	S	2.0	Off
77	W-2A	W	3.2	Off
78	NW-2A	NW	3.0	Off

a. See Figures A-1, A-2, and A-3.
b. TLDs designated "onsite" are located 2 miles or less from the plant; "offsite" are located more than 2 miles from the plant.

Figure A-1

Radiological Environmental Sampling Locations

Within 1 Mile of the Plant

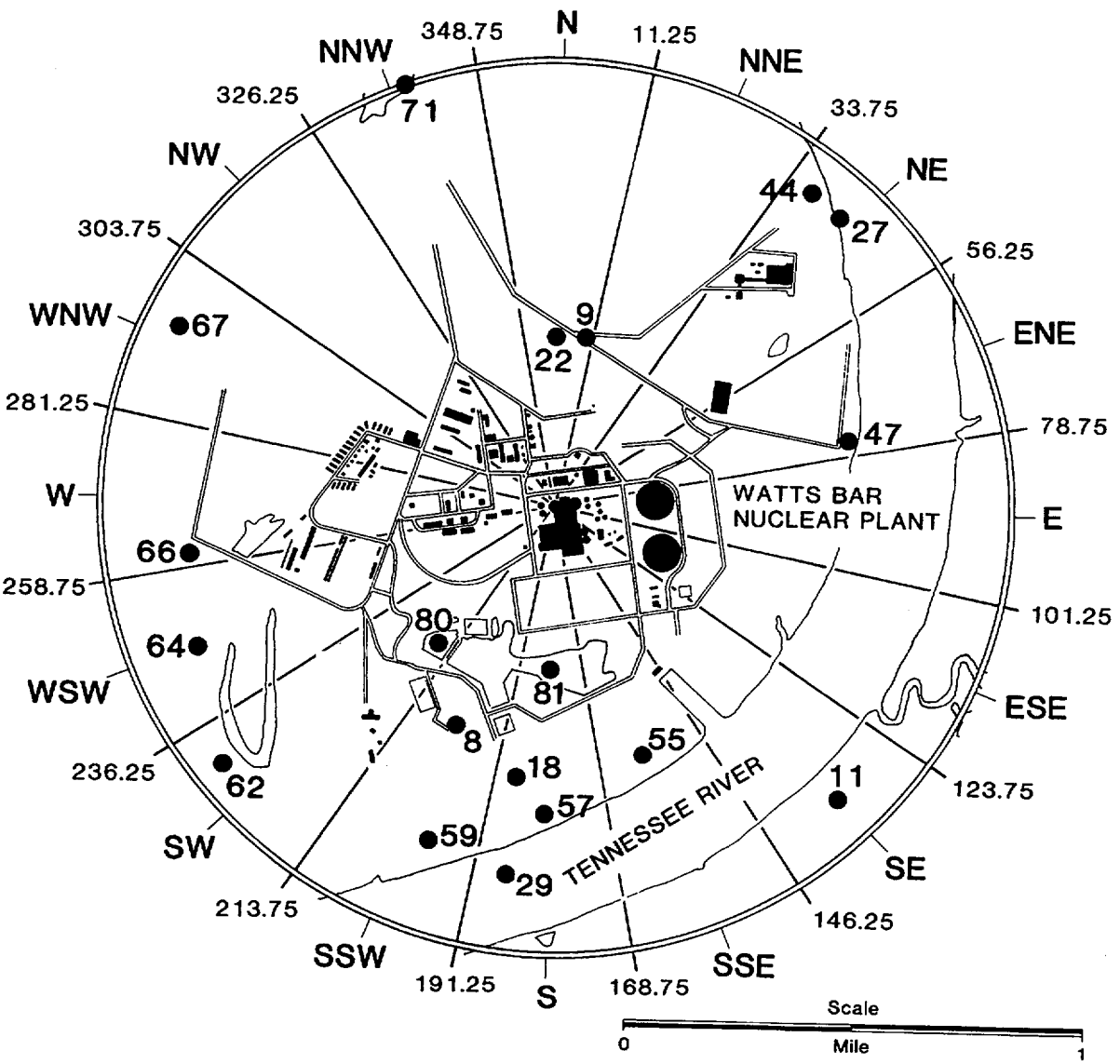


Figure A-2

Radiological Environmental Sampling Locations

From 1 to 5 Miles From The Plant

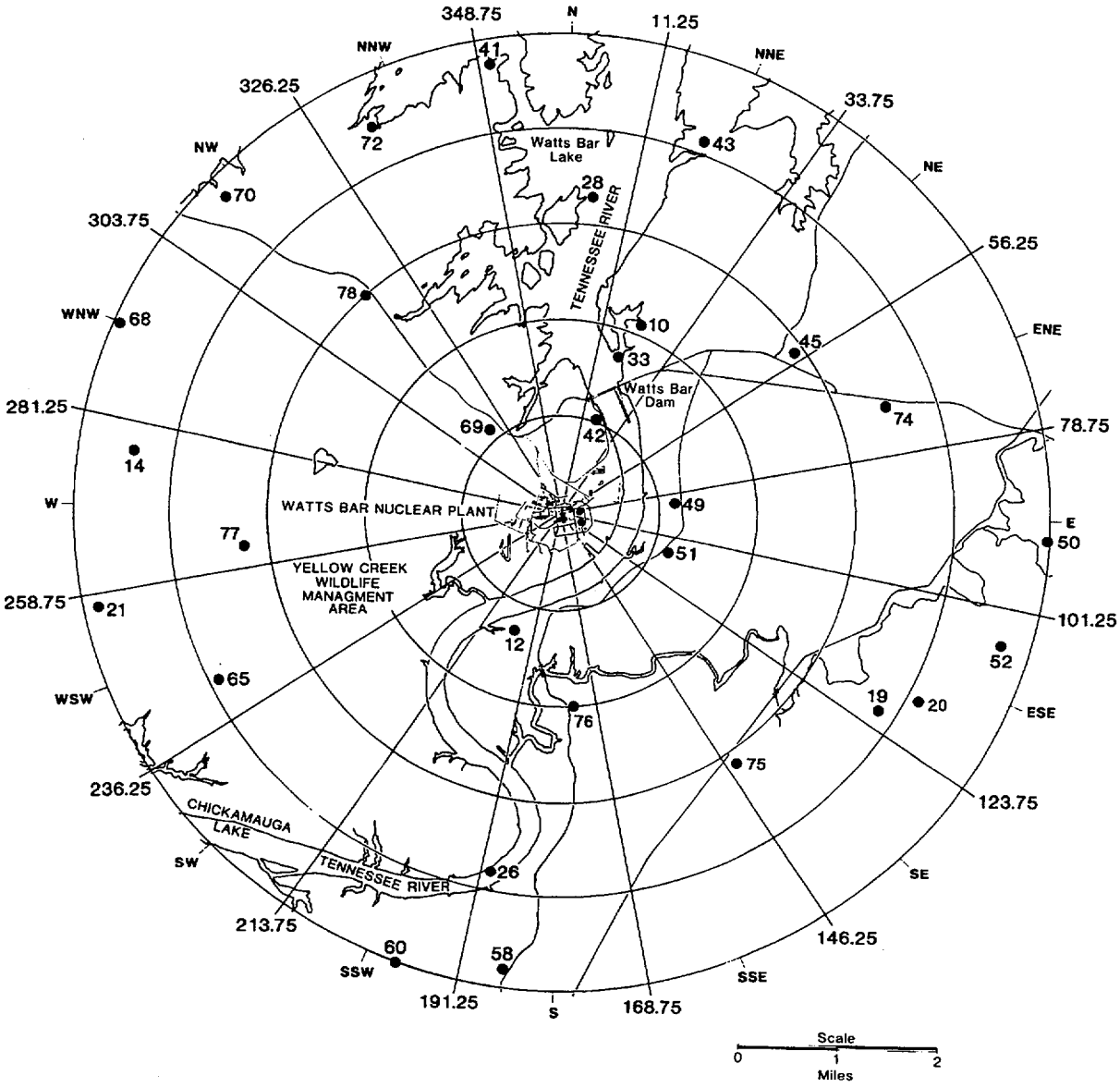
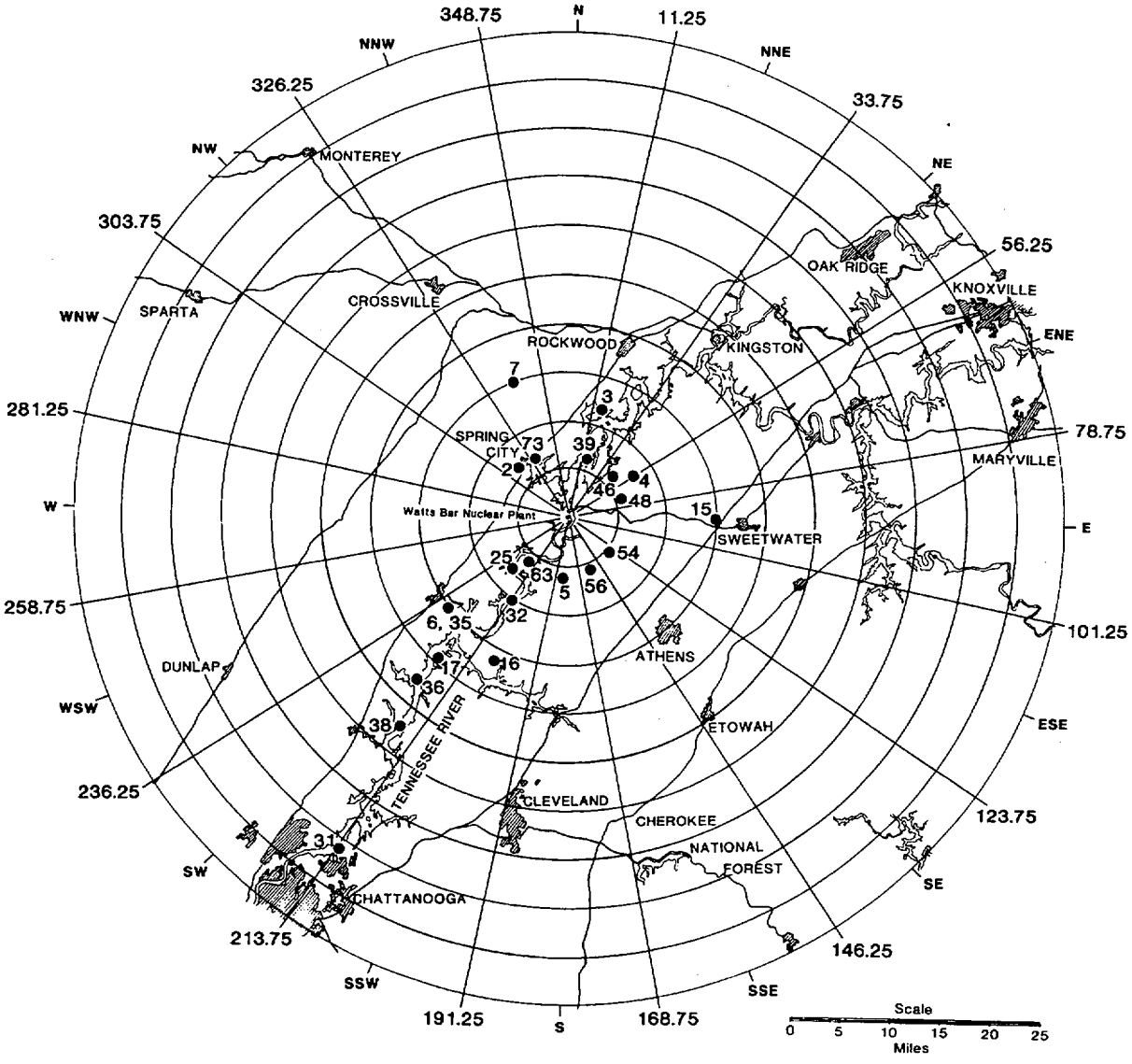


Figure A-3

Radiological Environmental Sampling Locations

Greater Than 5 Miles From the Plant



APPENDIX B

1999 PROGRAM MODIFICATIONS

Appendix B

Radiological Environmental Monitoring Program Modification

There were no modifications to the WBN radiological environmental monitoring program during 1999.

APPENDIX C

PROGRAM DEVIATIONS

Appendix C

Program Deviations

During 1999, there were three air particulate filter and charcoal cartridge samples that could not be collected due to equipment problems. In each case, repairs were made and the samples were collected as scheduled for the next sampling period.

On August 18, 1999, a milk sample was not available at one of three control sampling locations. The I-131 analysis could not be completed on the milk sample collected from the Layman farm on August 17, 1999, due to problems with the sample. The gamma spectroscopy analysis was performed as scheduled on this sample.

On October 12, 1999, the surface water sample could not be collected from the first downstream sampling locations due to equipment problems. A sample was collected as scheduled at the second downstream location.

Table C-1 provides a detail summary of these missed samples.

Table C-1

Radiological Environmental Monitoring Program Deviations

Date	Station	Location	Remarks
01/20/99	LM-4	0.9 miles SE	The air particulate and charcoal cartridge sample could not be collected due to equipment problems. Repairs were made and the samples were collected as scheduled for the next sampling period.
03/30/99	PM-3	10.4 miles NNE	The air particulate and charcoal cartridge sample could not be collected due to equipment problems. Repairs were made and the samples were collected as scheduled for the next sampling period.
08/17/99	Farm L	1.3 miles SSW	The I-131 analysis could not be completed on the milk sample from this location due to problems with the sample. The gamma spectroscopy analysis was performed successfully.
08/18/99	Farm C	16.0 miles SSW	No milk was available from this sampling location. This farm is one of three control sampling locations and milk was collected from the other two control locations.
10/12/99	TRM 523.1	4.7 miles downstream	The surface water sample was not available from this location due to sampling equipment problems. The equipment was repaired and the sample was collected as scheduled for the next sampling period.
11/22/99	PM-5	6.2 miles S	The air particulate and charcoal cartridge sample could not be collected due to equipment problems. Repairs were made and the samples were collected as scheduled for the next sampling period.

APPENDIX D

ANALYTICAL PROCEDURES

Appendix D

Analytical Procedures

Analyses of environmental samples are performed by the radioanalytical laboratory located at the Western Area Radiological Laboratory facility in Muscle Shoals, Alabama. All analysis procedures are based on accepted methods. A summary of the analysis techniques and methodology follows.

The gross beta measurements are made with an automatic low background counting system. Normal counting times are 50 minutes. Water samples are prepared by evaporating 500 ml of samples to near dryness, transferring to a stainless steel planchet, and completing the evaporation process. Air particulate filters are counted directly in a shallow planchet.

The specific analysis of I-131 in milk, water, or vegetation samples is performed by first isolating and purifying the iodine by radiochemical separation and then counting the final precipitate on a beta-gamma coincidence counting system. The normal count time is 50 minutes. With the beta-gamma coincidence counting system, background counts are virtually eliminated and extremely low levels of activity can be detected.

After a radiochemical separation, samples analyzed for Sr-89,90 are counted on a low background beta counting system. The sample is counted a second time after a 7-day ingrowth period. From the two counts the Sr-89 and Sr-90 concentrations can be determined.

Water samples are analyzed for tritium content by first distilling a portion of the sample and then counting by liquid scintillation. A commercially available scintillation cocktail is used. Gamma analyses are performed in various counting geometries depending on the sample type and volume. All gamma counts are obtained with germanium type detectors interfaced with a high resolution gamma spectroscopy system. Spectral data reduction is performed by the computer program HYPERMET.

The charcoal cartridges used to sample gaseous radioiodine are analyzed by gamma spectroscopy using a high resolution gamma spectroscopy system with germanium detectors.

All of the necessary efficiency values, weight-efficiency curves, and geometry tables are established and maintained on each detector and counting system. A series of daily and periodic quality control checks are performed to monitor counting instrumentation. System logbooks and control charts are used to document the results of the quality control checks.

APPENDIX E

NOMINAL LOWER LIMITS OF DETECTION (LLD)

Appendix E

Nominal Lower Limits of Detection

Sensitive radiation detection devices can produce a signal even when no radioactivity is present in a sample being analyzed. This signal may come from trace amounts of radioactivity in the components of the device, from cosmic rays, from naturally occurring radon gas, or from electronic noise. The signal registered when no activity is present in the sample is called the background.

The point at which the signal is determined to represent radioactivity in the sample is called the critical level. This point is based on statistical analysis of the background readings from any particular device. However, any sample measured over and over in the same device will give different readings, some higher than others. The sample should have a well-defined average reading, but any individual reading will vary from that average. In order to determine the activity present in a sample that will produce a reading above the critical level, additional statistical analysis of the background readings is required. The hypothetical activity calculated from this analysis is called the lower limit of detection (LLD). A listing of typical LLD values that a laboratory publishes is a guide to the sensitivity of the analytical measurements performed by the laboratory.

Every time an activity is calculated from a sample, the background must be subtracted from the sample signal. For the very low levels encountered in environmental monitoring, the sample signals are often very close to the background. The measuring equipment is being used at the limit of its capability. For a sample with no measurable activity, which often happens, about half the time its signal should fall below the average machine background and half the time it should be above the background. If a signal above the background is present, the calculated activity is compared to the calculated LLD to determine if there is really activity present or if the number is an artifact of the way radioactivity is measured.

A number of factors influence the LLD, including sample size, count time, counting efficiency, chemical processes, radioactive decay factors, and interfering isotopes encountered in the sample. The most likely values for these factors have been evaluated for the various analyses performed in the environmental monitoring program. The nominal LLDs calculated from these values, in accordance with the methodology prescribed in the ODCM, are presented in Table E-1. The maximum values for the lower limits of detection specified in the ODCM are shown in Table E-2.

The nominal LLDs are also presented in the data tables. For analyses for which nominal LLDs have not been established, an LLD of zero is assumed in determining if a measured activity is greater than the LLD.

TABLE E-1

Nominal LLD Values
A. Radiochemical Procedures

	Air Filters (pCi/m^3)	Water (pCi/L)	Milk (pCi/L)	Wet Vegetation (pCi/Kg wet)	Sediment and Soil (pCi/g dry)
Gross Beta	0.002	1.9			
Tritium		300			
Iodine-131		0.4	0.4	6.0	
Strontium-89	0.0011	5.0	3.5	31.0	1.6
Strontium-90	0.0004	2.0	2.0	12.0	0.4

Table E-1
Nominal LLD Values
B. Gamma Analyses

	Particulate Filter pCi/m3	Charcoal Filter pCi/m3	Water and Milk pCi/L	Vegetation and Grain pCi/g, dry	Wet Vegetation pCi/kg, wet	Soil and Sediment pCi/g, dry	Fish pCi/g, dry	Clam Flesh pCi/g, dry	Foods Tomatoes Potatoes, etc. pCi/kg, wet
Ce-141	.005	.02	10	.07	35	.10	.07	.35	20
Ce-144	.01	.07	30	.15	115	.20	.15	.85	60
Cr-51	.02	0.15	45	.30	200	.35	.30	2.40	95
I-131	.005	0.03	10	.20	60	.25	.20	1.70	20
Ru-103	.005	0.02	5	.03	25	.03	.03	.25	25
Ru-106	.02	0.12	40	.15	190	.20	.15	1.25	90
Cs-134	.005	0.02	5	.03	30	.03	.03	.14	10
Cs-137	.005	0.02	5	.03	25	.03	.03	.15	10
Zr-95	.005	0.03	10	.05	45	.05	.05	.45	45
Nb-95	.005	0.02	5	.25	30	.04	.25	.25	10
Co-58	.005	0.02	5	.03	20	.03	.03	.25	10
Mn-54	.005	0.02	5	.03	20	.03	.03	.20	10
Zn-65	.005	0.03	10	.05	45	.05	.05	.40	45
Co-60	.005	0.02	5	.03	20	.03	.03	.20	10
K-40	.04	0.30	100	.40	400	.75	.40	3.50	250
Ba-140	.015	0.07	25	.30	130	.30	.30	2.40	50
La-140	.01	0.04	10	.20	50	.20	.20	1.40	25
Fe-59	.005	0.04	10	.08	40	.05	.08	.45	25
Be-7	.02	0.15	45	.25	200	.25	.25	1.90	90
Pb-212	.005	0.03	15	.04	40	.10	.04	.30	40
Pb-214	.005	0.07	20	.50	80	.15	.50	.10	80
Bi-214	.005	0.05	20	.10	55	.15	.10	.50	40
Bi-212	.02	0.20	50	.25	250	.45	.25	2.00	130
Tl-208	.002	0.02	10	.03	30	.06	.03	.25	30
Ra-224	--	--	--	--	--	.75	--	--	--
Ra-226	--	--	--	--	--	.15	--	--	--
Ac-228	.01	0.07	20	.10	70	.25	.10	.75	50

Table E-2

Maximum Values for the Lower Limits of Detection (LLD)
Specified by the WBN Offsite Dose Calculation Manual

Analysis	Water pCi/L	Airborne Particulate or Gases pCi/m^3	Fish pCi/kg, wet	Milk pCi/L	Food Products pCi/kg, wet	Sediment pCi/kg, dry
gross beta	4	1×10^{-2}	N.A.	N.A.	N.A.	N.A.
H-3	2000[a]	N.A.	N.A.	N.A.	N.A.	N.A.
Mn-54	15	N.A.	130	N.A.	N.A.	N.A.
Fe-59	30	N.A.	260	N.A.	N.A.	N.A.
Co-58,60	15	N.A.	130	N.A.	N.A.	N.A.
Zn-65	30	N.A.	260	N.A.	N.A.	N.A.
Zr-95	30	N.A.	N.A.	N.A.	N.A.	N.A.
Nb-95	15	N.A.	N.A.	N.A.	N.A.	N.A.
I-131	1[b]	7×10^{-2}	N.A.	1	60	N.A.
Cs-134	15	5×10^{-2}	130	15	60	150
Cs-137	18	6×10^{-2}	150	18	80	180
Ba-140	60	N.A.	N.A.	60	N.A.	N.A.
La-140	15	N.A.	N.A.	15	N.A.	N.A.

a. If no drinking water pathway exists, a value of 3000 pCi/liter may be used.

b. If no drinking water pathway exists, a value of 15 pCi/liter may be used.

APPENDIX F

QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

Appendix F

Quality Assurance/Quality Control Program

A thorough quality assurance program is employed by the laboratory to ensure that the environmental monitoring data are reliable. This program includes the use of written, approved procedures in performing the work, a complete training and qualification process, internal self assessments of program performance, audits by various external organizations, and a laboratory quality control program.

The quality control program employed by the radioanalytical laboratory is designed to ensure that the sampling and analysis process is working as intended. The program includes equipment checks and the analysis of quality control samples along with routine samples.

Radiation detection devices can be tested in a number of ways. There are two primary tests which are performed on all devices. In the first type, the device is operated without a sample on the detector to determine the background count rate. The background counts are usually low values and are due to machine noise, cosmic rays, trace amounts of radioactivity in the materials used to construct the detector, or terrestrial sources. Charts of background counts are kept and monitored to ensure that no unusually high or low values are encountered.

In the second test, the device is operated with a known amount of radioactivity present. The number of counts registered from such a radioactive standard should be very reproducible. These reproducibility checks are also monitored to ensure that they are neither higher nor lower than expected. When counts from either test fall outside the expected range, the device is inspected for malfunction or contamination. It is not placed into service until it is operating properly.

In addition to these two general checks, other quality control checks are performed on the variety of detectors used in the laboratory. The exact nature of these checks depends on the type of device and the method it uses to detect radiation or store the information obtained.

Quality control samples of a variety of types are used by the laboratory to verify the performance of different portions of the analytical process. These quality control samples may be blanks, replicate samples, blind samples, or cross-checks.

Blanks are samples which contain no measurable radioactivity or no activity of the type being measured. Such samples are analyzed to determine whether there is any contamination of equipment or commercial laboratory chemicals, cross-contamination in the chemical process, or interference from isotopes other than the one being measured.

Duplicate samples are generated at random by the sample computer program which schedules the collection of the routine samples. For example, if the routine program calls for four milk samples every week, on a random basis each farm might provide an additional sample several times a year. These duplicate samples are analyzed along with other routine samples. They provide information about the variability of radioactive content in the various sample media.

If enough sample is available for a particular analysis, the laboratory personnel can split it into two portions. Such a sample can provide information about the variability of the analytical process since two identical portions of material are analyzed side by side.

Analytical knowns are another category of quality control sample. A known amount of radioactivity is added to a sample medium. Whenever possible, the analytical knowns contain the same amount of radioactivity each time they are run. In this way, the lab staff has immediate knowledge of the quality of the measurement process. A portion of these samples are also blanks.

Blind spikes are samples containing radioactivity which are introduced into the analysis process disguised as ordinary environmental samples. The lab staff does not know the samples contain radioactivity. Since the bulk of the ordinary workload of the environmental

laboratory contains no measurable activity or only naturally occurring radioisotopes, blind spikes can be used to test the detection capability of the laboratory or they can be used to test the data review process. If an analysis routinely generates numerous zeroes for a particular isotope, the presence of a positive result will be brought to the attention of the laboratory supervisor in the daily review process. Blind spikes test this process since they contain radioactivity at levels high enough to be detected. Furthermore, the activity can be put into such samples at the extreme limit of detection (near the LLD) to determine whether or not the laboratory can find any unusual radioactivity whatsoever.

At present, 5 percent of the laboratory workload is in the category of internal cross-checks. These samples have a known amount of radioactivity added and are presented to the lab staff labeled as cross-check samples. This means that the quality control staff knows the radioactive content or "right answer" but the personnel performing the analyses do not. They are aware they are being tested. Such samples test the best performance of the laboratory by determining if the staff can find the "right answer". These samples provide information about the accuracy of the measurement process. Further information is available about the variability of the process if multiple analyses are requested on the same sample. Like blind spikes or analytical knowns, these samples can also be spiked with low levels of activity to test detection limits. During 1999, all analysis results for internal cross-check samples were within agreement limits when compared to the known value.

In past years the laboratory has participated in the interlaboratory comparison program produced by the EPA in Las Vegas. The EPA has discontinued this program and there were no "EPA cross-checks" available in 1999. To replace the independent cross-checks that had been provided through the EPA program, the laboratory participated in an environmental level cross-check program available through Analytics Incorporated. The results of TVA's participation in this program are presented in Table F-1.

TVA splits certain environmental samples with laboratories operated by the States of Alabama and Tennessee and the EPA National Air and Radiation Environmental Laboratory in Montgomery, Alabama. When radioactivity has been present in the environment in measurable quantities, such as following atmospheric nuclear weapons testing, following the Chernobyl incident, or as naturally occurring radionuclides, the split samples have provided TVA with yet another level of information about laboratory performance. These samples demonstrate performance on actual environmental sample matrices rather than on the constructed matrices used in cross-check programs.

All the quality control data are routinely collected, examined, and reported to laboratory supervisory personnel. They are checked for trends, problem areas, or other indications that a portion of the analytical process needs correction or improvement. The end results is a measurement process that provides reliable and verifiable data and is sensitive enough to measure the presence of radioactivity far below the levels which could be harmful to humans.

Table F-1

Results For 1999 External Cross Checks

Test Period	Sample Type / Analysis	Results		Agreement Range
		Known	TVA	
First Quarter	Water (pCi/L)			
	Gross Beta	201	205	171 - 231
First Quarter	Charcoal Filter (pCi/Filter)			
	^{131}I	90	81	63 - 117
First Quarter	Water (pCi/L)			
	^{131}I	91	87	64 - 118
	^{141}Ce	177	168	150 - 204
	^{51}Cr	398	417	279 - 517
	^{134}Cs	114	103	97 - 131
	^{137}Cs	240	232	204 - 276
	^{54}Mn	152	155	129 - 175
	^{59}Fe	79	86	64 - 94
	^{65}Zn	195	205	137 - 254
	^{60}Co	181	184	154 - 208
Third Quarter	Water (pCi/L)			
	^{3}H	4534	4040	3174 - 5894
	^{89}Sr	77	86	62 - 92
	^{90}Sr	38	37	23 - 53
Third Quarter	Air Filter (pCi/Filter)			
	Gross Beta	60	50	45 - 75
Third Quarter	Air Filter (pCi/Filter)			
	^{141}Ce	110	107	94 - 127
	^{51}Cr	83	69	58 - 108
	^{134}Cs	54	49	39 - 69
	^{137}Cs	122	120	104 - 140
	^{54}Mn	95	101	80 - 110
	^{59}Fe	43	47	28 - 58
	^{65}Zn	92	96	64 - 120
	^{60}Co	72	71	57 - 87
Third Quarter	Sand (pCi/g) (Simulated soil)			
	^{141}Ce	0.399	0.349	0.339 - 0.459
	^{51}Cr	0.301	0.280	0.211 - 0.391
	^{134}Cs	0.195	0.216	0.166 - 0.224
	^{137}Cs	0.439	0.406	0.373 - 0.505
	^{54}Mn	0.343	0.347	0.292 - 0.394
	^{59}Fe	0.154	0.144	0.131 - 0.177
	^{65}Zn	0.331	0.312	0.232 - 0.430
	^{60}Co	0.260	0.241	0.221 - 0.299

APPENDIX G

LAND USE SURVEY

Appendix G

Land Use Survey

A land use survey was conducted in accordance with the provisions of ODCM Control 1.3.2 to identify the location of the nearest milk animal, the nearest residence, and the nearest garden of greater than 500 square feet producing fresh leafy vegetables in each of 16 meteorological sectors within a distance of 5 miles from the plant.

The land use survey was conducted between April 1 and October 1 using appropriate techniques such as door-to-door survey, mail survey, telephone survey, aerial survey, or information from local agricultural authorities or other reliable sources.

From the data of the surveys, relative radiation doses were projected for individuals near the plant. Doses from air submersion were calculated for the nearest resident in each sector, while doses from drinking milk or eating foods produced near the plant were calculated for the areas with milk producing animals and gardens, respectively. These doses were calculated using design basis source terms and historical meteorological data. They also assume that the effluent releases are equivalent to the design basis source terms. The calculated doses are relative in nature and do not reflect actual exposures received by individuals living near WBN. Calculated doses to individuals based on measured effluents from the plant are well below applicable dose limits (see Assessment and Evaluation Section and Table 3 of this report).

In response to the 1999 WBN land use survey, annual doses were calculated for air submersion, vegetable ingestion, and milk ingestion. The air submersion doses calculated for the nearest residence in each sector were the same as those calculated in 1998 since there were no changes in the location of the nearest residence.

Doses calculated for ingestion of home grown foods changed slightly in two sectors compared to the results calculated in 1998 due to changes in the location of the nearest garden.

For milk ingestion, projected doses were consistent with those calculated for 1998. There were small changes for the annual dose results at some locations due to changes in the feeding factor. Except for the farm where the owner does not want to participate in the program (Farm Ho), milk samples are being collected from the three farms where the calculated doses are highest. One of the farms providing a milk sample is between Farm Ho and the plant. The farm located 5.0 miles from the plant in the SE sector identified in the previous land use surveys was not included in the 1999 survey results. After evaluation of the actual farm and pasture land locations it was determined that this farm was outside the 5 mile radius.

The results of the 1999 land use survey and resulting relative projected annual dose calculations documented that there were no significant changes in land use of unrestricted areas. No required changes in the sampling locations for the radiological environmental monitoring program were identified as result of the land use survey.

Tables G-1, G-2, and G-3 compare results of the relative projected annual dose calculations for 1998 and 1999.

Table G-1

Watts Bar Nuclear Plant
Relative Projected Annual Air Submersion Dose to the Nearest Residence
Within 5 Miles of Plant[a]

mrem/year

	1998		1999	
Sector	Approximate Distance (Miles)	Annual Dose	Approximate Distance (Miles)	Annual Dose
N	1.3	0.24	1.3	0.24
NNE	2.3	0.20	2.3	0.20
NE	2.1	0.19	2.1	0.19
ENE	1.5	0.31	1.5	0.31
E	2.0	0.18	2.0	0.18
ESE	2.8	0.12	2.8	0.12
SE	0.9	0.76	0.9	0.76
SSE	1.0	0.38	1.0	0.38
S	1.0	0.37	1.0	0.37
SSW	1.2	0.29	1.2	0.29
SW	2.7	0.09	2.7	0.09
WSW	1.3	0.38	1.3	0.38
W	1.8	0.07	1.8	0.07
WNS	1.0	0.17	1.0	0.17
NW	1.9	0.04	1.9	0.04
NNW	2.7	0.03	2.7	0.03

a. Assumes the effluent releases are equivalent to design basis source terms.

Table G-2

Watts Bar Nuclear Plant
Relative Projected Annual Ingestion Dose to Child's Bone
Organ from Ingestion of Home-Grown Foods
Nearest Garden Within 5 Miles of Plant[a]

mrem/year

	1998		1999	
Sector	Approximate Distance (Miles)	Annual Dose	Approximate Distance (Miles)	Annual Dose
N	4.8	0.50	4.8	0.50
NNE	3.8	1.68	3.8	1.68
NE	3.1	2.13	3.1	2.13
ENE	3.0	1.98	3.0	1.98
E	5.0	0.83	5.0	0.83
ESE	3.0	2.25	3.0	2.25
SE	2.9	2.17	2.9	2.17
SSE	1.0	7.45	1.0	7.45
S	2.0	3.08	3.1	1.41
SSW	1.2	6.86	1.2	6.86
SW	b		b	
WSW	1.7	4.30	1.7	4.30
W	3.0	0.65	2.8	0.72
WNW	4.1	0.15	4.1	0.15
NW	2.0	0.76	2.0	0.76
NNW	2.8	0.69	2.8	0.69

a. Assumes the effluent releases are equivalent to design basis source terms.
b. Garden not identified within 5 miles of the plant in this sector.

Table G-3

Watts Bar Nuclear Plant
Relative Projected Annual Dose to Receptor Thyroid from Ingestion of Milk[a]
(Nearest Milk-Producing Animal Within 5 Miles of Plant)

mrem/year

Location	Sector	Approximate Distance Miles	Annual Dose 1998	Annual Dose 1999	X/Q s/m^3
Cows					
Farm Mu[b]	ESE	3.7	0.07	0.06	1.14 E-6
Farm N[b]	ESE	4.1	0.04	0.04	9.44 E-7
Farm L[b]	SSW	1.3	0.49	0.47	2.36 E-6
Farm Ho[c]	SSW	1.5	0.33	0.33	1.43 E-6
Farm S	NW	4.9	0.01	0.01	1.26 E-7

a. Assumes the plant is operating and effluent releases are equivalent to design basis source terms.
b. Milk being sampled at these locations.
c. Owner unwilling to provide samples or information. The dose calculated assumes consumption of the milk by an adult and a feeding factor equivalent to 33 percent. If milk from this location were to be consumed by teens, children or infants, the estimated doses would be 0.52, 1.07 and 2.53 mrem/year, respectively.

APPENDIX H

DATA TABLES AND FIGURES

Table H - 1

DIRECT RADIATION LEVELS

Average External Gamma Radiation Levels at Various Distances from
Watts Bar Nuclear Plant for Each Quarter - 1999
mR / Quarter (a)

Distance miles	Average External Gamma Radiation Levels (b)				per annum mR / yr
	1st qtr	2nd qtr	3rd qtr	4th qtr	
0 - 1	16.5 ± 2.3	16.9 ± 2.5	17.9 ± 2.6	15.8 ± 2.6	67
1 - 2	15.0 ± 1.2	15.1 ± 1.5	16.1 ± 1.3	14.6 ± 1.6	61
2 - 4	14.4 ± 1.3	14.7 ± 1.3	15.7 ± 1.6	13.9 ± 1.4	59
4 - 6	14.8 ± 1.7	15.1 ± 1.7	16.1 ± 1.9	14.3 ± 1.6	60
> 6	13.7 ± 2.0	14.2 ± 1.9	15.2 ± 2.1	13.5 ± 2.2	57
Average 0 - 2 miles (onsite)	15.9 ± 2.1	16.2 ± 2.3	17.2 ± 2.4	15.4 ± 2.3	65
Average > 2 miles (offsite)	14.4 ± 1.8	14.8 ± 1.7	15.8 ± 1.9	14.0 ± 1.8	59

(a) Field periods normalized to one standard quarter (2190 hours)
(b) Average of the individual measurements in the set ± 1 standard deviation of the set

TABLE H - 2

DIRECT RADIATION LEVELS

Individual Stations at Watts Bar Nuclear Plant

				Environmental Radiation Levels mR / quarter				
Map Location Number	TLD Station Number	Direction, degrees	Approx Distance, miles	1st Qtr Dec - Feb 1998 - 99	2nd Qtr Mar - May 1999	3rd Qtr Jun - Aug 1999	4th Qtr Sep - Nov 1999	Annual Exposure mR/year
40	N-1	10	1.2	16.0	17.5	17.6	16.4	67.5
41	N-2	350	4.7	15.6	16.2	17.2	15.1	64.1
42	NNE-1	21	1.2	16.1	16.2	16.9	16.2	65.4
10	NNE-1A	22	1.9	(1)	13.4	14.4	12.9	39.7
43	NNE-2	20	4.1	13.7	13.7	14.8	13.2	55.4
3	NNE-3	17	10.4	13.0	14.0	14.6	12.8	54.4
44	NE-1	39	.9	18.0	18.7	19.3	18.1	74.1
45	NE-2	54	2.9	15.7	15.6	17.0	15.0	63.3
46	NE-3	47	6.1	11.8	12.4	13.6	11.3	49.1
47	ENE-1	74	.7	16.1	17.1	18.0	13.7	64.9
48	ENE-2	69	5.8	13.4	14.4	14.8	13.5	56.1
74	ENE-2A	69	3.5	12.6	12.5	12.9	11.5	49.5
4	ENE-3	56	7.6	13.7	14.3	15.1	13.5	56.6
49	E-1	85	1.3	14.5	15.0	16.0	14.1	59.6
50	E-2	92	5.0	15.8	15.7	17.4	15.4	64.3
15	E-3	90	15.0	17.7	17.5	18.8	17.5	71.5
51	ESE-1	109	1.2	12.7	13.4	14.1	12.2	52.9
52	ESE-2	106	4.4	17.4	17.6	19.6	17.3	71.9
11	SE-1A	138	.9	14.5	14.8	16.3	14.0	59.6
54	SE-2	128	5.3	13.1	13.6	14.3	12.7	53.7
75	SE-2A	144	3.1	14.4	14.6	16.3	14.4	59.7
55	SSE-1	156	.6	15.8	16.2	16.8	15.4	64.2
56	SSE-2	156	5.8	15.4	15.7	17.0	15.0	63.1

note 1 Sum of available quarterly data normalized to 1 year for the annual exposure value

TABLE H - 2 continued

DIRECT RADIATION LEVELS

Individual Stations at Watts Bar Nuclear Plant

				Environmental Radiation Levels mR / quarter				
Map Location Number	TLD Station Number	Direction, degrees	Approx Distance, miles	1st Qtr Dec - Feb 1998 - 99	2nd Qtr Mar - May 1999	3rd Qtr Jun - Aug 1999	4th Qtr Sep - Nov 1999	Annual Exposure mR/year
57	S-1	182	.7	14.3	14.8	15.6	13.7	58.4
58	S-2	185	4.8	11.8	12.3	13.2	11.4	48.7
76	S-2A	177	2.0	16.0	16.5	17.5	15.5	65.5
5	S-3	185	6.2	14.1	14.7	15.8	14.9	59.5
59	SSW-1	199	.8	19.2	19.2	20.8	18.6	77.8
12	SSW-2	200	1.3	14.2	14.4	15.8	13.9	58.3
60	SSW-3	199	5.0	13.0	13.4	14.1	12.4	52.9
62	SW-1	226	.8	17.6	17.9	19.0	17.0	71.5
63	SW-2	220	5.3	14.7	14.7	16.0	14.7	60.1
6	SW-3	225	15.0	13.1	13.0	13.9	12.0	52.0
64	WSW-1	255	.9	14.2	14.7	15.5	13.3	57.7
65	WSW-2	247	4.0	16.3	16.8	17.3	15.4	67.2
66	W-1	270	.9	15.8	15.6	16.6	14.7	62.7
14	W-2	277	4.8	12.8	12.6	13.3	12.1	50.8
77	W-2A	268	3.2	15.1	15.2	15.9	14.3	60.5
67	WNW-1	294	.9	21.4	22.9	23.9	21.6	89.8
68	WNW-2	292	4.9	17.3	17.7	18.9	16.6	70.5
69	NW-1	320	1.1	16.0	16.3	17.4	16.2	65.9
70	NW-2	313	4.7	16.4	16.8	17.1	15.4	65.7
78	NW-2A	321	3.0	12.9	13.9	14.7	12.5	54.0
2	NW-3	317	7.0	15.9	17.0	18.6	16.5	68.0
71	NNW-1	340	1.0	13.5	14.2	14.7	13.3	55.7
72	NNW-2	333	4.5	15.3	15.8	16.5	14.7	62.3
73	NNW-3	329	7.0	11.0	11.4	12.1	10.7	45.2
7	NNW-4	337	15.0	12.4	13.2	14.0	11.9	51.5

note 1 Sum of available quarterly data normalized to 1 year for the annual exposure value

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN AIR FILTER
PCI/M3 - 0.037 BQ/M3

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GROSS BETA						
517						
	2.00E-03	2.14E-02(413/ 413)	PM5 DECATUR	2.17E-02(51/ 51)	2.13E-02(104/ 104)	
		9.33E-03- 4.94E-02	6.2 MILES S	9.33E-03- 4.25E-02	9.97E-03- 4.77E-02	
GAMMA SCAN (GELI)						
130						
BE-7	2.00E-02	1.10E-01(104/ 104)	PM5 DECATUR	1.13E-01(13/ 13)	1.15E-01(26/ 26)	
		7.20E-02- 1.54E-01	6.2 MILES S	7.69E-02- 1.49E-01	7.89E-02- 1.64E-01	
BI-214	5.00E-03	1.21E-02(72/ 104)	LM1	1.41E-02(7/ 13)	1.39E-02(19/ 26)	
		5.10E-03- 3.26E-02	0.5 MILES SSW	5.60E-03- 3.26E-02	5.30E-03- 4.29E-02	
PB-214	5.00E-03	1.20E-02(71/ 104)	LM1	1.57E-02(6/ 13)	1.48E-02(18/ 26)	
		5.30E-03- 3.25E-02	0.5 MILES SSW	6.10E-03- 3.25E-02	5.40E-03- 4.72E-02	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN CHARCOAL FILTER
PCI/M3 - 0.037 BQ/M3

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI) 517						
BI-214	5.00E-02	6.56E-02(37/ 413)	LM2	9.02E-02(3/ 52)	8.92E-02(11/ 104)	
		5.02E-02- 1.20E-01	0.5 MILES N	6.32E-02- 1.20E-01	5.25E-02- 3.26E-01	
K-40	3.00E-01	3.43E-01(37/ 413)	PM3	3.67E-01(6/ 51)	3.56E-01(6/ 104)	
		3.00E-01- 5.14E-01	10.4 MILES NNE	3.01E-01- 5.14E-01	3.21E-01- 3.96E-01	
PB-214	7.00E-02	8.88E-02(26/ 413)	LM3	1.15E-01(3/ 52)	1.07E-01(8/ 104)	
		7.08E-02- 1.52E-01	1.9 MILES NNE	9.41E-02- 1.52E-01	7.41E-02- 2.15E-01	
I-131	SEE NOTE 3					

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).
NOTE: 3. THE ANALYSIS OF CHARCOAL FILTERS WAS PERFORMED BY GAMMA SPECTROSCOPY. NO I-131 WAS DETECTED. THE LLD FOR I-131 BY GAMMA SPECTROSCOPY WAS 0.03 pCi/cubic meter.

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN MILK
PCI/L - 0.037 BQ/L

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
IODINE-131						
153	4.00E-01	76 VALUES < LLD			77 VALUES < LLD	
GAMMA SCAN (GELI)						
154						
BI-214	2.00E+01	1.23E+02(10/ 77) 2.04E+01- 3.07E+02	LAYMAN FARM 1.3 MILES SSW	1.23E+02(10/ 25) 2.04E+01- 3.07E+02	3.32E+01(5/ 77) 2.08E+01- 6.07E+01	
K-40	1.00E+02	1.32E+03(77/ 77) 6.79E+02- 1.87E+03	NORTON FARM 4.1 MILES ESE	1.40E+03(26/ 26) 1.17E+03- 1.87E+03	1.37E+03(77/ 77) 1.19E+03- 1.50E+03	
PB-214	2.00E+01	1.34E+02(9/ 77) 2.65E+01- 3.36E+02	LAYMAN FARM 1.3 MILES SSW	1.47E+02(8/ 25) 5.13E+01- 3.36E+02	3.48E+01(3/ 77) 2.24E+01- 5.67E+01	
SR 89						
23	3.50E+00	11 VALUES < LLD			12 VALUES < LLD	
SR 90						
23	2.00E+00	2.46E+00(1/ 11) 2.46E+00- 2.46E+00	MULLINS FARM 3.7 M. ESE	2.46E+00(1/ 4) 2.46E+00- 2.46E+00	12 VALUES < LLD	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN VEGETATION
PCI/KG - 0.037 BQ/KG (WET WEIGHT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
IODINE-131						
39	6.00E+00	26 VALUES < LLD			13 VALUES < LLD	
GAMMA SCAN (GELI)						
39						
BE-7	2.00E+02	1.14E+03(25/ 26) 2.76E+02- 6.27E+03	LAYMAN FARM 1.3 MILES SSW	1.14E+03(13/ 13) 2.76E+02- 6.27E+03	8.85E+02(13/ 13) 2.42E+02- 3.86E+03	
BI-214	5.50E+01	7.55E+01(9/ 26) 5.67E+01- 1.32E+02	OWEN HENDERSON FARM 4.8 MILES WSW	8.27E+01(4/ 13) 5.67E+01- 1.32E+02	9.61E+01(4/ 13) 7.77E+01- 1.19E+02	
K-40	4.00E+02	6.21E+03(26/ 26) 4.19E+03- 8.10E+03	OWEN HENDERSON FARM 4.8 MILES WSW	6.36E+03(13/ 13) 4.62E+03- 8.06E+03	5.68E+03(13/ 13) 4.22E+03- 7.85E+03	
PB-214	8.00E+01	1.27E+02(1/ 26) 1.27E+02- 1.27E+02	OWEN HENDERSON FARM 4.8 MILES WSW	1.27E+02(1/ 13) 1.27E+02- 1.27E+02	1.20E+02(2/ 13) 1.17E+02- 1.23E+02	
SR 89						
12	3.10E+01	8 VALUES < LLD			4 VALUES < LLD	
SR 90						
12	1.20E+01	2.81E+01(4/ 8) 1.32E+01- 4.85E+01	LAYMAN FARM 1.3 MILES SSW	3.09E+01(2/ 4) 1.32E+01- 4.85E+01	2.50E+01(2/ 4) 1.71E+01- 3.29E+01	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN SOIL
PCI/GM - 0.037 BQ/G (DRY WEIGHT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI)						
10						
AC-228	2.50E-01	1.09E+00(8/ 8)	LM-4 WB	1.35E+00(1/ 1)	6.60E-01(2/ 2)	
		8.22E-01- 1.35E+00	0.9 MILES SE	1.35E+00- 1.35E+00	5.91E-01- 7.29E-01	
BI-212	4.50E-01	1.08E+00(8/ 8)	PM5 DECATUR	1.33E+00(1/ 1)	7.76E-01(2/ 2)	
		7.99E-01- 1.33E+00	6.2 MILES S	1.33E+00- 1.33E+00	7.22E-01- 8.31E-01	
BI-214	1.50E-01	7.38E-01(8/ 8)	LM1	8.43E-01(1/ 1)	5.91E-01(2/ 2)	
		6.66E-01- 8.43E-01	0.5 MILES SSW	8.43E-01- 8.43E-01	5.27E-01- 6.54E-01	
CS-137	3.00E-02	3.31E-01(7/ 8)	PM2 SPRING CITY	6.31E-01(1/ 1)	3.63E-01(2/ 2)	
		5.45E-02- 6.31E-01	7.0 MILES NW	6.31E-01- 6.31E-01	1.44E-01- 5.82E-01	
K-40	7.50E-01	1.18E+01(8/ 8)	LM-4 WB	2.61E+01(1/ 1)	4.19E+00(2/ 2)	
		3.39E+00- 2.61E+01	0.9 MILES SE	2.61E+01- 2.61E+01	4.11E+00- 4.27E+00	
PB-212	1.00E-01	1.06E+00(8/ 8)	PM4	1.30E+00(1/ 1)	6.43E-01(2/ 2)	
		7.77E-01- 1.30E+00	7.6 MILES NE/ENE	1.30E+00- 1.30E+00	5.59E-01- 7.27E-01	
PB-214	1.50E-01	8.08E-01(8/ 8)	LM1	9.20E-01(1/ 1)	6.78E-01(2/ 2)	
		7.09E-01- 9.20E-01	0.5 MILES SSW	9.20E-01- 9.20E-01	6.12E-01- 7.44E-01	
RA-224	7.50E-01	1.25E+00(6/ 8)	PM4	1.43E+00(1/ 1)	2 VALUES < LLD	
		9.03E-01- 1.43E+00	7.6 MILES NE/ENE	1.43E+00- 1.43E+00		
RA-226	1.50E-01	7.38E-01(8/ 8)	LM1	8.43E-01(1/ 1)	5.91E-01(2/ 2)	
		6.66E-01- 8.43E-01	0.5 MILES SSW	8.43E-01- 8.43E-01	5.27E-01- 6.54E-01	
TL-208	6.00E-02	3.33E-01(8/ 8)	LM-4 WB	3.95E-01(1/ 1)	2.25E-01(2/ 2)	
		2.52E-01- 3.95E-01	0.9 MILES SE	3.95E-01- 3.95E-01	2.04E-01- 2.45E-01	
SR 89						
10						
	1.60E+00	8 VALUES < LLD			2 VALUES < LLD	
SR 90						
10						
	4.00E-01	8 VALUES < LLD			2 VALUES < LLD	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN APPLES
PCI/KG - 0.037 BQ/KG (WET WT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI)						
K-40 2	2.50E+02	8.80E+02(1/ 1) 8.80E+02- 8.80E+02	2.0 MILES WNW	8.80E+02(1/ 1) 8.80E+02- 8.80E+02	1.14E+03(1/ 1) 1.14E+03- 1.14E+03	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN CABBAGE
PCI/KG - 0.037 BQ/KG (WET WT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI) 2						
K-40	2.50E+02	1.37E+03(1/ 1) 1.37E+03- 1.37E+03	MULLINS FARM 3.7 M. ESE	1.37E+03(1/ 1) 1.37E+03- 1.37E+03	1.33E+03(1/ 1) 1.33E+03- 1.33E+03	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN CORN
PCI/KG - 0.037 BQ/KG (WET WT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI) 2						
K-40	2.50E+02	2.54E+03(1/ 1) 2.54E+03- 2.54E+03	2.0 MILES W	2.54E+03(1/ 1) 2.54E+03- 2.54E+03	2.20E+03(1/ 1) 2.20E+03- 2.20E+03	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN GREEN BEANS
PCI/KG - 0.037 BQ/KG (WET WT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI) 2						
K-40	2.50E+02	1.99E+03(1/ 1) 1.99E+03- 1.99E+03	2.0 MILES W	1.99E+03(1/ 1) 1.99E+03- 1.99E+03	2.14E+03(1/ 1) 2.14E+03- 2.14E+03	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN POTATOES
PCI/KG - 0.037 BQ/KG (WET WT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI) 2						
K-40	2.50E+02	3.93E+03(1/ 1) 3.93E+03- 3.93E+03	2.0 MILES WNW	3.93E+03(1/ 1) 3.93E+03- 3.93E+03	3.35E+03(1/ 1) 3.35E+03- 3.35E+03	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN TOMATOES
PCI/KG - 0.037 BQ/KG (WET WT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI) 2						
K-40	2.50E+02	2.02E+03(1/ 1) 2.02E+03- 2.02E+03	2.0 MILES W	2.02E+03(1/ 1) 2.02E+03- 2.02E+03	2.28E+03(1/ 1) 2.28E+03- 2.28E+03	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN SURFACE WATER(Total)
PCI/L - 0.037 BQ/L

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GROSS BETA						
38	1.90E+00	2.65E+00(21/ 25) 2.08E+00- 3.87E+00	TRM 523.1	2.76E+00(12/ 12) 2.08E+00- 3.87E+00	2.49E+00(12/ 13) 1.93E+00- 3.16E+00	
GAMMA SCAN (GELI)						
38						
BI-214	2.00E+01	2.10E+01(1/ 25) 2.10E+01- 2.10E+01	TRM 517.9	2.10E+01(1/ 13) 2.10E+01- 2.10E+01	2.10E+01(1/ 13) 2.10E+01- 2.10E+01	
SR 89						
12	5.00E+00	8 VALUES < LLD			4 VALUES < LLD	
SR 90						
12	2.00E+00	8 VALUES < LLD			4 VALUES < LLD	
TRITIUM						
12	3.00E+02	8 VALUES < LLD			4 VALUES < LLD	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN PUBLIC WATER(Total)
PCI/L - 0.037 BQ/L

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GROSS BETA						
39	1.90E+00	2.82E+00(22/ 26)	RM-2 DAYTON TN	2.94E+00(11/ 13)	2.49E+00(12/ 13)	
		2.01E+00- 3.99E+00	17.8 MILES NNE	2.01E+00- 3.99E+00	1.93E+00- 3.16E+00	
GAMMA SCAN (GELI)						
39						
BI-214	2.00E+01	5.89E+01(1/ 26)	RM-2 DAYTON TN	5.89E+01(1/ 13)	2.10E+01(1/ 13)	
		5.89E+01- 5.89E+01	17.8 MILES NNE	5.89E+01- 5.89E+01	2.10E+01- 2.10E+01	
PB-214	2.00E+01	3.49E+01(1/ 26)	RM-2 DAYTON TN	3.49E+01(1/ 13)	13 VALUES < LLD	
		3.49E+01- 3.49E+01	17.8 MILES NNE	3.49E+01- 3.49E+01		
SR 89						
12	5.00E+00	8 VALUES < LLD			4 VALUES < LLD	
SR 90						
12	2.00E+00	8 VALUES < LLD			4 VALUES < LLD	
TRITIUM						
12	3.00E+02	8 VALUES < LLD			4 VALUES < LLD	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN WELL WATER(Total)
PCI/L - 0.037 BQ/L

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GROSS BETA						
12	1.90E+00	5.30E+00(4/ 4)	WBN WELL #1	5.30E+00(4/ 4)	2.65E+00(5/ 8)	
		4.77E+00- 5.87E+00	0.6 MILES S	4.77E+00- 5.87E+00	2.07E+00- 3.56E+00	
GAMMA SCAN (GELI)						
12						
BI-214	2.00E+01	4 VALUES < LLD	WBN WELL #1	4 VALUES < LLD	3.89E+02(4/ 8)	
			0.6 MILES S		1.35E+02- 5.30E+02	
PB-214	2.00E+01	4 VALUES < LLD	WBN WELL #1	4 VALUES < LLD	4.02E+02(4/ 8)	
			0.6 MILES S		1.52E+02- 5.52E+02	
SR 89						
12	5.00E+00	4 VALUES < LLD			8 VALUES < LLD	
SR 90						
12	2.00E+00	4 VALUES < LLD			8 VALUES < LLD	
TRITIUM						
12	3.00E+02	4 VALUES < LLD			8 VALUES < LLD	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN CHANNEL CATFISH FLESH
PCI/GM - 0.037 BQ/G (DRY WEIGHT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI)						
6						
BI-214	1.00E-01	1.51E-01(1/ 4)	DOWNSTREAM STATION 1	1.51E-01(1/ 2)	2.38E-01(1/ 2)	
		1.51E-01- 1.51E-01	DOWNSTREAM	1.51E-01- 1.51E-01	2.38E-01- 2.38E-01	
CS-137	3.00E-02	4 VALUES < LLD	CHICKAMAUGA RES TRM 471-530	2 VALUES < LLD	3.43E-02(1/ 2)	
					3.43E-02- 3.43E-02	
K-40	4.00E-01	1.06E+01(4/ 4)	CHICKAMAUGA RES	1.09E+01(2/ 2)	1.28E+01(2/ 2)	
		8.64E+00- 1.23E+01	TRM 471-530	9.53E+00- 1.23E+01	1.09E+01- 1.46E+01	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN CRAPPIE FLESH
PCI/GM - 0.037 BQ/G (DRY WEIGHT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI) 4						
BI-214	1.00E-01	2 VALUES < LLD	CHICKAMAUGA RES TRM 471-530	2 VALUES < LLD	1.48E-01(1/ 2) 1.48E-01- 1.48E-01	
CS-137	3.00E-02	3.60E-02(2/ 2) 3.44E-02- 3.77E-02	CHICKAMAUGA RES TRM 471-530	3.60E-02(2/ 2) 3.44E-02- 3.77E-02	5.87E-02(2/ 2) 5.10E-02- 6.64E-02	
K-40	4.00E-01	1.41E+01(2/ 2) 1.40E+01- 1.43E+01	CHICKAMAUGA RES TRM 471-530	1.41E+01(2/ 2) 1.40E+01- 1.43E+01	1.65E+01(2/ 2) 1.38E+01- 1.91E+01	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN SMALLMOUTH BUFFALO FLESH
PCI/GM - 0.037 BQ/G (DRY WEIGHT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI)						
4						
BI-214	1.00E-01	1.80E-01(1/ 2)	CHICKAMAUGA RES	1.80E-01(1/ 2)	1.29E-01(2/ 2)	
		1.80E-01- 1.80E-01	TRM 471-530	1.80E-01- 1.80E-01	1.22E-01- 1.37E-01	
K-40	4.00E-01	1.04E+01(2/ 2)	CHICKAMAUGA RES	1.04E+01(2/ 2)	9.84E+00(2/ 2)	
		1.03E+01- 1.05E+01	TRM 471-530	1.03E+01- 1.05E+01	7.82E+00- 1.19E+01	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN SEDIMENT
PCI/GM - 0.037 BQ/G (DRY WEIGHT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI) 8						
AC-228	2.50E-01	1.32E+00(6/ 6) 1.11E+00- 1.50E+00	TRM 527.4	1.44E+00(2/ 2) 1.37E+00- 1.50E+00	1.72E+00(2/ 2) 1.64E+00- 1.80E+00	
BI-212	4.50E-01	1.27E+00(6/ 6) 1.08E+00- 1.54E+00	TRM 527.4	1.42E+00(2/ 2) 1.29E+00- 1.54E+00	1.80E+00(2/ 2) 1.72E+00- 1.87E+00	
BI-214	1.50E-01	9.79E-01(6/ 6) 8.55E-01- 1.12E+00	TRM 496.5	1.03E+00(2/ 2) 1.00E+00- 1.05E+00	1.33E+00(2/ 2) 1.22E+00- 1.45E+00	
CO-60	3.00E-02	6 VALUES < LLD	TRM 496.5	2 VALUES < LLD	3.55E-02(1/ 2) 3.55E-02- 3.55E-02	
CS-137	3.00E-02	3.76E-01(4/ 6) 6.01E-02- 6.79E-01	TRM 496.5	6.62E-01(2/ 2) 6.45E-01- 6.79E-01	1.58E+00(2/ 2) 1.48E+00- 1.68E+00	
K-40	7.50E-01	1.34E+01(6/ 6) 1.23E+01- 1.44E+01	TRM 496.5	1.39E+01(2/ 2) 1.35E+01- 1.44E+01	1.60E+01(2/ 2) 1.59E+01- 1.61E+01	
PB-212	1.00E-01	1.28E+00(6/ 6) 1.10E+00- 1.50E+00	TRM 527.4	1.43E+00(2/ 2) 1.35E+00- 1.50E+00	1.72E+00(2/ 2) 1.71E+00- 1.74E+00	
PB-214	1.50E-01	1.09E+00(6/ 6) 9.32E-01- 1.20E+00	TRM 496.5	1.19E+00(2/ 2) 1.17E+00- 1.20E+00	1.48E+00(2/ 2) 1.37E+00- 1.58E+00	
RA-224	7.50E-01	1.28E+00(5/ 6) 1.05E+00- 1.73E+00	TRM 527.4	1.53E+00(2/ 2) 1.34E+00- 1.73E+00	1.85E+00(1/ 2) 1.85E+00- 1.85E+00	
RA-226	1.50E-01	9.79E-01(6/ 6) 8.55E-01- 1.12E+00	TRM 496.5	1.03E+00(2/ 2) 1.00E+00- 1.05E+00	1.33E+00(2/ 2) 1.22E+00- 1.45E+00	
TL-208	6.00E-02	4.06E-01(6/ 6) 3.38E-01- 4.79E-01	TRM 527.4	4.55E-01(2/ 2) 4.31E-01- 4.79E-01	5.48E-01(2/ 2) 5.47E-01- 5.49E-01	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN SHORELINE SEDIMENT
PCI/GM - 0.037 BQ/G (DRY WEIGHT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI) 4						
AC-228	2.50E-01	1.47E+00(2/ 2) 1.43E+00- 1.51E+00	COTTON PORT MARINA TRM 513	1.47E+00(2/ 2) 1.43E+00- 1.51E+00	2 VALUES < LLD	
BE-7	2.50E-01	3.13E-01(2/ 2) 2.86E-01- 3.39E-01	COTTON PORT MARINA TRM 513	3.13E-01(2/ 2) 2.86E-01- 3.39E-01	2.88E-01(1/ 2) 2.88E-01- 2.88E-01	
BI-212	4.50E-01	1.52E+00(2/ 2) 1.52E+00- 1.52E+00	COTTON PORT MARINA TRM 513	1.52E+00(2/ 2) 1.52E+00- 1.52E+00	2 VALUES < LLD	
BI-214	1.50E-01	6.09E-01(2/ 2) 5.72E-01- 6.46E-01	COTTON PORT MARINA TRM 513	6.09E-01(2/ 2) 5.72E-01- 6.46E-01	2 VALUES < LLD	
CS-137	3.00E-02	6.10E-02(2/ 2) 5.00E-02- 7.20E-02	COTTON PORT MARINA TRM 513	6.10E-02(2/ 2) 5.00E-02- 7.20E-02	2 VALUES < LLD	
K-40	7.50E-01	3.29E+01(2/ 2) 3.24E+01- 3.34E+01	COTTON PORT MARINA TRM 513	3.29E+01(2/ 2) 3.24E+01- 3.34E+01	2 VALUES < LLD	
PB-212	1.00E-01	1.48E+00(2/ 2) 1.47E+00- 1.49E+00	COTTON PORT MARINA TRM 513	1.48E+00(2/ 2) 1.47E+00- 1.49E+00	2 VALUES < LLD	
PB-214	1.50E-01	6.53E-01(2/ 2) 6.42E-01- 6.64E-01	COTTON PORT MARINA TRM 513	6.53E-01(2/ 2) 6.42E-01- 6.64E-01	2 VALUES < LLD	
RA-224	7.50E-01	1.48E+00(2/ 2) 1.38E+00- 1.58E+00	COTTON PORT MARINA TRM 513	1.48E+00(2/ 2) 1.38E+00- 1.58E+00	2 VALUES < LLD	
RA-226	1.50E-01	6.09E-01(2/ 2) 5.72E-01- 6.46E-01	COTTON PORT MARINA TRM 513	6.09E-01(2/ 2) 5.72E-01- 6.46E-01	2 VALUES < LLD	
TL-208	6.00E-02	4.75E-01(2/ 2) 4.75E-01- 4.76E-01	COTTON PORT MARINA TRM 513	4.75E-01(2/ 2) 4.75E-01- 4.76E-01	2 VALUES < LLD	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN POND SEDIMENT
PCI/GM - 0.037 BQ/G (DRY WEIGHT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI) 5						
AC-228	2.50E-01	1.30E+00(5/ 5) YP-16 1.13E+00- 1.59E+00 YARD POND		1.59E+00(1/ 1) 1.59E+00- 1.59E+00	0 VALUES < LLD	
BE-7	2.50E-01	7.53E-01(3/ 5) YP-16 3.20E-01- 1.36E+00 YARD POND		1.36E+00(1/ 1) 1.36E+00- 1.36E+00	0 VALUES < LLD	
BI-212	4.50E-01	1.43E+00(5/ 5) YP-16 1.10E+00- 2.05E+00 YARD POND		2.05E+00(1/ 1) 2.05E+00- 2.05E+00	0 VALUES < LLD	
BI-214	1.50E-01	1.00E+00(5/ 5) YP-16 7.93E-01- 1.32E+00 YARD POND		1.32E+00(1/ 1) 1.32E+00- 1.32E+00	0 VALUES < LLD	
CO-58	3.00E-02	3.64E-02(1/ 5) YP-16 3.64E-02- 3.64E-02 YARD POND		3.64E-02(1/ 1) 3.64E-02- 3.64E-02	0 VALUES < LLD	
CO-60	3.00E-02	3.10E-01(2/ 5) YP-16 4.08E-02- 5.80E-01 YARD POND		5.80E-01(1/ 1) 5.80E-01- 5.80E-01	0 VALUES < LLD	
CS-134	3.00E-02	2.46E-01(1/ 5) YP-16 2.46E-01- 2.46E-01 YARD POND		2.46E-01(1/ 1) 2.46E-01- 2.46E-01	0 VALUES < LLD	
CS-137	3.00E-02	3.84E-01(5/ 5) YP-16 6.63E-02- 1.24E+00 YARD POND		1.24E+00(1/ 1) 1.24E+00- 1.24E+00	0 VALUES < LLD	
K-40	7.50E-01	1.55E+01(5/ 5) YP-16 1.45E+01- 1.66E+01 YARD POND		1.66E+01(1/ 1) 1.66E+01- 1.66E+01	0 VALUES < LLD	
PB-212	1.00E-01	1.30E+00(5/ 5) YP-16 1.12E+00- 1.55E+00 YARD POND		1.55E+00(1/ 1) 1.55E+00- 1.55E+00	0 VALUES < LLD	
PB-214	1.50E-01	1.07E+00(5/ 5) YP-16 9.32E-01- 1.31E+00 YARD POND		1.31E+00(1/ 1) 1.31E+00- 1.31E+00	0 VALUES < LLD	
RA-224	7.50E-01	2.00E+00(1/ 5) YP-16 2.00E+00- 2.00E+00 YARD POND		2.00E+00(1/ 1) 2.00E+00- 2.00E+00	0 VALUES < LLD	
SB-125	NOT ESTAB	2.83E-01(1/ 5) YP-16 2.83E-01- 2.83E-01 YARD POND		2.83E-01(1/ 1) 2.83E-01- 2.83E-01	0 VALUES < LLD	
TL-208	6.00E-02	4.18E-01(5/ 5) YP-16 3.43E-01- 5.03E-01 YARD POND		5.03E-01(1/ 1) 5.03E-01- 5.03E-01	0 VALUES < LLD	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

RADIOACTIVITY IN CLAM FLESH
PCI/GM - 0.037 BQ/G (DRY WEIGHT)

NAME OF FACILITY: WATTS BAR NUCLEAR PLANT
LOCATION OF FACILITY: RHEA TENNESSEE

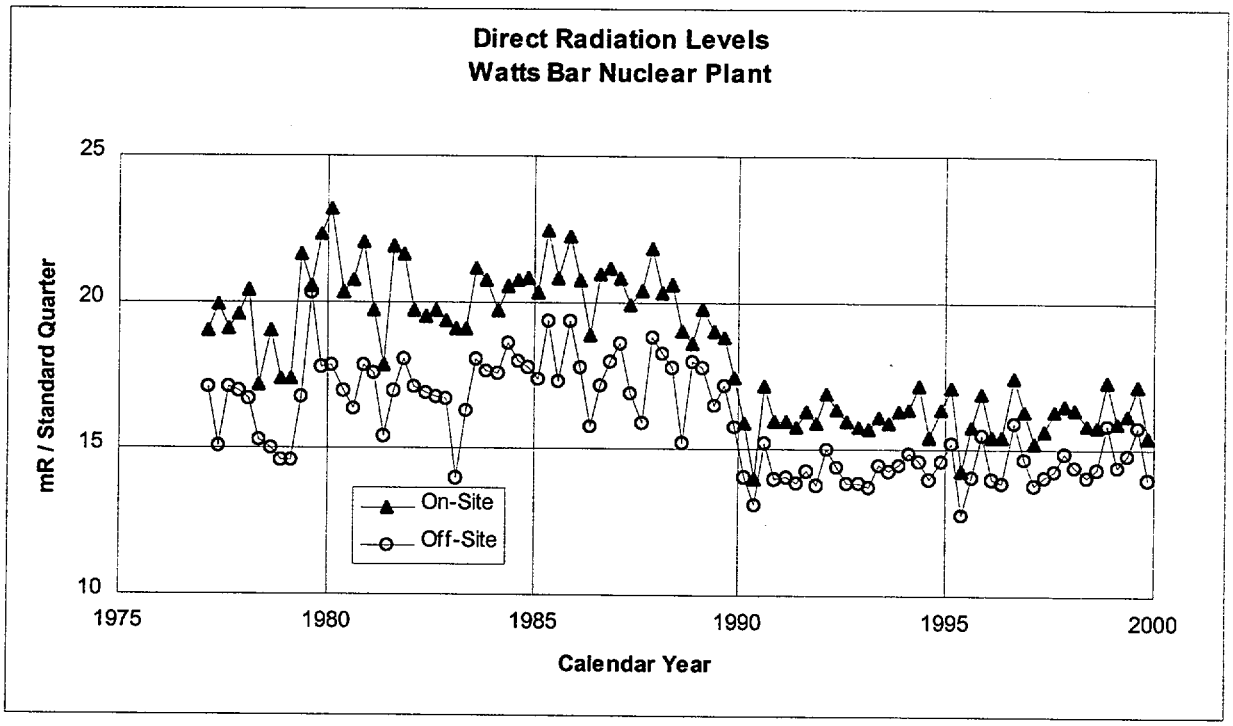
DOCKET NO.: 50-390,391
REPORTING PERIOD: 1999

TYPE AND TOTAL NUMBER OF ANALYSIS PERFORMED	LOWER LIMIT OF DETECTION (LLD) SEE NOTE 1	ALL INDICATOR LOCATIONS MEAN (F) RANGE SEE NOTE 2	LOCATION WITH HIGHEST ANNUAL MEAN NAME DISTANCE AND DIRECTION	MEAN (F) RANGE SEE NOTE 2	CONTROL LOCATIONS MEAN (F) RANGE SEE NOTE 2	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GAMMA SCAN (GELI) 4						
BI-214	5.00E-01	6.12E-01(1/ 2) 6.12E-01- 6.12E-01	DOWNSTREAM	6.12E-01(1/ 2) 6.12E-01- 6.12E-01	8.16E-01(1/ 2) 8.16E-01- 8.16E-01	
PB-214	1.00E-01	4.63E-01(2/ 2) 2.50E-01- 6.75E-01	DOWNSTREAM	4.63E-01(2/ 2) 2.50E-01- 6.75E-01	8.65E-01(1/ 2) 8.65E-01- 8.65E-01	

NOTE: 1. NOMINAL LOWER LIMIT OF DETECTION (LLD) AS DESCRIBED IN TABLE E-1 .
NOTE: 2. MEAN AND RANGE BASED UPON DETECTABLE MEASUREMENTS ONLY. FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F).

Figure H-1

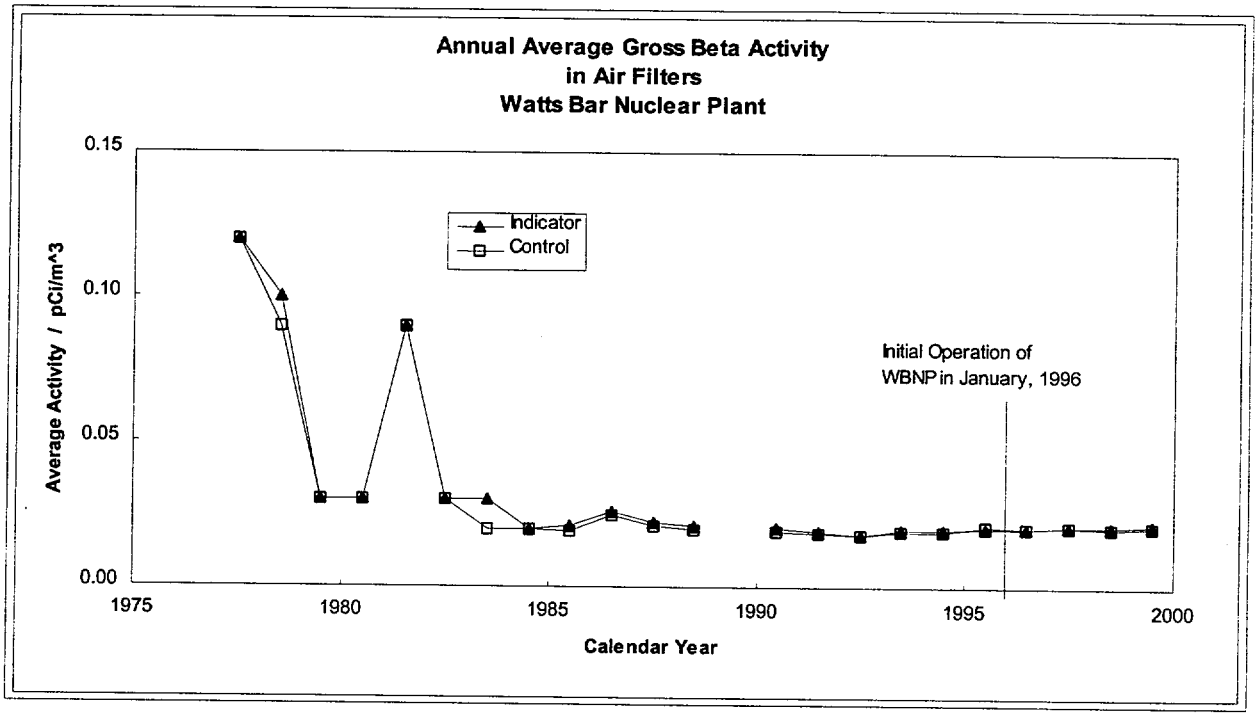
Direct Radiation



Thermoluminescent dosimeters are processed quarterly. This chart shows trends in the average measurement for all dosimeters grouped as "on-site" or "off-site". The persistent difference between "on-site" and "off-site" measurements observed in the preoperational phase indicates that slightly higher on-site levels are not due to plant operations.

Figure H-2

Radioactivity in Air Filters



To more clearly show trends developed since the end of atmospheric weapons testing, the data beginning with the resumption of the monitoring program in 1990 is shown in greater detail.

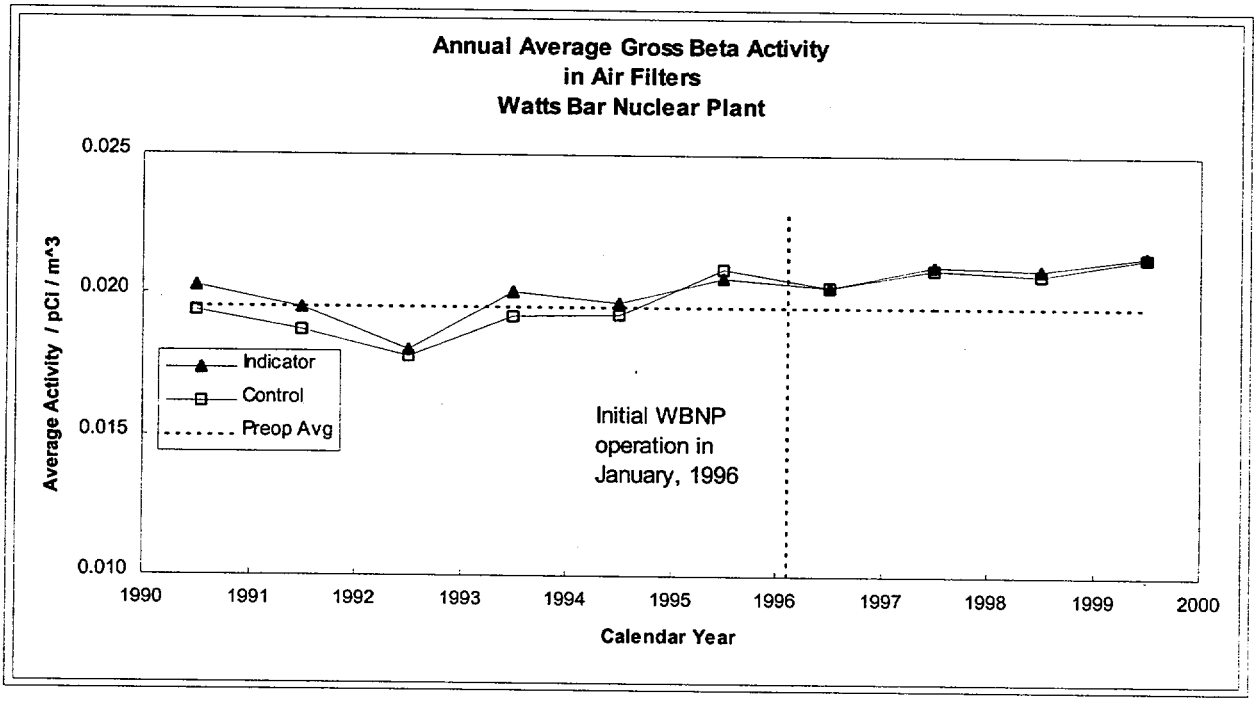
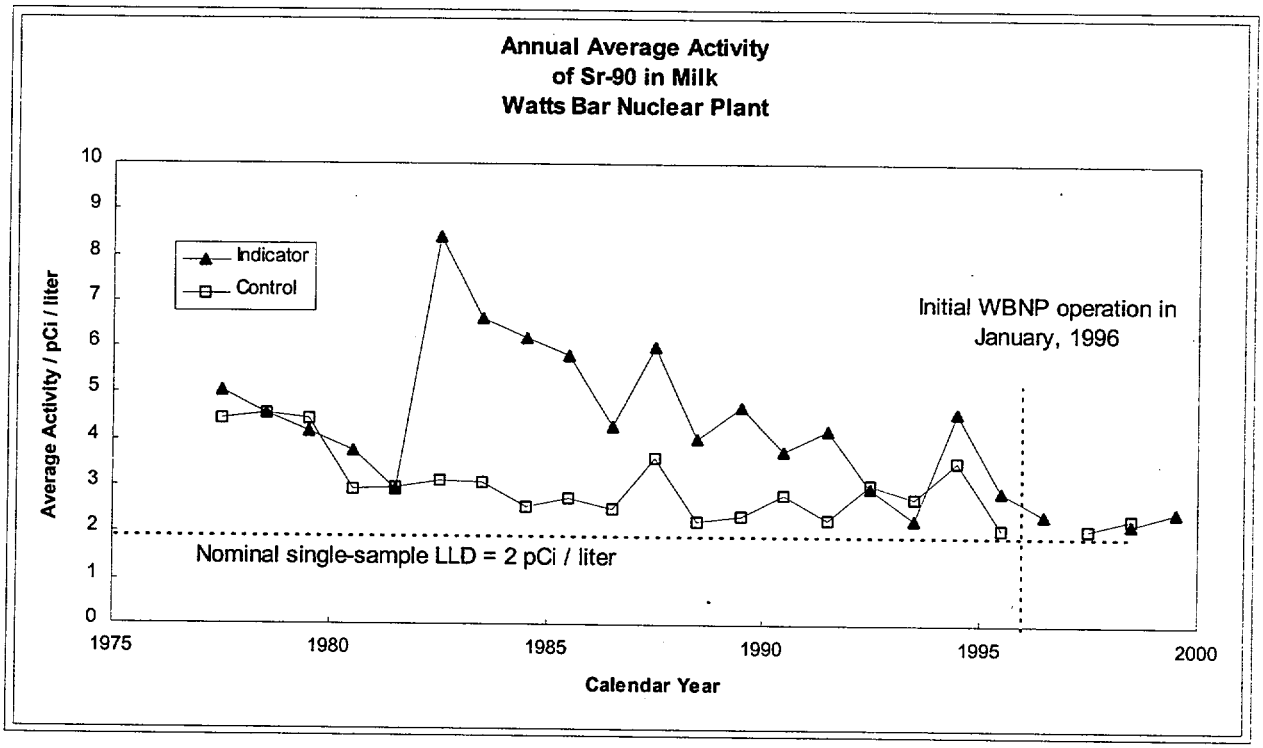


Figure H-3

Strontium-90 in Milk



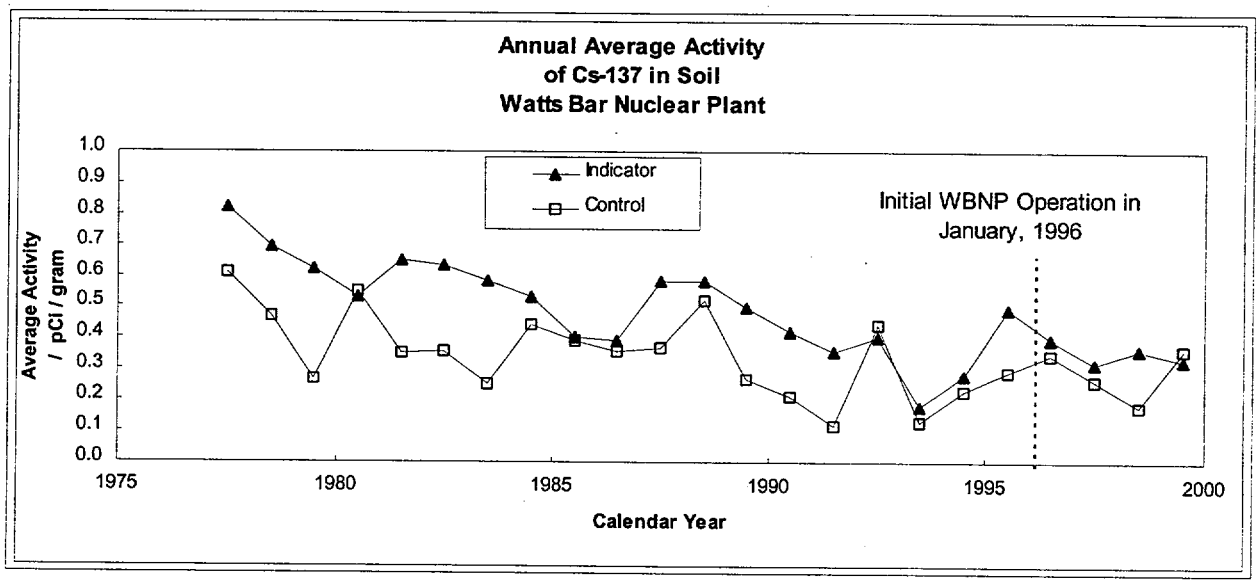
When the radiological environmental monitoring program was initiated for the Watts Bar site in the 1970's, strontium-90 produced by atmospheric detonation of nuclear weapons was present in essentially all milk samples. Since that time, a generally decreasing trend has been observed, due to the 28-year half-life of strontium-90, and due to transport out of the upper layers of soil, and thus out of the vegetation used for feeding cows.

The values plotted above are the average of all samples within the year with a measurement result above the nominal Lower Limit of Detection (LLD) of 2 pCi/liter.

Figure H-4

Cs-137 in Soil

Cesium-137, like strontium-90 , was produced by nuclear weapons detonations and is present in almost every environmental sample exposed to the atmosphere. The "control" and "indicator" locations have generally trended downward with year-to-year variation, since the beginning of the monitoring program from the Watts Bar site.



In almost every year, the "indicator" locations have shown greater activity of Cs-137 than the "control" locations. This trend, with its preoperational average is shown below.

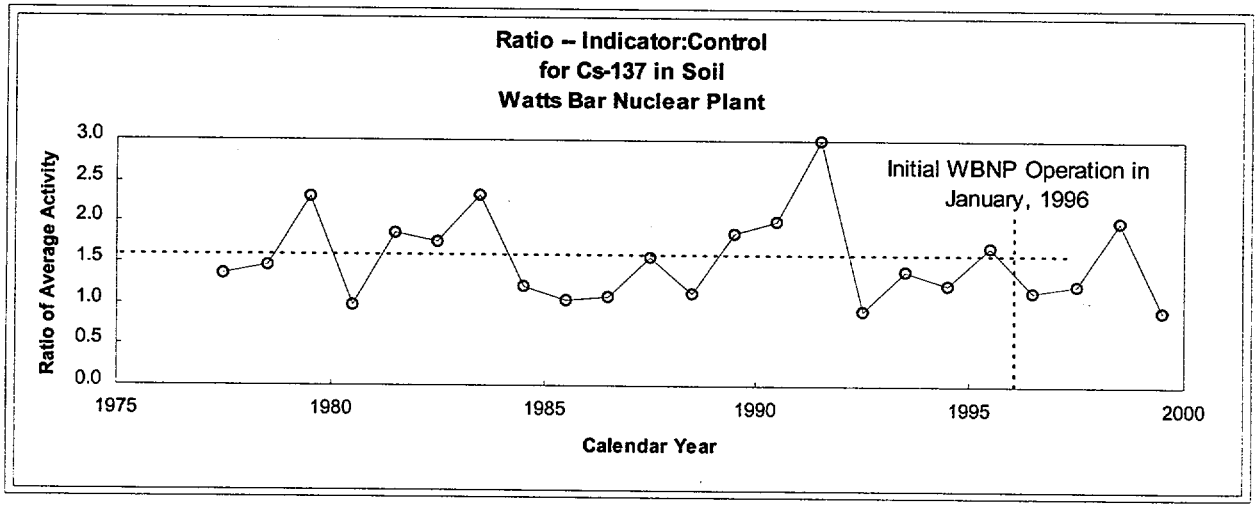
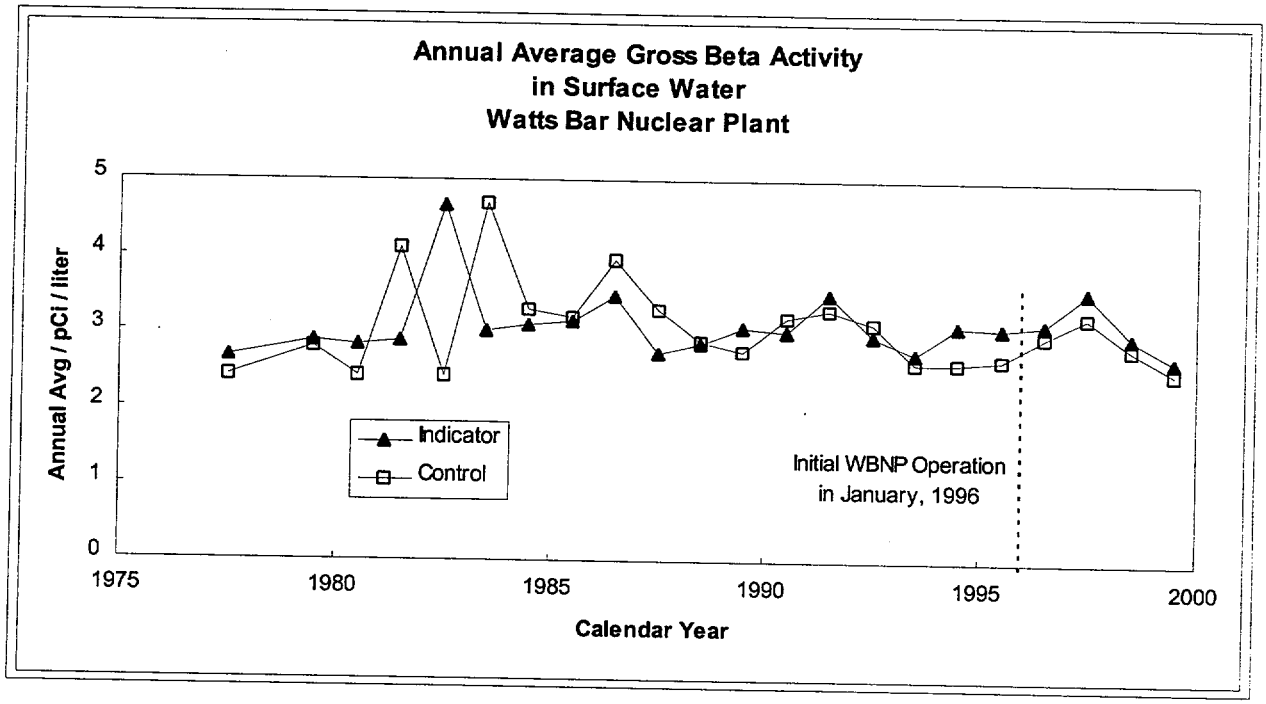


Figure H-5

Gross Beta Activity in Surface and Drinking Water



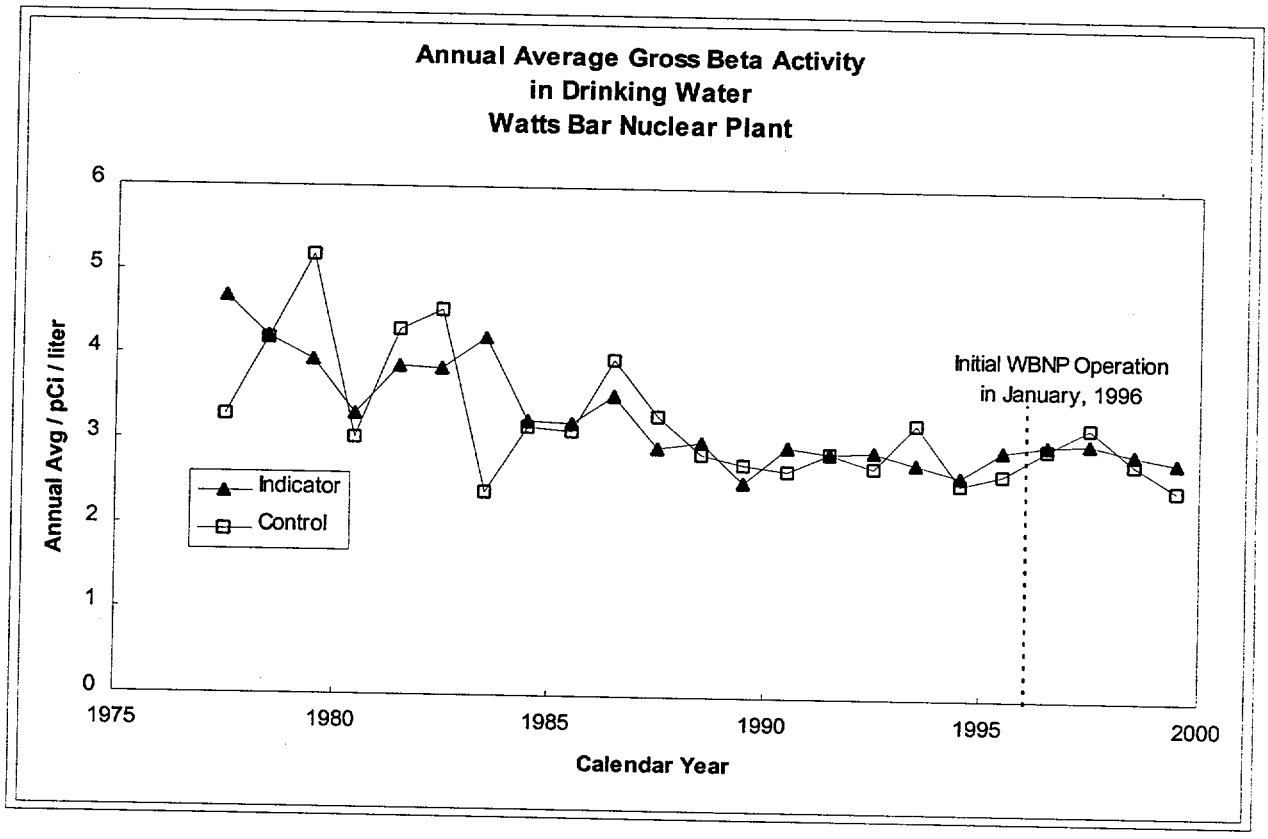
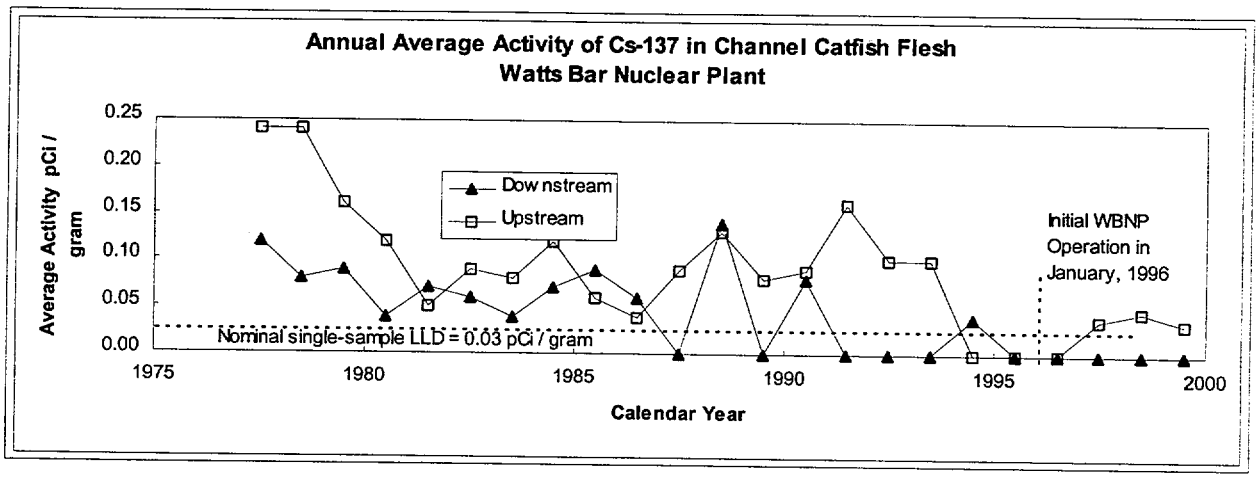
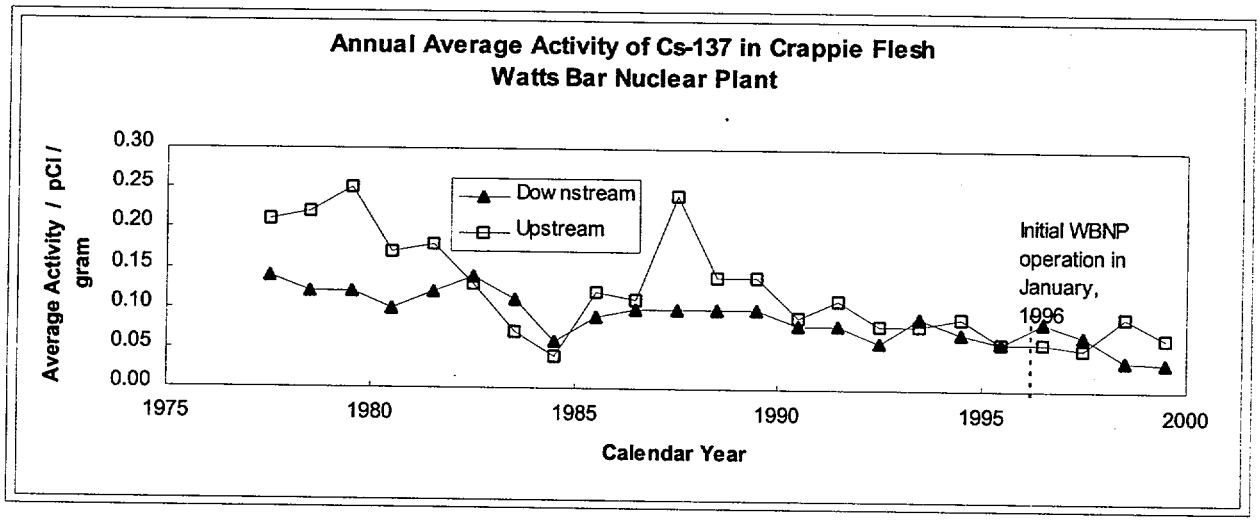


Figure H-6

Radioactivity in Fish





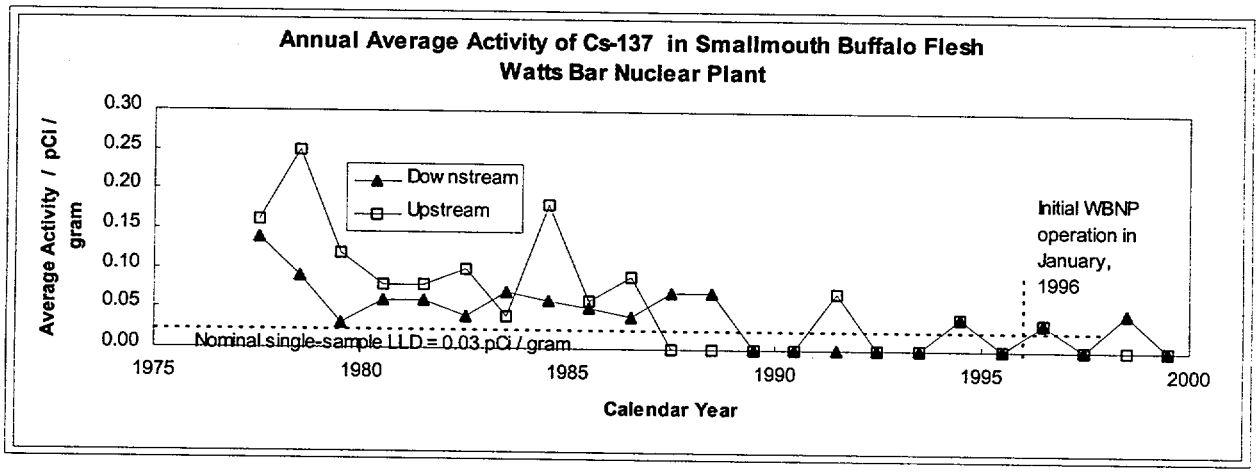
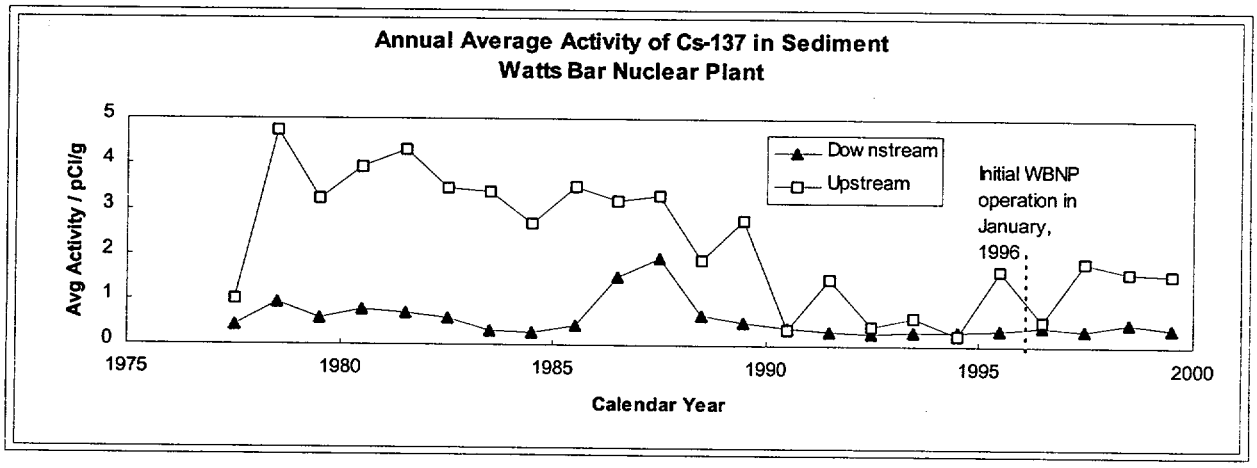
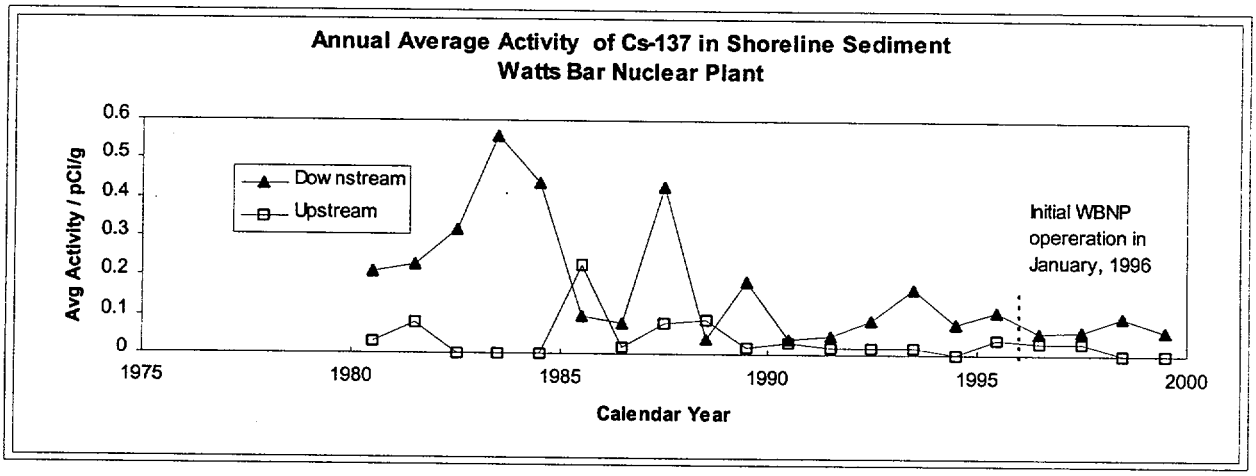


Figure H-7

Radioactivity in Sediment

The Cs-137 present in the shoreline and bottom sediments of the Tennessee River system was produced both by testing of nuclear weapons and by related nuclear operations in the upper reaches of the Tennessee River watershed. The amounts of Cs-137 have declined significantly during the course of monitoring for the Watts Bar site, so much so that not all samples contain detectable levels.





Annual Radiological Environmental Operating Report

Data Supplement

Watts Bar
Nuclear Plant
1999

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
WATTS BAR NUCLEAR PLANT
DATA SUPPLEMENT

1999

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION

April 2000

RADIOLOGICAL ENVIRONMENTAL MONITORING DATA
WATTS BAR NUCLEAR PLANT

1999

This supplement to the Watts Bar Nuclear Plant Annual Radiological Environmental Operating Report (AREOR) presents the results of individual sample analyses and radiation measurements. The results are ordered by sample type then by sample location and analysis type. If no gamma activity was detected in a sample, the notation 'NO ACTIVITY DETECTED' is entered in place of the activity. The sample locations are described in Appendix A to the AREOR.

These tables include all results, whether above or below the Lower Limit of Detection. Negative values are an artifact of counting statistics and do not imply a negative activity.

The uncertainty reported for specific analyses such as gross beta, Sr-89 and 90 and tritium is the one sigma counting error. For gamma analyses, the uncertainty reported is the one-sigma error calculated by the gamma spectral analysis software.

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN AIR FILTER
PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116 RM-2 DAYTON TN	15.0 MILES SW	GROSS BETA				
			.0240	.0026	12/28/98	900055
			.0231	.0025	01/05/99	900153
			.0267	.0029	01/12/99	900269
			.0193	.0022	01/19/99	900368
			.0199	.0022	01/26/99	900548
			.0199	.0022	02/02/99	900696
			.0162	.0018	02/09/99	900829
			.0171	.0019	02/16/99	900923
			.0207	.0023	02/23/99	901123
			.0195	.0022	03/02/99	901235
			.0168	.0019	03/09/99	901362
			.0117	.0014	03/16/99	901475
			.0241	.0026	03/23/99	901675
			.0203	.0022	03/30/99	901777
			.0203	.0022	04/06/99	901904
			.0158	.0018	04/13/99	902055
			.0157	.0018	04/20/99	902202
			.0192	.0022	04/27/99	902375
			.0137	.0016	05/04/99	902581
			.0217	.0024	05/11/99	902698
			.0167	.0019	05/18/99	902872
			.0174	.0020	05/25/99	902989
			.0220	.0024	06/01/99	903154
			.0189	.0021	06/08/99	903275
			.0227	.0025	06/15/99	903459
			.0179	.0020	06/22/99	903568
			.0112	.0014	06/29/99	903750
			.0187	.0021	07/06/99	903868
			.0100	.0013	07/13/99	904021
			.0205	.0023	07/20/99	904135
			.0201	.0022	07/27/99	904294
			.0263	.0028	08/03/99	904431
			.0283	.0030	08/10/99	904605
			.0259	.0028	08/17/99	904707
			.0247	.0027	08/24/99	904850
			.0292	.0031	08/31/99	904995
			.0319	.0034	09/07/99	905164
			.0307	.0033	09/14/99	905262

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116 RM-2 DAYTON TN	15.0 MILES SW	GROSS BETA				
			.0243	.0026	09/21/99	905393
			.0219	.0024	09/28/99	905520
			.0192	.0021	10/05/99	905688
			.0258	.0028	10/12/99	905827
			.0250	.0027	10/19/99	905962
			.0217	.0024	10/26/99	906149
			.0400	.0042	11/02/99	906327
			.0250	.0028	11/08/99	906427
			.0477	.0049	11/16/99	906558
			.0240	.0027	11/22/99	906656
			.0253	.0027	11/30/99	906816
			.0221	.0024	12/07/99	906945
			.0300	.0032	12/14/99	907061
			.0220	.0025	12/20/99	907159
		GAMMA SCAN (GELI)				
		AC-228	.0023	.0016	03/16/99	901555
		BE-7	.0918	.0094	01/19/99	900444
			.0789	.0052	02/16/99	901000
			.1071	.0079	03/16/99	901555
			.1639	.0123	04/13/99	902132
			.1394	.0125	05/11/99	902774
			.1472	.0106	06/08/99	903355
			.1091	.0099	07/06/99	903943
			.1126	.0092	08/03/99	904507
			.1010	.0092	08/31/99	905074
			.1292	.0093	09/28/99	905596
			.0893	.0089	10/26/99	906254
			.1217	.0112	11/22/99	906730
			.0987	.0124	12/20/99	907237
		BI-214	.0210	.0021	01/19/99	900444
			.0192	.0015	02/16/99	901000
			.0092	.0016	03/16/99	901555
			.0429	.0034	04/13/99	902132
			.0122	.0016	05/11/99	902774
			.0053	.0013	06/08/99	903355
			.0021	.0010	07/06/99	903943
			.0024	.0011	08/03/99	904507

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RADIOACTIVITY IN AIR FILTER
PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116 RM-2 DAYTON TN	15.0 MILES SW	GAMMA SCAN (GELI)				
		BI-214	.0022	.0011	08/31/99	905074
			.0056	.0013	09/28/99	905596
			.0048	.0044	10/26/99	906254
			.0066	.0012	11/22/99	906730
			.0241	.0022	12/20/99	907237
		K-40	.0051	.0094	05/11/99	902774
			.0055	.0050	06/08/99	903355
			.0049	.0072	07/06/99	903943
			.0060	.0068	08/31/99	905074
			.0007	.0068	11/22/99	906730
		PB-212	.0002	.0006	05/11/99	902774
			.0000	.0004	06/08/99	903355
		PB-214	.0198	.0023	01/19/99	900444
			.0290	.0022	02/16/99	901000
			.0092	.0014	03/16/99	901555
			.0472	.0034	04/13/99	902132
			.0126	.0013	05/11/99	902774
			.0066	.0008	06/08/99	903355
			.0024	.0007	07/06/99	903943
			.0024	.0012	08/03/99	904507
			.0037	.0010	08/31/99	905074
			.0055	.0012	09/28/99	905596
			.0016	.0010	10/26/99	906254
			.0049	.0012	11/22/99	906730
			.0221	.0022	12/20/99	907237
3101 LM1	0.5 MILES SSW	GROSS BETA				
			.0248	.0027	12/28/98	900079
			.0215	.0023	01/05/99	900177
			.0243	.0026	01/12/99	900286
			.0149	.0017	01/19/99	900404
			.0177	.0020	01/26/99	900572
			.0211	.0023	02/02/99	900722
			.0176	.0020	02/09/99	900846
			.0168	.0019	02/16/99	900959
			.0185	.0021	02/23/99	901147
			.0168	.0019	03/02/99	901260
			.0134	.0016	03/09/99	901379

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12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3101 LM1	0.5 MILES SSW	GROSS BETA				
			.0122	.0015	03/16/99	901512
			.0216	.0024	03/23/99	901699
			.0215	.0024	03/30/99	901803
			.0174	.0020	04/06/99	901921
			.0179	.0020	04/13/99	902092
			.0164	.0019	04/20/99	902226
			.0174	.0020	04/27/99	902425
			.0136	.0016	05/04/99	902598
			.0200	.0022	05/11/99	902733
			.0132	.0016	05/18/99	902896
			.0189	.0021	05/25/99	903015
			.0193	.0021	06/01/99	903171
			.0190	.0021	06/08/99	903313
			.0218	.0024	06/15/99	903483
			.0174	.0019	06/22/99	903594
			.0102	.0013	06/29/99	903779
			.0171	.0019	07/06/99	903903
			.0106	.0013	07/13/99	904045
			.0197	.0022	07/20/99	904159
			.0209	.0023	07/27/99	904311
			.0269	.0029	08/03/99	904466
			.0252	.0027	08/10/99	904629
			.0278	.0030	08/17/99	904731
			.0251	.0027	08/25/99	904867
			.0257	.0028	08/31/99	905031
			.0345	.0036	09/07/99	905188
			.0330	.0035	09/14/99	905287
			.0268	.0029	09/21/99	905410
			.0239	.0026	09/28/99	905555
			.0201	.0022	10/05/99	905712
			.0242	.0026	10/12/99	905852
			.0264	.0028	10/19/99	905979
			.0208	.0023	10/26/99	906203
			.0396	.0041	11/02/99	906351
			.0269	.0029	11/08/99	906451
			.0494	.0051	11/16/99	906575
			.0186	.0021	11/22/99	906690
			.0213	.0023	11/30/99	906840

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3101 LM1	0.5 MILES SSW	GROSS BETA				
			.0236	.0026	12/07/99	906969
			.0320	.0034	12/14/99	907078
			.0213	.0024	12/20/99	907194
		GAMMA SCAN (GELI)				
		BE-7	.0858	.0084	01/19/99	900451
			.0790	.0066	02/16/99	901007
			.0938	.0081	03/16/99	901562
			.1535	.0128	04/13/99	902139
			.1529	.0118	05/11/99	902781
			.1392	.0111	06/08/99	903362
			.1011	.0105	07/06/99	903950
			.0972	.0102	08/03/99	904514
			.1175	.0086	08/31/99	905081
			.1234	.0080	09/28/99	905603
			.1024	.0089	10/26/99	906261
			.1224	.0092	11/22/99	906737
			.0742	.0097	12/20/99	907244
		BI-214	.0056	.0011	01/19/99	900451
			.0100	.0016	02/16/99	901007
			.0247	.0023	03/16/99	901562
			.0326	.0027	04/13/99	902139
			.0082	.0014	05/11/99	902781
			.0011	.0009	06/08/99	903362
			.0010	.0009	07/06/99	903950
			.0020	.0012	08/03/99	904514
			.0022	.0009	08/31/99	905081
			.0007	.0009	09/28/99	905603
			.0049	.0013	10/26/99	906261
			.0067	.0012	11/22/99	906737
			.0109	.0020	12/20/99	907244
		K-40	.0067	.0067	02/16/99	901007
			.0095	.0059	04/13/99	902139
			.0038	.0051	05/11/99	902781
			.0077	.0074	07/06/99	903950
		PB-212	.0005	.0004	04/13/99	902139
		PB-214	.0043	.0014	01/19/99	900451
			.0090	.0011	02/16/99	901007

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3101 LM1	0.5 MILES SSW	GAMMA SCAN (GELI)				
		PB-214	.0271	.0029	03/16/99	901562
			.0325	.0031	04/13/99	902139
			.0061	.0011	05/11/99	902781
			.0021	.0014	07/06/99	903950
			.0002	.0009	09/28/99	905603
			.0027	.0008	10/26/99	906261
			.0081	.0014	11/22/99	906737
			.0116	.0017	12/20/99	907244
3102 LM2	0.5 MILES N	GROSS BETA				
			.0211	.0023	12/28/98	900082
			.0205	.0022	01/05/99	900179
			.0237	.0026	01/12/99	900288
			.0165	.0018	01/19/99	900406
			.0183	.0020	01/26/99	900575
			.0195	.0022	02/02/99	900724
			.0172	.0019	02/09/99	900848
			.0159	.0018	02/16/99	900961
			.0180	.0020	02/23/99	901150
			.0160	.0018	03/02/99	901262
			.0146	.0017	03/09/99	901381
			.0133	.0015	03/16/99	901514
			.0209	.0023	03/23/99	901702
			.0176	.0020	03/30/99	901805
			.0208	.0023	04/06/99	901923
			.0160	.0018	04/13/99	902094
			.0159	.0018	04/20/99	902229
			.0179	.0020	04/27/99	902427
			.0125	.0015	05/04/99	902600
			.0195	.0022	05/11/99	902735
			.0161	.0018	05/18/99	902899
			.0146	.0017	05/25/99	903017
			.0190	.0021	06/01/99	903173
			.0173	.0020	06/08/99	903315
			.0196	.0022	06/15/99	903486
			.0185	.0021	06/22/99	903596
			.0105	.0013	06/29/99	903783
			.0178	.0020	07/06/99	903905

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12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3102 LM2	0.5 MILES N	GROSS BETA				
			.0112	.0014	07/13/99	904048
			.0220	.0024	07/20/99	904161
			.0213	.0024	07/27/99	904313
			.0250	.0028	08/03/99	904468
			.0270	.0029	08/10/99	904632
			.0275	.0030	08/17/99	904733
			.0251	.0027	08/25/99	904869
			.0247	.0027	08/31/99	905033
			.0329	.0035	09/07/99	905191
			.0297	.0032	09/14/99	905289
			.0263	.0028	09/21/99	905412
			.0239	.0026	09/28/99	905557
			.0184	.0021	10/05/99	905715
			.0236	.0026	10/12/99	905854
			.0253	.0027	10/19/99	905981
			.0188	.0021	10/26/99	906205
			.0431	.0045	11/02/99	906354
			.0265	.0029	11/08/99	906453
			.0487	.0050	11/16/99	906577
			.0211	.0024	11/22/99	906692
			.0227	.0025	11/30/99	906843
			.0213	.0023	12/07/99	906971
			.0275	.0030	12/14/99	907080
			.0217	.0024	12/20/99	907196
		GAMMA SCAN (GELI)				
		AC-228	.0014	.0017	05/11/99	902782
		BE-7	.0915	.0063	01/19/99	900452
			.0996	.0100	02/16/99	901008
			.0930	.0089	03/16/99	901563
			.1395	.0121	04/13/99	902140
			.1132	.0098	05/11/99	902782
			.1366	.0102	06/08/99	903363
			.0927	.0094	07/06/99	903951
			.1052	.0093	08/03/99	904515
			.0992	.0121	08/31/99	905082
			.1370	.0090	09/28/99	905604
			.0857	.0089	10/26/99	906262

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3102 LM2	0.5 MILES N	GAMMA SCAN (GELI)				
		BE-7	.1411	.0126	11/22/99	906738
			.0872	.0068	12/20/99	907245
		BI-214	.0121	.0016	01/19/99	900452
			.0063	.0015	02/16/99	901008
			.0179	.0020	03/16/99	901563
			.0199	.0029	04/13/99	902140
			.0303	.0035	05/11/99	902782
			.0007	.0012	06/08/99	903363
			.0055	.0011	07/06/99	903951
			.0081	.0015	08/03/99	904515
			.0117	.0018	08/31/99	905082
			.0025	.0010	09/28/99	905604
			.0084	.0012	10/26/99	906262
			.0111	.0015	11/22/99	906738
			.0126	.0019	12/20/99	907245
		K-40	.0075	.0079	02/16/99	901008
			.0089	.0053	03/16/99	901563
			.0148	.0075	05/11/99	902782
			.0050	.0098	06/08/99	903363
			.0031	.0056	10/26/99	906262
			.0125	.0085	11/22/99	906738
		PB-212	.0003	.0006	06/08/99	903363
		PB-214	.0122	.0015	01/19/99	900452
			.0064	.0013	02/16/99	901008
			.0143	.0014	03/16/99	901563
			.0220	.0020	04/13/99	902140
			.0238	.0022	05/11/99	902782
			.0066	.0014	07/06/99	903951
			.0063	.0013	08/03/99	904515
			.0124	.0021	08/31/99	905082
			.0022	.0010	09/28/99	905604
			.0093	.0011	10/26/99	906262
			.0135	.0015	11/22/99	906738
			.0098	.0014	12/20/99	907245
		TL-208	.0006	.0004	06/08/99	903363
			.0000	.0003	07/06/99	903951
3106 PM2 SPRING CITY	7.0 MILES NW	GROSS BETA				
			.0203	.0024	12/28/98	900086

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3106 PM2 SPRING CITY	7.0 MILES NW	GROSS BETA				
			.0177	.0020	01/05/99	900182
			.0233	.0025	01/12/99	900291
			.0173	.0019	01/19/99	900409
			.0188	.0021	01/26/99	900579
			.0182	.0020	02/02/99	900727
			.0174	.0020	02/09/99	900851
			.0168	.0019	02/16/99	900964
			.0187	.0021	02/23/99	901154
			.0148	.0017	03/02/99	901265
			.0151	.0017	03/09/99	901384
			.0108	.0013	03/16/99	901517
			.0228	.0025	03/23/99	901706
			.0187	.0021	03/30/99	901808
			.0198	.0023	04/06/99	901926
			.0159	.0019	04/13/99	902097
			.0144	.0017	04/20/99	902233
			.0174	.0020	04/27/99	902430
			.0137	.0016	05/04/99	902603
			.0173	.0020	05/11/99	902738
			.0137	.0017	05/18/99	902903
			.0181	.0021	05/25/99	903020
			.0181	.0020	06/02/99	903176
			.0192	.0023	06/08/99	903318
			.0242	.0027	06/15/99	903490
			.0199	.0022	06/22/99	903599
			.0104	.0013	06/29/99	903787
			.0163	.0018	07/06/99	903908
			.0123	.0015	07/13/99	904052
			.0179	.0020	07/20/99	904164
			.0181	.0020	07/27/99	904316
			.0267	.0029	08/03/99	904471
			.0203	.0022	08/10/99	904636
			.0261	.0028	08/17/99	904736
			.0249	.0027	08/24/99	904872
			.0254	.0027	08/31/99	905036
			.0345	.0036	09/07/99	905195
			.0336	.0036	09/14/99	905292
			.0246	.0027	09/21/99	905415

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STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3106 PM2 SPRING CITY	7.0 MILES NW	GROSS BETA				
			.0262	.0028	09/28/99	905560
			.0211	.0023	10/05/99	905719
			.0261	.0028	10/12/99	905857
			.0246	.0027	10/19/99	905984
			.0208	.0023	10/26/99	906208
			.0428	.0045	11/02/99	906358
			.0283	.0031	11/08/99	906456
			.0485	.0051	11/16/99	906580
			.0341	.0038	11/22/99	906695
			.0229	.0025	11/30/99	906847
			.0233	.0026	12/07/99	906974
			.0281	.0030	12/14/99	907083
			.0235	.0026	12/20/99	907199
		GAMMA SCAN (GELI)				
		BE-7	.0883	.0095	01/19/99	900453
			.0788	.0062	02/16/99	901009
			.0950	.0086	03/16/99	901564
			.1272	.0095	04/13/99	902141
			.1315	.0131	05/11/99	902783
			.1189	.0124	06/08/99	903364
			.0909	.0084	07/06/99	903952
			.0829	.0072	08/03/99	904516
			.1055	.0083	08/31/99	905083
			.1389	.0119	09/28/99	905605
			.0835	.0120	10/26/99	906263
			.1418	.0118	11/22/99	906739
			.0919	.0101	12/20/99	907246
		BI-214	.0104	.0021	01/19/99	900453
			.0046	.0010	02/16/99	901009
			.0036	.0013	03/16/99	901564
			.0189	.0020	04/13/99	902141
			.0274	.0023	05/11/99	902783
			.0072	.0016	06/08/99	903364
			.0102	.0018	07/06/99	903952
			.0040	.0012	08/03/99	904516
			.0038	.0012	08/31/99	905083
			.0035	.0012	09/28/99	905605

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3106 PM2 SPRING CITY	7.0 MILES NW	GAMMA SCAN (GELI)				
		BI-214	.0103	.0018	10/26/99	906263
			.0064	.0017	11/22/99	906739
			.0088	.0014	12/20/99	907246
		K-40	.0075	.0053	02/16/99	901009
			.0105	.0064	03/16/99	901564
			.0291	.0105	04/13/99	902141
			.0011	.0101	06/08/99	903364
			.0040	.0080	07/06/99	903952
			.0101	.0069	08/03/99	904516
			.0112	.0063	09/28/99	905605
			.0112	.0104	11/22/99	906739
		PB-214	.0125	.0020	01/19/99	900453
			.0037	.0010	02/16/99	901009
			.0011	.0008	03/16/99	901564
			.0184	.0021	04/13/99	902141
			.0249	.0026	05/11/99	902783
			.0088	.0013	06/08/99	903364
			.0079	.0011	07/06/99	903952
			.0049	.0010	08/03/99	904516
			.0036	.0010	08/31/99	905083
			.0022	.0009	09/28/99	905605
			.0122	.0020	10/26/99	906263
			.0080	.0015	11/22/99	906739
			.0081	.0009	12/20/99	907246
3107 PM3	10.4 MILES NNE	GROSS BETA				
			.0223	.0024	12/28/98	900089
			.0194	.0021	01/05/99	900184
			.0217	.0024	01/12/99	900293
			.0145	.0017	01/19/99	900411
			.0186	.0021	01/26/99	900582
			.0188	.0021	02/02/99	900729
			.0160	.0018	02/09/99	900853
			.0142	.0016	02/16/99	900966
			.0178	.0020	02/23/99	901157
			.0140	.0016	03/02/99	901267
			.0166	.0019	03/09/99	901386
			.0108	.0013	03/16/99	901519

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3107 PM3	10.4 MILES NNE	GROSS BETA				
			.0214	.0026	03/23/99	901709
			.0165	.0019	04/06/99	901928
			.0166	.0019	04/13/99	902099
			.0153	.0018	04/20/99	902236
			.0170	.0019	04/27/99	902432
			.0127	.0015	05/04/99	902605
			.0173	.0019	05/11/99	902740
			.0154	.0018	05/18/99	902906
			.0177	.0020	05/25/99	903022
			.0207	.0023	06/02/99	903178
			.0194	.0022	06/08/99	903320
			.0239	.0026	06/15/99	903493
			.0185	.0021	06/22/99	903601
			.0109	.0013	06/29/99	903790
			.0164	.0019	07/06/99	903910
			.0133	.0016	07/13/99	904055
			.0194	.0021	07/20/99	904166
			.0206	.0022	07/27/99	904318
			.0254	.0027	08/03/99	904473
			.0238	.0026	08/10/99	904639
			.0281	.0030	08/17/99	904738
			.0252	.0027	08/24/99	904874
			.0244	.0026	08/31/99	905038
			.0338	.0036	09/07/99	905198
			.0313	.0033	09/14/99	905294
			.0263	.0028	09/21/99	905417
			.0254	.0027	09/28/99	905562
			.0205	.0023	10/05/99	905722
			.0244	.0026	10/12/99	905859
			.0280	.0030	10/19/99	905986
			.0224	.0025	10/26/99	906210
			.0449	.0047	11/02/99	906361
			.0285	.0031	11/08/99	906458
			.0480	.0050	11/16/99	906582
			.0170	.0020	11/22/99	906697
			.0249	.0027	11/30/99	906850
			.0222	.0024	12/07/99	906976
			.0267	.0029	12/14/99	907085

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STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3107 PM3	10.4 MILES NNE	GROSS BETA				
			.0221	.0025	12/20/99	907201
		GAMMA SCAN (GELI)				
		BE-7	.0938	.0078	01/19/99	900454
			.0750	.0099	02/16/99	901010
			.0982	.0100	03/16/99	901565
			.1497	.0105	04/13/99	902142
			.1383	.0124	05/11/99	902784
			.1349	.0103	06/08/99	903365
			.1024	.0093	07/06/99	903953
			.1074	.0092	08/03/99	904517
			.1040	.0090	08/31/99	905084
			.1463	.0130	09/28/99	905606
			.0946	.0080	10/26/99	906264
			.1132	.0102	11/22/99	906740
			.0988	.0105	12/20/99	907247
		BI-214	.0240	.0020	01/19/99	900454
			.0051	.0015	02/16/99	901010
			.0104	.0018	03/16/99	901565
			.0103	.0019	04/13/99	902142
			.0228	.0021	05/11/99	902784
			.0048	.0010	06/08/99	903365
			.0056	.0010	07/06/99	903953
			.0036	.0010	08/03/99	904517
			.0017	.0010	08/31/99	905084
			.0030	.0008	09/28/99	905606
			.0159	.0019	10/26/99	906264
			.0091	.0019	11/22/99	906740
			.0036	.0010	12/20/99	907247
		K-40	.0012	.0044	06/08/99	903365
			.0068	.0073	07/06/99	903953
			.0112	.0064	09/28/99	905606
			.0034	.0072	11/22/99	906740
		PB-212	.0004	.0005	03/16/99	901565
		PB-214	.0202	.0017	01/19/99	900454
			.0064	.0014	02/16/99	901010
			.0132	.0017	03/16/99	901565
			.0094	.0017	04/13/99	902142

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3107 PM3	10.4 MILES NNE	GAMMA SCAN (GELI)				
		PB-214	.0239	.0023	05/11/99	902784
			.0053	.0012	06/08/99	903365
			.0042	.0009	07/06/99	903953
			.0029	.0008	08/03/99	904517
			.0019	.0006	08/31/99	905084
			.0018	.0012	09/28/99	905606
			.0186	.0019	10/26/99	906264
			.0093	.0015	11/22/99	906740
			.0025	.0013	12/20/99	907247
		TL-208	.0001	.0003	03/16/99	901565
3108 PM4	7.6 MILES NE/ENE	GROSS BETA				
			.0243	.0026	12/29/98	900092
			.0205	.0022	01/06/99	900186
			.0225	.0025	01/13/99	900295
			.0180	.0020	01/20/99	900413
			.0200	.0022	01/27/99	900585
			.0199	.0022	02/03/99	900731
			.0162	.0018	02/10/99	900855
			.0166	.0019	02/17/99	900968
			.0187	.0021	02/24/99	901160
			.0146	.0017	03/03/99	901269
			.0139	.0016	03/10/99	901388
			.0135	.0016	03/17/99	901521
			.0212	.0023	03/23/99	901712
			.0216	.0023	03/31/99	901812
			.0157	.0018	04/07/99	901930
			.0169	.0019	04/14/99	902101
			.0177	.0020	04/21/99	902239
			.0153	.0018	04/28/99	902434
			.0136	.0016	05/05/99	902607
			.0172	.0019	05/12/99	902742
			.0143	.0017	05/19/99	902909
			.0159	.0018	05/26/99	903024
			.0193	.0021	06/02/99	903180
			.0179	.0020	06/08/99	903322
			.0216	.0023	06/16/99	903496
			.0202	.0022	06/23/99	903603

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3108 PM4	7.6 MILES NE/ENE	GROSS BETA				
			.0108	.0013	06/30/99	903793
			.0155	.0018	07/07/99	903912
			.0120	.0014	07/14/99	904058
			.0217	.0024	07/21/99	904168
			.0217	.0024	07/28/99	904320
			.0276	.0029	08/04/99	904475
			.0278	.0030	08/11/99	904642
			.0290	.0031	08/18/99	904740
			.0283	.0030	08/24/99	904876
			.0236	.0025	09/01/99	905040
			.0348	.0037	09/08/99	905201
			.0330	.0035	09/15/99	905296
			.0247	.0027	09/22/99	905419
			.0224	.0024	09/29/99	905564
			.0227	.0025	10/06/99	905725
			.0253	.0027	10/13/99	905861
			.0246	.0026	10/20/99	905988
			.0240	.0026	10/27/99	906212
			.0395	.0041	11/03/99	906364
			.0276	.0030	11/08/99	906460
			.0419	.0043	11/17/99	906584
			.0249	.0027	11/22/99	906699
			.0228	.0025	11/30/99	906853
			.0223	.0024	12/08/99	906978
			.0322	.0034	12/15/99	907087
			.0180	.0021	12/20/99	907203
		GAMMA SCAN (GELI)				
		BE-7	.0999	.0089	01/20/99	900455
			.0774	.0085	02/17/99	901011
			.0921	.0096	03/17/99	901566
			.1219	.0131	04/14/99	902143
			.1457	.0105	05/12/99	902785
			.1349	.0093	06/08/99	903366
			.1060	.0089	07/07/99	903954
			.0941	.0070	08/04/99	904518
			.1144	.0088	09/01/99	905085
			.1262	.0116	09/29/99	905607

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12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3108 PM4	7.6 MILES NE/ENE	GAMMA SCAN (GELI)				
		BE-7	.0919	.0086	10/27/99	906265
			.1179	.0093	11/22/99	906741
			.0808	.0085	12/20/99	907248
		BI-214	.0128	.0018	01/20/99	900455
			.0157	.0019	02/17/99	901011
			.0213	.0020	03/17/99	901566
			.0095	.0019	04/14/99	902143
			.0190	.0016	05/12/99	902785
			.0008	.0010	06/08/99	903366
			.0072	.0015	07/07/99	903954
			.0073	.0012	08/04/99	904518
			.0043	.0009	09/01/99	905085
			.0036	.0014	09/29/99	905607
			.0148	.0019	10/27/99	906265
			.0061	.0012	11/22/99	906741
			.0049	.0011	12/20/99	907248
		K-40	.0139	.0060	02/17/99	901011
			.0151	.0104	03/17/99	901566
			.0102	.0085	08/04/99	904518
			.0135	.0075	09/01/99	905085
			.0127	.0066	11/22/99	906741
			.0135	.0070	12/20/99	907248
		PB-212	.0002	.0003	01/20/99	900455
			.0003	.0006	03/17/99	901566
			.0003	.0008	08/04/99	904518
		PB-214	.0137	.0014	01/20/99	900455
			.0147	.0014	02/17/99	901011
			.0210	.0018	03/17/99	901566
			.0103	.0019	04/14/99	902143
			.0170	.0014	05/12/99	902785
			.0016	.0013	06/08/99	903366
			.0082	.0016	07/07/99	903954
			.0055	.0010	08/04/99	904518
			.0036	.0008	09/01/99	905085
			.0043	.0014	09/29/99	905607
			.0122	.0013	10/27/99	906265
			.0067	.0012	11/22/99	906741
			.0020	.0008	12/20/99	907248

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12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3109 PM5 DECATUR	6.2 MILES S	GROSS BETA				
			.0258	.0028	12/29/98	900095
			.0195	.0021	01/06/99	900188
			.0235	.0026	01/13/99	900297
			.0165	.0019	01/20/99	900415
			.0193	.0021	01/27/99	900588
			.0163	.0018	02/03/99	900733
			.0157	.0018	02/10/99	900857
			.0159	.0018	02/17/99	900970
			.0184	.0021	02/24/99	901163
			.0156	.0018	03/03/99	901271
			.0138	.0016	03/10/99	901390
			.0133	.0016	03/17/99	901523
			.0202	.0022	03/24/99	901715
			.0217	.0024	03/31/99	901814
			.0160	.0018	04/07/99	901932
			.0165	.0019	04/14/99	902103
			.0172	.0019	04/21/99	902242
			.0161	.0018	04/28/99	902436
			.0133	.0016	05/05/99	902609
			.0178	.0020	05/12/99	902744
			.0148	.0017	05/19/99	902912
			.0166	.0019	05/26/99	903026
			.0206	.0023	06/02/99	903182
			.0189	.0021	06/08/99	903324
			.0217	.0023	06/16/99	903499
			.0203	.0022	06/23/99	903605
			.0093	.0012	06/30/99	903796
			.0165	.0019	07/07/99	903914
			.0111	.0013	07/14/99	904061
			.0220	.0024	07/21/99	904170
			.0205	.0022	07/28/99	904322
			.0262	.0028	08/04/99	904477
			.0279	.0030	08/11/99	904645
			.0294	.0031	08/18/99	904742
			.0308	.0033	08/24/99	904878
			.0248	.0027	09/01/99	905042
			.0361	.0038	09/08/99	905204
			.0334	.0035	09/15/99	905298

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12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3109 PM5 DECATUR	6.2 MILES S	GROSS BETA				
			.0254	.0027	09/22/99	905421
			.0220	.0024	09/29/99	905566
			.0249	.0027	10/06/99	905728
			.0229	.0025	10/13/99	905863
			.0257	.0028	10/20/99	905990
			.0226	.0025	10/27/99	906214
			.0425	.0044	11/03/99	906367
			.0282	.0031	11/08/99	906462
			.0404	.0042	11/17/99	906586
			.0231	.0025	11/30/99	906856
			.0243	.0027	12/08/99	906980
			.0306	.0032	12/15/99	907089
			.0218	.0025	12/20/99	907205
		GAMMA SCAN (GELI)				
		BE-7	.0964	.0085	01/20/99	900456
			.0769	.0075	02/17/99	901012
			.0921	.0089	03/17/99	901567
			.1459	.0098	04/14/99	902144
			.1338	.0089	05/12/99	902786
			.1396	.0110	06/08/99	903367
			.1069	.0094	07/07/99	903955
			.1004	.0102	08/04/99	904519
			.1092	.0087	09/01/99	905086
			.1333	.0096	09/29/99	905608
			.0990	.0062	10/27/99	906266
			.1492	.0227	11/22/99	906742
			.0811	.0076	12/20/99	907249
		BI-214	.0066	.0010	01/20/99	900456
			.0067	.0015	02/17/99	901012
			.0150	.0020	03/17/99	901567
			.0070	.0014	04/14/99	902144
			.0107	.0014	05/12/99	902786
			.0045	.0011	06/08/99	903367
			.0047	.0012	07/07/99	903955
			.0069	.0015	08/04/99	904519
			.0030	.0012	09/01/99	905086
			.0011	.0009	09/29/99	905608

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3109 PM5 DECATUR	6.2 MILES S	GAMMA SCAN (GELI)				
		BI-214	.0082	.0013	10/27/99	906266
			.0184	.0022	11/22/99	906742
			.0021	.0010	12/20/99	907249
		K-40	.0126	.0066	03/17/99	901567
			.0003	.0050	04/14/99	902144
			.0107	.0065	05/12/99	902786
			.0083	.0041	06/08/99	903367
			.0030	.0071	08/04/99	904519
		PB-214	.0060	.0007	01/20/99	900456
			.0066	.0012	02/17/99	901012
			.0148	.0016	03/17/99	901567
			.0080	.0013	04/14/99	902144
			.0079	.0013	05/12/99	902786
			.0034	.0010	06/08/99	903367
			.0035	.0010	07/07/99	903955
			.0060	.0013	08/04/99	904519
			.0035	.0010	09/01/99	905086
			.0036	.0010	09/29/99	905608
			.0087	.0013	10/27/99	906266
			.0218	.0027	11/22/99	906742
			.0038	.0010	12/20/99	907249
3203 LM3	1.9 MILES NNE	GROSS BETA				
			.0215	.0023	12/28/98	900098
			.0190	.0021	01/06/99	900202
			.0257	.0028	01/12/99	900299
			.0164	.0019	01/19/99	900421
			.0176	.0020	01/26/99	900591
			.0178	.0020	02/02/99	900746
			.0162	.0018	02/09/99	900859
			.0144	.0017	02/16/99	900977
			.0183	.0020	02/23/99	901166
			.0144	.0017	03/02/99	901285
			.0138	.0016	03/09/99	901392
			.0112	.0013	03/16/99	901530
			.0242	.0026	03/23/99	901718
			.0218	.0024	03/30/99	901827
			.0170	.0019	04/06/99	901934

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3203 LM3	1.9 MILES NNE	GROSS BETA				
			.0144	.0016	04/13/99	902109
			.0159	.0018	04/20/99	902245
			.0148	.0017	04/27/99	902457
			.0121	.0014	05/04/99	902611
			.0154	.0017	05/11/99	902751
			.0149	.0017	05/18/99	902915
			.0166	.0019	05/25/99	903041
			.0196	.0021	06/01/99	903184
			.0179	.0020	06/08/99	903330
			.0199	.0022	06/15/99	903502
			.0183	.0020	06/22/99	903618
			.0107	.0013	06/30/99	903799
			.0149	.0017	07/06/99	903920
			.0108	.0013	07/14/99	904064
			.0201	.0022	07/20/99	904183
			.0195	.0021	07/28/99	904324
			.0250	.0027	08/03/99	904484
			.0222	.0024	08/10/99	904648
			.0270	.0029	08/17/99	904757
			.0257	.0027	08/25/99	904880
			.0233	.0025	08/31/99	905049
			.0322	.0034	09/07/99	905207
			.0301	.0032	09/14/99	905311
			.0242	.0026	09/21/99	905423
			.0211	.0023	09/28/99	905573
			.0205	.0023	10/05/99	905731
			.0249	.0027	10/12/99	905876
			.0268	.0029	10/19/99	905992
			.0214	.0023	10/26/99	906229
			.0417	.0044	11/02/99	906370
			.0256	.0028	11/08/99	906475
			.0439	.0045	11/16/99	906588
			.0165	.0019	11/22/99	906707
			.0211	.0023	11/30/99	906859
			.0214	.0023	12/07/99	906994
			.0264	.0028	12/14/99	907091
			.0207	.0023	12/20/99	907212
		GAMMA SCAN (GELI)				
		AC-228	.0028	.0014	02/16/99	901013

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12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3203 LM3	1.9 MILES NNE	GAMMA SCAN (GELI)				
		AC-228	.0012	.0015	08/31/99	905087
		BE-7	.0999	.0095	01/19/99	900457
			.0864	.0088	02/16/99	901013
			.1010	.0079	03/16/99	901568
			.1501	.0122	04/13/99	902145
			.1527	.0118	05/11/99	902787
			.1183	.0100	06/08/99	903368
			.0915	.0075	07/06/99	903956
			.0951	.0100	08/03/99	904520
			.1066	.0084	08/31/99	905087
			.1396	.0101	09/28/99	905609
			.1076	.0089	10/26/99	906267
			.1080	.0095	11/22/99	906743
			.0764	.0073	12/20/99	907250
		BI-214	.0074	.0010	01/19/99	900457
			.0135	.0021	02/16/99	901013
			.0281	.0025	03/16/99	901568
			.0066	.0013	04/13/99	902145
			.0073	.0013	05/11/99	902787
			.0055	.0010	06/08/99	903368
			.0087	.0014	07/06/99	903956
			.0067	.0011	08/03/99	904520
			.0030	.0013	08/31/99	905087
			.0048	.0012	09/28/99	905609
			.0073	.0011	10/26/99	906267
			.0105	.0014	11/22/99	906743
			.0113	.0017	12/20/99	907250
		K-40	.0129	.0080	01/19/99	900457
			.0056	.0054	02/16/99	901013
			.0119	.0078	04/13/99	902145
			.0062	.0050	08/03/99	904520
			.0035	.0071	08/31/99	905087
			.0109	.0084	10/26/99	906267
			.0071	.0060	11/22/99	906743
		PB-212	.0001	.0006	05/11/99	902787
			.0001	.0005	07/06/99	903956
		PB-214	.0054	.0009	01/19/99	900457
			.0112	.0013	02/16/99	901013

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12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3203 LM3	1.9 MILES NNE	GAMMA SCAN (GELI)				
		PB-214	.0278	.0022	03/16/99	901568
			.0056	.0012	04/13/99	902145
			.0059	.0012	05/11/99	902787
			.0062	.0009	06/08/99	903368
			.0093	.0013	07/06/99	903956
			.0086	.0011	08/03/99	904520
			.0024	.0010	08/31/99	905087
			.0060	.0013	09/28/99	905609
			.0067	.0014	10/26/99	906267
			.0114	.0014	11/22/99	906743
			.0096	.0011	12/20/99	907250
		TL-208	.0005	.0003	01/19/99	900457
3204 LM-4 WB	0.9 MILES SE	GROSS BETA				
			.0236	.0025	12/29/98	900101
			.0167	.0018	01/06/99	900204
			.0240	.0026	01/13/99	900301
			.0190	.0021	01/27/99	900594
			.0196	.0022	02/02/99	900748
			.0168	.0019	02/10/99	900861
			.0161	.0018	02/16/99	900979
			.0178	.0020	02/24/99	901169
			.0173	.0020	03/02/99	901287
			.0131	.0015	03/10/99	901394
			.0101	.0013	03/16/99	901532
			.0202	.0022	03/23/99	901721
			.0201	.0022	03/31/99	901829
			.0172	.0019	04/07/99	901936
			.0174	.0020	04/13/99	902111
			.0167	.0019	04/21/99	902248
			.0179	.0020	04/27/99	902459
			.0134	.0015	05/05/99	902613
			.0183	.0020	05/11/99	902753
			.0163	.0018	05/19/99	902918
			.0160	.0018	05/25/99	903043
			.0200	.0022	06/02/99	903186
			.0177	.0020	06/08/99	903332
			.0206	.0022	06/16/99	903505

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STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3204 LM-4 WB	0.9 MILES SE	GROSS BETA				
			.0203	.0022	06/22/99	903620
			.0116	.0014	06/30/99	903802
			.0186	.0020	07/06/99	903922
			.0112	.0013	07/14/99	904067
			.0185	.0020	07/20/99	904185
			.0194	.0021	07/28/99	904326
			.0257	.0028	08/03/99	904486
			.0266	.0028	08/10/99	904651
			.0284	.0030	08/17/99	904759
			.0227	.0024	08/25/99	904882
			.0229	.0025	08/31/99	905051
			.0367	.0038	09/08/99	905210
			.0332	.0035	09/14/99	905313
			.0270	.0029	09/22/99	905425
			.0223	.0025	09/28/99	905575
			.0232	.0025	10/06/99	905734
			.0237	.0026	10/12/99	905878
			.0269	.0029	10/20/99	905994
			.0203	.0023	10/26/99	906231
			.0406	.0042	11/03/99	906373
			.0304	.0033	11/08/99	906477
			.0440	.0046	11/17/99	906590
			.0260	.0029	11/22/99	906709
			.0216	.0023	11/30/99	906862
			.0209	.0023	12/07/99	906996
			.0292	.0031	12/15/99	907093
			.0167	.0020	12/20/99	907214
		GAMMA SCAN (GELI)				
		AC-228	.0019	.0011	06/08/99	903369
			.0025	.0015	10/26/99	906268
		BE-7	.0798	.0075	01/19/99	900458
			.0720	.0070	02/16/99	901014
			.0924	.0102	03/16/99	901569
			.1444	.0087	04/13/99	902146
			.1427	.0119	05/11/99	902788
			.1423	.0115	06/08/99	903369
			.1069	.0087	07/06/99	903957

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3204 LM-4 WB	0.9 MILES SE	GAMMA SCAN (GELI)				
		BE-7	.0939	.0086	08/03/99	904521
			.1052	.0083	08/31/99	905088
			.1404	.0107	09/28/99	905610
			.0870	.0088	10/26/99	906268
			.1297	.0108	11/22/99	906744
			.0870	.0075	12/20/99	907251
		BI-214	.0208	.0023	01/19/99	900458
			.0073	.0012	02/16/99	901014
			.0184	.0017	03/16/99	901569
			.0194	.0016	04/13/99	902146
			.0103	.0016	05/11/99	902788
			.0025	.0008	06/08/99	903369
			.0074	.0013	07/06/99	903957
			.0087	.0011	08/03/99	904521
			.0013	.0008	08/31/99	905088
			.0033	.0011	09/28/99	905610
			.0082	.0012	10/26/99	906268
			.0076	.0016	11/22/99	906744
			.0081	.0013	12/20/99	907251
		K-40	.0020	.0083	01/19/99	900458
			.0114	.0070	02/16/99	901014
			.0053	.0051	04/13/99	902146
			.0047	.0066	05/11/99	902788
			.0130	.0053	07/06/99	903957
			.0157	.0084	10/26/99	906268
			.0153	.0076	12/20/99	907251
		PB-212	.0004	.0005	01/19/99	900458
		PB-214	.0206	.0021	01/19/99	900458
			.0027	.0013	02/16/99	901014
			.0206	.0016	03/16/99	901569
			.0204	.0017	04/13/99	902146
			.0086	.0013	05/11/99	902788
			.0032	.0009	06/08/99	903369
			.0070	.0009	07/06/99	903957
			.0089	.0015	08/03/99	904521
			.0025	.0009	08/31/99	905088
			.0045	.0011	09/28/99	905610
			.0070	.0013	10/26/99	906268

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RADIOACTIVITY IN AIR FILTER
PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3204 LM-4 WB	0.9 MILES SE	GAMMA SCAN (GELI)				
		PB-214	.0082	.0015	11/22/99	906744
			.0064	.0011	12/20/99	907251
		TL-208	.0011	.0005	10/26/99	906268
3205 RM-3 WB	15 MILES NNW	GROSS BETA				
			.0224	.0026	12/28/98	900104
			.0196	.0021	01/05/99	900206
			.0195	.0022	01/12/99	900303
			.0146	.0017	01/19/99	900425
			.0162	.0018	01/26/99	900597
			.0186	.0021	02/02/99	900750
			.0155	.0018	02/09/99	900863
			.0143	.0017	02/16/99	900981
			.0177	.0020	02/23/99	901172
			.0135	.0016	03/02/99	901289
			.0127	.0015	03/09/99	901396
			.0124	.0015	03/16/99	901534
			.0219	.0024	03/23/99	901724
			.0199	.0022	03/30/99	901831
			.0156	.0018	04/06/99	901938
			.0158	.0018	04/13/99	902113
			.0160	.0018	04/20/99	902251
			.0164	.0019	04/27/99	902461
			.0130	.0016	05/04/99	902615
			.0180	.0020	05/11/99	902755
			.0172	.0020	05/18/99	902921
			.0170	.0019	05/25/99	903045
			.0206	.0023	06/02/99	903188
			.0176	.0020	06/08/99	903334
			.0200	.0022	06/15/99	903508
			.0176	.0020	06/22/99	903622
			.0105	.0013	06/29/99	903805
			.0172	.0019	07/06/99	903924
			.0123	.0015	07/13/99	904070
			.0184	.0021	07/20/99	904187
			.0211	.0023	07/27/99	904328
			.0251	.0027	08/03/99	904488
			.0237	.0026	08/10/99	904654

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WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN AIR FILTER
PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3205 RM-3 WB	15 MILES NNW	GROSS BETA				
			.0246	.0027	08/17/99	904761
			.0251	.0027	08/24/99	904884
			.0251	.0027	08/31/99	905053
			.0308	.0033	09/07/99	905213
			.0331	.0035	09/14/99	905315
			.0235	.0026	09/21/99	905427
			.0204	.0023	09/28/99	905577
			.0195	.0022	10/05/99	905737
			.0245	.0027	10/12/99	905880
			.0281	.0030	10/19/99	905996
			.0177	.0020	10/26/99	906233
			.0371	.0039	11/02/99	906376
			.0282	.0031	11/08/99	906479
			.0428	.0045	11/16/99	906592
			.0256	.0028	11/22/99	906711
			.0229	.0025	11/30/99	906865
			.0179	.0020	12/07/99	906998
			.0225	.0025	12/14/99	907095
			.0186	.0021	12/20/99	907216
		GAMMA SCAN (GELI)				
		AC-228	.0024	.0014	03/16/99	901570
		BE-7	.0982	.0101	01/19/99	900459
			.0887	.0114	02/16/99	901015
			.1012	.0079	03/16/99	901570
			.1535	.0133	04/13/99	902147
			.1394	.0103	05/11/99	902789
			.1393	.0102	06/08/99	903370
			.0965	.0098	07/06/99	903958
			.1008	.0133	08/03/99	904522
			.1135	.0099	08/31/99	905089
			.1376	.0111	09/28/99	905611
			.0940	.0087	10/26/99	906269
			.1418	.0142	11/22/99	906745
			.0835	.0085	12/20/99	907252
		BI-214	.0214	.0029	01/19/99	900459
			.0195	.0019	03/16/99	901570
			.0219	.0022	04/13/99	902147

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WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN AIR FILTER
PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3205 RM-3 WB	15 MILES NNW	GAMMA SCAN (GELI)				
		BI-214	.0102	.0016	05/11/99	902789
			.0056	.0013	06/08/99	903370
			.0065	.0015	07/06/99	903958
			.0085	.0015	08/03/99	904522
			.0025	.0017	08/31/99	905089
			.0038	.0012	09/28/99	905611
			.0076	.0019	10/26/99	906269
			.0076	.0020	11/22/99	906745
			.0089	.0019	12/20/99	907252
		K-40	.0147	.0097	01/19/99	900459
			.0059	.0066	03/16/99	901570
			.0124	.0082	04/13/99	902147
			.0053	.0070	05/11/99	902789
			.0062	.0082	06/08/99	903370
			.0044	.0081	08/31/99	905089
			.0043	.0066	09/28/99	905611
			.0035	.0081	10/26/99	906269
		PB-214	.0222	.0022	01/19/99	900459
			.0206	.0019	03/16/99	901570
			.0209	.0024	04/13/99	902147
			.0085	.0011	05/11/99	902789
			.0054	.0010	06/08/99	903370
			.0072	.0010	07/06/99	903958
			.0087	.0013	08/03/99	904522
			.0022	.0011	08/31/99	905089
			.0037	.0009	09/28/99	905611
			.0061	.0011	10/26/99	906269
			.0080	.0015	11/22/99	906745
			.0068	.0014	12/20/99	907252
		TL-208	.0009	.0004	02/16/99	901015

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RADIOACTIVITY IN CHARCOAL FILTER
PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116 RM-2 DAYTON TN	15.0 MILES SW	GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		12/28/98	900057
			NO ACTIVITY DETECTED		01/12/99	900271
			NO ACTIVITY DETECTED		06/15/99	903461
			NO ACTIVITY DETECTED		06/22/99	903570
			NO ACTIVITY DETECTED		06/29/99	903752
			NO ACTIVITY DETECTED		07/06/99	903870
			NO ACTIVITY DETECTED		07/13/99	904023
			NO ACTIVITY DETECTED		07/20/99	904137
			NO ACTIVITY DETECTED		08/10/99	904607
			NO ACTIVITY DETECTED		09/14/99	905264
			NO ACTIVITY DETECTED		10/12/99	905829
			NO ACTIVITY DETECTED		11/08/99	906429
		BI-214	.0571	.0126	01/19/99	900370
			.0457	.0096	01/26/99	900550
			.0427	.0098	02/02/99	900698
			.0156	.0074	02/09/99	900831
			.3262	.0340	02/23/99	901125
			.0406	.0100	03/16/99	901477
			.0373	.0084	03/23/99	901677
			.0271	.0080	03/30/99	901779
			.0221	.0089	04/06/99	901906
			.0855	.0159	04/13/99	902057
			.0489	.0154	04/20/99	902204
			.0555	.0161	04/27/99	902377
			.0905	.0131	05/04/99	902583
			.0576	.0124	05/11/99	902700
			.0769	.0126	05/25/99	902991
			.0347	.0094	06/01/99	903156
			.0447	.0100	06/08/99	903277
			.0171	.0103	09/28/99	905522
			.0239	.0089	10/05/99	905690
			.0176	.0083	10/19/99	905964
			.0152	.0083	10/26/99	906151
			.0409	.0086	11/16/99	906560
			.0615	.0143	11/22/99	906658
			.0402	.0098	11/30/99	906818
			.0267	.0083	12/07/99	906947
		K-40	.2492	.0473	01/26/99	900550

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116 RM-2 DAYTON TN	15.0 MILES SW	GAMMA SCAN (GELI)				
		K-40	.1413	.0446	02/02/99	900698
			.2030	.0462	03/16/99	901477
			.2549	.0528	05/04/99	902583
			.2970	.0706	06/08/99	903277
			.3693	.0645	07/27/99	904296
			.2899	.0544	08/03/99	904433
			.3391	.0717	11/02/99	906329
			.3535	.0935	11/22/99	906658
		PB-212	.0162	.0038	02/23/99	901125
		PB-214	.0340	.0108	01/05/99	900155
			.0386	.0108	01/19/99	900370
			.0629	.0112	01/26/99	900550
			.0372	.0084	02/02/99	900698
			.0169	.0064	02/09/99	900831
			.0381	.0111	02/16/99	900925
			.2151	.0251	02/23/99	901125
			.0240	.0083	03/02/99	901237
			.0295	.0087	03/09/99	901364
			.0430	.0064	03/16/99	901477
			.0252	.0073	03/23/99	901677
			.0405	.0091	03/30/99	901779
			.0339	.0089	04/06/99	901906
			.1336	.0147	04/13/99	902057
			.0559	.0098	04/20/99	902204
			.0521	.0105	04/27/99	902377
			.1099	.0144	05/04/99	902583
			.0396	.0093	05/11/99	902700
			.0252	.0106	05/18/99	902874
			.0876	.0130	05/25/99	902991
			.0314	.0081	06/01/99	903156
			.0455	.0093	06/08/99	903277
			.0142	.0070	08/03/99	904433
			.0514	.0129	08/17/99	904709
			.0254	.0077	08/24/99	904852
			.0230	.0077	08/31/99	904997
			.0240	.0070	09/07/99	905166
			.0458	.0132	09/21/99	905395
			.0206	.0079	10/05/99	905690

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116 RM-2 DAYTON TN	15.0 MILES SW	GAMMA SCAN (GELI)				
		PB-214	.0161	.0070	10/19/99	905964
			.0313	.0093	10/26/99	906151
			.0443	.0098	11/16/99	906560
			.0751	.0149	11/22/99	906658
			.0564	.0088	11/30/99	906818
			.0354	.0096	12/07/99	906947
			.0148	.0056	12/14/99	907063
			.0430	.0152	12/20/99	907161
3101 LM1	0.5 MILES SSW	GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		02/09/99	900847
			NO ACTIVITY DETECTED		02/16/99	900960
			NO ACTIVITY DETECTED		03/30/99	901804
			NO ACTIVITY DETECTED		06/01/99	903172
			NO ACTIVITY DETECTED		06/15/99	903484
			NO ACTIVITY DETECTED		06/29/99	903780
			NO ACTIVITY DETECTED		07/06/99	903904
			NO ACTIVITY DETECTED		07/20/99	904160
			NO ACTIVITY DETECTED		08/03/99	904467
			NO ACTIVITY DETECTED		08/17/99	904732
			NO ACTIVITY DETECTED		08/25/99	904868
			NO ACTIVITY DETECTED		09/14/99	905288
			NO ACTIVITY DETECTED		09/28/99	905556
			NO ACTIVITY DETECTED		10/12/99	905853
			NO ACTIVITY DETECTED		10/26/99	906204
		BI-214	.0437	.0115	12/28/98	900080
			.0511	.0133	01/12/99	900287
			.0669	.0175	01/19/99	900405
			.0237	.0082	01/26/99	900573
			.0186	.0074	02/02/99	900723
			.0359	.0135	02/23/99	901148
			.0157	.0113	03/02/99	901261
			.0264	.0080	03/09/99	901380
			.0445	.0094	03/16/99	901513
			.0268	.0080	03/23/99	901700
			.0212	.0079	04/06/99	901922
			.0284	.0092	04/20/99	902227
			.0657	.0161	04/27/99	902426

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3101 LM1	0.5 MILES SSW	GAMMA SCAN (GELI)				
		BI-214	.0248	.0112	05/04/99	902599
			.0502	.0120	05/11/99	902734
			.0340	.0090	05/18/99	902897
			.0441	.0103	05/25/99	903016
			.0336	.0109	06/08/99	903314
			.0326	.0097	06/22/99	903595
			.0177	.0067	08/31/99	905032
			.0140	.0091	09/07/99	905189
			.0221	.0082	09/21/99	905411
			.0436	.0111	10/05/99	905713
			.0172	.0087	10/19/99	905980
			.0160	.0063	11/02/99	906352
			.0230	.0069	11/16/99	906576
			.0302	.0083	11/30/99	906841
			.0346	.0101	12/07/99	906970
			.0384	.0103	12/20/99	907195
		K-40	.2573	.0492	01/12/99	900287
			.1647	.0433	01/26/99	900573
			.3588	.0570	03/09/99	901380
			.2075	.0728	03/23/99	901700
			.1471	.0403	04/20/99	902227
			.3656	.0630	05/04/99	902599
			.3308	.0605	05/11/99	902734
			.3923	.0714	05/25/99	903016
			.3543	.0536	06/08/99	903314
			.3596	.0542	08/10/99	904630
			.3144	.0631	08/31/99	905032
			.3289	.0634	09/07/99	905189
			.2982	.0658	11/02/99	906352
			.2986	.0503	11/08/99	906452
			.2036	.0333	11/30/99	906841
			.2721	.0458	12/07/99	906970
			.2292	.1097	12/20/99	907195
		PB-212	.0012	.0031	11/30/99	906841
		PB-214	.0525	.0148	12/28/98	900080
			.0324	.0062	01/05/99	900178
			.0602	.0145	01/12/99	900287
			.0847	.0157	01/19/99	900405

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3101 LM1	0.5 MILES SSW	GAMMA SCAN (GELI)				
		PB-214	.0391	.0076	01/26/99	900573
			.0379	.0085	02/02/99	900723
			.0462	.0133	02/23/99	901148
			.0332	.0086	03/02/99	901261
			.0216	.0081	03/09/99	901380
			.0429	.0092	03/16/99	901513
			.0195	.0102	03/23/99	901700
			.0346	.0057	04/06/99	901922
			.0376	.0103	04/13/99	902093
			.0461	.0119	04/20/99	902227
			.0749	.0147	04/27/99	902426
			.0370	.0106	05/04/99	902599
			.0813	.0138	05/11/99	902734
			.0565	.0101	05/18/99	902897
			.0550	.0123	05/25/99	903016
			.0262	.0061	06/08/99	903314
			.0332	.0096	06/22/99	903595
			.0088	.0061	07/13/99	904046
			.0080	.0099	07/27/99	904312
			.0355	.0101	08/31/99	905032
			.0150	.0098	09/21/99	905411
			.0435	.0090	10/05/99	905713
			.0204	.0086	10/19/99	905980
			.0265	.0080	11/16/99	906576
			.0163	.0073	11/22/99	906691
			.0528	.0095	11/30/99	906841
			.0422	.0094	12/07/99	906970
			.0118	.0067	12/14/99	907079
			.0688	.0132	12/20/99	907195
3102 LM2	0.5 MILES N	GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		01/26/99	900577
			NO ACTIVITY DETECTED		02/09/99	900850
			NO ACTIVITY DETECTED		06/29/99	903785
			NO ACTIVITY DETECTED		07/06/99	903907
			NO ACTIVITY DETECTED		07/13/99	904050
			NO ACTIVITY DETECTED		07/20/99	904163
			NO ACTIVITY DETECTED		08/03/99	904470

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3102 LM2	0.5 MILES N	GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		08/17/99	904735
			NO ACTIVITY DETECTED		08/25/99	904871
			NO ACTIVITY DETECTED		09/14/99	905291
			NO ACTIVITY DETECTED		09/21/99	905414
			NO ACTIVITY DETECTED		10/12/99	905856
			NO ACTIVITY DETECTED		10/19/99	905983
			NO ACTIVITY DETECTED		10/26/99	906207
			NO ACTIVITY DETECTED		11/02/99	906356
			NO ACTIVITY DETECTED		11/08/99	906455
		BI-214	.1198	.0190	12/28/98	900084
			.0214	.0066	01/05/99	900181
			.0309	.0095	01/19/99	900408
			.0313	.0096	02/02/99	900726
			.0310	.0088	02/16/99	900963
			.0632	.0151	02/23/99	901152
			.0330	.0095	03/02/99	901264
			.0439	.0097	03/09/99	901383
			.0420	.0083	03/30/99	901807
			.0193	.0078	04/06/99	901925
			.0410	.0141	04/13/99	902096
			.0307	.0099	04/27/99	902429
			.0187	.0091	05/04/99	902602
			.0411	.0123	05/11/99	902737
			.0171	.0092	05/18/99	902901
			.0246	.0098	06/01/99	903175
			.0300	.0088	06/08/99	903317
			.0282	.0074	06/22/99	903598
			.0317	.0089	11/16/99	906579
			.0457	.0101	11/30/99	906845
			.0876	.0147	12/20/99	907198
		K-40	.1722	.0508	12/28/98	900084
			.2116	.0474	01/05/99	900181
			.2192	.0436	03/02/99	901264
			.2789	.0554	03/30/99	901807
			.2541	.0751	04/06/99	901925
			.2459	.0512	04/27/99	902429
			.2180	.0561	05/04/99	902602
			.3210	.0490	05/11/99	902737

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3102 LM2	0.5 MILES N	GAMMA SCAN (GELI)				
		K-40	.2031	.0511	05/18/99	902901
			.2667	.0546	06/08/99	903317
			.3368	.0571	06/22/99	903598
			.3004	.0625	09/07/99	905193
		PB-212	.0005	.0050	04/06/99	901925
			.0034	.0038	09/28/99	905559
		PB-214	.1204	.0132	12/28/98	900084
			.0390	.0060	01/05/99	900181
			.0175	.0058	01/12/99	900290
			.0498	.0097	01/19/99	900408
			.0442	.0088	02/02/99	900726
			.0749	.0112	02/16/99	900963
			.0416	.0089	02/23/99	901152
			.0374	.0132	03/02/99	901264
			.0461	.0076	03/09/99	901383
			.0590	.0126	03/16/99	901516
			.0386	.0057	03/23/99	901704
			.0584	.0104	03/30/99	901807
			.0208	.0077	04/06/99	901925
			.0826	.0160	04/13/99	902096
			.0250	.0070	04/20/99	902231
			.0561	.0091	04/27/99	902429
			.0143	.0075	05/04/99	902602
			.0692	.0128	05/11/99	902737
			.0220	.0066	05/18/99	902901
			.0519	.0129	05/25/99	903019
			.0200	.0082	06/01/99	903175
			.0272	.0071	06/08/99	903317
			.0102	.0065	06/15/99	903488
			.0408	.0082	06/22/99	903598
			.0213	.0084	07/27/99	904315
			.0079	.0054	08/10/99	904634
			.0142	.0081	08/31/99	905035
			.0190	.0081	09/07/99	905193
			.0239	.0095	10/05/99	905717
			.0524	.0138	11/16/99	906579
			.0250	.0067	11/22/99	906694
			.0508	.0124	11/30/99	906845

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3102 LM2	0.5 MILES N	GAMMA SCAN (GELI)				
		PB-214	.0365	.0081	12/07/99	906973
			.0314	.0082	12/14/99	907082
			.1018	.0147	12/20/99	907198
3106 PM2 SPRING CITY	7.0 MILES NW	GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		01/05/99	900183
			NO ACTIVITY DETECTED		01/12/99	900292
			NO ACTIVITY DETECTED		05/18/99	902904
			NO ACTIVITY DETECTED		05/25/99	903021
			NO ACTIVITY DETECTED		06/15/99	903491
			NO ACTIVITY DETECTED		06/22/99	903600
			NO ACTIVITY DETECTED		06/29/99	903788
			NO ACTIVITY DETECTED		07/27/99	904317
			NO ACTIVITY DETECTED		08/03/99	904472
			NO ACTIVITY DETECTED		08/10/99	904637
			NO ACTIVITY DETECTED		08/24/99	904873
			NO ACTIVITY DETECTED		09/07/99	905196
			NO ACTIVITY DETECTED		09/14/99	905293
			NO ACTIVITY DETECTED		10/12/99	905858
			NO ACTIVITY DETECTED		12/14/99	907084
		BI-214	.0677	.0112	01/19/99	900410
			.0525	.0151	01/26/99	900580
			.0457	.0098	02/02/99	900728
			.0281	.0088	02/16/99	900965
			.0343	.0112	03/02/99	901266
			.0558	.0145	03/09/99	901385
			.0750	.0122	03/16/99	901518
			.0206	.0078	03/23/99	901707
			.0567	.0132	03/30/99	901809
			.0163	.0100	04/06/99	901927
			.0932	.0185	04/13/99	902098
			.0240	.0105	04/27/99	902431
			.0299	.0101	05/11/99	902739
			.0145	.0078	06/02/99	903177
			.0511	.0144	11/02/99	906359
			.0278	.0120	11/08/99	906457
			.0292	.0106	11/16/99	906581
			.0402	.0098	11/30/99	906848

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3106 PM2 SPRING CITY	7.0 MILES NW	GAMMA SCAN (GELI)				
		BI-214	.0450	.0169	12/07/99	906975
			.0575	.0137	12/20/99	907200
		K-40	.2815	.0667	01/26/99	900580
			.2989	.0563	02/02/99	900728
			.2306	.0527	03/16/99	901518
			.2012	.0691	04/06/99	901927
			.3293	.1114	11/02/99	906359
			.3857	.0821	11/08/99	906457
			.2339	.0572	11/16/99	906581
			.2340	.0579	11/30/99	906848
		PB-212	.0020	.0025	10/19/99	905985
		PB-214	.0744	.0204	12/28/98	900087
			.0688	.0146	01/19/99	900410
			.0729	.0117	01/26/99	900580
			.0368	.0099	02/02/99	900728
			.0193	.0093	02/09/99	900852
			.0455	.0106	02/16/99	900965
			.0467	.0090	02/23/99	901155
			.0269	.0085	03/02/99	901266
			.0359	.0097	03/09/99	901385
			.0985	.0168	03/16/99	901518
			.0384	.0114	03/23/99	901707
			.0497	.0158	03/30/99	901809
			.0503	.0087	04/06/99	901927
			.1246	.0172	04/13/99	902098
			.0513	.0123	04/20/99	902234
			.0512	.0119	04/27/99	902431
			.0287	.0096	05/04/99	902604
			.0303	.0127	05/11/99	902739
			.0169	.0092	06/02/99	903177
			.0139	.0110	06/08/99	903319
			.0122	.0045	07/06/99	903909
			.0136	.0058	07/13/99	904053
			.0158	.0125	07/20/99	904165
			.0155	.0045	08/17/99	904737
			.0088	.0063	08/31/99	905037
			.0181	.0072	09/21/99	905416
			.0181	.0099	09/28/99	905561

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3106 PM2 SPRING CITY	7.0 MILES NW	GAMMA SCAN (GELI)				
		PB-214	.0365	.0079	10/05/99	905720
			.0160	.0082	10/26/99	906209
			.0292	.0099	11/02/99	906359
			.0130	.0094	11/08/99	906457
			.0246	.0096	11/16/99	906581
			.0397	.0130	11/22/99	906696
			.0298	.0070	11/30/99	906848
			.0309	.0118	12/07/99	906975
			.0899	.0121	12/20/99	907200
3107 PM3	10.4 MILES NNE	GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		02/09/99	900854
			NO ACTIVITY DETECTED		02/16/99	900967
			NO ACTIVITY DETECTED		03/09/99	901387
			NO ACTIVITY DETECTED		04/06/99	901929
			NO ACTIVITY DETECTED		05/04/99	902606
			NO ACTIVITY DETECTED		05/18/99	902907
			NO ACTIVITY DETECTED		06/08/99	903321
			NO ACTIVITY DETECTED		06/22/99	903602
			NO ACTIVITY DETECTED		06/29/99	903791
			NO ACTIVITY DETECTED		07/13/99	904056
			NO ACTIVITY DETECTED		07/27/99	904319
			NO ACTIVITY DETECTED		08/03/99	904474
			NO ACTIVITY DETECTED		08/10/99	904640
			NO ACTIVITY DETECTED		08/24/99	904875
			NO ACTIVITY DETECTED		09/07/99	905199
			NO ACTIVITY DETECTED		09/14/99	905295
			NO ACTIVITY DETECTED		09/28/99	905563
			NO ACTIVITY DETECTED		10/05/99	905723
			NO ACTIVITY DETECTED		10/12/99	905860
			NO ACTIVITY DETECTED		10/26/99	906211
			NO ACTIVITY DETECTED		11/08/99	906459
			NO ACTIVITY DETECTED		11/16/99	906583
			NO ACTIVITY DETECTED		11/30/99	906851
		BI-214	.0237	.0091	12/28/98	900090
			.0351	.0090	01/12/99	900294
			.0480	.0096	01/19/99	900412
			.0553	.0099	01/26/99	900583

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3107 PM3	10.4 MILES NNE	GAMMA SCAN (GELI)				
		BI-214	.0765	.0109	02/23/99	901158
			.0379	.0151	03/23/99	901710
			.0578	.0092	04/13/99	902100
			.0802	.0138	04/27/99	902433
			.0493	.0107	05/11/99	902741
			.0076	.0084	05/25/99	903023
			.0117	.0069	06/15/99	903494
			.0245	.0098	08/17/99	904739
			.0282	.0084	08/31/99	905039
			.0084	.0056	09/21/99	905418
			.0114	.0071	10/19/99	905987
			.0155	.0087	11/02/99	906362
			.0263	.0121	11/22/99	906698
			.0300	.0097	12/07/99	906977
			.0432	.0092	12/20/99	907202
		K-40	.2261	.0587	02/23/99	901158
			.3232	.0745	03/23/99	901710
			.3146	.0599	04/13/99	902100
			.2852	.0499	05/25/99	903023
			.1830	.0478	06/15/99	903494
			.2321	.0580	07/20/99	904167
			.2458	.0561	08/31/99	905039
			.2646	.0691	10/19/99	905987
			.3012	.0482	11/02/99	906362
			.5144	.1044	11/22/99	906698
			.3976	.0647	12/07/99	906977
			.3515	.0618	12/20/99	907202
		PB-212	.0026	.0052	01/12/99	900294
		PB-214	.0280	.0094	12/28/98	900090
			.0486	.0095	01/05/99	900185
			.0620	.0079	01/19/99	900412
			.0363	.0127	01/26/99	900583
			.0258	.0108	02/02/99	900730
			.0894	.0129	02/23/99	901158
			.0255	.0136	03/02/99	901268
			.0503	.0088	03/16/99	901520
			.0549	.0153	03/23/99	901710
			.0866	.0117	04/13/99	902100

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3107 PM3	10.4 MILES NNE	GAMMA SCAN (GELI)				
		PB-214	.0595	.0122	04/20/99	902237
			.0835	.0122	04/27/99	902433
			.0695	.0120	05/11/99	902741
			.0163	.0072	05/25/99	903023
			.0326	.0101	06/02/99	903179
			.0027	.0047	07/06/99	903911
			.0409	.0087	08/31/99	905039
			.0132	.0310	09/21/99	905418
			.0092	.0061	10/19/99	905987
			.0096	.0093	11/22/99	906698
			.0130	.0057	12/14/99	907086
			.0571	.0117	12/20/99	907202
3108 PM4	7.6 MILES NE/ENE	GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		01/20/99	900414
			NO ACTIVITY DETECTED		02/17/99	900969
			NO ACTIVITY DETECTED		03/03/99	901270
			NO ACTIVITY DETECTED		03/23/99	901713
			NO ACTIVITY DETECTED		06/16/99	903497
			NO ACTIVITY DETECTED		06/30/99	903794
			NO ACTIVITY DETECTED		07/07/99	903913
			NO ACTIVITY DETECTED		07/14/99	904059
			NO ACTIVITY DETECTED		07/28/99	904321
			NO ACTIVITY DETECTED		08/04/99	904476
			NO ACTIVITY DETECTED		08/24/99	904877
			NO ACTIVITY DETECTED		09/08/99	905202
			NO ACTIVITY DETECTED		09/29/99	905565
			NO ACTIVITY DETECTED		10/06/99	905726
			NO ACTIVITY DETECTED		10/13/99	905862
			NO ACTIVITY DETECTED		11/03/99	906365
			NO ACTIVITY DETECTED		11/08/99	906461
			NO ACTIVITY DETECTED		12/15/99	907088
		BI-214	.0608	.0151	12/29/98	900093
			.0215	.0078	01/06/99	900187
			.0507	.0114	01/27/99	900586
			.0223	.0084	02/10/99	900856
			.0351	.0119	02/24/99	901161
			.0353	.0096	03/17/99	901522

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3108 PM4	7.6 MILES NE/ENE	GAMMA SCAN (GELI)				
		BI-214	.0477	.0079	03/31/99	901813
			.0454	.0169	04/07/99	901931
			.0216	.0083	04/14/99	902102
			.0549	.0140	04/28/99	902435
			.0252	.0081	05/12/99	902743
			.0193	.0101	06/23/99	903604
			.0211	.0087	08/11/99	904643
			.0147	.0060	08/18/99	904741
			.0203	.0073	09/01/99	905041
			.0204	.0089	10/27/99	906213
			.0617	.0121	12/20/99	907204
		K-40	.3023	.0626	01/06/99	900187
			.2702	.0577	01/27/99	900586
			.2419	.0471	02/24/99	901161
			.2804	.0684	04/07/99	901931
			.2807	.0763	04/21/99	902240
			.1585	.0431	04/28/99	902435
			.3267	.0562	05/05/99	902608
			.1789	.0448	05/12/99	902743
			.3195	.0627	06/02/99	903181
			.2549	.0445	08/18/99	904741
			.2274	.0362	09/01/99	905041
			.3737	.0627	09/15/99	905297
			.3112	.0389	10/27/99	906213
		PB-212	.0003	.0037	03/31/99	901813
			.0056	.0063	12/08/99	906979
		PB-214	.0678	.0142	12/29/98	900093
			.0363	.0076	01/06/99	900187
			.0301	.0103	01/13/99	900296
			.0667	.0095	01/27/99	900586
			.0238	.0072	02/03/99	900732
			.0139	.0080	02/10/99	900856
			.0288	.0075	02/24/99	901161
			.0273	.0077	03/10/99	901389
			.0252	.0090	03/17/99	901522
			.0360	.0083	03/31/99	901813
			.0422	.0097	04/07/99	901931
			.0257	.0085	04/14/99	902102

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WATTS BAR NUCLEAR PLANT
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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3108 PM4	7.6 MILES NE/ENE	GAMMA SCAN (GELI)				
		PB-214	.0301	.0094	04/21/99	902240
			.0789	.0091	04/28/99	902435
			.0246	.0060	05/05/99	902608
			.0266	.0108	05/12/99	902743
			.0140	.0061	05/19/99	902910
			.0201	.0080	05/26/99	903025
			.0258	.0070	06/02/99	903181
			.0115	.0059	06/08/99	903323
			.0099	.0041	06/23/99	903604
			.0186	.0071	07/21/99	904169
			.0168	.0066	08/11/99	904643
			.0173	.0063	09/01/99	905041
			.0175	.0058	09/15/99	905297
			.0197	.0091	09/22/99	905420
			.0096	.0062	10/20/99	905989
			.0268	.0075	10/27/99	906213
			.0284	.0080	11/17/99	906585
			.0199	.0081	11/22/99	906700
			.0202	.0067	11/30/99	906854
			.0446	.0153	12/08/99	906979
			.0765	.0126	12/20/99	907204
		TL-208	.0060	.0031	06/02/99	903181
3109 PM5 DECATUR	6.2 MILES S	GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		01/27/99	900589
			NO ACTIVITY DETECTED		05/05/99	902610
			NO ACTIVITY DETECTED		06/30/99	903797
			NO ACTIVITY DETECTED		07/07/99	903915
			NO ACTIVITY DETECTED		07/21/99	904171
			NO ACTIVITY DETECTED		08/11/99	904646
			NO ACTIVITY DETECTED		08/18/99	904743
			NO ACTIVITY DETECTED		09/15/99	905299
			NO ACTIVITY DETECTED		10/13/99	905864
			NO ACTIVITY DETECTED		10/20/99	905991
			NO ACTIVITY DETECTED		11/08/99	906463
		BI-214	.0483	.0135	12/29/98	900096
			.0310	.0079	01/06/99	900189
			.0115	.0051	01/13/99	900298

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3109 PM5 DECATUR	6.2 MILES S	GAMMA SCAN (GELI)				
		BI-214	.0460	.0103	01/20/99	900416
			.0447	.0112	02/03/99	900734
			.0089	.0065	02/10/99	900858
			.0322	.0080	02/17/99	900971
			.0524	.0142	02/24/99	901164
			.0581	.0148	03/03/99	901272
			.0427	.0124	03/17/99	901524
			.0318	.0088	03/24/99	901716
			.0434	.0122	03/31/99	901815
			.0265	.0096	04/07/99	901933
			.0268	.0095	04/21/99	902243
			.0765	.0129	04/28/99	902437
			.0196	.0087	05/12/99	902745
			.0121	.0056	05/19/99	902913
			.0290	.0073	05/26/99	903027
			.0242	.0083	06/08/99	903325
			.0166	.0090	07/14/99	904062
			.0132	.0079	07/28/99	904323
			.0164	.0090	08/04/99	904478
			.0132	.0057	09/01/99	905043
			.0098	.0071	09/08/99	905205
			.0101	.0080	09/22/99	905422
			.0209	.0091	10/06/99	905729
			.0166	.0054	10/27/99	906215
			.0380	.0106	11/03/99	906368
			.0270	.0118	11/17/99	906587
			.0456	.0101	11/30/99	906857
			.0345	.0111	12/08/99	906981
			.0090	.0072	12/15/99	907090
			.0595	.0146	12/20/99	907206
		K-40	.2459	.0379	01/06/99	900189
			.2677	.0672	01/13/99	900298
			.2805	.0570	02/10/99	900858
			.1788	.0481	02/24/99	901164
			.2713	.0588	03/03/99	901272
			.1717	.0545	03/17/99	901524
			.3205	.0714	03/24/99	901716
			.2123	.0420	04/14/99	902104

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3109 PM5 DECATUR	6.2 MILES S	GAMMA SCAN (GELI)				
		K-40	.3431	.0578	05/12/99	902745
			.2048	.0491	05/19/99	902913
			.3814	.0663	05/26/99	903027
			.1620	.0574	07/28/99	904323
			.2839	.0671	08/04/99	904478
			.2179	.0667	09/01/99	905043
			.1743	.0577	09/08/99	905205
			.1402	.0669	09/22/99	905422
			.2616	.0653	10/06/99	905729
			.2684	.0603	11/03/99	906368
			.3266	.0739	12/20/99	907206
		PB-212	.0154	.0046	02/24/99	901164
		PB-214	.0556	.0083	12/29/98	900096
			.0436	.0101	01/06/99	900189
			.0146	.0045	01/13/99	900298
			.0670	.0149	01/20/99	900416
			.0770	.0139	02/03/99	900734
			.0180	.0082	02/10/99	900858
			.0768	.0116	02/17/99	900971
			.0442	.0101	02/24/99	901164
			.0441	.0073	03/03/99	901272
			.0098	.0059	03/10/99	901391
			.0425	.0103	03/17/99	901524
			.0571	.0100	03/24/99	901716
			.0388	.0137	03/31/99	901815
			.0281	.0074	04/07/99	901933
			.0240	.0076	04/14/99	902104
			.0640	.0125	04/21/99	902243
			.0878	.0090	04/28/99	902437
			.0157	.0084	05/12/99	902745
			.0200	.0073	05/19/99	902913
			.0419	.0088	05/26/99	903027
			.0199	.0085	06/02/99	903183
			.0186	.0060	06/08/99	903325
			.0124	.0089	06/16/99	903500
			.0268	.0078	06/23/99	903606
			.0027	.0041	07/14/99	904062
			.0182	.0081	07/28/99	904323

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3109 PM5 DECATUR	6.2 MILES S	GAMMA SCAN (GELI)				
		PB-214	.0016	.0045	08/04/99	904478
			.0063	.0066	08/24/99	904879
			.0323	.0081	09/01/99	905043
			.0302	.0093	09/08/99	905205
			.0175	.0062	09/22/99	905422
			.0009	.0072	09/29/99	905567
			.0239	.0086	10/06/99	905729
			.0540	.0122	11/03/99	906368
			.0243	.0087	11/17/99	906587
			.0473	.0085	11/30/99	906857
			.0506	.0089	12/08/99	906981
			.0221	.0097	12/15/99	907090
			.0708	.0142	12/20/99	907206
3203 LM3	1.9 MILES NNE	GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		01/12/99	900300
			NO ACTIVITY DETECTED		03/16/99	901531
			NO ACTIVITY DETECTED		03/23/99	901719
			NO ACTIVITY DETECTED		06/08/99	903331
			NO ACTIVITY DETECTED		06/30/99	903800
			NO ACTIVITY DETECTED		07/06/99	903921
			NO ACTIVITY DETECTED		07/14/99	904065
			NO ACTIVITY DETECTED		07/20/99	904184
			NO ACTIVITY DETECTED		08/31/99	905050
			NO ACTIVITY DETECTED		09/07/99	905208
			NO ACTIVITY DETECTED		09/28/99	905574
			NO ACTIVITY DETECTED		10/12/99	905877
			NO ACTIVITY DETECTED		11/02/99	906371
			NO ACTIVITY DETECTED		11/16/99	906589
			NO ACTIVITY DETECTED		11/22/99	906708
		BI-214	.0355	.0094	12/28/98	900099
			.0394	.0093	01/19/99	900422
			.0436	.0098	01/26/99	900592
			.0999	.0151	02/02/99	900747
			.0547	.0122	02/16/99	900978
			.0845	.0125	02/23/99	901167
			.0561	.0152	03/09/99	901393
			.0314	.0074	03/30/99	901828

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12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3203 LM3	1.9 MILES NNE	GAMMA SCAN (GELI)				
		BI-214	.0240	.0090	04/06/99	901935
			.0271	.0069	04/13/99	902110
			.0202	.0079	04/20/99	902246
			.0600	.0113	04/27/99	902458
			.0398	.0086	05/04/99	902612
			.0363	.0085	05/11/99	902752
			.0133	.0070	05/18/99	902916
			.0086	.0070	05/25/99	903042
			.0163	.0068	11/30/99	906860
			.0161	.0068	12/14/99	907092
			.0572	.0092	12/20/99	907213
		K-40	.3085	.0503	12/28/98	900099
			.1801	.0447	01/26/99	900592
			.3238	.0559	02/02/99	900747
			.1835	.0471	04/06/99	901935
			.3129	.0553	04/13/99	902110
			.2498	.0659	05/04/99	902612
			.1870	.0364	07/28/99	904325
			.2309	.0521	08/03/99	904485
			.2906	.0577	11/08/99	906476
			.1656	.0339	11/30/99	906860
			.2860	.0460	12/14/99	907092
		PB-212	.0070	.0045	06/15/99	903503
		PB-214	.0227	.0070	12/28/98	900099
			.0204	.0063	01/06/99	900203
			.0407	.0087	01/19/99	900422
			.0405	.0092	01/26/99	900592
			.0992	.0136	02/02/99	900747
			.0124	.0075	02/09/99	900860
			.0488	.0149	02/16/99	900978
			.1515	.0194	02/23/99	901167
			.0285	.0090	03/02/99	901286
			.0270	.0108	03/09/99	901393
			.0242	.0075	03/30/99	901828
			.0173	.0084	04/06/99	901935
			.0277	.0079	04/13/99	902110
			.0368	.0119	04/20/99	902246
			.0522	.0099	04/27/99	902458

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PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3203 LM3	1.9 MILES NNE	GAMMA SCAN (GELI)				
		PB-214	.0482	.0095	05/04/99	902612
			.0490	.0069	05/11/99	902752
			.0181	.0079	05/18/99	902916
			.0085	.0065	05/25/99	903042
			.0325	.0064	06/01/99	903185
			.0087	.0059	06/22/99	903619
			.0054	.0047	07/28/99	904325
			.0064	.0055	08/03/99	904485
			.0135	.0071	08/10/99	904649
			.0050	.0047	08/17/99	904758
			.0065	.0046	08/25/99	904881
			.0053	.0046	09/14/99	905312
			.0137	.0053	09/21/99	905424
			.0144	.0074	10/05/99	905732
			.0064	.0046	10/19/99	905993
			.0355	.0092	10/26/99	906230
			.0403	.0069	11/30/99	906860
			.0330	.0075	12/07/99	906995
			.0185	.0060	12/14/99	907092
			.0941	.0149	12/20/99	907213
3204 LM-4 WB	0.9 MILES SE	GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		01/06/99	900205
			NO ACTIVITY DETECTED		02/10/99	900862
			NO ACTIVITY DETECTED		02/16/99	900980
			NO ACTIVITY DETECTED		04/07/99	901937
			NO ACTIVITY DETECTED		04/13/99	902112
			NO ACTIVITY DETECTED		05/11/99	902754
			NO ACTIVITY DETECTED		05/19/99	902919
			NO ACTIVITY DETECTED		06/02/99	903187
			NO ACTIVITY DETECTED		06/08/99	903333
			NO ACTIVITY DETECTED		06/30/99	903803
			NO ACTIVITY DETECTED		07/14/99	904068
			NO ACTIVITY DETECTED		07/28/99	904327
			NO ACTIVITY DETECTED		08/31/99	905052
			NO ACTIVITY DETECTED		09/14/99	905314
			NO ACTIVITY DETECTED		09/22/99	905426
			NO ACTIVITY DETECTED		09/28/99	905576

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STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3204 LM-4 WB	0.9 MILES SE	GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		10/12/99	905879
			NO ACTIVITY DETECTED		11/03/99	906374
			NO ACTIVITY DETECTED		11/08/99	906478
			NO ACTIVITY DETECTED		11/30/99	906863
		BI-214	.0597	.0091	12/29/98	900102
			.0147	.0076	01/13/99	900302
			.0226	.0090	01/27/99	900595
			.0660	.0141	02/02/99	900749
			.0353	.0093	02/24/99	901170
			.0389	.0107	03/02/99	901288
			.0662	.0124	03/16/99	901533
			.0659	.0117	03/23/99	901722
			.0145	.0060	03/31/99	901830
			.0332	.0081	04/21/99	902249
			.0348	.0101	04/27/99	902460
			.0270	.0071	05/05/99	902614
			.0267	.0085	05/25/99	903044
			.0125	.0067	06/22/99	903621
			.0072	.0041	07/20/99	904186
			.0172	.0064	08/17/99	904760
			.0146	.0071	09/08/99	905211
			.0267	.0092	10/06/99	905735
			.0245	.0090	11/17/99	906591
			.0107	.0062	12/15/99	907094
		K-40	.3380	.0900	01/27/99	900595
			.2330	.0454	03/31/99	901830
			.2319	.0457	05/05/99	902614
			.2438	.0511	05/25/99	903044
			.3760	.0709	06/22/99	903621
			.3326	.0456	07/20/99	904186
			.3017	.0872	08/03/99	904487
			.2087	.0487	08/10/99	904652
			.2063	.0357	11/17/99	906591
			.3292	.0339	12/15/99	907094
			.3851	.0691	12/20/99	907215
		PB-214	.0488	.0071	12/29/98	900102
			.0286	.0084	01/13/99	900302
			.0194	.0064	01/27/99	900595

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STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3204 LM-4 WB	0.9 MILES SE	GAMMA SCAN (GELI)				
		PB-214	.0750	.0167	02/02/99	900749
			.0473	.0107	02/24/99	901170
			.0477	.0131	03/02/99	901288
			.0187	.0062	03/10/99	901395
			.0674	.0118	03/16/99	901533
			.0474	.0110	03/23/99	901722
			.0260	.0070	03/31/99	901830
			.0396	.0107	04/21/99	902249
			.0381	.0089	04/27/99	902460
			.0359	.0100	05/05/99	902614
			.0379	.0098	05/25/99	903044
			.0125	.0056	06/16/99	903506
			.0290	.0089	06/22/99	903621
			.0058	.0053	07/06/99	903923
			.0076	.0038	08/03/99	904487
			.0072	.0036	08/10/99	904652
			.0121	.0058	08/17/99	904760
			.0001	.0036	08/25/99	904883
			.0160	.0089	09/08/99	905211
			.0252	.0111	10/06/99	905735
			.0212	.0052	10/20/99	905995
			.0262	.0070	10/26/99	906232
			.0422	.0074	11/17/99	906591
			.0270	.0161	11/22/99	906710
			.0451	.0114	12/07/99	906997
			.0210	.0094	12/15/99	907094
			.0796	.0131	12/20/99	907215
3205 RM-3 WB	15 MILES NNW	GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		12/28/98	900105
			NO ACTIVITY DETECTED		01/19/99	900426
			NO ACTIVITY DETECTED		02/09/99	900864
			NO ACTIVITY DETECTED		02/16/99	900982
			NO ACTIVITY DETECTED		02/23/99	901173
			NO ACTIVITY DETECTED		05/11/99	902756
			NO ACTIVITY DETECTED		06/02/99	903189
			NO ACTIVITY DETECTED		06/08/99	903335
			NO ACTIVITY DETECTED		06/15/99	903509

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STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3205 RM-3 WB	15 MILES NNW	GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		06/22/99	903623
			NO ACTIVITY DETECTED		06/29/99	903806
			NO ACTIVITY DETECTED		07/06/99	903925
			NO ACTIVITY DETECTED		07/20/99	904188
			NO ACTIVITY DETECTED		07/27/99	904329
			NO ACTIVITY DETECTED		08/03/99	904489
			NO ACTIVITY DETECTED		08/10/99	904655
			NO ACTIVITY DETECTED		08/24/99	904885
			NO ACTIVITY DETECTED		09/14/99	905316
			NO ACTIVITY DETECTED		09/21/99	905428
			NO ACTIVITY DETECTED		09/28/99	905578
			NO ACTIVITY DETECTED		10/19/99	905997
			NO ACTIVITY DETECTED		10/26/99	906234
			NO ACTIVITY DETECTED		11/02/99	906377
			NO ACTIVITY DETECTED		11/08/99	906480
			NO ACTIVITY DETECTED		11/22/99	906712
		BI-214	.0123	.0064	01/26/99	900598
			.0469	.0100	02/02/99	900751
			.0113	.0060	03/02/99	901290
			.0227	.0084	03/23/99	901725
			.0546	.0113	03/30/99	901832
			.0638	.0153	04/13/99	902114
			.0226	.0077	04/20/99	902252
			.0525	.0158	04/27/99	902462
			.0138	.0063	05/18/99	902922
			.0195	.0085	05/25/99	903046
			.0049	.0081	07/13/99	904071
			.0099	.0075	08/17/99	904762
			.0428	.0084	11/30/99	906866
			.0249	.0074	12/14/99	907096
			.0175	.0076	12/20/99	907217
		K-40	.2101	.0662	04/06/99	901939
			.3562	.0883	05/04/99	902616
			.2986	.0614	08/17/99	904762
			.3962	.0797	10/12/99	905881
			.3211	.0565	11/30/99	906866
			.2434	.0594	12/20/99	907217
		PB-214	.0072	.0053	01/05/99	900207

TENNESSEE VALLEY AUTHORITY
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WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CHARCOAL FILTER
PCI/M3 - 0.037 BQ/M3
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3205 RM-3 WB	15 MILES NNW	GAMMA SCAN (GELI)				
		PB-214	.0267	.0061	01/12/99	900304
			.0352	.0089	01/26/99	900598
			.0400	.0070	02/02/99	900751
			.0251	.0092	03/09/99	901397
			.0443	.0092	03/16/99	901535
			.0306	.0072	03/23/99	901725
			.0756	.0141	03/30/99	901832
			.0317	.0140	04/06/99	901939
			.0816	.0102	04/13/99	902114
			.0344	.0094	04/20/99	902252
			.0741	.0167	04/27/99	902462
			.0161	.0072	05/18/99	902922
			.0034	.0079	08/17/99	904762
			.0190	.0108	08/31/99	905054
			.0100	.0055	09/07/99	905214
			.0058	.0056	10/05/99	905738
			.0164	.0064	11/16/99	906593
			.0568	.0121	11/30/99	906866
			.0490	.0112	12/07/99	906999
			.0256	.0096	12/14/99	907096
			.0152	.0090	12/20/99	907217

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
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WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN MILK
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2122 SHADDON FARM	19.5 MILES SW	IODINE-131				
			.1073	.1294	01/06/99	900156
			.0273	.0986	01/20/99	900372
			.0275	.0993	02/03/99	900699
			.0439	.0622	02/17/99	900927
			.0667	.0804	03/03/99	901238
			.0329	.1188	03/17/99	901479
			-.0192	.0984	03/31/99	901780
			.0251	.0908	04/14/99	902059
			.0556	.1125	04/28/99	902378
			.0041	.0873	05/12/99	902702
			.0244	.0881	05/26/99	902992
			.0036	.0750	06/09/99	903279
			.0223	.0805	06/23/99	903571
			.0041	.0867	07/07/99	903872
			.0263	.0951	07/21/99	904138
			.0001	.0619	08/04/99	904435
			.0263	.0952	08/18/99	904710
			.0250	.0904	09/01/99	904999
			.0040	.0852	09/15/99	905265
			.0039	.0819	09/29/99	905524
			.0040	.0843	10/13/99	905830
			.0652	.0932	10/27/99	906153
			.0502	.1018	11/08/99	906430
			.0516	.0895	11/22/99	906660
			-.0441	.0626	12/08/99	906948
			.0684	.0977	12/20/99	907163
		GAMMA SCAN (GELI)				
		AC-228	3.5881	4.0166	02/03/99	900699
			.3800	3.3118	05/26/99	902992
			12.5240	6.7986	06/09/99	903279
			5.3282	4.4146	07/21/99	904138
			2.4226	3.0191	10/13/99	905830
			1.4919	3.8375	10/27/99	906153
		BI-214	11.0120	4.4630	01/06/99	900156
			17.1070	3.9108	01/20/99	900372
			14.7410	3.7174	02/03/99	900699
			20.7580	3.6237	02/17/99	900927

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN MILK
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2122 SHADDON FARM	19.5 MILES SW	GAMMA SCAN (GELI)				
		BI-214	7.1902	3.5710	03/03/99	901238
			18.8890	3.2191	03/17/99	901479
			7.0188	3.6373	03/31/99	901780
			60.7000	6.1560	04/14/99	902059
			15.4400	3.8807	04/28/99	902378
			38.3470	4.8551	05/12/99	902702
			7.7184	2.2123	05/26/99	902992
			10.7040	3.5525	06/09/99	903279
			4.3677	2.6037	06/23/99	903571
			4.8303	2.6866	07/21/99	904138
			12.5360	2.9208	08/04/99	904435
			8.7227	3.3000	08/18/99	904710
			9.4472	3.5349	09/01/99	904999
			6.5670	3.1993	09/15/99	905265
			11.3950	3.1237	09/29/99	905524
			1.5900	2.5251	10/13/99	905830
			8.6937	3.1406	10/27/99	906153
			8.0669	2.7716	11/08/99	906430
			8.1096	3.0213	11/22/99	906660
			8.3831	3.5372	12/08/99	906948
			20.8843	3.7871	12/20/99	907163
		K-40	1414.4000	108.8500	01/06/99	900156
			1367.7000	99.3530	01/20/99	900372
			1321.3000	101.7900	02/03/99	900699
			1434.5000	120.5700	02/17/99	900927
			1360.7000	89.1260	03/03/99	901238
			1336.5000	96.3280	03/17/99	901479
			1419.3000	102.1000	03/31/99	901780
			1403.3000	98.4150	04/14/99	902059
			1325.9000	85.1370	04/28/99	902378
			1256.1000	90.5040	05/12/99	902702
			1311.4000	106.8900	05/26/99	902992
			1305.2000	92.2170	06/09/99	903279
			1325.0000	98.6200	06/23/99	903571
			1377.3000	98.1090	07/07/99	903872
			1349.4000	104.9200	07/21/99	904138
			1443.7000	108.9800	08/04/99	904435
			1470.7000	104.7800	08/18/99	904710

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN MILK
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2122 SHADDON FARM	19.5 MILES SW	GAMMA SCAN (GELI)				
		K-40	1435.4000	103.9600	09/01/99	904999
			1392.7000	103.7200	09/15/99	905265
			1339.6000	105.2900	09/29/99	905524
			1386.9027	86.7959	10/13/99	905830
			1397.0070	98.6804	10/27/99	906153
			1384.6173	92.5524	11/08/99	906430
			1390.8571	101.8634	11/22/99	906660
			1284.6298	86.3671	12/08/99	906948
			1365.3876	104.0091	12/20/99	907163
		PB-212	.8717	2.1948	01/06/99	900156
			1.6943	2.6460	04/14/99	902059
			2.9913	3.1578	05/12/99	902702
			.4560	2.2342	05/26/99	902992
			1.1696	1.5709	06/23/99	903571
			2.3469	1.9234	08/04/99	904435
			.2455	2.4951	08/18/99	904710
			2.1470	2.2277	09/01/99	904999
			1.5491	1.8950	11/08/99	906430
			2.1451	2.0629	11/22/99	906660
			1.1664	1.8717	12/08/99	906948
			.8436	2.7949	12/20/99	907163
		PB-214	8.5703	3.1104	01/06/99	900156
			9.2787	3.0841	01/20/99	900372
			14.5560	2.2514	02/03/99	900699
			12.2260	4.4587	02/17/99	900927
			9.9399	3.2381	03/03/99	901238
			10.0940	2.4964	03/17/99	901479
			7.8561	2.4872	03/31/99	901780
			56.6790	6.5750	04/14/99	902059
			13.1110	3.1838	04/28/99	902378
			25.2860	4.2098	05/12/99	902702
			4.7759	3.2914	05/26/99	902992
			6.0902	2.5051	06/09/99	903279
			2.6495	2.3935	06/23/99	903571
			2.1569	4.5885	07/07/99	903872
			2.9614	2.5355	07/21/99	904138
			4.7656	2.7399	08/04/99	904435
			7.6671	3.3634	08/18/99	904710

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN MILK
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2122 SHADDON FARM	19.5 MILES SW	GAMMA SCAN (GELI)				
		PB-214	10.8850	3.1020	09/01/99	904999
			5.8175	2.6997	09/15/99	905265
			3.9235	2.8835	09/29/99	905524
			5.2982	2.9991	10/13/99	905830
			10.7053	2.8771	10/27/99	906153
			11.2565	3.7228	11/08/99	906430
			3.1202	2.2315	11/22/99	906660
			2.7834	2.5481	12/08/99	906948
			10.5397	3.6147	12/20/99	907163
		TL-208	1.3826	1.4822	03/17/99	901479
			.8678	1.3204	05/26/99	902992
			.0934	1.1395	06/23/99	903571
			1.0827	1.6231	09/15/99	905265
			1.2794	1.3351	09/29/99	905524
			1.6989	1.3283	10/27/99	906153
			.7245	1.1802	11/22/99	906660
			1.1564	1.2877	12/08/99	906948
		SR 89				
			.6590	1.0700	03/03/99	901238
			1.0300	.8570	06/09/99	903279
			.2050	1.0100	09/01/99	904999
			-.1937	1.2339	12/08/99	906948
		SR 90				
			.6340	.6900	03/03/99	901238
			.5740	.5640	06/09/99	903279
			1.7900	.6820	09/01/99	904999
			1.2719	.8012	12/08/99	906948
2202 BILDERBACK FARM	15.0 MILES E	IODINE-131				
			.0524	.0743	01/05/99	900158
			.0619	.0584	01/19/99	900385
			.0269	.0894	02/02/99	900702
			.0340	.0483	02/16/99	900938
			.0399	.0566	03/02/99	901240
			-.0249	.0749	03/16/99	901490
			.0532	.0923	03/30/99	901782

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN MILK
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2202 BILDERBACK FARM 15.0 MILES E	IODINE-131				
		.0812	.0979	04/13/99	902071
		.1026	.1238	04/27/99	902391
		.0239	.0794	05/11/99	902713
		-.0378	.0836	05/25/99	902994
		.0243	.0879	06/08/99	903290
		.0455	.0789	06/22/99	903573
		.0661	.0624	07/06/99	903883
		-.0139	.0439	07/20/99	904140
		.0404	.0819	08/04/99	904447
		-.0255	.0766	08/17/99	904712
		.0755	.0910	08/31/99	905011
		.0556	.0580	09/14/99	905268
		.0665	.0627	09/28/99	905536
		.0124	.0463	10/12/99	905832
		.0751	.0906	10/26/99	906176
		.0860	.0811	11/08/99	906432
		.0395	.0560	11/23/99	906671
		.0209	.0693	12/07/99	906950
		.0657	.0792	12/20/99	907174
	GAMMA SCAN (GELI)				
	AC-228	.5629	2.8451	05/25/99	902994
		3.3387	3.7252	06/08/99	903290
		3.6939	4.2147	07/20/99	904140
		3.5631	4.1651	10/12/99	905832
		4.3712	4.3165	12/07/99	906950
	BI-214	7.5887	3.4729	01/19/99	900385
		15.4600	4.7536	02/02/99	900702
		10.8770	3.5609	02/16/99	900938
		.9270	2.6230	03/02/99	901240
		7.2305	3.1984	03/16/99	901490
		4.2996	2.7980	03/30/99	901782
		25.4690	4.2208	04/13/99	902071
		7.7259	3.6844	04/27/99	902391
		5.5888	3.4376	05/11/99	902713
		4.1227	2.4303	05/25/99	902994
		3.7911	3.5199	06/08/99	903290
		.0691	2.3107	08/04/99	904447

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WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN MILK
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2202 BILDERBACK FARM	15.0 MILES E	GAMMA SCAN (GELI)				
		BI-214	10.7280	3.3734	09/28/99	905536
			6.5439	2.8865	10/26/99	906176
			1.0780	11.3620	11/08/99	906432
			1.1405	3.0205	12/07/99	906950
			12.3168	3.6779	12/20/99	907174
		K-40	1406.2000	99.3340	01/05/99	900158
			1395.2000	92.8120	01/19/99	900385
			1412.5000	103.6400	02/02/99	900702
			1487.5000	97.7670	02/16/99	900938
			1396.3000	94.6140	03/02/99	901240
			1364.5000	96.7000	03/16/99	901490
			1385.0000	92.1050	03/30/99	901782
			1244.8000	77.8130	04/13/99	902071
			1385.6000	95.4040	04/27/99	902391
			1309.9000	93.0620	05/11/99	902713
			1487.3000	91.8970	05/25/99	902994
			1190.4000	79.2830	06/08/99	903290
			1314.2000	87.1550	06/22/99	903573
			1284.4000	87.6880	07/06/99	903883
			1251.7000	91.7200	07/20/99	904140
			1359.4000	94.5190	08/04/99	904447
			1291.7000	103.0400	08/17/99	904712
			1281.3000	89.3910	08/31/99	905011
			1487.1000	111.0700	09/14/99	905268
			1384.9000	83.5740	09/28/99	905536
			1391.7863	102.7836	10/12/99	905832
			1274.0424	84.2635	10/26/99	906176
			1321.2823	90.4038	11/08/99	906432
			1353.1736	93.7458	11/23/99	906671
			1459.7209	102.2670	12/07/99	906950
			1444.8719	93.9564	12/20/99	907174
		PB-212	.4963	1.5266	03/30/99	901782
			.4939	1.9375	05/25/99	902994
		PB-214	9.7166	3.1897	01/19/99	900385
			4.7229	3.8317	02/02/99	900702
			2.7219	3.4615	02/16/99	900938
			.6236	2.2014	03/30/99	901782
			11.5970	3.5916	04/13/99	902071

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WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN MILK
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2202 BILDERBACK FARM	15.0 MILES E	GAMMA SCAN (GELI)				
		PB-214	2.6641	2.4779	04/27/99	902391
			2.9237	2.0279	05/25/99	902994
			.3765	2.1034	08/17/99	904712
			4.2625	2.9780	09/28/99	905536
			3.3364	3.6784	12/20/99	907174
		TL-208	.2219	1.0447	05/25/99	902994
			1.6168	1.5808	11/23/99	906671
		SR 89				
			-.5620	.8380	03/02/99	901240
			.6060	.7990	06/08/99	903290
			1.1600	.8960	08/31/99	905011
			1.8661	1.5802	12/07/99	906950
		SR 90				
			1.4000	.5600	03/02/99	901240
			.3770	.5180	06/08/99	903290
			.4420	.5810	08/31/99	905011
			.4432	.9833	12/07/99	906950
2203 CRUMLEY FARM	16.0 MILES SSW	IODINE-131				
			.0698	.0658	01/06/99	900159
			.0346	.0578	01/20/99	900386
			.0652	.0615	02/03/99	900703
			-.0152	.0481	02/17/99	900939
			-.0179	.0421	03/03/99	901241
			.0431	.0611	03/17/99	901491
			.0759	.0716	03/31/99	901783
			.0617	.0583	04/14/99	902072
			.0642	.0670	04/28/99	902393
			.0612	.0577	05/12/99	902714
			.0001	.0712	05/26/99	902996
			.0314	.0446	06/09/99	903291
			-.0117	.0370	06/23/99	903575
			.0632	.0659	07/07/99	903884
			.0676	.0705	07/21/99	904141
			-.0201	.0603	08/04/99	904448
			.0375	.0531	09/01/99	905012

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WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN MILK
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2203 CRUMLEY FARM	16.0 MILES SSW	IODINE-131				
			.0812	.0979	09/15/99	905269
			.0546	.0569	09/29/99	905537
			.0548	.0571	10/13/99	905833
			-.0120	.0381	10/27/99	906177
			.0407	.0679	11/08/99	906433
			.0374	.0624	11/22/99	906672
			.0105	.0395	12/08/99	906951
			.0579	.0546	12/20/99	907175
		GAMMA SCAN (GELI)				
		AC-228	1.8041	3.3986	01/06/99	900159
			3.9475	4.1964	02/03/99	900703
			2.1144	4.2275	03/03/99	901241
			8.0380	5.3517	12/20/99	907175
		BI-214	5.8934	2.5620	01/06/99	900159
			19.1840	5.0459	01/20/99	900386
			17.0740	4.5163	02/03/99	900703
			19.0640	5.2550	02/17/99	900939
			2.9389	3.5589	03/03/99	901241
			13.6760	4.8483	03/17/99	901491
			10.4950	3.4517	03/31/99	901783
			18.4050	4.2561	04/14/99	902072
			8.2326	3.3619	04/28/99	902393
			6.3582	3.0036	05/12/99	902714
			.8605	2.8329	06/23/99	903575
			.4669	4.1945	07/07/99	903884
			.2930	2.4571	07/21/99	904141
			1.4444	2.2870	09/15/99	905269
			5.6813	9.6101	10/13/99	905833
			12.4531	4.4945	10/27/99	906177
			2.1084	3.6576	11/08/99	906433
			4.6582	5.2826	11/22/99	906672
			1.6182	2.5105	12/20/99	907175
		K-40	1312.6000	92.5470	01/06/99	900159
			1440.4000	123.1700	01/20/99	900386
			1432.9000	89.0330	02/03/99	900703
			1418.6000	97.4250	02/17/99	900939
			1334.8000	103.3600	03/03/99	901241

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WESTERN AREA RADIOLOGICAL LABORATORY

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PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2203 CRUMLEY FARM	16.0 MILES SSW	GAMMA SCAN (GELI)				
		K-40	1415.4000	104.6300	03/17/99	901491
			1495.5000	97.3420	03/31/99	901783
			1323.7000	89.5300	04/14/99	902072
			1316.5000	93.4570	04/28/99	902393
			1368.1000	104.2900	05/12/99	902714
			1339.2000	160.7700	05/26/99	902996
			1315.4000	94.7170	06/09/99	903291
			1471.3000	97.7900	06/23/99	903575
			1333.6000	104.0000	07/07/99	903884
			1442.9000	103.5700	07/21/99	904141
			1388.4000	109.2200	08/04/99	904448
			1220.7000	92.0250	09/01/99	905012
			1349.0000	98.3270	09/15/99	905269
			1386.1000	101.9100	09/29/99	905537
			1423.5179	97.8599	10/13/99	905833
			1397.6877	99.2595	10/27/99	906177
			1338.8241	88.4406	11/08/99	906433
			1342.5500	117.4814	11/22/99	906672
			1342.5894	103.6795	12/08/99	906951
			1328.7028	83.2842	12/20/99	907175
		PB-212	.0066	2.3483	11/08/99	906433
			1.6133	2.2367	11/22/99	906672
		PB-214	3.8306	3.9367	01/06/99	900159
			11.7180	3.9107	02/03/99	900703
			22.4070	5.4205	02/17/99	900939
			3.3462	3.4405	03/03/99	901241
			6.7260	2.9434	03/31/99	901783
			13.6810	3.1160	04/14/99	902072
			9.9107	3.2507	04/28/99	902393
			17.8710	5.0387	05/12/99	902714
			.3137	3.7928	11/08/99	906433
			3.3250	3.6325	11/22/99	906672
		TL-208	1.9482	.9812	07/07/99	903884
			2.5732	1.2960	07/21/99	904141
			2.1433	1.3622	10/13/99	905833
		SR 89				
			1.9700	1.2200	03/03/99	901241

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12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2203 CRUMLEY FARM	16.0 MILES SSW	SR 89				
			.2130	.7840	06/09/99	903291
			.5010	.9720	09/01/99	905012
			.0191	1.0544	12/08/99	906951
		SR 90				
			-.1060	.7590	03/03/99	901241
			1.1800	.5280	06/09/99	903291
			.7030	.6320	09/01/99	905012
			1.0233	.6850	12/08/99	906951
3115 LAYMAN FARM	1.3 MILES SSW	IODINE-131				
			.0001	.0876	01/05/99	900190
			.0046	.0969	01/19/99	900417
			.0658	.0686	02/02/99	900735
			.0073	.0470	02/16/99	900972
			.0127	.0477	03/02/99	901274
			.0373	.0622	03/16/99	901525
			.0595	.0494	03/31/99	901816
			-.0291	.0872	04/13/99	902105
			-.0601	.0852	04/27/99	902438
			.0618	.0645	05/11/99	902746
			.0485	.0841	05/25/99	903030
			.0437	.0885	06/08/99	903326
			.0384	.0544	06/22/99	903607
			.0140	.0523	07/06/99	903916
			.0723	.1464	07/20/99	904172
			.0413	.0717	08/03/99	904479
			.0503	.0713	09/14/99	905300
			-.0769	.0683	09/28/99	905568
			.0001	.0839	10/12/99	905865
			.0714	.1239	10/26/99	906216
			.0373	.0529	11/08/99	906464
			.0333	.0556	11/22/99	906703
			-.0160	.0376	12/07/99	906983
			.0894	.0841	12/20/99	907207
		GAMMA SCAN (GELI)				
		AC-228	.4079	4.0733	01/19/99	900417

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12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3115 LAYMAN FARM	1.3 MILES SSW	GAMMA SCAN (GELI)				
		BI-214	12.4430	3.1309	01/05/99	900190
			3.1748	3.6399	01/19/99	900417
			26.6890	4.7095	02/02/99	900735
			16.8860	4.6442	02/16/99	900972
			8.2384	3.4212	03/02/99	901274
			104.8100	9.6448	03/16/99	901525
			224.0200	17.0490	03/31/99	901816
			161.0400	13.0820	04/13/99	902105
			5.4855	2.5529	04/27/99	902438
			59.2320	5.6943	05/11/99	902746
			3.5809	3.7538	05/25/99	903030
			1.5494	3.3133	06/08/99	903326
			1.1742	2.8897	06/22/99	903607
			4.4391	10.0760	07/20/99	904172
			306.5300	16.5850	08/03/99	904479
			133.0600	10.4830	08/18/99	904745
			3.8735	2.9391	09/14/99	905300
			14.6030	4.2242	09/28/99	905568
			.4987	2.3500	10/12/99	905865
			20.3764	4.0133	10/26/99	906216
			54.2464	6.6714	11/08/99	906464
			9.8797	2.5287	11/22/99	906703
			4.8337	7.9478	12/07/99	906983
			138.4808	10.5928	12/20/99	907207
		CS-137	2.6306	.7791	12/07/99	906983
		K-40	1477.9000	91.7390	01/05/99	900190
			1389.5000	84.6790	01/19/99	900417
			1221.5000	94.3100	02/02/99	900735
			1410.9000	89.5090	02/16/99	900972
			1233.1000	90.9060	03/02/99	901274
			903.3900	71.6350	03/16/99	901525
			912.1900	73.0070	03/31/99	901816
			899.7200	69.5390	04/13/99	902105
			1151.5000	86.2410	04/27/99	902438
			1384.5000	92.2240	05/11/99	902746
			1284.6000	83.1800	05/25/99	903030
			1470.8000	97.8700	06/08/99	903326
			1292.7000	88.4450	06/22/99	903607

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STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3115 LAYMAN FARM	1.3 MILES SSW	GAMMA SCAN (GELI)				
		K-40	1308.7000	83.6770	07/06/99	903916
			1304.0000	86.3460	07/20/99	904172
			678.8900	55.7380	08/03/99	904479
			962.8200	74.1020	08/18/99	904745
			1432.9000	94.9620	09/14/99	905300
			1001.9000	84.7740	09/28/99	905568
			1284.0059	87.5788	10/12/99	905865
			1340.1237	94.2402	10/26/99	906216
			747.8405	60.7284	11/08/99	906464
			1233.7717	79.0101	11/22/99	906703
			1386.0310	101.8236	12/07/99	906983
			949.8387	72.0589	12/20/99	907207
		PB-212	1.2094	2.6133	01/19/99	900417
			1.7746	2.4200	06/22/99	903607
			.0273	2.5642	09/14/99	905300
			.5986	1.6256	10/26/99	906216
		PB-214	13.2060	4.3378	01/05/99	900190
			3.3309	3.1754	01/19/99	900417
			15.0910	2.9734	02/02/99	900735
			5.5507	2.4723	02/16/99	900972
			7.1539	2.8492	03/02/99	901274
			95.4020	8.4808	03/16/99	901525
			214.7000	12.2860	03/31/99	901816
			147.0600	11.5650	04/13/99	902105
			4.8575	2.4690	04/27/99	902438
			51.2860	4.9765	05/11/99	902746
			.2342	3.0890	05/25/99	903030
			2.7812	2.1544	06/22/99	903607
			8.0833	3.2478	07/20/99	904172
			335.9100	18.0020	08/03/99	904479
			139.7500	9.1693	08/18/99	904745
			12.0290	4.0671	09/28/99	905568
			17.5304	3.4845	10/26/99	906216
			57.0416	6.8692	11/08/99	906464
			15.7483	4.3103	11/22/99	906703
			4.7678	3.6389	12/07/99	906983
			134.2685	8.6392	12/20/99	907207
		TL-208	2.1727	1.6112	01/19/99	900417

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STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3115 LAYMAN FARM	1.3 MILES SSW	GAMMA SCAN (GELI)				
		TL-208	.4866	1.2258	09/14/99	905300
		SR 89				
			.9890	.8720	03/02/99	901274
			-.0538	.9040	06/08/99	903326
			.5546	.9358	12/07/99	906983
		SR 90				
			.8250	.5750	03/02/99	901274
			1.1500	.6000	06/08/99	903326
			.6935	.6087	12/07/99	906983
3116 MULLINS FARM	3.7 MILES ESE	IODINE-131				
			-.0240	.0564	01/05/99	900193
			.0499	.0867	01/19/99	900419
			-.0207	.1059	02/02/99	900737
			.0408	.0682	02/16/99	900975
			.0661	.0624	03/02/99	901276
			-.0448	.0991	03/16/99	901528
			-.0155	.0490	03/30/99	901818
			.0141	.0526	04/13/99	902107
			.0399	.0566	04/27/99	902440
			.0001	.0755	05/11/99	902749
			-.0169	.0397	05/25/99	903032
			.0659	.0794	06/08/99	903328
			.0039	.0830	06/22/99	903609
			.0550	.0573	07/06/99	903918
			-.0774	.0687	07/20/99	904174
			.0111	.0415	08/03/99	904481
			.0627	.0654	08/17/99	904747
			.0754	.0712	08/31/99	905047
			.0780	.0813	09/14/99	905302
			.0579	.0821	09/28/99	905570
			.0417	.0696	10/12/99	905867
			-.0166	.0524	10/26/99	906218
			.0104	.0667	11/08/99	906466
			.0130	.0485	11/22/99	906705
			-.0224	.0707	12/07/99	906985

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STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3116 MULLINS FARM	3.7 MILES ESE	IODINE-131				
			.0348	.0582	12/20/99	907210
		GAMMA SCAN (GELI)				
		AC-228	4.9464	4.7408	02/16/99	900975
			6.4803	5.3630	04/13/99	902107
			2.2205	4.7210	10/12/99	905867
		BI-214	7.4510	2.4418	01/05/99	900193
			18.6390	3.6619	02/02/99	900737
			9.4592	3.6037	02/16/99	900975
			.6448	2.7670	03/02/99	901276
			5.5560	3.7924	03/16/99	901528
			4.0034	3.3037	04/13/99	902107
			15.5220	9.5753	05/25/99	903032
			4.8142	2.7070	06/08/99	903328
			1.3397	2.6933	06/22/99	903609
			7.7184	4.0273	08/03/99	904481
			.3099	11.7500	08/17/99	904747
			5.9143	2.7930	08/31/99	905047
			11.6840	2.3372	09/28/99	905570
			1.3631	2.2857	10/26/99	906218
			1.3392	2.2099	11/08/99	906466
			.8902	3.2980	11/22/99	906705
			12.5006	4.6054	12/20/99	907210
		CS-137	2.8656	1.0336	07/20/99	904174
		K-40	1382.4000	80.5890	01/05/99	900193
			1170.5000	90.8060	01/19/99	900419
			1296.1000	87.2650	02/02/99	900737
			1409.5000	90.6390	02/16/99	900975
			1436.6000	99.3730	03/02/99	901276
			1453.3000	96.3690	03/16/99	901528
			1507.6000	94.3220	03/30/99	901818
			1329.7000	92.8690	04/13/99	902107
			1475.2000	97.1580	04/27/99	902440
			1328.7000	92.8850	05/11/99	902749
			1369.8000	83.5570	05/25/99	903032
			1389.8000	97.0340	06/08/99	903328
			1421.2000	94.8880	06/22/99	903609
			1303.3000	89.7440	07/06/99	903918

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STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3116 MULLINS FARM	3.7 MILES ESE	GAMMA SCAN (GELI)				
		K-40	1394.4000	96.9230	07/20/99	904174
			1355.7000	85.7310	08/03/99	904481
			1353.6000	96.6510	08/17/99	904747
			1353.8000	93.4550	08/31/99	905047
			1318.7000	90.7190	09/14/99	905302
			1323.2000	85.3940	09/28/99	905570
			1276.7476	94.4117	10/12/99	905867
			1252.2067	98.7984	10/26/99	906218
			1246.3770	90.7218	11/08/99	906466
			1372.8715	96.7967	11/22/99	906705
			1475.7007	96.6225	12/07/99	906985
			1392.0907	87.5178	12/20/99	907210
		PB-212	1.3460	2.4606	02/16/99	900975
			1.2102	2.9824	04/13/99	902107
			1.5637	2.6807	05/11/99	902749
			.2663	2.0519	06/22/99	903609
			.1262	1.4448	07/06/99	903918
			.6736	1.7207	10/26/99	906218
		PB-214	4.1561	3.0543	01/05/99	900193
			12.8560	3.9691	02/02/99	900737
			10.2850	4.3402	02/16/99	900975
			2.4193	2.3375	03/16/99	901528
			.3354	3.5306	03/30/99	901818
			.5453	3.2654	05/11/99	902749
			.3543	2.9653	08/17/99	904747
			4.0068	2.8043	09/28/99	905570
			.3970	2.5695	10/26/99	906218
			1.0811	1.9293	11/08/99	906466
			8.3620	3.0866	12/20/99	907210
		TL-208	.4937	.8256	03/02/99	901276
			1.6172	1.5869	06/08/99	903328
			.8305	1.0602	07/06/99	903918
			1.3706	1.0992	08/31/99	905047
			1.4655	1.4394	10/12/99	905867
			1.3633	1.3453	10/26/99	906218
		SR 89				
			-1.1900	.9440	03/02/99	901276

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3116 MULLINS FARM	3.7 MILES ESE	SR 89				
			.8590	1.0400	06/08/99	903328
			.9560	1.2100	08/31/99	905047
			-.0172	1.0706	12/07/99	906985
		SR 90				
			2.4600	.6470	03/02/99	901276
			1.0400	.6780	06/08/99	903328
			1.0100	.7840	08/31/99	905047
			1.5859	.7039	12/07/99	906985
3119 NORTON FARM	4.1 MILES ESE	IODINE-131				
			.0187	.0699	01/05/99	900194
			.0093	.0597	01/19/99	900420
			.0773	.0932	02/02/99	900738
			.0931	.0876	02/16/99	900976
			.0593	.0619	03/02/99	901277
			.0001	.0859	03/16/99	901529
			.0160	.0599	03/30/99	901819
			.0177	.0661	04/13/99	902108
			.0366	.0612	04/27/99	902441
			.0619	.0646	05/11/99	902750
			.0452	.0756	05/25/99	903033
			.0072	.0461	06/08/99	903329
			.0375	.0626	06/22/99	903610
			.0116	.0744	07/07/99	903919
			-.0126	.0397	07/21/99	904175
			.0070	.0446	08/03/99	904483
			.0361	.0512	08/17/99	904749
			.0341	.0569	08/31/99	905048
			.0634	.0598	09/14/99	905303
			-.0177	.0417	09/28/99	905571
			.0126	.0804	10/12/99	905868
			.0389	.0649	10/26/99	906219
			-.0133	.0422	11/08/99	906467
			.0341	.0570	11/22/99	906706
			.0081	.0522	12/07/99	906986
			-.0547	.0754	12/20/99	907211
		GAMMA SCAN (GELI)				
		AC-228	2.6557	4.4537	03/02/99	901277

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN MILK
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3119 NORTON FARM	4.1 MILES ESE	GAMMA SCAN (GELI)				
		AC-228	2.7764	4.1143	08/03/99	904483
		BI-214	19.3170	3.8380	01/05/99	900194
			3.9432	3.3057	01/19/99	900420
			15.3230	3.5694	02/02/99	900738
			15.0170	4.2608	03/02/99	901277
			11.1230	3.5992	03/16/99	901529
			3.2513	4.0743	04/13/99	902108
			2.2763	2.9067	04/27/99	902441
			2.0204	3.4035	07/21/99	904175
			1.3868	2.8172	11/22/99	906706
			.0319	2.3694	12/07/99	906986
			2.5797	2.7247	12/20/99	907211
		K-40	1376.4000	92.6280	01/05/99	900194
			1497.4000	95.1010	01/19/99	900420
			1788.4000	105.5700	02/02/99	900738
			1319.9000	86.4830	02/16/99	900976
			1506.6000	105.4100	03/02/99	901277
			1349.3000	81.1570	03/16/99	901529
			1307.6000	85.9910	03/30/99	901819
			1300.8000	86.2690	04/13/99	902108
			1197.2000	77.9310	04/27/99	902441
			1426.0000	100.0500	05/11/99	902750
			1330.1000	85.6360	05/25/99	903033
			1429.8000	94.4640	06/08/99	903329
			1166.7000	94.7190	06/22/99	903610
			1288.0000	94.1830	07/07/99	903919
			1326.8000	100.0600	07/21/99	904175
			1427.6000	93.6590	08/03/99	904483
			1690.5000	104.4800	08/17/99	904749
			1237.0206	79.0701	08/31/99	905048
			1338.9000	91.0130	09/14/99	905303
			1868.1000	121.1300	09/28/99	905571
			1382.7646	85.4859	10/12/99	905868
			1464.4193	105.4505	10/26/99	906219
			1384.7078	91.9210	11/08/99	906467
			1410.0529	91.0435	11/22/99	906706
			1320.4102	78.0484	12/07/99	906986
			1345.9438	90.0108	12/20/99	907211

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN MILK
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3119 NORTON FARM	4.1 MILES ESE	GAMMA SCAN (GELI)				
		PB-212	6.1066	2.2721	02/02/99	900738
			.2684	2.4854	07/07/99	903919
			.3970	2.2871	07/21/99	904175
			1.5477	1.8717	11/08/99	906467
		PB-214	11.2310	3.6484	01/05/99	900194
			2.5779	3.3104	01/19/99	900420
			13.6360	4.6526	02/02/99	900738
			15.4390	4.9971	03/02/99	901277
			26.5150	4.7264	03/16/99	901529
			1.0946	2.4632	04/27/99	902441
		TL-208	.1982	1.3381	01/05/99	900194
			2.4955	1.1194	02/02/99	900738
			1.5828	1.3447	03/02/99	901277
			.1817	1.5347	08/03/99	904483
			1.3547	1.9648	10/12/99	905868
		SR 89				
			.5170	.8920	03/02/99	901277
			.3010	.8750	06/08/99	903329
			-.1340	1.1600	08/31/99	905048
			.0600	1.0369	12/07/99	906986
		SR 90				
			.3330	.5740	03/02/99	901277
			1.1100	.5800	06/08/99	903329
			1.6400	.7650	08/31/99	905048
			1.2920	.6765	12/07/99	906986

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN WET VEGETATION
PCI/KG - 0.037 BQ/KG (WET WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2122 SHADDON FARM	19.5 MILES SW	IODINE-131				
			-1.2800	2.8300	01/20/99	900374
			.7300	2.6300	02/17/99	900928
			1.7300	3.4900	03/17/99	901480
			.1500	3.0800	04/14/99	902060
			.8100	2.9300	05/12/99	902703
			-.4400	2.2700	06/09/99	903280
			-1.2000	2.6400	07/07/99	903873
			1.2500	1.7700	08/04/99	904436
			.1100	2.4200	09/01/99	905000
			.8000	2.8900	09/29/99	905525
			2.1001	3.0004	10/27/99	906154
			3.8345	4.2799	11/22/99	906661
			.8726	2.8955	12/20/99	907164
		GAMMA SCAN (GELI)				
		AC-228	24.9280	12.1000	07/07/99	903873
			19.1902	9.5410	09/01/99	905000
		BE-7	3857.1001	179.3000	01/20/99	900374
			737.5600	45.2390	02/17/99	900928
			1283.4000	91.4560	03/17/99	901480
			242.3800	43.3080	04/14/99	902060
			629.9900	52.6850	05/12/99	902703
			380.8900	68.8900	06/09/99	903280
			862.7100	72.4110	07/07/99	903873
			277.3500	47.6980	08/04/99	904436
			324.9574	35.7162	09/01/99	905000
			388.0745	45.4733	09/29/99	905525
			469.7227	35.9868	10/27/99	906154
			517.6491	49.2741	11/22/99	906661
			1537.4313	99.0068	12/20/99	907164
		BI-214	80.5270	12.5690	01/20/99	900374
			23.2920	5.4559	02/17/99	900928
			77.6580	11.0470	03/17/99	901480
			118.9700	12.0370	04/14/99	902060
			41.2210	5.5521	05/12/99	902703
			35.8880	11.6000	06/09/99	903280
			53.1050	7.6752	07/07/99	903873
			44.5160	14.7830	08/04/99	904436

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN WET VEGETATION
PCI/KG - 0.037 BQ/KG (WET WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2122 SHADDON FARM	19.5 MILES SW	GAMMA SCAN (GELI)				
		BI-214	36.9516	7.9034	09/01/99	905000
			13.7512	8.1160	09/29/99	905525
			16.2649	5.8799	10/27/99	906154
			20.7111	7.1834	11/22/99	906661
			107.1792	15.4523	12/20/99	907164
		K-40	4902.2998	330.0900	01/20/99	900374
			6347.7998	303.3100	02/17/99	900928
			5294.7002	347.9200	03/17/99	901480
			5987.3999	376.7200	04/14/99	902060
			4219.2998	233.8100	05/12/99	902703
			4492.2998	330.0800	06/09/99	903280
			5438.7002	365.6700	07/07/99	903873
			6911.0000	415.4900	08/04/99	904436
			6393.4360	354.7737	09/01/99	905000
			7853.0474	398.0138	09/29/99	905525
			5161.6123	368.7915	10/27/99	906154
			5106.3643	307.0217	11/22/99	906661
			5744.2148	368.3524	12/20/99	907164
		PB-212	12.2080	5.1665	07/07/99	903873
			5.7703	4.2164	11/22/99	906661
		PB-214	79.9890	12.2450	01/20/99	900374
			24.1270	6.0299	02/17/99	900928
			61.5780	8.3225	03/17/99	901480
			117.4300	11.8840	04/14/99	902060
			47.5170	6.9033	05/12/99	902703
			29.3010	13.2180	06/09/99	903280
			43.6190	7.1086	07/07/99	903873
			31.1480	7.4519	08/04/99	904436
			14.9811	6.0353	09/01/99	905000
			18.8767	7.5109	09/29/99	905525
			21.2794	5.9275	10/27/99	906154
			22.3161	6.5374	11/22/99	906661
			123.4077	21.5083	12/20/99	907164
		TL-208	6.4746	2.7917	07/07/99	903873
			1.5928	1.8883	10/27/99	906154
			1.2481	2.2587	11/22/99	906661
		SR 89				
			16.8000	10.2400	03/17/99	901480

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN WET VEGETATION
PCI/KG - 0.037 BQ/KG (WET WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2122 SHADDON FARM	19.5 MILES SW	SR 89				
			24.7100	14.1500	06/09/99	903280
			13.8825	15.0327	09/01/99	905000
			15.3452	13.6029	11/22/99	906661
		SR 90				
			1.9800	3.6200	03/17/99	901480
			.3130	6.6200	06/09/99	903280
			32.8536	6.2792	09/01/99	905000
			17.1114	3.8978	11/22/99	906661
3115 LAYMAN FARM	1.3 MILES SSW	IODINE-131				
			2.0100	1.9000	01/19/99	900418
			-.4500	1.4300	02/16/99	900973
			-.5500	1.7500	03/16/99	901526
			-.4300	1.3600	04/13/99	902106
			1.3400	1.9100	05/11/99	902748
			1.1600	1.9300	06/08/99	903327
			.3700	1.4000	07/06/99	903917
			.4000	1.5000	08/03/99	904480
			1.9700	2.0600	08/31/99	905046
			2.6000	2.4500	09/28/99	905569
			.4159	1.5566	10/26/99	906217
			1.6627	2.3573	11/22/99	906704
			2.3830	2.4850	12/20/99	907209
		GAMMA SCAN (GELI)				
		BE-7	6268.8999	311.0200	01/19/99	900418
			1232.3000	70.4770	02/16/99	900973
			1130.5000	82.4830	03/16/99	901526
			312.8200	35.2040	04/13/99	902106
			497.1600	42.9310	05/11/99	902748
			276.4800	35.2230	06/08/99	903327
			534.6700	42.2280	07/06/99	903917
			884.3100	64.1590	08/03/99	904480
			487.4932	53.9416	08/31/99	905046
			390.1163	46.7719	09/28/99	905569
			674.6820	62.7728	10/26/99	906217
			492.9959	71.9959	11/22/99	906704

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN WET VEGETATION
PCI/KG - 0.037 BQ/KG (WET WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3115 LAYMAN FARM	1.3 MILES SSW	GAMMA SCAN (GELI)				
		BE-7	1615.2056	108.8100	12/20/99	907209
		BI-214	66.7970	10.9470	01/19/99	900418
			41.2510	6.8525	02/16/99	900973
			61.5230	10.2430	03/16/99	901526
			87.5990	8.2690	04/13/99	902106
			32.4130	5.6238	05/11/99	902748
			7.7392	5.3761	06/08/99	903327
			63.4730	8.5237	07/06/99	903917
			22.6790	8.1181	08/03/99	904480
			10.5410	9.9618	08/31/99	905046
			11.8803	7.3223	09/28/99	905569
			53.8285	9.9058	10/26/99	906217
			32.6491	14.7342	11/22/99	906704
			68.7783	10.2222	12/20/99	907209
		K-40	4352.1001	307.5400	01/19/99	900418
			6961.7002	384.3600	02/16/99	900973
			5865.2002	356.2600	03/16/99	901526
			5784.5000	348.2600	04/13/99	902106
			4906.5000	269.8700	05/11/99	902748
			4745.6001	260.4100	06/08/99	903327
			4194.7002	235.5300	07/06/99	903917
			6560.5000	360.1800	08/03/99	904480
			7250.0977	802.7132	08/31/99	905046
			8096.3779	427.5571	09/28/99	905569
			7067.4829	359.8891	10/26/99	906217
			6734.1353	414.2772	11/22/99	906704
			6175.8760	369.1079	12/20/99	907209
		PA-234M	1399.2615	417.4638	10/26/99	906217
		PB-212	8.0734	6.2255	01/19/99	900418
			.8918	4.0569	07/06/99	903917
			3.0643	6.0393	08/31/99	905046
		PB-214	59.3850	13.5050	01/19/99	900418
			37.7180	8.3357	02/16/99	900973
			59.3080	8.6782	03/16/99	901526
			76.5880	9.0587	04/13/99	902106
			35.2310	5.7223	05/11/99	902748
			17.2310	6.0174	06/08/99	903327
			50.6000	11.7620	07/06/99	903917

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
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WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN WET VEGETATION
PCI/KG - 0.037 BQ/KG (WET WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3115 LAYMAN FARM	1.3 MILES SSW	GAMMA SCAN (GELI)				
		PB-214	23.7140	5.6101	08/03/99	904480
			10.5093	5.6385	08/31/99	905046
			17.2481	6.6650	09/28/99	905569
			40.0410	10.4345	10/26/99	906217
			39.8667	10.6751	11/22/99	906704
			72.9249	10.2433	12/20/99	907209
		TL-208	1.6173	2.2745	05/11/99	902748
			5.0678	2.5067	07/06/99	903917
		SR 89				
			3.0900	9.3800	03/16/99	901526
			-.1010	11.5700	06/08/99	903327
			-1.6633	12.9611	08/31/99	905046
			-10.6199	24.4110	11/22/99	906704
		SR 90				
			4.0600	3.4000	03/16/99	901526
			6.5600	5.7400	06/08/99	903327
			13.2397	4.5481	08/31/99	905046
			48.5280	8.1979	11/22/99	906704
3209 OWEN HENDERSON FARM	4.8 MILES WSW	IODINE-131				
			1.1400	1.9000	01/19/99	900427
			-.6400	3.3000	02/16/99	900983
			.1600	3.4300	03/16/99	901536
			1.2600	2.1100	04/13/99	902115
			1.3200	2.2100	05/11/99	902757
			.3200	2.0400	06/08/99	903336
			.9700	1.6300	07/06/99	903926
			-.6500	1.5400	08/03/99	904490
			.4100	1.5400	08/31/99	905055
			2.1200	2.2100	09/28/99	905579
			1.7004	2.8408	10/26/99	906235
			1.2771	2.1336	11/22/99	906713
			.4596	1.7203	12/20/99	907218
		GAMMA SCAN (GELI)				
		AC-228	27.2590	13.8380	02/16/99	900983

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN WET VEGETATION
PCI/KG - 0.037 BQ/KG (WET WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3209 OWEN HENDERSON FARM 4.8 MILES WSW	GAMMA SCAN (GELI)				
	AC-228	41.0480	12.8436	12/20/99	907218
	BE-7	4624.1001	227.6600	01/19/99	900427
		1872.0000	124.4000	02/16/99	900983
		1294.5000	88.8520	03/16/99	901536
		323.2500	49.2300	04/13/99	902115
		336.8100	32.5330	05/11/99	902757
		156.2000	25.4930	06/08/99	903336
		1035.3000	90.3950	07/06/99	903926
		739.9800	55.8290	08/03/99	904490
		498.5354	50.5576	08/31/99	905055
		420.9021	37.9580	09/28/99	905579
		464.2903	55.3938	10/26/99	906235
		686.9853	54.0979	11/22/99	906713
		1285.8461	96.6730	12/20/99	907218
	BI-214	132.1900	18.3920	01/19/99	900427
		34.4680	8.2538	02/16/99	900983
		67.4960	12.1610	03/16/99	901536
		49.0650	8.7872	04/13/99	902115
		41.7270	8.0123	05/11/99	902757
		56.6740	8.2613	06/08/99	903336
		74.5400	16.0660	07/06/99	903926
		23.7280	8.7780	08/03/99	904490
		28.3320	10.5019	08/31/99	905055
		13.6060	6.2834	09/28/99	905579
		44.8490	10.1455	10/26/99	906235
		42.9571	10.3111	11/22/99	906713
		34.9681	10.6016	12/20/99	907218
	K-40	5462.2002	371.3400	01/19/99	900427
		8062.5000	407.9700	02/16/99	900983
		5975.3999	335.2600	03/16/99	901536
		5842.2002	321.8300	04/13/99	902115
		6301.0000	362.2400	05/11/99	902757
		6482.7002	364.9200	06/08/99	903336
		5768.3999	372.0100	07/06/99	903926
		7198.7998	371.6500	08/03/99	904490
		7418.5825	397.2421	08/31/99	905055
		4624.5269	264.4147	09/28/99	905579
		5305.6133	373.9282	10/26/99	906235

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN WET VEGETATION
PCI/KG - 0.037 BQ/KG (WET WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3209 OWEN HENDERSON FARM 4.8 MILES WSW	GAMMA SCAN (GELI)				
	K-40	7475.3813	406.2130	11/22/99	906713
		6765.4336	360.6436	12/20/99	907218
	PB-212	15.7820	5.4596	07/06/99	903926
	PB-214	126.6400	15.6580	01/19/99	900427
		15.5400	7.6850	02/16/99	900983
		42.3650	9.8645	03/16/99	901536
		53.6320	5.7283	04/13/99	902115
		29.2090	7.5847	05/11/99	902757
		56.2840	8.6805	06/08/99	903336
		49.8110	12.5390	07/06/99	903926
		29.1260	7.0942	08/03/99	904490
		25.7587	10.0430	08/31/99	905055
		14.2849	6.6118	09/28/99	905579
		40.0076	10.4467	10/26/99	906235
		31.4535	7.2808	11/22/99	906713
		41.7093	7.6474	12/20/99	907218
	TL-208	2.0275	3.6674	02/16/99	900983
	SR 89				
		2.0400	10.1500	03/16/99	901536
		10.5100	8.4900	06/08/99	903336
		1.8434	19.5392	08/31/99	905055
		7.4932	12.8482	11/22/99	906713
	SR 90				
		9.8300	3.8400	03/16/99	901536
		16.0800	4.5600	06/08/99	903336
		34.4944	7.5355	08/31/99	905055
		10.2406	3.3906	11/22/99	906713

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN SOIL
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116 RM-2 DAYTON TN	15.0 MILES SW	GAMMA SCAN (GELI)				
		AC-228	.7294	.0566	06/29/99	903753
		BE-7	.1362	.0305	06/29/99	903753
		BI-212	.8305	.0938	06/29/99	903753
		BI-214	.6542	.0350	06/29/99	903753
		CS-137	.1435	.0153	06/29/99	903753
		K-40	4.1093	.2841	06/29/99	903753
		PB-212	.7273	.0367	06/29/99	903753
		PB-214	.7440	.0419	06/29/99	903753
		RA-224	.7199	.1323	06/29/99	903753
		RA-226	.6542	.0350	06/29/99	903753
		TL-208	.2450	.0151	06/29/99	903753
		SR 89	-.1850	.3580	06/29/99	903753
		SR 90	.1090	.1580	06/29/99	903753
3101 LM1	0.5 MILES SSW	GAMMA SCAN (GELI)				
		AC-228	1.1375	.0667	06/29/99	903781
		BI-212	1.1749	.1208	06/29/99	903781
		BI-214	.8431	.0434	06/29/99	903781
		CS-137	.1915	.0134	06/29/99	903781
		K-40	14.5930	.6762	06/29/99	903781
		PB-212	1.1553	.0565	06/29/99	903781
		PB-214	.9200	.0424	06/29/99	903781
		RA-224	1.3211	.1619	06/29/99	903781
		RA-226	.8431	.0434	06/29/99	903781
		TL-208	.3871	.0206	06/29/99	903781
		SR 89	-.0064	.3210	06/29/99	903781
		SR 90	.1090	.1180	06/29/99	903781
3102 LM2	0.5 MILES N	GAMMA SCAN (GELI)				
		AC-228	1.0420	.0694	06/29/99	903786

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN SOIL
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3102 LM2	0.5 MILES N	GAMMA SCAN (GELI)				
		BI-212	.9261	.0980	06/29/99	903786
		BI-214	.7269	.0380	06/29/99	903786
		CS-137	.3063	.0212	06/29/99	903786
		K-40	12.6090	.6026	06/29/99	903786
		PB-212	1.0471	.0503	06/29/99	903786
		PB-214	.7958	.0412	06/29/99	903786
		RA-224	1.2482	.1366	06/29/99	903786
		RA-226	.7269	.0380	06/29/99	903786
		TL-208	.3085	.0177	06/29/99	903786
		SR 89	-.1910	.3370	06/29/99	903786
		SR 90	.1230	.1230	06/29/99	903786
3106 PM2 SPRING CITY	7.0 MILES NW	GAMMA SCAN (GELI)				
		AC-228	.8647	.0568	06/29/99	903789
		BE-7	.1233	.0507	06/29/99	903789
		BI-212	.9014	.0850	06/29/99	903789
		BI-214	.6874	.0388	06/29/99	903789
		CS-137	.6310	.0351	06/29/99	903789
		K-40	6.3251	.3467	06/29/99	903789
		PB-212	.7774	.0432	06/29/99	903789
		PB-214	.7091	.0419	06/29/99	903789
		RA-224	.9031	.1388	06/29/99	903789
		RA-226	.6874	.0388	06/29/99	903789
		TL-208	.2580	.0166	06/29/99	903789
		SR 89	.4310	.3660	06/29/99	903789
		SR 90	-.0279	.1280	06/29/99	903789
3107 PM3	10.4 MILES NNE	GAMMA SCAN (GELI)				
		AC-228	.8217	.0643	06/29/99	903792
		BI-212	.7991	.1286	06/29/99	903792

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN SOIL
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3107 PM3	10.4 MILES NNE	GAMMA SCAN (GELI)				
		BI-214	.7280	.0438	06/29/99	903792
		CS-137	.2494	.0202	06/29/99	903792
		K-40	3.3890	.2552	06/29/99	903792
		PB-212	.8082	.0501	06/29/99	903792
		PB-214	.8241	.0557	06/29/99	903792
		RA-226	.7280	.0438	06/29/99	903792
		TL-208	.2520	.0194	06/29/99	903792
		SR 89	.4860	.3340	06/29/99	903792
		SR 90	-.0740	.1160	06/29/99	903792
3108 PM4	7.6 MILES NE/ENE	GAMMA SCAN (GELI)				
		AC-228	1.2993	.0814	06/30/99	903795
		BI-212	1.2807	.1019	06/30/99	903795
		BI-214	.6658	.0328	06/30/99	903795
		K-40	18.4920	.8546	06/30/99	903795
		PB-212	1.3003	.0611	06/30/99	903795
		PB-214	.7248	.0415	06/30/99	903795
		RA-224	1.4273	.1740	06/30/99	903795
		RA-226	.6658	.0328	06/30/99	903795
		TL-208	.3839	.0198	06/30/99	903795
		SR 89	.2380	.3520	06/30/99	903795
		SR 90	.0062	.1280	06/30/99	903795
3109 PM5 DECATUR	6.2 MILES S	GAMMA SCAN (GELI)				
		AC-228	1.2215	.0871	06/30/99	903798
		BI-212	1.3286	.1093	06/30/99	903798
		BI-214	.7039	.0417	06/30/99	903798
		CS-137	.3804	.0199	06/30/99	903798
		K-40	8.7320	.4793	06/30/99	903798
		PB-212	1.2044	.0603	06/30/99	903798

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WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN SOIL
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3109 PM5 DECATUR	6.2 MILES S	GAMMA SCAN (GELI)				
		PB-214	.7888	.0474	06/30/99	903798
		RA-224	1.3691	.1914	06/30/99	903798
		RA-226	.7039	.0417	06/30/99	903798
		TL-208	.3939	.0214	06/30/99	903798
		SR 89	.0429	.3700	06/30/99	903798
		SR 90	.1240	.1370	06/30/99	903798
3203 LM3	1.9 MILES NNE	GAMMA SCAN (GELI)				
		AC-228	.9587	.0551	06/30/99	903801
		BI-212	.9487	.0907	06/30/99	903801
		BI-214	.8260	.0492	06/30/99	903801
		CS-137	.5065	.0267	06/30/99	903801
		K-40	4.5521	.2803	06/30/99	903801
		PB-212	.9002	.0514	06/30/99	903801
		PB-214	.8935	.0421	06/30/99	903801
		RA-224	1.2201	.2194	06/30/99	903801
		RA-226	.8260	.0492	06/30/99	903801
		TL-208	.2872	.0186	06/30/99	903801
		SR 89	.4570	.3690	06/30/99	903801
		SR 90	-.1100	.1310	06/30/99	903801
3204 LM-4 WB	0.9 MILES SE	GAMMA SCAN (GELI)				
		AC-228	1.3535	.0796	06/30/99	903804
		BI-212	1.3100	.1252	06/30/99	903804
		BI-214	.7248	.0412	06/30/99	903804
		CS-137	.0545	.0068	06/30/99	903804
		K-40	26.0770	1.1409	06/30/99	903804
		PB-212	1.2872	.0657	06/30/99	903804
		PB-214	.8062	.0436	06/30/99	903804
		RA-226	.7248	.0412	06/30/99	903804

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN SOIL
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3204 LM-4 WB	0.9 MILES SE	GAMMA SCAN (GELI)				
		TL-208	.3946	.0220	06/30/99	903804
		SR 89	.2430	.4370	06/30/99	903804
		SR 90	-.0602	.1560	06/30/99	903804
3205 RM-3 WB	15 MILES NNW	GAMMA SCAN (GELI)				
		AC-228	.5908	.0502	06/29/99	903807
		BI-212	.7222	.0870	06/29/99	903807
		BI-214	.5270	.0330	06/29/99	903807
		CS-137	.5816	.0318	06/29/99	903807
		K-40	4.2740	.2711	06/29/99	903807
		PB-212	.5592	.0343	06/29/99	903807
		PB-214	.6115	.0369	06/29/99	903807
		RA-224	.6671	.1311	06/29/99	903807
		RA-226	.5270	.0330	06/29/99	903807
		TL-208	.2044	.0135	06/29/99	903807
		SR 89	.2790	.4200	06/29/99	903807
		SR 90	-.0537	.1480	06/29/99	903807

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN APPLES
PCI/KG - 0.037 BQ/KG (WET WT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116 RM-2 DAYTON TN	15.0 MILES SW	GAMMA SCAN (GELI)				
		BI-214	2.1028	5.4711	07/20/99	902357
		K-40	1140.5000	108.7600	07/20/99	902357
3171 2.0 MILES WNW		GAMMA SCAN (GELI)				
		K-40	880.3200	103.0200	07/13/99	902423

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CABBAGE
PCI/KG - 0.037 BQ/KG (WET WT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116 RM-2 DAYTON TN	15.0 MILES SW	GAMMA SCAN (GELI)				
		BI-214	2.0624	4.7457	08/10/99	902359
		K-40	1332.1000	126.9900	08/10/99	902359
		PB-214	8.8705	11.5090	08/10/99	902359
3116 MULLINS FARM	3.7 M. ESE	GAMMA SCAN (GELI)				
		BI-214	8.6749	7.8339	07/06/99	902419
		K-40	1373.8000	128.3900	07/06/99	902419

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CORN
PCI/KG - 0.037 BQ/KG (WET WT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116 RM-2 DAYTON TN	15.0 MILES SW	GAMMA SCAN (GELI)				
		BI-214	18.1120	7.8686	07/20/99	902355
		K-40	2203.2000	171.0200	07/20/99	902355
		PB-214	20.0600	8.1745	07/20/99	902355
3170 2.0 MILES W		GAMMA SCAN (GELI)				
		K-40	2544.5000	185.7800	07/13/99	902421

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN GREEN BEANS
PCI/KG - 0.037 BQ/KG (WET WT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116 RM-2 DAYTON TN	17.8 MILES NNE	GAMMA SCAN (GELI)				
		BI-214	26.6550	9.7314	07/20/99	902356
		K-40	2139.5000	230.5000	07/20/99	902356
		PB-212	2.3391	6.4966	07/20/99	902356
3170 2.0 MILES W		GAMMA SCAN (GELI)				
		K-40	1987.3000	158.4800	06/22/99	902418

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN POTATOES
PCI/KG - 0.037 BQ/KG (WET WT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116 RM-2 DAYTON TN	15.0 MILES SW	GAMMA SCAN (GELI)				
		BI-214	12.2420	6.1882	07/20/99	902358
		K-40	3351.6001	222.8900	07/20/99	902358
		PB-212	2.3585	5.6452	07/20/99	902358
		PB-214	18.4190	6.2447	07/20/99	902358
3171 2.0 MILES WNW		GAMMA SCAN (GELI)				
		BI-214	28.5850	11.6050	07/13/99	902422
		K-40	3929.3999	280.9000	07/13/99	902422
		PB-214	32.0320	11.5540	07/13/99	902422

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN TOMATOES
PCI/KG - 0.037 BQ/KG (WET WT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116 RM-2 DAYTON TN	15.0 MILES SW	GAMMA SCAN (GELI)				
		BI-214	4.5868	7.5604	08/03/99	902361
		K-40	2277.5000	189.0100	08/03/99	902361
		PB-212	2.7825	6.2145	08/03/99	902361
		PB-214	13.6360	7.3162	08/03/99	902361
3170 2.0 MILES W		GAMMA SCAN (GELI)				
		K-40	2017.1000	154.7000	07/20/99	904536
		PB-214	4.4611	7.2697	07/20/99	904536

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CONTIN. SURFACE WATER(Total)
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3133 TRM 529.3	GROSS BETA				
		3.0564	.6636	01/05/99	900197
		2.6177	.6340	02/02/99	900741
		2.3118	.6627	03/02/99	901280
		2.3894	.6281	03/30/99	901822
		1.9570	.5696	04/27/99	902444
		1.9318	.5982	05/25/99	903036
		2.9219	.6512	06/22/99	903613
		1.8710	.5949	07/20/99	904178
		2.6750	.6309	08/17/99	904752
		2.0738	.6091	09/14/99	905306
		3.1623	.6774	10/12/99	905871
		2.3692	.6227	11/08/99	906470
		2.3749	.6222	12/07/99	906989
	GAMMA SCAN (GELI)				
		NO ACTIVITY DETECTED		03/30/99	901822
	AC-228	1.1280	4.5606	02/02/99	900741
		1.8917	3.4257	03/02/99	901280
		2.3217	4.1142	08/17/99	904752
	BI-214	21.0480	2.6688	01/05/99	900197
		9.7740	2.9449	02/02/99	900741
		13.5400	3.3148	04/27/99	902444
		10.0900	3.3330	05/25/99	903036
		1.2386	2.4867	06/22/99	903613
		4.0941	2.9760	07/20/99	904178
		3.9982	8.8999	09/14/99	905306
		2.6410	3.3835	10/12/99	905871
		5.2191	3.4522	11/08/99	906470
	K-40	11.9500	9.2518	01/05/99	900197
		9.9786	14.2150	03/02/99	901280
		2.4063	16.6030	05/25/99	903036
		4.1354	21.5520	06/22/99	903613
		9.4805	16.1761	10/12/99	905871
		19.0232	15.9580	11/08/99	906470
		38.2980	22.3072	12/07/99	906989
	PB-212	.5742	2.2859	02/02/99	900741
		2.9546	1.7634	05/25/99	903036
		2.0733	2.0267	08/17/99	904752

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CONTIN. SURFACE WATER(Total)
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3133 TRM 529.3	GAMMA SCAN (GELI)				
	PB-214	14.3310	2.5794	01/05/99	900197
		6.9873	2.7684	02/02/99	900741
		4.0175	2.9904	03/02/99	901280
		12.0880	4.5743	04/27/99	902444
		8.2656	3.0588	05/25/99	903036
		1.3885	3.2844	06/22/99	903613
		3.2899	3.5629	11/08/99	906470
	TL-208	.7554	1.1139	02/02/99	900741
		1.5050	1.4093	08/17/99	904752
	SR 89				
		1.7300	1.3300	03/02/99	901291
		2.3500	1.4400	05/25/99	903047
		1.3300	1.8300	08/17/99	904763
		-.2357	1.7799	12/07/99	907000
	SR 90				
		-.0616	.4630	03/02/99	901291
		-.2470	.5020	05/25/99	903047
		.2130	.6370	08/17/99	904763
		.8684	.6021	12/07/99	907000
	TRITIUM				
		90.1800	78.4100	03/02/99	901291
		164.7100	78.1600	05/25/99	903047
		-20.9056	76.1844	08/17/99	904763
		-103.4127	80.3487	12/07/99	907000
3134 TRM 517.9	GROSS BETA				
		2.6206	.6426	01/05/99	900199
		2.7318	.6480	02/02/99	900743
		2.6939	.6823	03/02/99	901282
		2.2038	.6029	03/30/99	901824
		2.8264	.6271	04/27/99	902446
		1.7097	.5795	05/25/99	903038
		2.1047	.6198	06/22/99	903615
		2.7409	.6477	07/20/99	904180
		1.7117	.5802	08/17/99	904754

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CONTIN. SURFACE WATER(Total)
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3134 TRM 517.9	GROSS BETA				
		1.6399	.5920	09/14/99	905308
		2.4603	.6330	10/12/99	905873
		1.6068	.5839	11/08/99	906472
		2.0812	.6152	12/07/99	906991
	GAMMA SCAN (GELI)				
		NO ACTIVITY DETECTED		08/17/99	904754
	AC-228	7.1046	3.8899	03/30/99	901824
		2.6999	3.2272	12/07/99	906991
	BI-214	20.9570	6.0809	01/05/99	900199
		2.6282	2.9471	02/02/99	900743
		6.4308	3.2714	03/02/99	901282
		8.6096	2.9910	04/27/99	902446
		4.2330	1.8557	05/25/99	903038
		6.7762	3.8891	06/22/99	903615
		1.2609	3.3524	07/20/99	904180
		2.4992	2.6238	09/14/99	905308
		1.8359	3.0788	10/12/99	905873
		.9124	2.4512	11/08/99	906472
		2.8247	2.6735	12/07/99	906991
	K-40	5.2742	16.9270	02/02/99	900743
		.3240	16.9760	09/14/99	905308
	PB-214	8.6727	4.8572	01/05/99	900199
		3.0261	3.5321	02/02/99	900743
		7.7222	2.8508	03/30/99	901824
		7.7365	2.7155	04/27/99	902446
		.0055	2.5045	05/25/99	903038
	TL-208	1.2322	.9303	05/25/99	903038
	SR 89				
		2.4000	1.7300	03/02/99	901292
		-.4180	1.3800	05/25/99	903048
		.5290	1.7900	08/17/99	904764
		1.0820	1.9116	12/07/99	907001
	SR 90				
		-.3150	.5900	03/02/99	901292
		.5580	.4940	05/25/99	903048

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
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WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CONTIN. SURFACE WATER(Total)
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3134 TRM 517.9	SR 90				
		.0644	.6200	08/17/99	904764
		.2998	.6312	12/07/99	907001
	TRITIUM				
		164.8900	79.9200	03/02/99	901292
		139.5800	77.5800	05/25/99	903048
		34.8426	77.4613	08/17/99	904764
		-92.2330	80.5087	12/07/99	907001
3135 TRM 523.1	GROSS BETA				
		3.1584	.6689	01/05/99	900200
		2.7800	.6487	02/02/99	900744
		3.2395	.7090	03/02/99	901283
		2.1454	.6176	03/30/99	901825
		2.1017	.5859	04/27/99	902447
		2.1725	.6119	05/25/99	903039
		2.0755	.6104	06/22/99	903616
		2.4581	.6352	07/20/99	904181
		3.2174	.6652	08/17/99	904755
		3.8676	.7075	09/14/99	905309
		2.8071	.6476	11/08/99	906473
		3.1149	.6679	12/07/99	906992
	GAMMA SCAN (GELI)				
		NO ACTIVITY DETECTED		09/14/99	905309
	AC-228	9.7386	3.9783	03/02/99	901283
	BI-214	15.2310	3.4770	01/05/99	900200
		8.8289	3.0396	02/02/99	900744
		12.8240	3.7144	03/02/99	901283
		15.2380	3.8527	03/30/99	901825
		7.2489	2.6515	04/27/99	902447
		1.9275	2.4225	05/25/99	903039
		.6087	2.4425	07/20/99	904181
		9.7526	2.6098	11/08/99	906473
		4.9495	3.1449	12/07/99	906992
	K-40	.7231	16.2670	05/25/99	903039
		9.5092	16.5060	08/17/99	904755
	PB-212	2.5327	1.5962	04/27/99	902447

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CONTIN. SURFACE WATER(Total)
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3135 TRM 523.1	GAMMA SCAN (GELI)				
	PB-212	1.5877	1.4927	05/25/99	903039
		1.3559	1.3271	06/22/99	903616
		2.1824	1.8655	11/08/99	906473
	PB-214	8.2438	3.8673	01/05/99	900200
		5.3430	3.7604	02/02/99	900744
		7.0637	2.7247	03/02/99	901283
		4.3390	3.8701	03/30/99	901825
		5.6143	3.4774	04/27/99	902447
		3.3109	3.0905	05/25/99	903039
		6.3575	3.3692	11/08/99	906473
	SR 89				
		1.0600	1.3900	03/02/99	901293
		.0308	1.6700	05/25/99	903049
		1.4900	1.6900	08/17/99	904765
		2.3471	1.9669	12/07/99	907002
	SR 90				
		-.0251	.4810	03/02/99	901293
		.4420	.5970	05/25/99	903049
		-.0256	.5820	08/17/99	904765
		-.3147	.6366	12/07/99	907002
	TRITIUM				
		118.5200	78.9600	03/02/99	901293
		178.6700	78.4800	05/25/99	903049
		20.9056	77.1345	08/17/99	904765
		-134.1571	79.9272	12/07/99	907002

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CONTINUOUS PUBLIC WATER
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION			ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116	DAYTON TN	TRM 503.8	GROSS BETA				
				2.3932	.6284	01/19/99	900371
				3.4012	.6883	02/16/99	900926
				2.1703	.6086	03/16/99	901478
				2.9838	.6574	04/13/99	902058
				3.0896	.6396	05/11/99	902701
				1.7035	.5931	06/08/99	903278
				2.0124	.6188	07/06/99	903871
				2.7260	.6410	08/03/99	904434
				2.0891	.6091	08/31/99	904998
				1.8684	.6053	09/28/99	905523
				3.6387	.6923	10/26/99	906152
				3.8999	.7115	11/22/99	906659
				3.9854	.7300	12/20/99	907162
			GAMMA SCAN (GELI)				
			AC-228	5.0032	4.5474	04/13/99	902058
				5.6351	4.6177	05/11/99	902701
				4.1030	3.8937	07/06/99	903871
				11.1280	5.5520	08/03/99	904434
				1.3247	3.5479	09/28/99	905523
				.4054	3.8297	12/20/99	907162
			BI-214	16.2150	3.6691	01/19/99	900371
				58.9270	5.5703	02/16/99	900926
				10.0280	2.9470	03/16/99	901478
				7.7931	3.0920	04/13/99	902058
				18.1810	2.9745	05/11/99	902701
				1.4343	2.6614	06/08/99	903278
				5.3043	2.8021	08/31/99	904998
				.6742	7.7827	10/26/99	906152
				2.3301	2.7344	11/22/99	906659
				5.1258	3.7198	12/20/99	907162
			K-40	8.4863	23.6830	04/13/99	902058
				.6684	25.2610	07/06/99	903871
				20.9900	21.4000	08/31/99	904998
				18.3847	10.6135	11/22/99	906659
			PB-212	2.0890	1.8031	01/19/99	900371
				3.8590	2.0434	02/16/99	900926
				3.2220	1.9449	03/16/99	901478

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
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WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CONTINUOUS PUBLIC WATER
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION			ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2116	DAYTON TN	TRM 503.8	GAMMA SCAN (GELI)				
			PB-212	2.3899	1.9500	04/13/99	902058
				.8002	3.1283	05/11/99	902701
				.4309	1.9493	08/31/99	904998
			PB-214	8.8120	2.5254	01/19/99	900371
				34.9100	5.8882	02/16/99	900926
				4.5237	2.9750	03/16/99	901478
				5.3337	3.7729	04/13/99	902058
				10.1220	3.2900	05/11/99	902701
				.9069	1.9511	08/31/99	904998
			TL-208	1.2146	1.4344	03/16/99	901478
				2.3665	1.4398	04/13/99	902058
				1.6505	1.8132	05/11/99	902701
				.1116	1.7100	08/31/99	904998
			SR 89				
				.1340	1.1200	03/16/99	901572
				1.2800	1.4100	06/08/99	903372
				2.1100	1.4300	08/31/99	905091
				-.1518	1.4899	12/20/99	907254
			SR 90				
				.3760	.4740	03/16/99	901572
				.0457	.5540	06/08/99	903372
				-.4030	.5990	08/31/99	905091
				.4798	.5900	12/20/99	907254
			TRITIUM				
				110.5500	78.6400	03/16/99	901572
				197.7800	78.7800	06/08/99	903372
				48.6748	77.6258	08/31/99	905091
				-58.5765	80.8486	12/20/99	907254
2140	CF INDUSTRIES	TRM 473.0	GROSS BETA				
				2.9881	.6396	01/12/99	900376
				2.5032	.6169	02/11/99	900930
				2.0180	.5846	03/18/99	901482
				2.8322	.6317	04/12/99	902062
				3.3191	.6379	05/07/99	902705

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WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CONTINUOUS PUBLIC WATER
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2140 CF INDUSTRIES	TRM 473.0	GROSS BETA				
			2.0260	.5855	06/03/99	903282
			1.6106	.5635	07/01/99	903875
			2.3107	.6188	07/28/99	904438
			2.8280	.6423	08/30/99	905003
			1.6714	.5885	09/28/99	905527
			3.1123	.6602	10/25/99	906156
			2.6311	.6241	11/19/99	906663
			3.0778	.6688	12/15/99	907166
		GAMMA SCAN (GELI)				
			NO ACTIVITY DETECTED		07/01/99	903875
			NO ACTIVITY DETECTED		07/28/99	904438
		AC-228	1.6676	3.5864	06/03/99	903282
			11.4490	3.2282	09/28/99	905527
		BI-214	10.2880	4.0547	01/12/99	900376
			19.7940	4.8028	02/11/99	900930
			8.1804	2.6600	03/18/99	901482
			.8636	2.6324	04/12/99	902062
			12.0350	3.8977	05/07/99	902705
			10.1320	2.9471	06/03/99	903282
			.7867	2.9291	08/30/99	905003
			5.5039	3.4727	11/19/99	906663
			10.3331	3.5508	12/15/99	907166
		K-40	5.5808	19.5980	02/11/99	900930
			7.4573	16.9520	03/18/99	901482
			3.6690	21.0660	04/12/99	902062
			27.7910	22.2340	06/03/99	903282
			10.2999	11.0864	09/28/99	905527
			7.9621	17.9155	10/25/99	906156
		PB-214	5.6918	2.9327	01/12/99	900376
			7.2572	2.5512	02/11/99	900930
			8.0790	3.0692	03/18/99	901482
			5.8115	2.1861	06/03/99	903282
			5.7802	2.6760	11/19/99	906663
		TL-208	.2104	1.0778	08/30/99	905003
			1.6026	1.4897	10/25/99	906156
		SR 89				
			.4190	1.6700	03/18/99	901573

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
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PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2140 CF INDUSTRIES TRM 473.0	SR 89				
		.6850	1.6200	06/03/99	903373
		.8980	1.4500	08/30/99	905092
		.4960	1.4168	12/20/99	907255
	SR 90				
		.3750	.6580	03/18/99	901573
		.1800	.5920	06/03/99	903373
		.1920	.6080	08/30/99	905092
		.3530	.5591	12/20/99	907255
	TRITIUM				
		100.2400	78.4100	03/18/99	901573
		236.9700	79.7900	06/03/99	903373
		100.8419	78.9217	08/30/99	905092
		-145.0467	79.6215	12/20/99	907255
3133 TRM 529.3	GROSS BETA				
		3.0564	.6636	01/05/99	900197
		2.6177	.6340	02/02/99	900741
		2.3118	.6627	03/02/99	901280
		2.3894	.6281	03/30/99	901822
		1.9570	.5696	04/27/99	902444
		1.9318	.5982	05/25/99	903036
		2.9219	.6512	06/22/99	903613
		1.8710	.5949	07/20/99	904178
		2.6750	.6309	08/17/99	904752
		2.0738	.6091	09/14/99	905306
		3.1623	.6774	10/12/99	905871
		2.3692	.6227	11/08/99	906470
		2.3749	.6222	12/07/99	906989
	GAMMA SCAN (GELI)				
		NO ACTIVITY DETECTED		03/30/99	901822
	AC-228	1.1280	4.5606	02/02/99	900741
		1.8917	3.4257	03/02/99	901280
		2.3217	4.1142	08/17/99	904752
	BI-214	21.0480	2.6688	01/05/99	900197
		9.7740	2.9449	02/02/99	900741

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
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WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CONTINUOUS PUBLIC WATER
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3133 TRM 529.3	GAMMA SCAN (GELI)				
	BI-214	13.5400	3.3148	04/27/99	902444
		10.0900	3.3330	05/25/99	903036
		1.2386	2.4867	06/22/99	903613
		4.0941	2.9760	07/20/99	904178
		3.9982	8.8999	09/14/99	905306
		2.6410	3.3835	10/12/99	905871
		5.2191	3.4522	11/08/99	906470
	K-40	11.9500	9.2518	01/05/99	900197
		9.9786	14.2150	03/02/99	901280
		2.4063	16.6030	05/25/99	903036
		4.1354	21.5520	06/22/99	903613
		9.4805	16.1761	10/12/99	905871
		19.0232	15.9580	11/08/99	906470
		38.2980	22.3072	12/07/99	906989
	PB-212	.5742	2.2859	02/02/99	900741
		2.9546	1.7634	05/25/99	903036
		2.0733	2.0267	08/17/99	904752
	PB-214	14.3310	2.5794	01/05/99	900197
		6.9873	2.7684	02/02/99	900741
		4.0175	2.9904	03/02/99	901280
		12.0880	4.5743	04/27/99	902444
		8.2656	3.0588	05/25/99	903036
		1.3885	3.2844	06/22/99	903613
		3.2899	3.5629	11/08/99	906470
	TL-208	.7554	1.1139	02/02/99	900741
		1.5050	1.4093	08/17/99	904752
	SR 89				
		1.7300	1.3300	03/02/99	901291
		2.3500	1.4400	05/25/99	903047
		1.3300	1.8300	08/17/99	904763
		-.2357	1.7799	12/07/99	907000
	SR 90				
		-.0616	.4630	03/02/99	901291
		-.2470	.5020	05/25/99	903047
		.2130	.6370	08/17/99	904763
		.8684	.6021	12/07/99	907000

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WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CONTINUOUS PUBLIC WATER
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3133 TRM 529.3	TRITIUM				
		90.1800	78.4100	03/02/99	901291
		164.7100	78.1600	05/25/99	903047
		-20.9056	76.1844	08/17/99	904763
		-103.4127	80.3487	12/07/99	907000

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WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CONTIN. WELL WATER(Total)
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3121 WBN WELL #1	0.6 MILES S	GROSS BETA				
			5.3901	1.2164	03/02/99	901294
			5.1777	1.0172	05/25/99	903050
			5.8702	1.0294	08/17/99	904766
			4.7731	1.0811	12/07/99	907003
		GAMMA SCAN (GELI)				
		AC-228	.8348	3.6903	03/02/99	901294
			7.6973	2.9638	08/17/99	904766
			9.3037	4.3349	12/07/99	907003
		BI-214	4.2146	2.6925	03/02/99	901294
			4.6044	3.1020	05/25/99	903050
			14.4079	3.4196	12/07/99	907003
		K-40	6.7308	15.9427	08/17/99	904766
			30.8033	18.5590	12/07/99	907003
		PB-212	2.6602	2.0468	12/07/99	907003
		PB-214	3.6167	2.0458	12/07/99	907003
		SR 89				
			1.9900	1.2900	03/02/99	901294
			1.3100	1.5800	05/25/99	903050
			.6720	1.3400	08/17/99	904766
			1.5127	1.7194	12/07/99	907003
		SR 90				
			-.3310	.4440	03/02/99	901294
			-.0563	.5550	05/25/99	903050
			.2530	.4740	08/17/99	904766
			.0686	.5560	12/07/99	907003
		TRITIUM				
			221.5800	81.1700	03/02/99	901294
			279.1700	80.9700	05/25/99	903050
			125.4334	79.7023	08/17/99	904766
			-16.7696	81.6816	12/07/99	907003
3125 WBN WELL #5	ONSITE N	GROSS BETA				
			2.0718	.6270	03/02/99	901295
			2.5219	.6268	05/25/99	903051

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CONTIN. WELL WATER(Total)
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3125 WBN WELL #5 ONSITE N	GROSS BETA				
		2.3835	.6231	08/17/99	904767
		3.5590	.6908	12/07/99	907004
	GAMMA SCAN (GELI)				
	BI-214	8.5887	3.7776	03/02/99	901295
		3.3836	10.6570	05/25/99	903051
		1.5869	2.6631	12/07/99	907004
	K-40	2.0202	15.8270	05/25/99	903051
		17.2879	19.5741	12/07/99	907004
	PB-212	3.0438	2.5381	08/17/99	904767
	PB-214	2.0039	4.1826	03/02/99	901295
	SR 89				
		2.9900	1.4000	03/02/99	901295
		1.0800	1.6700	05/25/99	903051
		.9630	1.5500	08/17/99	904767
		2.0387	1.9342	12/07/99	907004
	SR 90				
		-.8730	.4690	03/02/99	901295
		-.1120	.5860	05/25/99	903051
		-.3480	.5300	08/17/99	904767
		-.0834	.6228	12/07/99	907004
	TRITIUM				
		-20.6100	76.4400	03/02/99	901295
		111.6700	76.9600	05/25/99	903051
		101.0436	79.0795	08/17/99	904767
		-92.2330	80.5087	12/07/99	907004

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN GRAB WELL WATER(Total)
PCI/L - 0.037 BQ/L
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3115 LAYMAN FARM	1.3 MILES SSW	GROSS BETA				
			2.7024	.6840	03/02/99	901273
			1.6011	.5752	05/25/99	903028
			.9943	.5623	08/17/99	904744
			1.1890	.5671	12/07/99	906982
		GAMMA SCAN (GELI)				
		BI-214	393.7600	22.4690	03/02/99	901273
			135.2200	9.9148	05/25/99	903028
			498.3893	27.5544	08/17/99	904744
			530.3828	25.1868	12/07/99	906982
		PB-214	410.9200	20.5450	03/02/99	901273
			151.9500	10.4330	05/25/99	903028
			492.7101	24.6610	08/17/99	904744
			552.0449	29.4112	12/07/99	906982
		SR 89				
			1.9400	1.3200	03/02/99	901273
			-.9530	1.6100	05/25/99	903028
			1.9751	1.9243	08/17/99	904744
			3.0065	1.9372	12/07/99	906982
		SR 90				
			-.1850	.4620	03/02/99	901273
			.7680	.5790	05/25/99	903028
			-.1502	.5715	08/17/99	904744
			-.1386	.6319	12/07/99	906982
		TRITIUM				
			64.4100	77.9100	03/02/99	901273
			94.9100	76.6000	05/25/99	903028
			129.6740	77.1814	08/17/99	904744
			-8.3844	81.8181	12/07/99	906982

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CHANNEL CATFISH FLESH
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2160 CHICKAMAUGA RES	TRM 471-530	GAMMA SCAN (GELI)				
		BI-214	.0214	.0117	04/22/99	902382
			.0915	.0170	10/30/99	906168
		CS-137	.0228	.0055	04/22/99	902382
			.0199	.0037	10/30/99	906168
		K-40	9.5252	.5625	04/22/99	902382
			12.3143	.6534	10/30/99	906168
		PB-212	.0134	.0101	10/30/99	906168
		PB-214	.1153	.0159	10/30/99	906168
2161 WATTS BAR RES	TRM 530-602	GAMMA SCAN (GELI)				
		BI-214	.2377	.0795	04/21/99	902387
			.0818	.0143	10/30/99	906172
		CS-137	.0343	.0058	04/21/99	902387
			.0294	.0057	10/30/99	906172
		K-40	10.9300	.5937	04/21/99	902387
			14.5834	.7463	10/30/99	906172
		PB-214	.0409	.0142	04/21/99	902387
			.1156	.0190	10/30/99	906172
3261 DOWNSTREAM STATION 1	DOWNSTREAM	GAMMA SCAN (GELI)				
		BI-214	.0814	.0222	04/21/99	902463
			.1509	.0175	10/30/99	906236
		CS-137	.0173	.0037	10/30/99	906236
		K-40	8.6426	.6352	04/21/99	902463
			11.9426	.6382	10/30/99	906236
		PB-214	.0816	.0197	04/21/99	902463
			.1571	.0158	10/30/99	906236

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CRAPPIE FLESH
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2160 CHICKAMAUGA RES	TRM 471-530	GAMMA SCAN (GELI)				
		BI-214	.0558	.0131	04/20/99	902385
			.0972	.0203	10/30/99	906171
		CS-137	.0344	.0050	04/20/99	902385
			.0377	.0057	10/30/99	906171
		K-40	14.3120	.7512	04/20/99	902385
			13.9688	.8819	10/30/99	906171
		PB-212	.0068	.0074	10/30/99	906171
		PB-214	.0551	.0145	04/20/99	902385
			.1270	.0135	10/30/99	906171
2161 WATTS BAR RES	TRM 530-602	GAMMA SCAN (GELI)				
		BI-214	.0386	.0117	04/20/99	902389
			.1477	.0232	10/30/99	906174
		CS-137	.0510	.0096	04/20/99	902389
			.0664	.0087	10/30/99	906174
		K-40	13.8390	.7839	04/20/99	902389
			19.0657	.9490	10/30/99	906174
		PB-214	.1589	.0189	10/30/99	906174

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN SMALLMOUTH BUFFALO FLESH
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2160 CHICKAMAUGA RES	TRM 471-530	GAMMA SCAN (GELI)				
		BI-214	.0361	.0143	04/20/99	902384
			.1804	.0227	10/30/99	906170
		CS-137	.0210	.0052	04/20/99	902384
			.0192	.0053	10/30/99	906170
		K-40	10.4520	.6011	04/20/99	902384
			10.3383	.6082	10/30/99	906170
		PB-214	.0144	.0147	04/20/99	902384
			.1526	.0198	10/30/99	906170
2161 WATTS BAR RES	TRM 530-602	GAMMA SCAN (GELI)				
		BI-214	.1219	.0164	03/23/99	902388
			.1369	.0184	10/30/99	906173
		CS-137	.0249	.0076	03/23/99	902388
			.0268	.0072	10/30/99	906173
		K-40	7.8163	.4775	03/23/99	902388
			11.8602	.7160	10/30/99	906173
		PB-214	.0937	.0150	03/23/99	902388
			.1200	.0136	10/30/99	906173

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN SEDIMENT
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
2155 TRM 496.5	GAMMA SCAN (GELI)				
	AC-228	1.4685	.0825	04/28/99	902381
		1.3085	.2668	10/05/99	906165
	BI-212	1.2425	.1338	04/28/99	902381
		1.2978	.1148	10/05/99	906165
	BI-214	1.0505	.0661	04/28/99	902381
		1.0036	.0468	10/05/99	906165
	CO-60	.0223	.0057	04/28/99	902381
	CS-137	.6787	.0389	04/28/99	902381
		.6447	.0370	10/05/99	906165
	K-40	14.3750	.6996	04/28/99	902381
		13.4907	.5885	10/05/99	906165
	PB-212	1.3176	.0699	04/28/99	902381
		1.2282	.0632	10/05/99	906165
	PB-214	1.2046	.0638	04/28/99	902381
		1.1734	.0616	10/05/99	906165
	RA-224	1.0613	.2244	10/05/99	906165
	RA-226	1.0505	.0661	04/28/99	902381
		1.0036	.0468	10/05/99	906165
	TL-208	.4126	.0240	04/28/99	902381
		.4020	.0236	10/05/99	906165
3140 TRM 532.1	GAMMA SCAN (GELI)				
	AC-228	1.6432	.1012	04/28/99	902449
		1.7991	.1243	10/19/99	906220
	BI-212	1.8748	.1738	04/28/99	902449
		1.7228	.1816	10/19/99	906220
	BI-214	1.2196	.0610	04/28/99	902449
		1.4499	.0916	10/19/99	906220
	CO-60	.0355	.0086	04/28/99	902449
	CS-137	1.6794	.0796	04/28/99	902449
		1.4792	.0746	10/19/99	906220
	K-40	16.0930	.7711	04/28/99	902449
		15.9204	.7670	10/19/99	906220
	PB-212	1.7395	.0829	04/28/99	902449
		1.7088	.0984	10/19/99	906220
	PB-214	1.3720	.0641	04/28/99	902449
		1.5788	.0917	10/19/99	906220
	RA-224	1.8523	.2556	04/28/99	902449

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WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN SEDIMENT
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3140 TRM 532.1	GAMMA SCAN (GELI)				
	RA-226	1.2196	.0610	04/28/99	902449
		1.4499	.0916	10/19/99	906220
	TL-208	.5465	.0348	04/28/99	902449
		.5488	.0334	10/19/99	906220
3141 TRM 527.4	GAMMA SCAN (GELI)				
	AC-228	1.3718	.0854	04/28/99	902450
		1.5013	.0976	10/06/99	906221
	BI-212	1.2928	.1303	04/28/99	902450
		1.5377	.1433	10/06/99	906221
	BI-214	.8553	.0494	04/28/99	902450
		1.1186	.0571	10/06/99	906221
	CS-137	.0601	.0074	04/28/99	902450
	K-40	12.2960	.6539	04/28/99	902450
		12.9422	.6002	10/06/99	906221
	PB-212	1.3492	.0637	04/28/99	902450
		1.5049	.0698	10/06/99	906221
	PB-214	.9636	.0536	04/28/99	902450
		1.2025	.0630	10/06/99	906221
	RA-224	1.3395	.1682	04/28/99	902450
		1.7253	.1914	10/06/99	906221
	RA-226	.8553	.0494	04/28/99	902450
		1.1186	.0571	10/06/99	906221
	TL-208	.4308	.0224	04/28/99	902450
		.4795	.0299	10/06/99	906221
3142 TRM 518.0	GAMMA SCAN (GELI)				
	AC-228	1.1329	.0660	05/06/99	902451
		1.1128	.0892	10/06/99	906222
	BE-7	.2242	.0515	05/06/99	902451
	BI-212	1.1495	.1570	05/06/99	902451
		1.0827	.1202	10/06/99	906222
	BI-214	.8637	.0447	05/06/99	902451
		.9816	.0447	10/06/99	906222
	CS-137	.0164	.0036	05/06/99	902451
		.1192	.0135	10/06/99	906222
	K-40	13.4030	.6268	05/06/99	902451
		13.6119	.7140	10/06/99	906222

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WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN SEDIMENT
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3142 TRM 518.0	GAMMA SCAN (GELI)				
	PB-212	1.1043	.0578	05/06/99	902451
		1.1505	.0552	10/06/99	906222
	PB-214	.9319	.0492	05/06/99	902451
		1.0456	.0416	10/06/99	906222
	RA-224	1.0548	.1454	05/06/99	902451
		1.2045	.1529	10/06/99	906222
	RA-226	.8637	.0447	05/06/99	902451
		.9816	.0447	10/06/99	906222
	TL-208	.3377	.0195	05/06/99	902451
		.3743	.0220	10/06/99	906222

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN SHORELINE SEDIMENT
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3191 WATTS BAR RESORT	TRM 530	GAMMA SCAN (GELI)				
		AC-228	.0872	.0159	05/04/99	902454
			.1301	.0147	10/19/99	906225
		BE-7	.2877	.0408	05/04/99	902454
		BI-212	.1556	.0336	10/19/99	906225
		BI-214	.1062	.0116	05/04/99	902454
			.1197	.0130	10/19/99	906225
		CS-137	.0071	.0024	10/19/99	906225
		K-40	.4758	.0674	05/04/99	902454
			.4693	.0642	10/19/99	906225
		PB-212	.0844	.0099	05/04/99	902454
			.0925	.0098	10/19/99	906225
		PB-214	.0907	.0098	05/04/99	902454
			.1242	.0148	10/19/99	906225
		RA-226	.1197	.0130	10/19/99	906225
		TL-208	.0226	.0040	05/04/99	902454
			.0275	.0053	10/19/99	906225
3193 COTTON PORT MARINA	TRM 513	GAMMA SCAN (GELI)				
		AC-228	1.4299	.0906	05/04/99	902455
			1.5128	.0972	10/20/99	906226
		BE-7	.2863	.0602	05/04/99	902455
			.3392	.0591	10/20/99	906226
		BI-212	1.5201	.1314	05/04/99	902455
			1.5168	.1434	10/20/99	906226
		BI-214	.6461	.0403	05/04/99	902455
			.5725	.0325	10/20/99	906226
		CS-137	.0500	.0093	05/04/99	902455
			.0720	.0085	10/20/99	906226
		K-40	32.3810	1.2968	05/04/99	902455
			33.3563	1.3451	10/20/99	906226
		PB-212	1.4651	.0679	05/04/99	902455
			1.4934	.0683	10/20/99	906226
		PB-214	.6643	.0426	05/04/99	902455
			.6419	.0447	10/20/99	906226
		RA-224	1.3786	.1953	05/04/99	902455
			1.5756	.1948	10/20/99	906226
		RA-226	.6461	.0403	05/04/99	902455
			.5725	.0325	10/20/99	906226

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WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN SHORELINE SEDIMENT
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3193 COTTON PORT MARINA TRM 513	GAMMA SCAN (GELI)				
	TL-208	.4751	.0258	05/04/99	902455
		.4756	.0280	10/20/99	906226

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ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
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WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN POND SEDIMENT
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3303 LV-3	LOW VOL WASTE POND	GAMMA SCAN (GELI)				
		AC-228	1.2768	.1121	11/01/99	902468
		BE-7	.5776	.1514	11/01/99	902468
		BI-212	1.3980	.1629	11/01/99	902468
		BI-214	1.1958	.0992	11/01/99	902468
		CS-137	.1245	.0172	11/01/99	902468
		K-40	15.8647	.8584	11/01/99	902468
		PB-212	1.3662	.1304	11/01/99	902468
		PB-214	1.2387	.0916	11/01/99	902468
		TL-208	.4743	.0347	11/01/99	902468
3305 YP-5	YARD POND	GAMMA SCAN (GELI)				
		AC-228	1.1300	.0654	11/01/99	902470
		BE-7	.3201	.0587	11/01/99	902470
		BI-212	1.1047	.1035	11/01/99	902470
		BI-214	.7933	.0471	11/01/99	902470
		CO-60	.0408	.0083	11/01/99	902470
		CS-137	.2366	.0174	11/01/99	902470
		K-40	14.4769	.7331	11/01/99	902470
		PB-212	1.1157	.0715	11/01/99	902470
		PB-214	.9320	.0475	11/01/99	902470
		TL-208	.3426	.0216	11/01/99	902470
3313 YP-13	YARD POND	GAMMA SCAN (GELI)				
		AC-228	1.2117	.0755	11/01/99	902479
		BE-7	.2245	.0515	11/01/99	902479
		BI-212	1.3099	.1432	11/01/99	902479
		BI-214	.8464	.0531	11/01/99	902479
		CO-60	.0294	.0065	11/01/99	902479
		CS-137	.2574	.0188	11/01/99	902479
		K-40	15.8042	.6813	11/01/99	902479
		PB-212	1.2211	.0650	11/01/99	902479
		PB-214	.9346	.0457	11/01/99	902479
		TL-208	.3743	.0217	11/01/99	902479
3316 YP-16	YARD POND	GAMMA SCAN (GELI)				
		AC-228	1.5935	.1290	11/01/99	902482
		BE-7	1.3604	.1815	11/01/99	902482
		BI-212	2.0529	.2852	11/01/99	902482

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN POND SEDIMENT
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION		ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3316 YP-16	YARD POND	GAMMA SCAN (GELI)				
		BI-214	1.3221	.1039	11/01/99	902482
		CO-58	.0364	.0097	11/01/99	902482
		CO-60	.5801	.0518	11/01/99	902482
		CS-134	.2463	.0233	11/01/99	902482
		CS-137	1.2357	.0876	11/01/99	902482
		K-40	16.6292	.8249	11/01/99	902482
		PB-212	1.5498	.0913	11/01/99	902482
		PB-214	1.3138	.0782	11/01/99	902482
		RA-224	2.0038	.2956	11/01/99	902482
		SB-125	.2827	.0347	11/01/99	902482
		TL-208	.5033	.0347	11/01/99	902482
3317 YP-17	YARD POND	GAMMA SCAN (GELI)				
		AC-228	1.3035	.0779	11/01/99	902483
		BI-212	1.2938	.1092	11/01/99	902483
		BI-214	.8426	.0461	11/01/99	902483
		CS-137	.0663	.0077	11/01/99	902483
		K-40	14.8941	.7562	11/01/99	902483
		PB-212	1.2673	.0768	11/01/99	902483
		PB-214	.9515	.0466	11/01/99	902483
		TL-208	.3966	.0227	11/01/99	902483

TENNESSEE VALLEY AUTHORITY
ENVIRONMENTAL RADIOLOGICAL MONITORING AND INSTRUMENTATION
WESTERN AREA RADIOLOGICAL LABORATORY

WATTS BAR NUCLEAR PLANT
RADIOACTIVITY IN CLAM FLESH
PCI/GM - 0.037 BQ/G (DRY WEIGHT)
12/28/98 TO 12/24/99

STATION CODE/LOCATION/DESCRIPTION	ANALYSIS (NUCLIDE)	ACTIVITY	ERROR TERM	DATE COLLECTED	LAB NO
3143 DOWNSTREAM	GAMMA SCAN (GELI)				
	AC-228	.2874	.1453	10/06/99	906223
	BI-214	.3002	.1184	05/06/99	902452
		.6116	.1256	10/06/99	906223
	K-40	1.7948	.8452	05/06/99	902452
		2.8903	.6226	10/06/99	906223
	PB-214	.2503	.0805	05/06/99	902452
		.6748	.1207	10/06/99	906223
3144 UPSTREAM	GAMMA SCAN (GELI)				
	BI-214	.0115	.0843	04/28/99	902453
		.8159	.1926	10/06/99	906224
	K-40	1.1155	.6676	04/28/99	902453
		2.6059	.9214	10/06/99	906224
	PB-214	.8651	.1805	10/06/99	906224
	TL-208	.0169	.0216	04/28/99	902453