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**Carolina Power & Light Company**

Robinson Nuclear Plant
3581 West Entrance Road
Hartsville SC 29550

Robinson File No: 12510C

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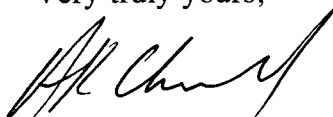
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO.2
DOCKET NO. 50-261/LICENSE NO. DPR-23
1996 RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

Gentlemen:

Carolina Power & Light (CP&L) Company submits the enclosed Radiological Environmental Operating Report for the period January 1, 1996, through December 31, 1996, for the H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2. This report is submitted in accordance with the HBRSEP, Unit No. 2 Technical Specifications, Section 6.9.1.2.3.

If you have any questions concerning this report, please contact me or Mr. H. K. Chernoff at (803) 857-1437.

Very truly yours,


for T. M. Wilkerson
Manager - Regulatory Affairs

1/1
Coo,

AHS/ahs

Enclosure

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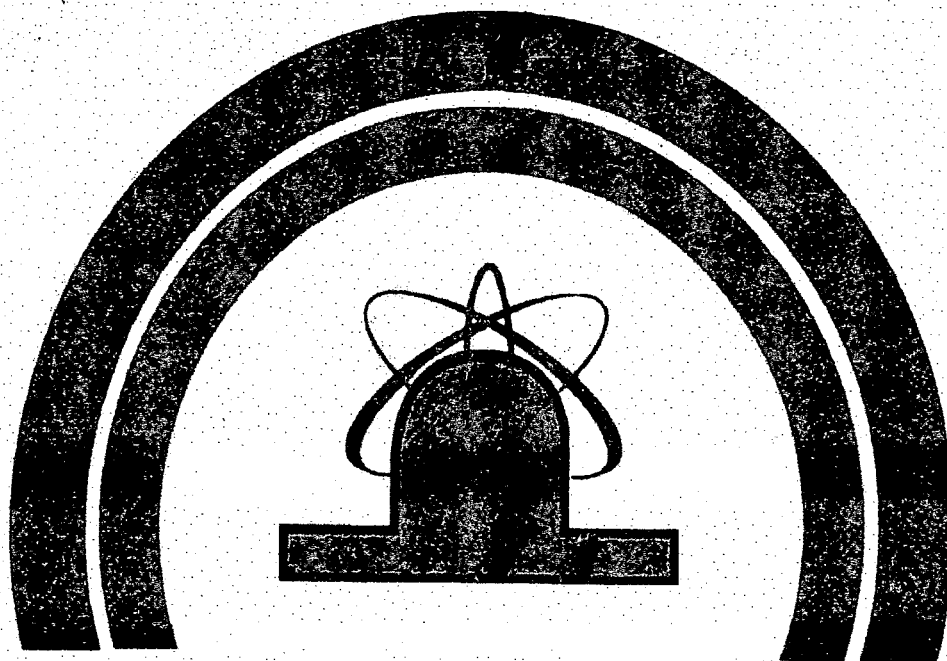
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RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

1996



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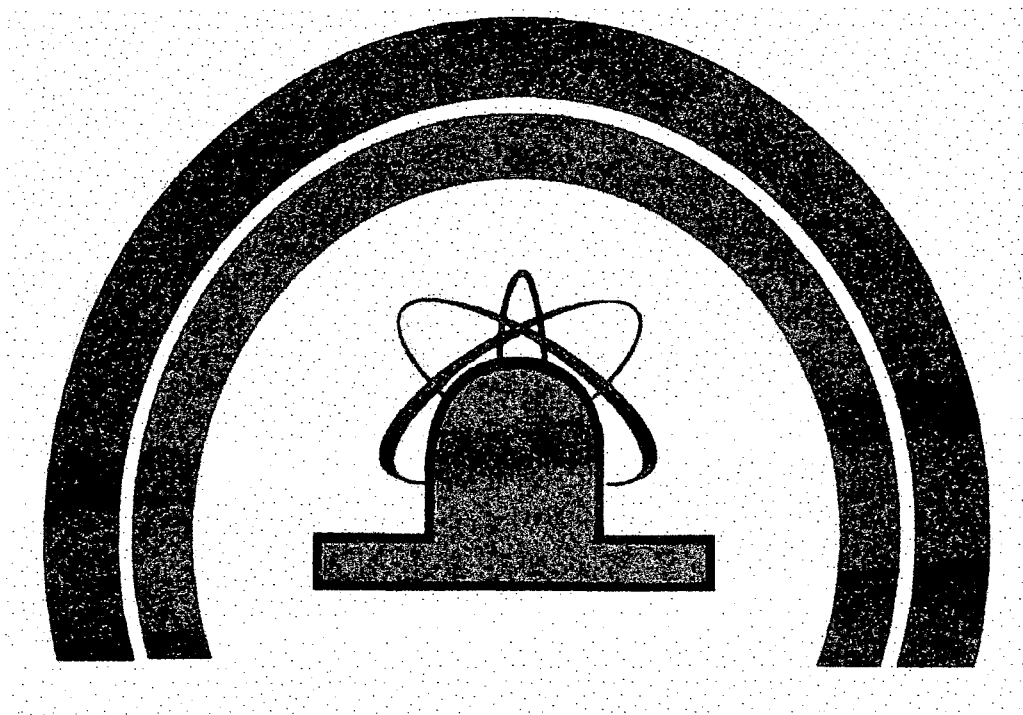
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RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

1996



**ROBINSON NUCLEAR PLANT
CAROLINA POWER & LIGHT**

Harris Energy & Environmental Center

Carolina Power & Light Company

New Hill, North Carolina

RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

FOR THE

H. B. ROBINSON STEAM ELECTRIC GENERATING PLANT, UNIT NO. 2

FACILITY OPERATING LICENSE NO. DPR-23

DOCKET NO. 50-261

JANUARY 1 THROUGH DECEMBER 31, 1996

Prepared by:

Harmon P. Langston

Reviewed by:

Walter N. Payton, II

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EXECUTIVE SUMMARY

The Robinson Nuclear Plant is operated by Carolina Power & Light Company under a license granted by the Nuclear Regulatory Commission. Provisions of the Nuclear Regulatory Commission's Regulatory Guide 4.8, Robinson Nuclear Plant Technical Specifications, and the Robinson Nuclear Plant Off-Site Dose Calculation Manual establish the requirements of the Radiological Environmental Monitoring Program. This report provides the results of the Radiological Environmental Monitoring program from January 1, 1996 through December 31, 1996.

The Radiological Monitoring program was established in 1973. Radiation and radioactivity in various environmental media have been monitored for more than 24 years. Monitoring is also provided for control locations which would not be impacted by operations of the Robinson Nuclear Plant. Using these control locations and data collected prior to operation allows comparison of data collected at locations near the Robinson Nuclear Plant which could potentially be impacted by its operations.

Radiation levels show no measurable change from pre-operational radiation levels.

Monitoring results for environmental media are summarized as follows:

- Air-monitoring results are similar or less than the concentrations of radioactivity from pre-operation monitoring. These observations are also consistent with past operational data.
- Milk monitoring results are similar to past data and are all less than the lower limits of detection.
- Terrestrial vegetation includes broadleaf vegetation and food crops. Results indicate that no gamma activity associated with plant operations was detected in any samples.
- Aquatic organism monitoring includes fish and aquatic vegetation.
- Surface and drinking water results indicate that the surface water from Lake Robinson shows the presence of tritium, which is attributed to plant operation.
- External radiation dose showed no measurable change from pre-operational data.

The continued operation of the Robinson Nuclear Plant has not significantly contributed radiation or the presence of radioactivity in the environmental media monitored. The measured concentrations of radioactivity and radiation are well within applicable regulatory limits.

INTRODUCTION TO NUCLEAR OPERATIONS

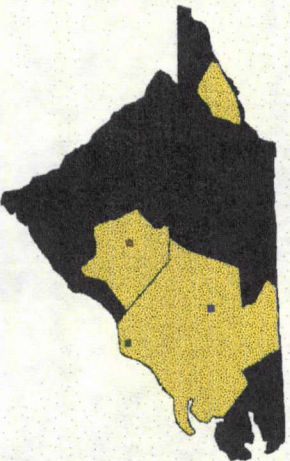


Figure 1: CP&L SERVICE AREA

Carolina Power & Light Company (CP&L) operates an integrated electrical system serving more than one million customers in North Carolina and South Carolina. A system map is provided (Figure #1) that illustrates the area served and the location of the nuclear generating units including the Harris (Blue), Brunswick (Green), and Robinson (Brown) Nuclear Plants. The service area is more than 30,000 square miles and has a population of more than 3,500,000 people.

The energy sources for electrical generation include coal, fuel oil, natural gas, hydro-power, and nuclear fuel. No one energy source is best. Each fuel source has merits and disadvantages. Fossil fuels pose issues associated with clean air including emissions of sulfur dioxide and oxides of nitrogen. Both natural gas and hydro-power are in limited supply.

Nuclear energy is a vital component in a diversified energy mix. In 1996 nuclear energy supplied 38% of CP&L's total electrical generation. This nuclear component was generated from four units including the Robinson Nuclear Plant. The remaining energy sources were primarily from coal-fired generation, and a very small contribution from oil, natural gas and hydro-power.

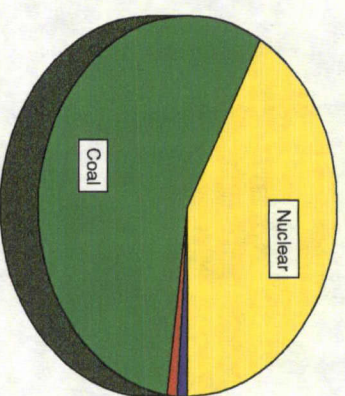


Figure 2: 1996 ENERGY SOURCES

BENEFITS OF NUCLEAR POWER

Nuclear energy is a viable, clean, safe, and readily available source of energy. The operation of the Robinson Nuclear Plant results in a very small impact on the environment. Nuclear generation serves a vital role in the operation of the Carolina Power & Light system as well as in the nation's electrical needs. Nuclear energy currently supplies more than twenty percent of the nation's electrical energy. It is an important source of electrical energy now and is meeting the growing electrical needs for the future

Nuclear energy has the following advantages over other fuel sources:

- The fuel is uranium which is relatively inexpensive when compared with the fuels of coal, natural gas, and fuel oil.
- Emissions from nuclear stations do not include sulfur dioxide, oxides of nitrogen, or carbon dioxide. Sulfur dioxide is well known as a significant contributor to acid rain leading to acidification of streams and lakes. Oxides of nitrogen play a key role in the formation of ozone which is a significant pollutant in urbanized air quality. Finally carbon dioxide is a significant green-house gas.
- Nuclear energy is safe. Nuclear power in the United states has an excellent safety record, starting with the first commercial nuclear plant in 1957.

To better understand this source of energy, a basic understanding of radiation, its effects, risk assessment, and reactor operation follow.

RADIATION AND RADIOACTIVITY

The Atom

All matter consist of **atoms**. An atom is the smallest unit into which an element can be divided and still retain its identity as that element. An atom is

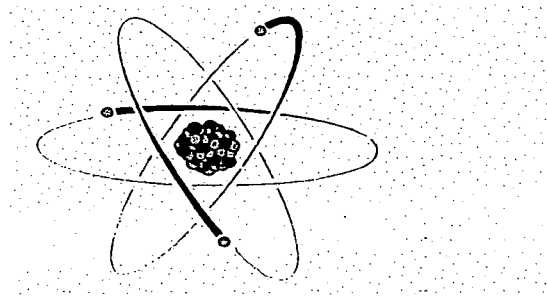


Figure 3: The Atom

made up of a number of different particles. These particles are **protons, neutrons, and electrons**. Each proton is positively charged (+). Each neutron has no charge. And the electron is negatively charged (-). The heavier particles including protons and neutrons are found in the center of the atom in a very small cluster referred to as the **nucleus**. (The term nuclear refers to this nucleus.) Nearly all the mass of the atom is found in the nucleus. Electrons orbit the nucleus. Since the atom is electrically neutral (no charge) the number of protons and electrons in the atom are equal. See Figure 3 a conceptional drawing of an atom. The electrons (red) are shown in orbit around the nucleus.

The protons (green), and the neutrons (black) are shown in the nucleus at the center of the atom.

Elements, Isotopes, and Radionuclides

Simple substances that can not be decomposed in any chemical reaction are known as **elements**. Hydrogen, oxygen, iron, chlorine, and uranium are examples of elements. The atoms of such

Hydrogen, oxygen, iron, chlorine, and uranium are examples of elements. The atoms of such elements differ in the number of protons (also known as the atomic number) in their nucleus. For example the number of protons in each example above is 1 for hydrogen, 8 for oxygen, 26 for iron, 17 for chlorine, and 92 for uranium. The number of neutrons in the nucleus may vary in atoms of the same element. Atoms that contain the same number of protons but a different number of neutrons are referred to as **isotopes** of that element. An example is the element hydrogen which has three isotopes--one with no neutrons, a second with one neutron, and the third with two neutrons. Isotopes can be unstable (also referred to as **radioactive**), which means they will readily transform to another isotope and are called **radionuclides**. Of more than one thousand known isotopes less than twenty-five percent are considered stable. It is important to remember that a significant number of radioactive isotopes occur naturally.

When referring to isotopes of an element it is common to refer to the element by the symbol for its name (or the name) followed by the total number of protons and neutrons, for example H-3 or hydrogen-3 describing an atom with one proton and two neutrons.

Radiation

Radiation is defined as the conveyance of energy through space. This conveyance may occur in the form of particles, waves, or photons. Some common forms of radiation are sunlight, microwaves or radio waves. These are all examples of non-ionizing radiation. **Ionizing radiation** differs in its interaction with matter because its energy is capable of removing an electron from the outer part of an atom resulting in the remaining atom being positively charged and a free electron. There are two types of ionizing radiation--particulate radiation and electromagnetic radiation. **Particulate radiations** are energetic particles which will travel in a straight line if unhindered. Three types of particulate radiation of interest in nuclear energy, those being beta particles which are high-energy electrons (not part of an atom), neutrons, and alpha particles which consist of two protons and two neutrons. **Electromagnetic Radiations** are high-energy waves (or photons) which have no apparent mass (not a particle). There are two types of electromagnetic radiation of interest which are gamma rays and X-rays. **Gamma rays** have their origin in the nucleus of the atom. **X-rays** have their origin in the stored energy of the electrons orbiting the nucleus. There are many important differences in the behavior of these radiations which will be discussed in the later sections.

Radioactivity

Radionuclides are atoms that are unstable and will eventually reach a stable state through a process known as radioactive decay. This process results in the emission of energy or energetic particles from the nucleus of the unstable atom. The process may occur in a single step or may be composed of a series of steps to various radioisotopes. When this process proceeds through a series of steps it is called a **radioactive decay series**.

There are at least three natural radioactive-decay series which are the thorium, neptunium, and the uranium series. These radioactive decay series as well as naturally occurring

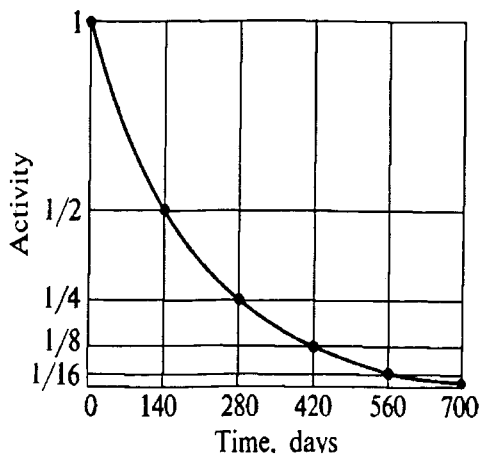


Figure 4: Radioactive Decay

K(potassium)-40, C(carbon)-14, H(hydrogen)-3 are significant contributors to background radiation levels, which are addressed in greater detail later.

The rate at which atoms undergo radioactive decay varies greatly. A common expression of the tendency for radioactive decay is the half-life associated with a particular isotope. The half-life is the amount of time required for one-half of the number of atoms for an isotope to experience radioactive decay. The longer the half-life the less likely an atom will experience radioactive decay in a fixed time interval. Half-lives vary from extremely small fractions of a second (billionths) to millions of years.

Figure 4 illustrates an isotope with a 140 day half-life. Note that the activity decreases by half in 140-days, and then by half again the next 140 days and thereafter.

RADIATION INTERACTION WITH MATTER

Ionization

As alpha, beta, gamma, and X-ray radiation interact with matter they impart part or all of their energy to the matter in a single interaction. It may require many interactions to absorb the energy of a single particle or photon of radiation. One of the most common ways energy is dissipated is ionization. As we discussed earlier this results in the creation of a positively charged atom and a free electron. The positively charged atom and the free electron are referred to as a charged pair. The creation of the charged pair is one of the primary contributions to damage of biological systems.

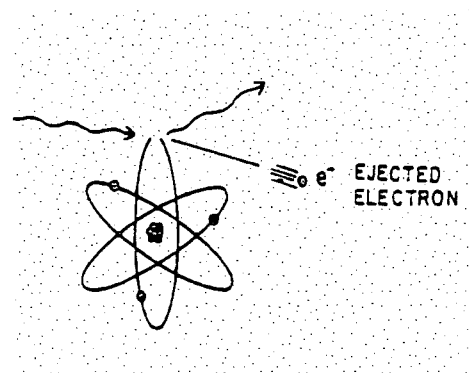


Figure 5: Ionization

Radiation Ranges

Each type of radiation we have discussed interacts with the matter they travel through differently because of the different characteristics of each radiation.

Alpha particles are composed of two protons and two neutrons. This is the heaviest particulate radiation with a positive charge of two (two protons). The alpha particle is the slowest of the radiations we will review with a speed of no more than 20,000 miles per second. As a result of these characteristics the alpha travels only a few centimeters (or inches) in air and is readily stopped by a sheet of paper. The alpha leaves its energy in a short distance characterized by a great many ionizations.

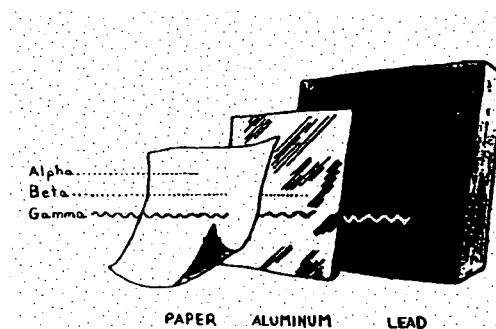


Figure 6: Radiation Ranges & Shielding

Beta particles are basically a very high-energy electron.

Beta particles have a negative charge. It is a very light particle, with a mass of about one two-thousandth of a proton (or about one eight-thousandth of an alpha particle). Beta particles are very fast, approaching the speed of light. Due to their speed and lower charge, the beta particles travel several meters (or yards) in air and are readily stopped by a small piece of metal or other dense material. The beta particle leaves its energy in many ionizations but with the ionizations distributed along a much longer path of travel.

Gamma rays are photons (or energy waves, not a charged particle). Like light (also a photon) it travels at a speed of approximately 186,000 miles per second. The gamma ray travels much larger distances without interacting. When the gamma ray interacts with matter it creates very high energy electrons similar to beta particles which in turn create ionizations as their energy is dissipated. Due to these differences the gamma ray travels much greater distances before its energy is dissipated. To dissipate the energy of a gamma ray several inches of lead are required.

RADIATION QUALITIES AND UNITS OF MEASURE

There are numerous qualities and units used to describe radiation and radioactivity and their effects. Those used in this report relate to activity, absorbed dose, and dose equivalent. It is also common to express numbers in scientific notation or use prefixes with the number denoting the number of zeros (0) before or after the decimal. A few examples are provided below.

Prefix	Number Represented	Number in Scientific Notation
pico	.000000000001	1×10^{-12}
nano	.000000001	1×10^{-9}
micro	.000001	1×10^{-6}
milli	.001	1×10^{-3}
centi	.01	1×10^{-2}
kilo	1,000.	1×10^3
mega	1,000,000.	1×10^6

Activity is the number of radioactive transformations (decays, disintegrations) that occur in a fixed time interval. The unit used to express activity is the **curie**. The curie is defined as 37,000,000,000 disintegrations per second; (also expressed as $3.7 \times 10^{10} \text{ s}^{-1}$). A curie is a unit of activity, not an amount of material or the number of atoms. The amount of material or number of atoms necessary to produce a curie of activity vary over a very wide range. Atoms with very long half-lives would require many more atoms to produce a curie of activity versus atoms with short half-lives.

Absorbed dose describes the energy absorbed per unit of mass of tissue. The unit used to express absorbed dose is the **rad** (radiation absorbed dose). One rad is an absorbed radiation dose of 100 ergs (a measure of a very small amount of energy) per gram. The rad can be used with all types of radiation including X-rays, gamma-rays, and particulate radiations. The absorbed dose can be measured with various radiation-detection instruments which allows the assessment of damage to biological systems subjected to radiation and radioactive materials.

Dose equivalent is an expression of the biological effect of the radiation on tissue. The unit used to express absorbed dose equivalent is the **rem**. Dose equivalent is obtained by multiplying the absorbed dose (expressed in rad) by a **quality factor** (QF) for the type of radiation being considered.

$$\text{Dose equivalent} = \text{absorbed dose} \times \text{quality factor}$$

Some types of radiation create more biological damage due to the extent of ionization in small areas. From our discussion of alpha particles, the intense ionizations caused by the alpha particle results in a much higher Quality Factor for this radiation. This relationship for quality factors and different radiations we have discussed is illustrated below

Table 1
Quality Factors for Various Radiations

Radiation	Quality Factor
Gamma-rays	1
X-rays	1
Beta Particles	1
Alpha Particles	20

SOURCES OF RADIATION

Background Radiation

Radiation occurs naturally and is an everyday fact of our existence. Mankind has always lived with radiation and radioactive materials and will continue to in the future. The radiation that occurs naturally is referred to as **background radiation**. Mankind experiences two types of radiation dose: first is radiation that originates outside the body and is called **external radiation**, and the second is radiation that originates inside the body and is called **internal radiation**. External radiation comes from the earth, the atmosphere, and every structure (buildings) around us as well as a source referred to as **cosmic radiation** which is generated in the stars throughout the galaxy including our own sun.

Cosmic radiation is composed of gamma-rays (some of very high energy) and many different types of energetic particulate radiation. Some of the particulate forms of radiation include neutrons, alpha particles, and heavy particles (including nuclei). These high-energy cosmic radiations have the capability to interact with other atoms on earth and generate new isotopes. As we have already discussed, some of these may be radioactive. Common examples of radionuclides formed from cosmic radiations are carbon-14 and tritium (H-3). The atmosphere around the earth serves as an effective shield causing much of the energy of cosmic radiations to be dissipated prior to reaching the surface of the earth. However, each of us may receive a dose equivalent, due to external cosmic radiation, to 20 to 50 mrem (.020 to .050 rem) annually. The actual dose is influenced by the elevation which we live. Higher elevations provide less shielding and therefore the doses are higher. A single plane flight can also contribute to our dose from cosmic radiations. The average passenger could expect to receive a dose of 2.8 mrem (.0028 rem) per flight.

Another important contributor to external absorbed dose is **terrestrial radiation**. This is the

radiation from the earth itself, and the air around each of us. The sources of terrestrial radiation include the thorium, neptunium, and the uranium decay series as well as potassium-40. The absorbed dose varies about 15 to 140 mrem (.015 to .140 rem) annually. However there are a very few areas that these terrestrial absorbed doses exceed 800 mrem each year.

One of the most important sources of dose is that contributed by internal radiations. These radionuclides are part of our body, the air we have breathed, or the food we have consumed. One of the most significant contributors is **radon**. Radon is a radioactive gas that is part of the uranium decay series. Radon's concentration varies greatly based upon the geology of each community, but is found in soils and rock everywhere. If it is allowed to concentrate in a building, the dose from radon can be increased significantly. Since radon is an alpha particle emitter, inhaling radon gas makes the lung our greatest concern (i.e. the alpha does not travel far but has a high quality factor for the affected tissue) The health effect of breathing radon is an increased risk of lung cancer.

Source of Radiation Dose

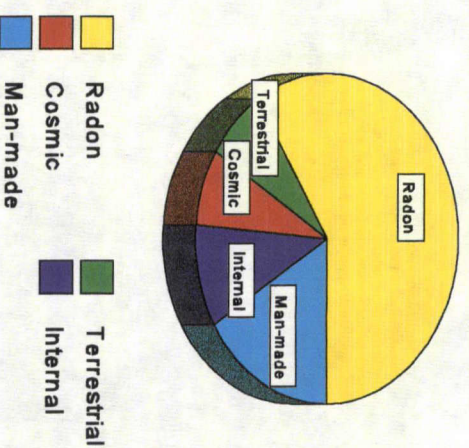


Figure 7: Radiation Sources (BIER V)

Normally radon does not pose a significant health threat. Since radon is an alpha particle emitter, inhaling radon gas makes the lung our greatest concern (i.e. the alpha does not travel far but has a high quality factor for the affected tissue) The health effect of breathing radon is an increased risk of lung cancer.

Man-Made Radiation

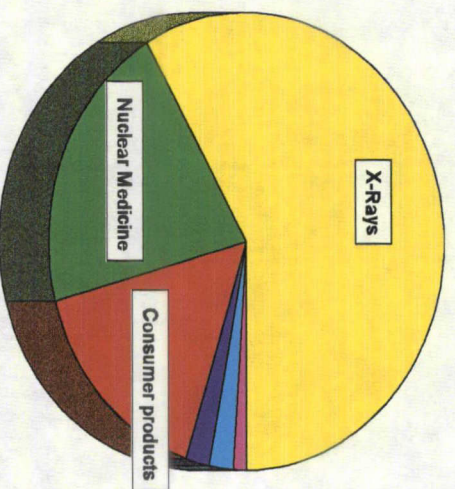


Figure 8: Man-Made Radiation Sources (BIER V)

Man-made radiations are important to completing our understanding of sources of radiation. An important aspect in discussing man-made radiations is the benefit man derives from the use of these. Medical uses of radiation are the major contributor, including diagnostic X-ray, and nuclear medical treatment. Consumer products such as televisions, display screens, smoke detectors, and many other devices are the next most important class of man-made radiations. Fallout from prior weapons testing is now a small contributor to total radiation dose. Occupational exposure is also a factor from the medical, manufacturing, and nuclear industries. Finally, contributions from nuclear plant operations represent less than 1% of the man-made radiations for the average member of the general public. The data presented in figure 8 illustrates the importance of the different sources of man-made radiation for the average member of the public.

HEALTH EFFECTS OF RADIATION

The effects of ionizing radiation has been of concern to the scientific community for several decades. The oldest body established to study radiations biological effects dates from at least 1928 with the establishment of the International Commission on Radiological Protection. Much of our knowledge is based upon very high doses from animal experiments, accidents handling radioactive materials, and war time nuclear weapons use and its survivors. It has been a classical problem of how to relate doses at these levels to much lower medical use (although some treatments are designed to deliver high dose) and occupational radiation levels. Environmental levels of radiation represent even greater challenges because of the extremely low doses compared with medical and occupational levels. Experiments with animals represent additional challenges because they may not accurately represent human biological responses to radiation.

Radiations biological effects are classified as **somatic** and **genetic** (or hereditary). Somatic effects are observed in the individual receiving the radiation dose. Genetic effects are observed in the decedents of the individual receiving the radiation dose.

Somatic effects can be classified as **acute** or **chronic**. Acute effects occur within a short time (days) after the dose is received. Generally acute effects require very high doses. Blood changes have been observed in the range of 25 to 50 rem (or 50,000 mrem). Other acute effects can be expected at even higher doses. Our knowledge of this level of dose are the survivors of nuclear weapons, accidents, and planned medical treatments. These dose levels are more than 500 times normal environmental background radiation. For this reason, these effects are not important to a discussion of environmental radiation.

Chronic effects are generally used to refer to effects that are observed over a long period of time and these have also been referred to as **delayed effects**. The effects are also generally associated with radiation dose received over a long period known as **chronic exposure**. However it is not necessary for the exposure to occur over a long period. The most important chronic effect is cancer. There are numerous forms of cancer. The rate of cancer in individuals at low doses (at occupational or environmental levels) has not been observed directly. "Cancers induced by radiation are indistinguishable from those occurring naturally; hence their existence can be inferred only on the basis of statistical excess above the natural incidence." The current practice is to use observations at a much higher dose to establish the rate of cancers at that dose and then assume that the rate of cancers must be proportional to the lower dose. This has created a scientific disagreement, because some scientists believe this method over estimates the cancer risk from low doses of radiation. However this appears to be a conservative assumption. Some risk exists but it is believed to be a small risk of cancer at occupational levels. The Committee of the Biological Effect of Ionizing Radiation further states "It is by no means clear whether dose rates of gamma or X-rays of about 100 mrad per year are in any way detrimental to exposed people....." Environmental radiation levels are in the range of 100 mrad per year or less as we have discussed.

Genetic radiation effects occur when radiation changes the genetic material in cells. As we have discussed, the process of ionization removes electrons from the atom. These electrons are

sometimes necessary in the creation of chemical bonds. If the bonds are part of the genetic material of the cell, it could result in changed genetic material (mutations). Radiation is just one of several agents that contribute to genetic change. Chemicals including those that occur naturally are a significant contributor to genetic mutations. Background radiation levels only provide a minor contribution to total mutations. To double the general mutation (from all sources) rate would require a dose of 50 to 250 rem (or 50,000 to 250,000 mrem). This is approximately 500 to 2,500 times the normal environmental background of about 100 mrem.

GENERAL HEALTH RISK

Every human activity has risk associated with it. The air we breath, the food we eat, where we live or work all have different risks. Many times our perception of these risks is quite different than the real risk of an activity. There was widespread fear and misunderstanding regarding the fire and safety hazard from electricity early this century. Now electricity is accepted as part of our daily existence. Radiation is unique in that it can not be seen, felt, smelled, or detected by any of the human senses. It is detected by instruments or laboratory analysis specially designed to detect radiation. Thus it is understandable to be wary of something we can not readily sense and may not have a personal knowledge about. There are other similar hazards we tend to accept such as micro-wave radiations, carbon monoxide in the operation of some furnaces and our vehicles due to our familiarity with these.

A common way of expressing risk is a reduction of life expectancy from a particular activity. Below you will find a table of common activities and the associated reduction in life expectancy.

Table 2
REDUCTION IN AVERAGE LIFE EXPECTANCY

ACTIVITY	REDUCTION IN LIFE EXPECTANCY
CIGARETTE SMOKING 2 PACKS/DAY	10 YEARS
CIGARETTE SMOKING 1 PACK/DAY	7 YEARS
HEART DISEASE	5.8 YEARS
LIVING IN CITY VERSUS RURAL	5 YEARS
OVERWEIGHT 30 %	3.6 YEARS
CANCER	2.7 YEARS
COMMERCIAL NUCLEAR POWER	12 MINUTES

NUCLEAR POWER PLANT OPERATIONS

The primary difference between a nuclear generating station and fossil generating station is the source of heat or thermal energy. The steam turbine, condenser, condensate and feed water systems are much the same. The uranium fuel within the nuclear reactor is the source of heat or energy in the nuclear generating station.

Nuclear Fission

Certain heavy radionuclides are known to naturally undergo a special form of radioactive decay, called spontaneous fission. Spontaneous **fission** means the nuclei of these radioisotopes literally split into two or three new nuclei (also known as fission fragments) and a few free neutrons(not in a nucleus). The protons and neutrons are shared between these new nuclei. One isotope of Uranium known as U-235 is known to undergo fission. The other more common isotope of Uranium known as U-238 does not fission so easily.

Fission can also be stimulated by neutrons interacting with the nucleus of these atoms. Simply stated a neutron reaches the nucleus and produces fission fragments, free neutrons, and heat. Fission of Uranium produces more than one neutron per fission. Therefore; if there is enough uranium (especially U-235) present it is possible to produce more fissions and keep the process going or cause more and more fissions to occur. When the rate of fission initiated is self sustaining or increasing a **chain reaction** has been established. It is this sustained chain reaction and the energy produced that produces the heat needed to generate steam for electrical generation.

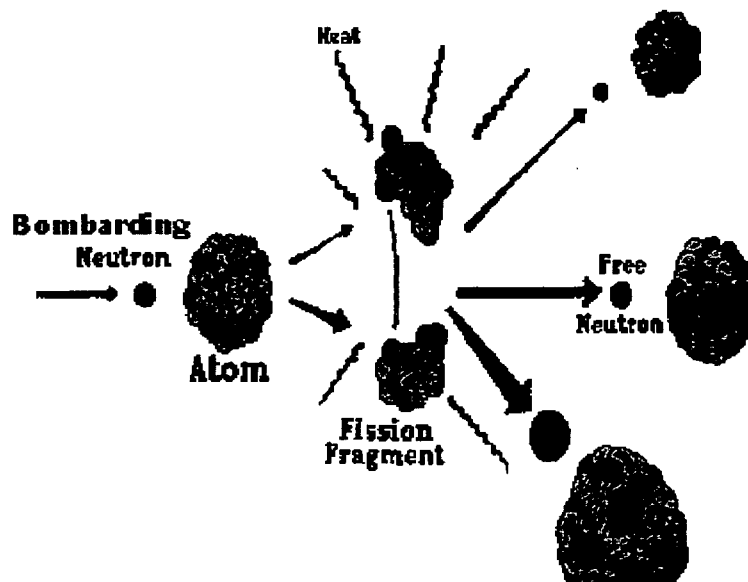


Figure 9: Nuclear Fission

Uranium Fuel

Uranium is mined from the earth the same as many minerals are as an ore. This uranium ore is then taken to a mill to concentrate the uranium. The extraction process for uranium uses acids to dissolve the uranium and separate it from the ore. This uranium is then **converted** chemically to a gas uranium hexafluoride (in chemical notation UF_6) While in this form it is possible to separate the lighter U-235 from the heavier U-238. This process of separation is called

gaseous diffusion. The reason for separation is to allow more of the U-235 to be included in the fuels used in commercial reactors. We have already discussed that U-235 fissions more readily than U-238. This process that increases the amount of U-235 is also referred to as **enrichment**. After enrichment this gas is chemically converted to uranium dioxide (in chemical notation UO_2). At this point the uranium dioxide is a gray powder. The next process takes this powder and under high pressure, and temperature creates a ceramic pellet of uranium dioxide. This process is part of the **fuel fabrication**. The fuel

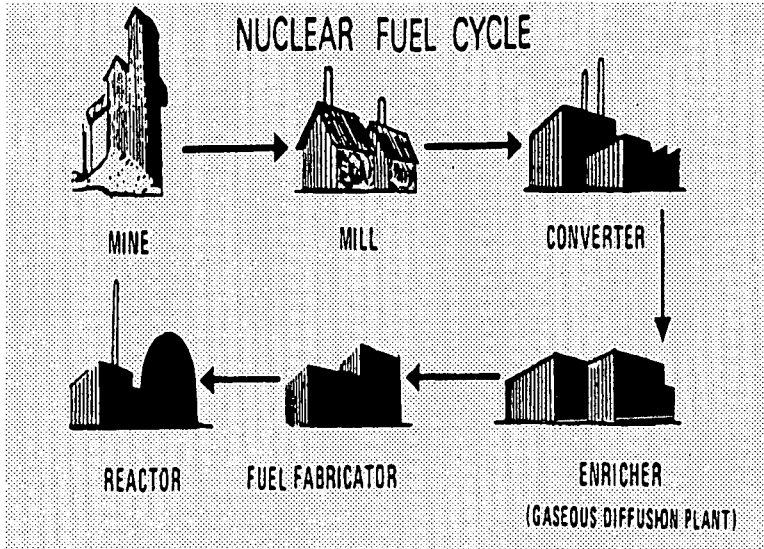


Figure 10: The Nuclear Fuel Cycle

fabricator also ensures that each fuel pellet also has the proper amount of U-235 and U-238. The additional U-235 added is referred to as the percent enrichment which for commercial reactors is about 6% of the total uranium in the fuel. These fuel pellets are placed into long tubes of zirconium alloy or **fuel rods**. These rods of uranium fuel are then placed with other such fuel rods into a **fuel assembly**. This fuel assembly is the basic unit that is shipped to the nuclear power plant. It is important to note that the entire process of making nuclear fuel is carefully controlled to ensure the quality of the nuclear fuel.

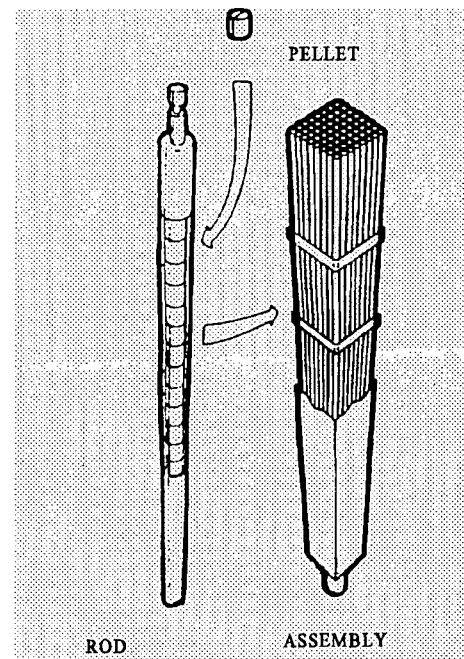


Figure 11: Fuel Pellets, Rods & Assemblies

PLANT SYSTEMS

System Summary

There are four (4) groupings of major plant systems and these are the reactor, the turbine generator, the condensate and feed water systems, and various support systems including various emergency systems. The reactor and its nuclear fuel is the source of heat to generate high pressure steam. The turbine is a large rotating fan like machine that the steam causes to rotate. The turbine is connected to an electrical generator which produces a rotating magnetic field. Electricity is generated in winding of metallic conductors around this magnetic field and then transmitted to the electrical transmission system and from there to the customers in the service area and sold to neighboring utilities.

After the steam has spent most all of its energy in the turbine, water vapor remains and must be recovered for reuse. The water vapor is recovered as water in a condenser. The condenser is a large system of tubes that are water cooled. The water used to cool the condenser is one of the most visible features at any power plant. Either large quantities of water are used or a cooling tower is used. After the steam has been recovered as water it is returned through a system of pumps, piping and heaters to the steam generator. The process of reusing this water and steam in a continuing cycle is referred to as the **steam cycle**.

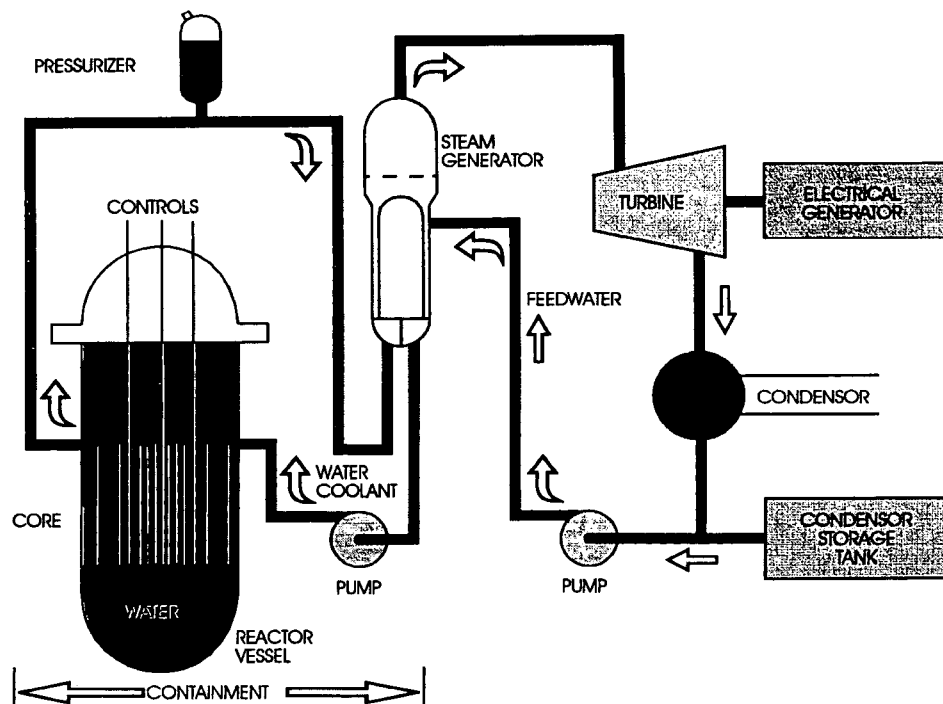


Figure 12: Major Plant Systems for The Pressurized Water Reactor

Reactor Types and the Reactor Vessel

There are approximately 180 commercial nuclear reactors being used to generate electricity in the United States today. Of these, there are two basic types of reactor in use today, the **Pressurized Water Reactor (PWR)** and the **Boiling Water Reactor (BWR)**. The basic difference is the point where steam is formed. The boiling water reactor forms steam in the reactor while the pressurized water reactor forms steam through a separate heat exchanger called a steam generator. The Robinson Plant is a Pressurized Water Reactor (PWR). There are other types of reactors used for research and military purposes.

The collection of fuel assemblies is referred to as the **reactor core**. The Robinson Plant has 157 fuel assemblies in the reactor core. The reactor core, the controls, instrumentation as well as other components are located in the reactor vessel. The components vary greatly by reactor type. The reactor vessel is a specially designed container which supports all of the components. The reactor vessel is 9.31 inches thick of steel with a stainless steel lining.

The rate of nuclear fission is controlled by neutron absorbing materials. One of the most common materials used is an isotope of boron known as boron-10 (B-10). Also control rods are used that are made of other materials including indium and cadmium. By controlling how much of the control rods are inserted in the reactor core the rate of nuclear fission is controlled. The Robinson Plant has 204 control rods.

The boiling water reactor generates steam with a significant water fraction and this steam must have this water removed. The reactor vessel for the boiling water reactor contains a steam separator which removes most of the water fraction. After treatment by the steam separator the steam passes through a steam dryer to remove additional water. The water removed by the steam separator and dryer is returned to the water in the reactor vessel. The boiling water reactor also has a special pair of recirculating pumps that provide additional control of steam generation and reactor power.

The pressurized water reactor does not generate steam in the reactor. The reactor vessel is pressurized to prevent boiling from occurring in the reactor or the reactor vessel. Steam is generated in a heat exchanger called the steam generator. The steam and the water from which steam is generated is a separate water system from reactor water or reactor coolant. This separate

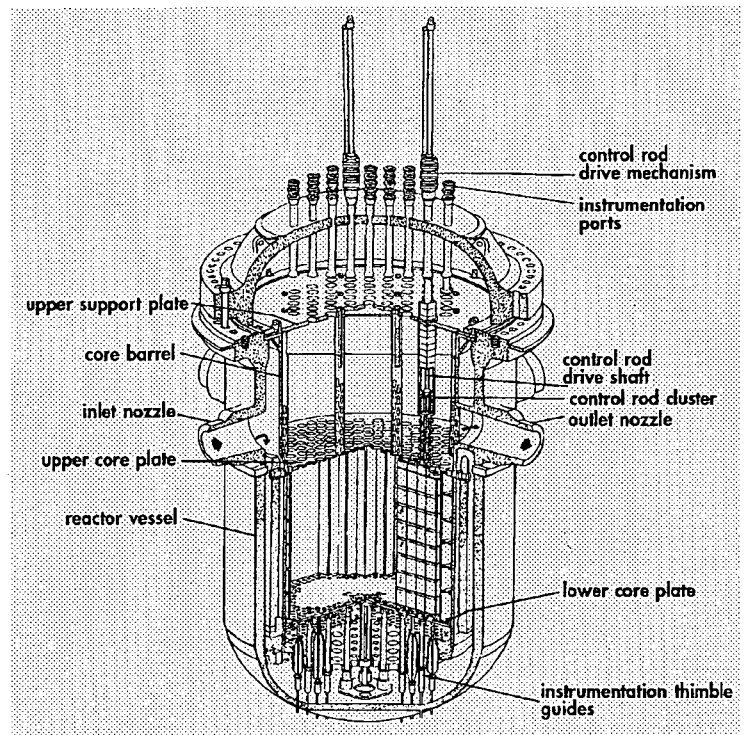


Figure 13: Reactor Vessel

water system is referred to as the **secondary system** while the reactor's water system is referred to as the **primary system**. In the pressurized water reactor it is this secondary water that steam is made from and recycled through the condenser and feedwater system. This water is returned to the steam generator.

The PWR steam generators serve as the point of steam production. The reactor water of the primary system is not allowed to boil or produce steam. This primary system water (or coolant) is circulated to the steam generators and back to the reactor in a continuous cycle. While in the steam generator the primary coolant (or water) transfers some of its heat or energy to the secondary coolant (water) by heating the secondary coolant and making steam with the secondary coolant. It is important to note that there is no exchange of water between the primary coolant and the secondary coolant. This process is made possible because the pressure in the primary (reactor) systems are maintained at a point which prevents boiling in the reactor.

The pressurizer is the system that supports regulation of reactor pressure. The pressurizer is a vessel partly filled with water and is in free exchange with the water in the reactor and primary systems. The pressurizer also allows for the volumetric expansion of the primary coolant (water) as the reactor starts up, while maintaining the pressure of the reactor

Sources of Radioactive Materials In Reactor Operation

There are two primary means that radioactive materials are produced in reactor operation which are:

- Fission produces two or more fission fragments in each fission. These fission fragments become the nuclei of new atoms as **fission products**. As we have already discussed many atoms are radioactive as is the case with these fission fragments. Example of these isotopes are iodine-131 (I-131), strontium-90 (Sr-90), cesium-137 (Cs-137), as well as others.
- Activation of normally stable nuclei occurs in the neutron field in the reactor. This occurs because neutrons are absorbed by the nucleus of an atom and a new isotope of that atom is created. The new isotopes may be radioactive. Examples of these isotopes include tritium (H-3) and cobalt-60 (Co-60). These radionuclei are referred to as **activation products**.

The sources of radioactive emissions from nuclear power operations are the treatment of water from the reactor systems, the treatment of air in the buildings that house plant systems, and the condenser vacuum system. Each of these emissions is managed to reduce the emissions to levels that are considered as low as reasonably achievable. The radiological monitoring program is designed to assess the impacts of these emissions even though they are acknowledged to be small contributors to background radiation

Barriers to Release of Radioactive Materials

There are several barriers to release of radioactive materials. In order these are:

- the ceramic fuel pellet itself
- the zirconium cladding of the fuel rod
- the reactor vessel and its associated piping
- the containment building

The fuel, fuel rods, and the reactor vessel have already been discussed. The **containment** building is illustrated in figure 14. The containment houses the reactor core, the reactor vessel and its associated piping, reactor coolant pumps and the pressurizer.

This containment is maintained at a pressure lower than the pressure outside the building. This is accomplished by a system of fans and filter systems that treat the air inside the secondary containment. This results in any air leakage would be into the secondary containment from the outside. Another way to say this is the air coming from secondary containment is all filtered and treated prior to discharge.

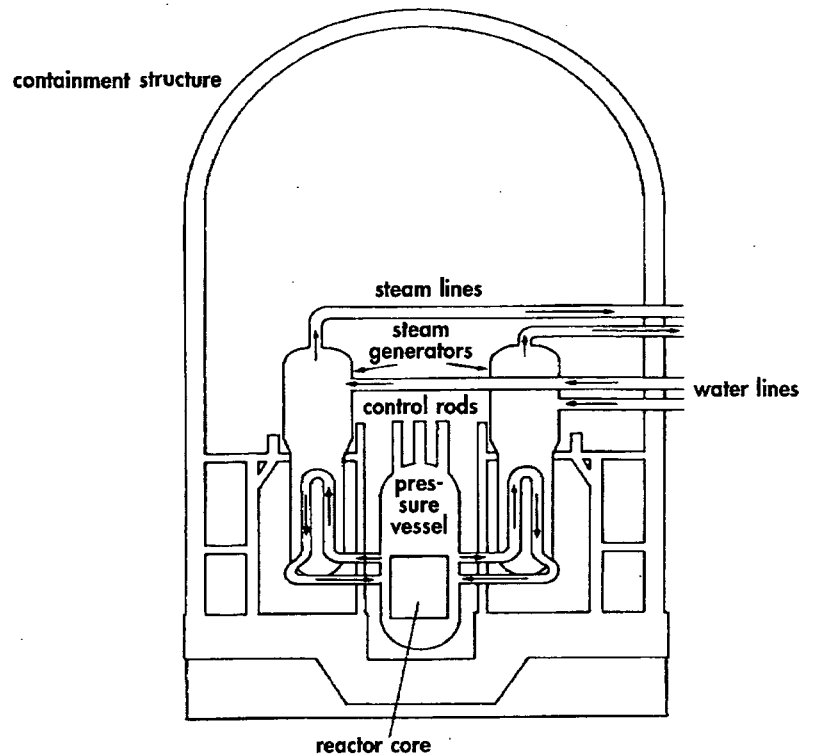


Figure 14:

REACTOR SAFETY

There are several points regarding nuclear safety that are important to understand and these are:

- ◆ Commercial nuclear generating station can not explode as a nuclear weapon. The uranium for weapons is highly enriched and must be carefully timed and configured to create an explosion. The uranium in commercial generating stations is low enrichment and can not be configured to create a nuclear explosion.
- ◆ The **reactor control system** regulates the power output of the reactor by controlling the rate of nuclear fission. This is accomplished by inserting or withdrawing control rods or by the addition of neutron absorbing materials. A special safety system is part of the reactor control system call the **reactor protection system** which will cause the control rods to be quickly inserted. This insertion causes the nuclear chain reaction to stop. There are numerous sensors that measure different plant conditions that would cause the reactor protection system to activate.
- ◆ There are several emergency systems that provide adequate cooling and water to the reactor in the event these are required. Should there be breakage of piping carrying water to the reactor, this is referred to as a Loss of Coolant. These systems are activated upon a drop in reactor pressure or a low level of water in the reactor. The exact activation varies by reactor type. The systems that delivery this supplemental source of water are referred to as the **Emergency Core Cooling System**. There are even backup systems to the individual Emergency Core Cooling Systems. This practice is referred to as a defense in depth. Safety is not dependent on any one device but is a system of several backups.

The Robinson Nuclear Plant is designed to be a safe means of generating electrical power. This level of safety is further enhanced through the discipline of operation provided by a well qualified and trained staff. Ongoing training is provided to the staff to ensure a high quality performance from each member of the plant staff. Although the requirements are high for the staff, reactor operators and senior reactor operators must also pass a rigorous license examination by the Nuclear Regulatory Commission on a regular basis. These examinations test knowledge of plant systems, design, procedures, problem solving, regulatory requirements, and the ability to function as a team responding to plant conditions.

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

PURPOSE AND REQUIREMENTS FOR THE RADIOLOGICAL MONITORING PROGRAM

Although the operation of a nuclear generating station results in the raising of background radiation only a small amount, it is important to measure these emissions of radioactivity and radiation to assess their impact on the surrounding populations. The purpose of the radiological monitoring program is to measure accumulation of radioactivity in the environments, to determine whether this radioactivity is the result of operations of the Robinson Plant, and to assess the potential dose to the off-site population based on the cumulative measurements of radioactivity of plant origin. Radiological monitoring programs provide an additional verification of the containment and radiological controls of nuclear generating stations.

The radiological monitoring program was established in 1973 and has continued to collect samples and evaluate them for twenty four (24) years.

Requirements are established for the radiological monitoring program as follows:

- Technical Specifications
- Off-Site Dose Calculation Manual (ODCM)
- various procedures

Additional guidance regarding the radiological monitoring program may be found in the following:

- NRC Regulatory Guide 1.109 Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I Revision 1 October 1977
- NRC Regulatory Guide 4.13 Performance, Testing, and Procedural Specifications for Thermoluminescence Dosimetry: Environmental Applications Revision 1 July 1977
- NRC Regulatory Guide 4.15 Quality Assurance for Radiological Monitoring Programs (Normal Operations) - Effluent Streams and the Environment Revision 1 February 1979

General Site Description

The Robinson Nuclear Plant (Unit No. 2) consists of a pressurized water reactor with a design rating of 769 MWe (Megawatts electric). The site is shared with a pulverized coal unit (Unit No.1), which established commercial operation in 1960. Commercial production was initiated by Unit No. Two on March 7, 1971. The Robinson Nuclear Plant is located in Darlington County, South Carolina. The site is along state route 151 approximately five (5) miles north west of Hartsville, South Carolina and is displayed on the map of northeastern South Carolina (Figure 15). The site is also approximately twenty five (25) miles north west of Florence, South Carolina.

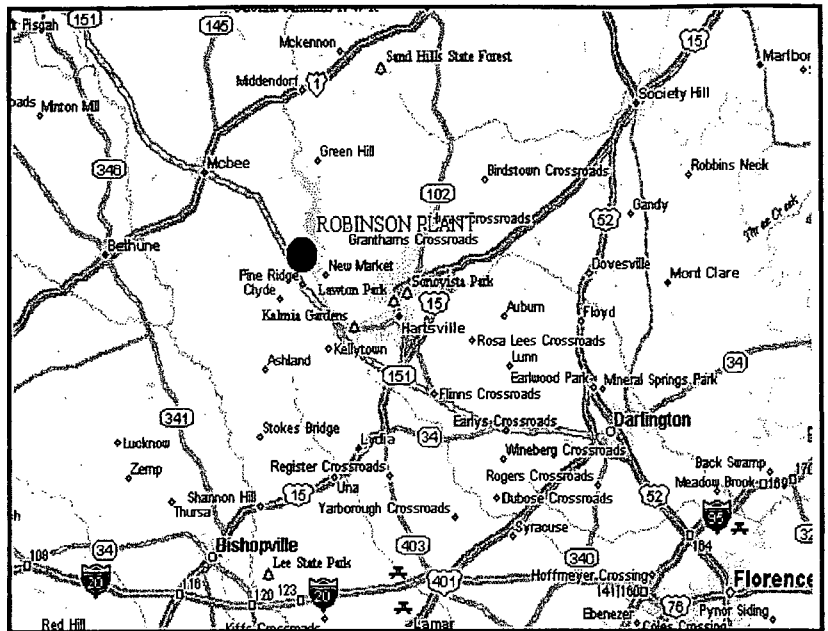


Figure 15 Location of Robinson Nuclear Plant

Lake Robinson is adjacent to the plant itself and is the source of cooling water. The lake was impounded during the construction of Robinson Unit No.1 (coal fired). The lake is fed by Black Creek and is approximately 2,250 acres in area. The plant intake is at the southern portion of the lake near the dam. The discharge is to a canal which conveys the cooling water to a point 4.2 miles north of the plant, where it returns to Lake Robinson.

The local economy supports primarily industrial and agricultural contributions. Fishing, boating, and swimming are popular activities on Lake Robinson and other nearby lakes. These activities contribute to the radiological pathways by consumption of fish, and immersion related to swimming and boating. Consumption of milk and food crops contribute to the ingestion pathway.

RADIOLOGICAL MONITORING PROGRAM QUALITY ASSURANCE

A required component of the environmental radiological monitoring program is the Quality Assurance Program. The standards for the quality assurance program are established in the NRC Regulatory Guide 4.15, "Quality Assurance for Radiological Monitoring Programs. The purpose of the quality assurance program is to "(1) to identify deficiencies in the sampling and measurement processes to those responsible for these operations so that corrective action can be taken, and (2) to obtain some measure of confidence in the results of the monitoring programs in order to assure the regulatory agencies and the public that the results are valid." NRC Regulatory Guide 4.15 B, Pg. 4.15-2. This provides the opportunity to implement corrective actions that address possible deficiencies. Examples of the activities of the quality assurance program include:

- regular review of sample collection and records
- regular review of laboratory procedures and methods
- participation in the Analytics, Inc., Environmental Cross-Check Program, which provides an independent assessment of the quality of laboratory results.
- the use of known concentrations of radioactivity in test samples by the laboratory to ensure consistent quality results on an ongoing basis.

RADIOLOGICAL MONITORING PROGRAM

GENERAL DESCRIPTION

Although the contribution to background radiation is small, we have established this program to measure the exposure pathways to man. An exposure pathway describes the source of the radiological exposure. The primary forms of radiological emissions from the plant are airborne and liquid discharge. The pathways monitored are external dose, ingestion of radioactive materials, and the inhalation of radioactive material. Specific methods and different environmental media are required to assess each pathway. Below in Table 3 is a list of the media used to assess each of these pathways.

Table 3
Media Used to Assess Exposure Pathways to Man

Pathway of Exposure to Man	Media Sampled
External Dose	Thermoluminescent Dosimetry(TLD) Shoreline Sediment
Ingestion	Aquatic Vegetation Broadleaf Vegetation Food Crops Fish Ground Water Milk Surface Water
Inhalation	Air Samples (Particulate & Radioiodine)

Sampling Locations

Sampling locations are chosen based upon meteorological factors, preoperation monitoring, and results of the land use surveys. A number of locations are selected as controls. Control stations are selected because they are very unlikely to be affected by operation of the plant. Sample locations may be seen in figures 16 and 17. A description of each sample location may be found in Table 4.

Radiological Sampling Locations

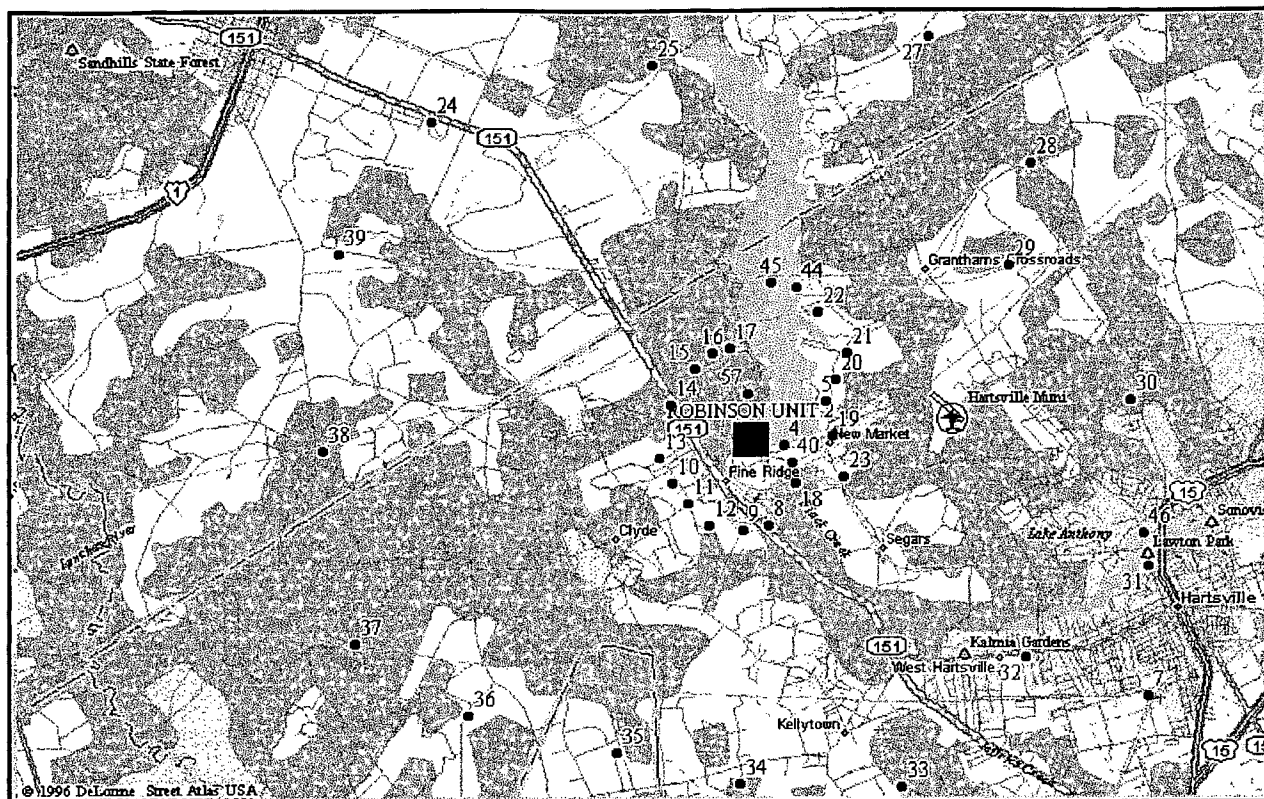


Figure 16: Radiological Sampling Locations (Distant from Plant) (Scale 1 inch = 2 miles)

Thermoluminescent dosimeter locations(only) are displayed in black, ingestion and waterborne pathways in blue, and inhalation or air sampling stations in red. Stations not show include 1, 41, 47(varies), 49(varies), 52, 54, 58(varies), and 63

Stations 1 through 7 and 55 include air sampling and thermoluminsent dosimeters.

Sample Types	Sample Locations
Air Cartridge & Patriculate	1-7, 55 (RED)
Shoreline Sediment	44, 57
Ground Water	40, 42, 43 (BLUE)
Broadleaf Vegetation	50, 51, 52 (BLUE)
Surface Water	40, 41, 57 (BLUE)
Thermoluminscent Dosimeter	1-39, 55, 56 (BLACK EXCEPT SHARED LOCATIONS)
Milk	54, 63 (BLUE)
Fish	45-47 (BLUE)
Food Products	49, 54, 58 (BLUE)
Aquatic Vegetation & Bottom Sediment	41, 45, 46, 54 (BLUE)

Radiological Sampling Locations

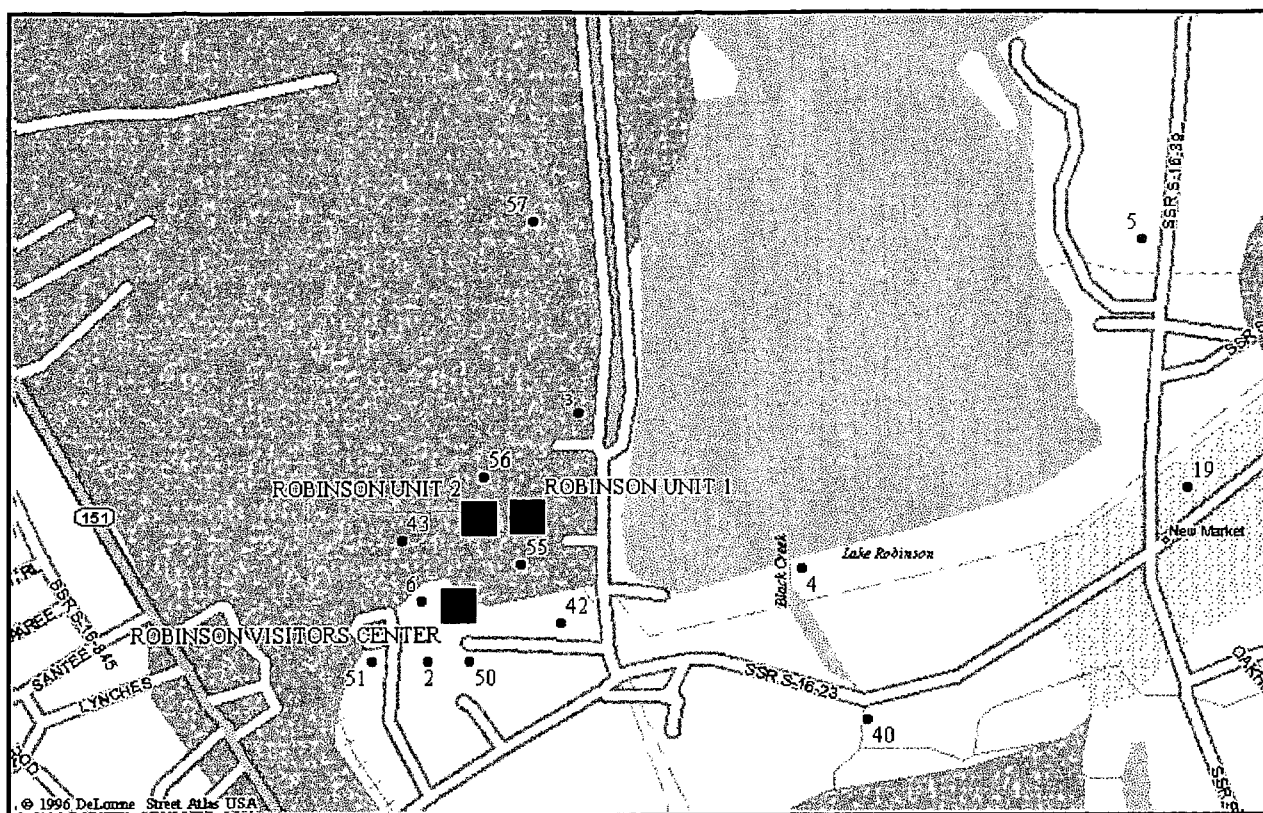


Figure 17 Radiological Sampling Locations (Nearest Plant) (Scale 1 inch = .25 miles)

Thermoluminescent dosimeter locations (only) are displayed in black, ingestion and waterborne pathways in blue, and inhalation or air sampling stations in red.

Stations 1 through 7 and 55 include air sampling and thermoluminescent dosimeters.

Sample Types	Sample Locations
Air Cartridge & Particulate	1-7, 55 (RED)
Shoreline Sediment	44, 57
Ground Water	40, 42, 43 (BLUE)
Broadleaf Vegetation	50, 51, 52 (BLUE)
Surface Water	40, 41, 57 (BLUE)
Thermoluminescent Dosimeter	1-39, 55, 56 (BLACK, EXCEPT SHARED LOCATIONS)
Milk	54, 63 (BLUE)
Fish	45-47 (BLUE)
Food Products	49, 54, 58 (BLUE)
Aquatic Vegetation & Bottom Sediment	41, 45, 46, 54 (BLUE)

Table 4
Robinson Nuclear Plant
Radiological Monitoring Sampling Locations

Sample Type	Location & Description	Frequency	Sample Size	Analysis
Air Cartridge (AC)	1--26 miles ESE Florence* 2--0.2 mile S Information Center 3--0.7 mile N Microwave Tower 4--0.4 mile ESE Spillway 5--0.9 mile ENE Near Johnson's Landing 6--0.3 mile SW Near Information Center 7--6.3 miles ESE Hartsville Substation 55--0.3 mile SSE Near Site	Weekly	800 m ³	Iodine
Air Particulate (AP)	1--26 miles ESE Florence* 2--0.2 mile S Information Center 3--0.7 mile N Microwave Tower 4--0.4 mile ESE Spillway 5--0.9 mile ENE Near Johnson's Landing 6--0.3 mile SW Near Information Center 7--6.3 miles ESE Hartsville Substation 55--0.3 mile SSE Near Site	Weekly	800 m ³	Gross Beta (Weekly) Composite Gamma (Quarterly)
Fish (FI)	45--Site varies within Lake Robinson 46--4.9 miles ESE Prestwood Lake 47--13.0 miles NW Bee Lake or 12.5 miles NNW May Lake*	Semiannual (In Season)	500 grams (wet)	Gamma (edible portions only)
Broadleaf Vegetation (BL)	50--0.25 mile SSE CP&L Property 51--0.25 mile SSW CP&L Property 52--10 miles W Bethune*	Monthly (As available)	500 grams (wet)	Gamma
Shoreline Sediment (SS)	44--1.9 miles NNE Shady Rest Club 57--Ash Pond, 0.9 mile NNW	Semiannual	500 grams	Gamma
Aquatic Veg. (AV) & Bottom Sediments (SD)	46--4.9 miles ESE--Prestwood Lake 41--7.2 miles NNW Black Creek at US-1 * 45--Site varies within Lake Robinson 54--10.1 miles E Auburndale Plantation	Annual	500 grams	Gamma
Groundwater (GW)	40--0.6 miles ESE Black Creek at Road 16-23 42--Unit 1 Deep Well 43--Unit 2 Deep Well	Monthly	4 liters	Gamma Tritium
Surface Water (SW)	40--0.6 miles ESE Black Creek at Road 16-23 41--7.2 miles NNW Black Creek at US 1* 57--0.9 miles NNW Ash Pond	Monthly Composite	4 liters	Gamma Tritium
Milk (MK)	54--10.1 miles E Auburndale Plantation 63--18.4 miles ESE Cunningham Dairy*	Semimonthly (animals on pasture) or monthly	8 liters	Gamma Tritium
Food Products (FP)	58--Site varies from plant 49--10.0 miles W--Control	Twice per year at Harvest	500 grams	Gamma

* Control Stations

Table 4 (Continued)

Robinson Nuclear Plant

Radiological Monitoring Sampling Locations

Sample Type	Location & Description	Frequency	Sample Sz	Analysis
Thermoluminescent Dosimetry (TLD)	1--10 miles ESE Florence--Control 2--0.2 mile S Information Center 3--0.7 mile N Microwave Tower 4--0.4 mile ESE Spillway 5--0.9 mile ENE Near Johnson's Landing 6--0.3 mile SW Near Information Center 7--6.3 miles ESE Hartsville Substation 8--0.8 mile SSE Near Transmission Tower 9--1.0 mile S on Transmission Tower 10--1.0 mile WSW at Church of God Cemetery 11--1.0 mile SW Near Old Camden Road 12-- 1.2 miles SSW Intersection of Dirt Road Near Roads 16-23 and 16-413 13--1.0 mile W; 0.5 mile Down Extension of Road 16-846 14--0.9 mile WNW at Pine Ridge Church 15--1.0 mile NW Near Ash Pond 16--1.0 mile NNW Darlington Co. IC Turbine Plant 17--1.2 miles N Discharge Canal at Darlington Co. Emergency Water Pumping Station 18--0.7 miles SSE Near Old Railroad Trestle at Black Creek 19--1.0 mile E; 0.1 mile from Intersection of Road 16-23 and Road 16-39 20--1.3 miles ENE; 0.5 mile N of Intersection of Roads 16-23 and 16-39 21--1.4 miles NE Near Atkinson's Boat Landing 22--1.9 miles NNE Shady Rest Club 23--1.2 miles ESE on Road 16-39; 0.5 mile S of Intersection of Roads 16-23 and 16-39 24--5.0 miles NW; 1.5 miles from Intersection of SR 151, 13-711, 13-172 25--4.6 miles NNW on Road 13-346 26--5.0 miles N, on Road 13-346 27--5.0 miles NNE Road 13-763 28--4.8 miles NE on Road 13-39 29--4.1 miles ENE on Road 16-20 at Transmission Tower 30--4.6 miles E, Near Intersection of Roads 16-20 and 16-492 31--4.6 miles ESE on Lakeshore Drive 32--4.5 miles SE Transmission Tower at End of Kalber Drive 33--4.6 miles SSE on Road 16-493 34--4.6 miles S on Road 16-772 35--4.4 miles SSW Near Intersection of Roads 31-51 and 16-12 36--4.7 miles SW on Road 16-1127 37--5.0 miles WSW Transmission Tower Nearest Clay Road 38--4.9 miles W at Union Church Cemetery 39--5.0 miles WNW, 1.5 mile from Intersection of Road 16-231 and 13-172 55--0.3 mile SSE Near Site Boundary 56--300 feet N of ISFSI	Quarterly	Not Applicable	TLD Reading

SUMMARY OF RADIOLOGICAL MONITORING PROGRAM

The Radiological Environmental Monitoring Program (REMP) was conducted in accordance with the H.B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2 Technical Specifications, Off-Site Dose Calculation Manual (ODCM), and approved procedures.

The purpose of the REMP is to measure accumulation of radioactivity in the environment, to determine whether this radioactivity is the result of the operations of the HBRSEP, Unit No. 2, and to assess the potential dose to the off-site population based on the cumulative measurements of radioactivity of plant origin. Approximately 1,200 samples were collected from indicator and control locations and 1,332 analyses and measurements were made during 1996. Detectable radioactivity resulting from plant operations was found in only 15 samples (Table 6) of surface water, bottom sediment, and aquatic vegetation. Only the tritium activity in fish samples constituted a potential source of public exposure. Using the methodology of Regulatory Guide 1.109 "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I, Revision 1, dated October 1977," the potentially most exposed individual of the public (being a teenager) from the fish consumption of approximately 35 pounds (16 kg of fish per year) and assuming that tritium concentration is in equilibrium with the fish flesh is 0.006 millirem per year.

1. A statistical summary of all the data gathered in 1996 has been compiled in Table 5.
2. Radioactivity in environmental samples which could be attributed to the plant operations in 1996 is summarized in Table 6.
3. All detectable radionuclides in the environmental samples for 1996 were less than reporting levels as defined in HBRSEP Technical Specifications. Table 7 summarizes the reportable levels.
4. Environmental sampling and analyses performed during 1996 demonstrated that the HBRSEP, Unit No. 2 continues to operate with minimum impact on the environment and minimal dose to the general public.

5. The following locations are used as control locations and are intended to indicate conditions away from the HBRSEP influence:

Thermoluminescent Dosimeters, Airborne and Particulate Samples	Florence, S.C. (Location 1)
Surface Water, Bottom Sediment, and Aquatic Vegetation	Black Creek at US 1 (Location 41)
Fish	Lake Bee or May Lake (Location 47)
Milk	Cunningham Dairy (Location 63) - ceased operation as of 5/12/96
Broadleaf Vegetation	10 Miles W. Bethune (Location 52)
Food Products	> 5 Miles from plant--Lowest D/Q (Location 49 - Bethune - site varies)

TABLE 5

ROBINSON NUCLEAR PLANT

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY

H. B. Robinson Steam Electric Plant, Unit No. 2
Darlington County, South Carolina

Docket Number - 50-261
Calendar Year 1996

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations Mean Range ⁽²⁾	Location w/Highest Annual Mean		Control Locations Mean Range ⁽²⁾
				Name, Distance, and Direction	Mean Range ⁽²⁾	
Air Cartridge (pCi/m ³)	I-131 421 ⁽³⁾	2.2E-2	All less than LLD		All less than LLD	All less than LLD
Air Particulate (pCi/m ³)	Gross Beta 421 ⁽³⁾	1.0E-3	2.08E-2 (370/370) 9.95E-3 - 4.59E-2	Johnsons Landing 0.9 mile ENE	2.35E-2 (53/53) 1.37E-2 - 3.53E-2	1.94E-2 (51/51) 1.33E-2 - 2.98E-2
	Gamma 32	See Table 8	All less than LLD		All less than LLD	All less than LLD
Broadleaf Vegetation (pCi/g, wet)	Gamma 59 ⁽³⁾⁽⁴⁾		1.93E-1 (22/40) 4.15E-2 - 8.75E-1	CP&L Property 0.25 mile SSW	2.84E-1 (18/20) 4.15E-2 - 8.07E-1	2.99E-1 (13/19) 3.18E-2 - 9.59E-1
	Cs-137	3.4E-2				
Fish (pCi/g, wet) Bottom-Feeder	Gamma 6		9.49E-2 (1/4) Single value	Lake Robinson Site varies	9.49E-2 (1/2) Single value	8.80E-2 (2/2) 8.57E-2 - 9.03E-2
	Cs-137	6.4E-2				
	K-40	1.4E+0	3.15E+0 (4/4) 2.31E+0 - 3.75E+0	Prestwood Lake 4.9 miles ESE	3.26E+0 (2/2) 3.07E+0 - 3.46E+0	3.08E+0 (2/2) 2.92E+0 - 3.23E+0
Fish (pCi/g, wet) Free-Swimmer	Gamma 6		1.48E-1 (1/4) Single value	Lake Robinson Site varies	1.48E-1 (1/2) Single value	2.52E-1 (2/2) 2.52E-1 - 2.52E-1
	Cs-137	6.4E-2				
	K-40	1.4E+0	2.85E+0 (4/4) 2.32E+0 - 4.25E+0	Lake Robinson Site varies	3.36E+0 (2/2) 2.46E+0 - 4.25E+0	3.50E+0 (2/2) 2.91E+0 - 3.50E+0
Food Products (pCi/g, wet)	Gamma 3 ⁽⁵⁾		2.24E-0 (2/2) 2.08E+0 - 2.39E+0	Site varies from plant 0.26 mile SSW	2.39E-0 (1/2) Single value	2.75E+0 (1/1) Single value
	K-40	1.8E+0				
Groundwater (pCi/l)	Gamma 36	See Table 8	All less than LLD		All less than LLD	No control
	Tritium 36	3.25E+2 (21/36) ⁽⁸⁾ 1.0E+3 (15/36) ⁽⁸⁾	All less than LLD		All less than LLD	No control

TABLE 5 (continued)

ROBINSON NUCLEAR PLANT

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY

H. B. Robinson Steam Electric Plant, Unit No. 2
Darlington County, South Carolina

Docket Number - 50-261
Calendar Year 1996

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations Mean Range ⁽²⁾	<u>Location w/Highest Annual Mean</u>		Control Locations Mean Range ⁽²⁾
				Name, Distance, and Direction	Mean Range ⁽²⁾	
Milk (pCi/l)	I-131 35 ⁽³⁾	1.0E+0	All less than LLD		All less than LLD	All less than LLD
	Gamma 35 ⁽³⁾	See Table 8	All less than LLD		All less than LLD	All less than LLD
Shoreline Sediment (pCi/g, dry)	Gamma 4	See Table 8	All less than LLD		All less than LLD	No Control
Bottom Sediment ⁽⁶⁾ (pCi/g, dry)	Gamma 4		3.85E-1 (2/3)	Prestwood Lake	5.21E-1 (1/1)	
	Co-60	5.1E-2	2.49E-1 - 5.21E-1	4.9 miles ESE	Single value	All less than LLD
	Cs-137	7.1E-2	3.24E-1 (3/3)	Prestwood Lake	8.15E+1 (1/1)	
Aquatic Vegetation ⁽⁶⁾ (pCi/g, wet)			5.96E-2 - 8.15E-1	4.9 miles ESE	Single value	All less than LLD
	Gamma 4		1.22E-1 (1/3)	Auburndale Plantation	1.22E-1 (1/1)	
	Mn-54	2.7E-2	Single value	10.1 miles E	Single value	All less than LLD
	Co-60	2.9E-2	1.48E-1 (1/3)	Auburndale Plantation	1.48E-1 (1/1)	
			Single value	10.1 miles E	Single value	All less than LLD
	I-131	4.1E-2	3.84E-1 (1/3)	Auburndale Plantation	3.84E-1 (1/1)	
			Single value	10.1 miles E	Single value	All less than LLD
	Cs-137	3.4E-2	4.39E-2 (1/3)	Lake Robinson	4.39E-2 (1/1)	
Surface Water (pCi/l)			Single value	Site varies	Single value	All less than LLD
	Gamma 36	See Table 8	All less than LLD		All less than LLD	All less than LLD
	Tritium 36	3.25E+2 (15/36) ⁽⁸⁾ 1.0E+3 (21/36) ⁽⁸⁾	3.42E+3 (23/24) 1.13E+3 - 6.93E+3	Black Creek @ 16-23 0.6 mile ESE	3.60E+3 (12/12) 1.13E+3 - 6.93E+3	All less than LLD
TLD (mR/qtr) ⁽⁷⁾	TLD 158 ⁽³⁾	N/A	1.46E+1 (154/154) 1.01E+1 - 2.32E+1	Intersection of SR 31-51 and 16-12 4.4 miles SSW	2.19E+1 (4/4) 2.02E+1 - 2.32E+1	1.33E+1 (4/4) 1.31E+1 - 1.35E+1

FOOTNOTES TO TABLE 5

1. Lower Limit of Detection (LLD) is the smallest concentration of radioactive material in a sample that will yield a net count above system background which will be detected with 95 percent probability with only 5 percent probability of falsely concluding that a blank observation represents a "real" signal. Due to counting statistics and varying volumes, occasionally lower LLDs are achieved.
2. Mean and range are based on detectable measurements only. The fractions of detectable measurements at specific locations are indicated in parentheses.
3. Missing samples are discussed in Missed Samples and Analyses.
4. Three types of broadleaf vegetation samples are collected monthly when available from three locations for a possible total of 108 samples.
5. Food products are required to be sampled at locations where plant effluents are used to irrigate food crops. The Auburndale Plantation, 10.1 miles E, irrigated the corn crop with water from Black Creek, thus requiring a corn sample for analysis. Food products were collected for split sampling with the state of South Carolina.
6. Bottom sediment and aquatic vegetation sampling are not required by plant technical specifications. Sampling and analysis is performed to monitor any radionuclide buildup in the lake.
7. TLD exposure is reported in milliroentgen (mR) per 90-day period (quarter) beginning in 1995. This is the exposure standard used to compare data to the Nuclear Regulatory Commission (NRC).
8. Tritium Lower Limit of Detection (LLD) was $1.0\text{E}+3$ pCi/L for five out of twelve months in 1996 (January-May); however, the LLD was lowered to $3.25\text{E}+2$ pCi/L in June 1996 for samples that typically demonstrate activity less than the LLD (groundwater and surface water control). The LLD was lowered at the request of the plants in order to maintain comparable LLD and result values with the state (N.C. and S.C.) Agencies' laboratories.

TABLE 6

Radioactivity in Environmental Samples
Attributed to Plant Operations

Sample Media	Radionuclide	Average Concentration and Occurrence	Maximum Individual Dose
Bottom Sediment	Co-60	3.85 E-1 (pCi/g) (2/3)	*
Aquatic Vegetation	Mn-54	1.22 E-1 (pCi/g) (1/3)	*
	Co-60	1.48 E-1 (pCi/g) (1/3)	*
	I-131	3.84 E-1 (pCi/g) (1/3)	*
Surface Water	H-3	3.42 E+3 (pCi/l) (23/24)	0.006 millirem/yr (from fish)

*No dose calculated since no general population exposure pathway exists.

TABLE 7

Reporting Levels for Radioactivity Concentrations
in Environmental Samples

Radionuclide	Water (pCi/l)	Airborne (pCi/m³)	Fish (pCi/kg, wet)	Milk (pCi/l)	Food Products (pCi/kg, wet)
H-3	3E+04				
Mn-54	1E+03		3E+04		
Fe-59	4E+02		1E+04		
Co-58	1E+03		3E+04		
Co-60	3E+02		1E+04		
Zn-65	3E+02		2E+04		
Zr-Nb-95	4E+02				
I-131	2E+00	9E-01		3E+00	1E+02
Cs-134	3E+01	1E+01	1E+03	6E+01	1E+03
Cs-137	5E+01	2E+01	2E+03	7E+01	2E+03
Ba-La-140	2E+02			3E+02	

INTERPRETATIONS AND CONCLUSIONS

Air Sampling

Air samples collected during 1996 had a mean gross beta activity of 2.08 E-2 pCi/m^3 for the indicator stations versus an average concentration of 1.94 E-2 pCi/m^3 for the control stations. These data are essentially unchanged from 1995; they are consistent with preoperational data obtained for the HBRSEP Unit No. 2 (1.40 E-1 pCi/m^3), and reflect the occurrence of naturally occurring radionuclides of the region. Figures 18 through 24 depict the gross beta activity in air versus the control location. The lower current value is primarily due to the reduction of worldwide fallout over that which was occurring during the preoperational years. These figures confirm that the indicator stations show no significant increase over the control samples and hence no discernible impact from the plant operations is apparent in the data.

The quarterly composite gamma analyses for air particulate samples for all quarters revealed no radionuclides typical of plant effluents.

There was no Iodine-131 (I-131) detected in any of the 370 air cartridge samples from the indicator stations and 51 air cartridges from the control location.

Broadleaf Vegetation

Broadleaf vegetation sampling is accomplished by collecting oak, wild cherry, persimmons, and sassafras leaves. Three species of samples, when available, are collected monthly at three locations (one control and two locations at the site boundary selected using historical meteorology with the highest calculated annual average ground level deposition). Broadleaf sampling is conducted since no milk animals are located within a radius of approximately five miles of the plant and is used to simulate dose to an individual via the milk pathway for compliance purposes.

During 1996, 22 of 40 samples taken from the indicator site demonstrated detectable concentrations of Cs-137 for an average value of $1.93 \text{ E-1 pCi/g (wet)}$. The control samples had detectable concentrations of Cs-137 in 13 of 19 samples with a mean concentration of $2.99 \text{ E-1 pCi/g (wet)}$. Upon comparing these results, it is concluded that the indicator values reflect fallout Cs-137 contamination. Past sampling experience further supports this interpretation.

Fish

Samples of free-swimming and bottom-feeding fish were taken from Lake Robinson and Prestwood Lake (the first downstream lake) and compared to similar fish from a control lake unaffected by plant operations. Six of twelve fish samples from the indicator and control locations contained traces of Cs-137. The activity levels of bottom-feeding fish from the indicator locations were slightly higher than the control samples. Conversely, free-swimming fish were slightly lower than controls. Therefore, no plant-related dose was assigned to the presence of this radionuclide. These data are similar to the results on 1995 samples.

Groundwater

No gamma or tritium activity was detected in the 36 samples of groundwater collected in 1996 which is consistent with the observations in previous years.

Milk

Twenty-six samples from an indicator location and 9 from the control location were collected. Iodine-131 and gamma activities were all less than LLD (see Figures 25 and 26).

Food Crops

In support of the Nuclear Regulatory Commission (NRC)/State of South Carolina Environmental Radiological Verification Monitoring program, food products consisting of tomatoes and corn were sampled and analyzed primarily for interlaboratory comparisons. Corn was also sampled due to the Auburndale Plantation being irrigated with water from Black Creek. No gamma activity associated with plant operations was detected in any samples.

Shoreline Sediment

No radionuclides of plant origin were detected in four samples collected semiannually in 1996 as was the case in 1991-1995.

Bottom Sediment

The 1996 data show a slight decrease over 1995 in the Cobalt-60 activity in Lake Robinson (from 0.6 to 0.2 pCi/g). Cesium-137 activity was observed in all three indicator locations. These values were also comparable or slightly less than 1995 values. Cesium-137 activity is attributed to worldwide fallout and not the plant operations. These decreases in radionuclide activity are likely due to the variability of bottom sediment sampling.

Aquatic Vegetation

In 1996 Cesium-137 activity was observed in the annual aquatic vegetation sample from Lake Robinson (Sample Location 45, Figure 27), with a value of 0.04 pCi/g. The activity of the radionuclide is slightly more than that observed in 1995 (0.03 pCi/g and 0.04 pCi/g). Manganese-54 was observed in the single sample taken from Black Creek near Auburndale Plantation (Sample Location 54, Figure 28), with a value of 0.12 pCi/g, same as 1995. Cobalt-60 was observed in the single sample from Location 54 with a value of 0.15 pCi/g. Also, Iodine-131 was observed at this location with a value of 0.38 pCi/g. The I-131 that was identified cannot be attributed to the Robinson Plant because there was no I-131 released in liquid effluents in the twelve-month period prior to the samples being obtained. The most likely source of the I-131 is medical waste from a local municipal sewage treatment facility which discharges upstream of the Robinson Plant sample location. Figures 27 through 29 depict the radionuclide concentrations stated above.

Surface Water

Surface waters of Lake Robinson indicated the presence of tritium which is attributed to plant operations (Figures 30 and 31). These surface waters do not supply drinking water at any downstream location and irrigation practices downstream have not been used since 1989; therefore, radiological dose via this pathway is limited to the consumption of fish from Lake Robinson. Using the methodology of Regulatory Guide 1.109, Equation A-1, a dose of 0.006 millirem/year to the maximum exposed individual could be assigned to this pathway.

Equation A-1

$$R_{aipj} = C_{ip} U_{ap} D_{aipj}$$

where as:

- R_{aipj} = total body dose in mrem/yr of H-3
 C_{ip} = concentration of nuclide (H-3) in pCi/kg = pCi/l
 U_{ap} = maximum exposed individual's consumption
(Reg. Guide 1.109, Table E-5) (35 lbs. of fish per year = 16 kg of fish/yr.)
 D_{aipj} = ingestion dose factor for total body of individual (teenager) in U_{ap} in mrem/pCi
(Reg. Guide 1.109 Table E-12)

The monthly composite gamma analyses for surface water samples revealed no radionuclides typical of plant effluents.

External Radiation Exposure

Direct radiation exposure in the H. B. Robinson environs was measured by the placement of thermoluminescent dosimeters (TLDs) about the plant forming an inner ring at approximately 1 mile and an outer ring at 5 miles. The expectation would be that if a plant effect existed, the inner ring dose measurements would exceed those made in the outer ring. This condition was not observed since the outer ring was slightly higher than the inner; therefore, any direct radiation dose to the off-site population was determined to be insignificant (Figure 32).

Asiatic Clams

Benthic samples from Lake Robinson during 1996 continue to confirm the absence of any substantial populations of Asiatic clams (*Corbicula fluminea*). The natural chemistry of the lake (i.e., low alkalinity and hardness) inhibits their proliferation.

MISSED SAMPLES AND ANALYSES

Air Cartridges and Air Particulates

No samples were available for:

- AC/AP-4, May 19, due to a blown fuse.
- AC/AP-1, December, 22 due to a blown fuse.
- AC/AP-1, December 30, sampler found not working and taken for repairs.

Low AC/AP Volumes for:

- AC/AP-55, April 29, due to a tripped breaker.
- AC/AP-3, August 5, due to a fuse wire malfunction
- AC/AP-3, August 12, due to a tripped circuit breaker.
- AC/AP-4, October 12, due to loss of power - restarted on October 13 after repairs were made.

Broadleaf Vegetation

Broadleaf vegetation samples were not available during the months of January, February, March, April, November, and December due to the seasonal nature of broadleaf vegetation. Also, broadleaf vegetation, persimmon, was not available from BL-52 area on October 21, 1996.

Milk

Milk 63 of the Cunningham Dairy is no longer available. The dairy ceased operation as of 5/12/96.

Thermoluminescent Dosimeters (TLDs)

Six of a possible 164 TLD samples were missing during 1996 due to vandalism. They were:

- Second Quarter - TLDs 13 and 27 were missing in the field.
- Third Quarter - TLDs 25 and 55 were missing in the field.
- Fourth Quarter - TLDs 12 and 32 were missing in the field.

ANALYTICAL PROCEDURES

Gross Beta

Gross beta radioactivity measurements are made utilizing a Tennelec Low-Background Alpha/Beta Counting System. The LLD for air particulates is approximately $1.0\text{E-}3$ pCi/m³.

Air particulate samples are mounted in 2-inch stainless steel planchets and counted directly for 50 minutes.

Tritium

Liquid samples requiring tritium analysis are treated with a small amount of sodium hydroxide and potassium permanganate crystals and then distilled. Five milliliters of the distillate are mixed with thirteen milliliters of liquid scintillation cocktail and counted in a liquid scintillation counter for 50 minutes to achieve an LLD of approximately 1000 pCi/L through May 1996. From June through December 1996, tritium samples were counted 500 minutes in order to achieve a lower, more compatible LLD (325 pCi/L) with the State Agencies reportable concentrations in the Split Sample Program Report. This change to a lower LLD was per the plants' request.

Iodine-131

Iodine-131 airborne concentrations are analyzed by the intrinsic germanium (Ge) gamma spectrometry systems. The cartridges are placed on the detector and each charcoal cartridge is counted individually with an approximate LLD of $2.2\text{ E-}2$ pCi/m³.

Iodine-131 in milk is determined by an instrumental method. Analysis involves passing 4 liters over an anion-exchange resin and direct gamma analysis of the resin with an intrinsic Ge detector. The LLD using the Germanium (Ge) detector is approximately $5.0\text{ E-}1$ pCi/L for milk using a 25,000 second count time.

Gamma Spectrometry

Gamma spectrum analysis utilizes intrinsic germanium detectors with thin aluminum windows housed in steel and lead shields. The analyzer system is the Canberra Nuclear 9900 Gamma

Spectroscopy System. Table 8 summarizes LLD values derived from instrument sensitivity based upon a blank sample background.

Air particulate filter quarterly composites are placed in a Petri dish and analyzed directly for 1,000 seconds.

Liquid samples are boiled down to reduce the volume, transferred to a PB-50 beaker, and analyzed directly for 7,000 seconds.

Shoreline and bottom sediments are dried, ground, weighed, and then analyzed in a Marinelli beaker for 1,500 seconds.

Broadleaf and aquatic vegetation and food product samples are weighed wet and analyzed in a Marinelli beaker for 7,500 seconds.

Fish samples are cleaned, dressed, and placed in a Marinelli beaker for analysis for 1,500 seconds.

Thermoluminescent Dosimetry

Each area monitoring station includes a TLD packet, which is a polyethylene bag containing three calcium sulfate phosphors contained in a Panasonic UD-814 badge. The TLD is lighttight and the bag is weather-resistant.

Dosimeters are machine annealed before field placement. Following exposure in the field, each dosimeter is read utilizing a Panasonic TLD reader. This instrument integrates the light photons emitted from traps as the dosimeter is heated above 150°C. The photons from the lower-energy traps are automatically eliminated through a preheat cycle. Calibration is checked regularly using dosimeters irradiated to known doses. Prior to the measurement of each dosimeter, the instrument is checked through use of an internal constant light source as a secondary standard.

The exposure reported is corrected for exposure received in transit and during storage through the use of control dosimeters.

Interlaboratory Comparison Program

The Radiochemistry Laboratory at the Harris Energy & Environmental Center in New Hill, North Carolina, provides radioanalytical services for CP&L's nuclear plant radiological environmental surveillance programs. The laboratory is a participant in the Analytics, Inc. Environmental Cross-Check Program and uses its performance in this program as a major determinant of the accuracy and precision of its analytical results. The change in vendors for the Interlaboratory Program was due to the termination of the EPA Environmental Cross-Check Program as of December 31, 1995.

During 1996, 81 analyses were completed on 16 samples representing five major environmental media (i.e., water, milk, air filters, soil, and air cartridges). Data on the known activities and the standard deviations for the 81 analyses have been received from Analytics, Inc. A comparison of the average of our reported values with the Analytics, Inc., known activity and its standard deviation is provided below:

<u>Standard Deviation</u>	<u>Percent of Analyses</u>
<u>From Known Activity</u>	
≤ 1 Standard Deviation	61
≤ 2 Standard Deviation	85
≤ 3 Standard Deviation	94

Five of 81 analyses exceeded the 3 sigma action level. This was a gross alpha/beta in water from First Quarter 1996 Gross Alpha/Beta in Water (E0658-72) and three gammas from Second Quarter 1996 Gamma in Water (E0734-72) and an Air Filter gamma (E0737-72).

The gross alpha/beta results were investigated by the following means: (1) rechecked counts and efficiency used, (2) instrument efficiency was verified and checked against 1995's efficiency, (3) samples had been disposed of so a recount was unobtainable, (4) reanalyzed an aliquot of remaining original sample, and (5) spiked the sample - recovery was also high; therefore, the investigation did not determine a reason for the erroneous result. The laboratory also participates in a Radiochemistry Effluent Interlaboratory Comparison Program (vendor - Analytics, Inc.) which checks our performance (accuracy and precision) on Gross Alpha/Beta, Sr-89/90, and Fe-55. The Gross Alpha/Beta results for 1996 were within Analytics, Inc.'s acceptable criteria range. The three gamma results that exceeded the three sigma value in the Second Quarter were within acceptable range in the Third Quarter 1996 Cross-Check sample.

Lower Limits of Detection

All samples analyzed met the LLD required by the applicable Technical Specifications. Typical “a priori” LLD values for the samples analyzed are listed in Table 8.

Table 8

**Typical Lower Limits of Detection (a priori)
Gamma Spectrometry**

<u>Surface Water/Groundwater Samples</u>	
Isotope	LLD (pCi/l)
Mn-54	6
Co-58	6
Fe-59	14
Co-60	8
Zn-65	13
Zr-Nb-95	6
I-131	1.0*
Cs-134	7
Cs-137	7
Ba-La-140	8
Other Expected Gamma Emitters	3 to 311
<u>Air Particulates</u> (Quarterly Composite)	
Isotope	LLD (pCi/m ³)
I-131	0.045
Cs-134	0.001
Cs-137	0.001
Other Expected Gamma Emitters	0.001 to 0.043
<u>Milk</u> (Gamma Scan)	
Isotope	LLD (pCi/l)
I-131	1.0*
Cs-134	10
Cs-137	9
Ba-La-140	10
Other Expected Gamma Emitters	6 to 587

*Instrumental analysis of resin concentrates of samples.

Table 8 (continued)

Sediments (Shoreline or Bottom)	
Isotope	LLD (pCi/kg, dry)
Cs-134	69
Cs-137	71
Other Expected Gamma Emitters	41 to 1518
Fish	
Isotope	LLD (pCi/kg, wet)
Mn-54	54
Co-58	40
Fe-59	119
Co-60	67
Zn-65	75
Cs-134	74
Cs-137	64
Other Expected Gamma Emitters	36 to 1429
Food Products and Vegetation	
Isotope	LLD (pCi/kg, wet)
I-131	41
Cs-134	34
Cs-137	34
Other Expected Gamma Emitters	22 to 1811

LAND-USE CENSUS

PURPOSE OF THE LAND-USE CENSUS

The land-use census identifies the pathways (or routes) that radioactive material may reach the general populations near commercial nuclear generating stations. This is accomplished by completing studies each year that identify how the surrounding lands are used by the population. A comprehensive census of the use of the land within a five mile distance of the plant is completed during the growing season each year. This information is used for dose assessment and to identify changes to the stations sampled and the type of samples. These results ensure that the Radiological Environmental Monitoring Program (REMP) is based upon current data regarding human activity in the vicinity of the plant. Therefore the purpose of the land-use census is both to ensure the monitoring program is current as well as provide data for the calculation of estimated radiation exposure.

The pathways that are evaluated are:

- ◆ Ingestion Pathway - Results from eating food crops that may have radioactive materials deposited on them, incorporated radioactive materials from the soil or atmosphere. Another pathway is through drinking milk from local cows or goats if these are present. The grass used to feed these animals may have incorporated or had deposited on it radioactive materials that can be transferred to the milk.
- ◆ Direct Radiation Exposure Pathway- Results from deposition of radioactive materials on the ground or from passage of these radioactive materials in the air.
- ◆ Inhalation Pathway- Results from breathing radioactive materials transported in the air.

Methodology

The following must be identified within the five (5) mile radius of the plant for each of the sixteen meteorological sectors (compass direction the winds may blow, for example NNE [North North East]):

- ◆ The nearest resident
- ◆ The nearest garden of greater than 500 square feet, producing broadleaf vegetables
- ◆ The nearest milk animal

The primary method is visual inspection from roadside within the five (5) mile radius, with the exception of the Military Ocean Terminal. This information is supplemented with data from aerial photographs, information from county extension agents, and farm supply businesses.

1996 Land-Use Census Results

The 1996 and 1995 results of the survey for the nearest resident, garden, milk and meat animals in each sector are compared in Table 9.

The nearest resident in each sector remained the same in all but the SE, NW, and NNW sectors from 1995 to 1996. A new garden was located in the E sector and one was lost in the NNW sector along with other noted changes (see Table 8). Meat animal locations have changed in the following sectors from 1995 to 1996: NE, E, ESE, SE, SW, WSW, WNW, and NW. The single indicator milk location in the REMP continued in operation at 11.2 miles in the E sector. See Table 9 for exact changes from 1995 to 1996.

The results of the 1996 census, 1995 meteorological data, and a review of the ten years of average meteorology for the site were compared to the 1995 data including changes in exposure pathway distances. This comparison determined that there were no significant changes in land-use. The likely most exposed individual is a teenager in the SE sector 0.3 mile (482.8 meters) from the plant. The estimated dose to this individual is 0.01 millirem/year whole body. This value is small compared to the natural background radiation in this area which is 58 millirem/year.

TABLE 9

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

LAND-USE CENSUS COMPARISONS (1995-1996)

NEAREST PATHWAY (MILES)

SECTOR	RESIDENT		GARDEN		MEAT		MILK	
	1996	1995	1996	1995	1996	1995	1996	1995
N	2.9	2.8	2.9	2.8	2.9	2.8		
NNE	1.7	1.7	2.1	2.1	1.7	1.7		
NE	1.7	1.3	*2.7	1.5	*2.7	1.5		
ENE	0.8	0.8	*1.0	2.8	3.0	3.0		
E	0.8	0.8	*2.1	---	*2.8	---	11.2	11.2
ESE	0.6	0.6	0.6	0.6	0.9	0.6		
SE	*0.6	0.5	*1.7	2.0	*1.2	0.8		
SSE	0.4	0.4	---	---	---	---		
S	0.4	0.4	*0.3	2.1	2.3	2.3		
SSW	0.9	0.9	0.9	0.9	0.9	0.9		
SW	0.5	0.5	*1.5	1.2	*4.0	4.8		
WSW	0.5	0.5	*0.8	1.0	*2.2	2.6		
W	0.6	0.6	0.6	0.6	---	---		
WNW	0.9	0.9	*0.9	1.0	*---	0.9		
NW	*1.6	2.0	2.0	2.0	*---	4.1		
NNW	*2.1	3.1	---	3.1	4.0	4.0		

*Changes from 1995.

REFERENCES

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Figure 18 For RNP From 1/1/96 To 12/31/96
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)

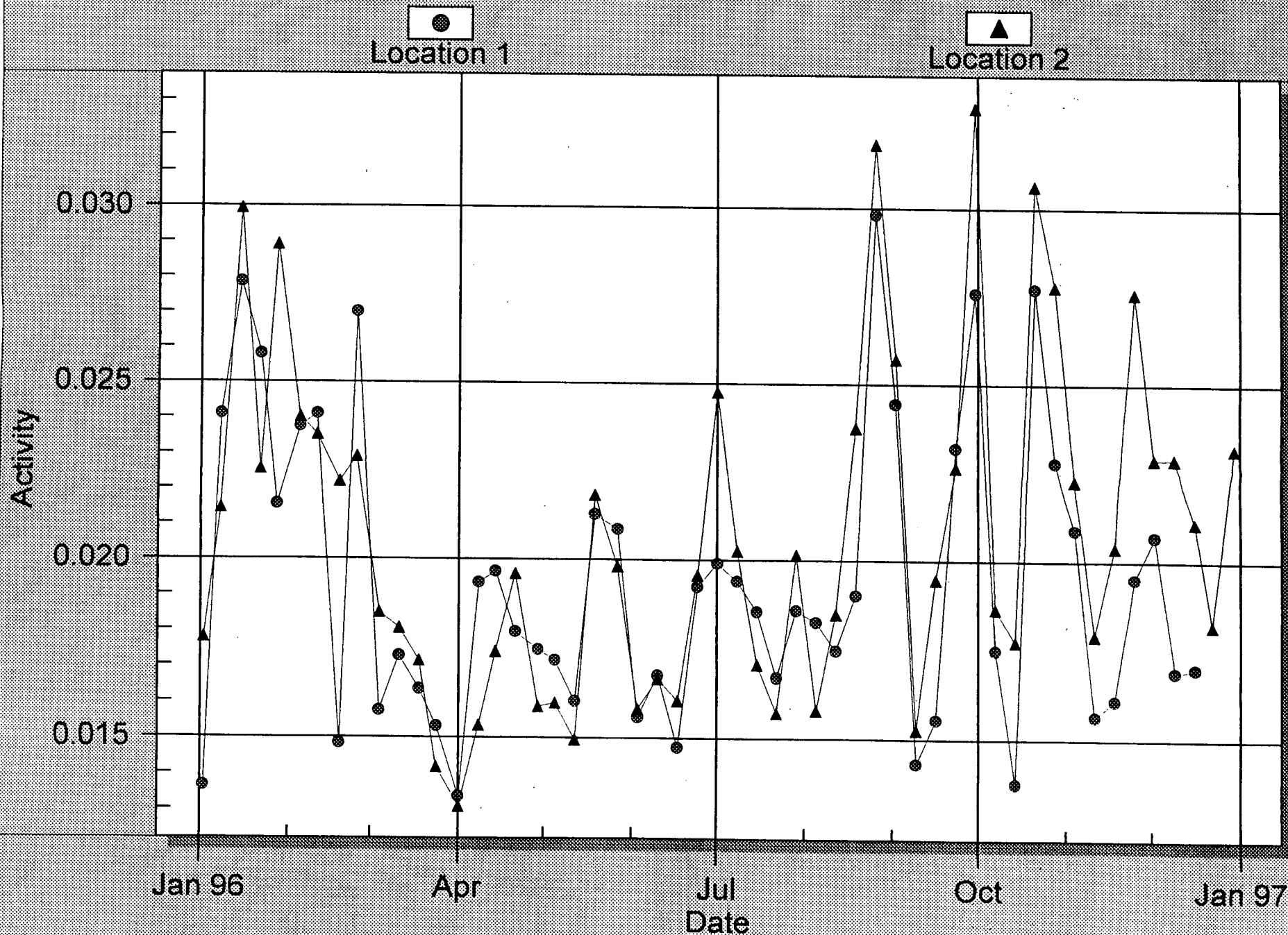


Figure 19 For RNP From 1/1/96 To 12/31/96
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)

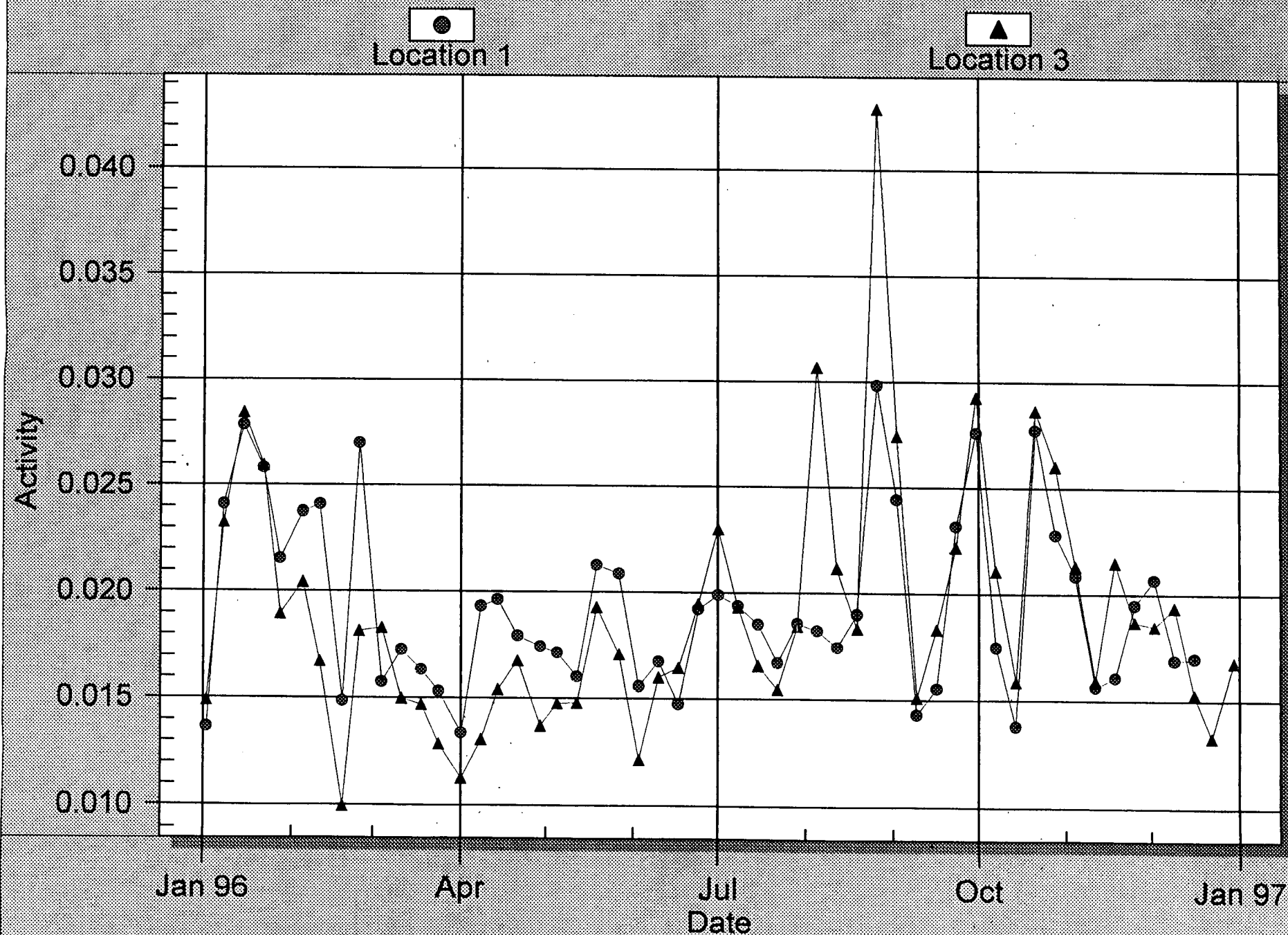


Figure 20 For RNP From 1/1/96 To 12/31/96
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)

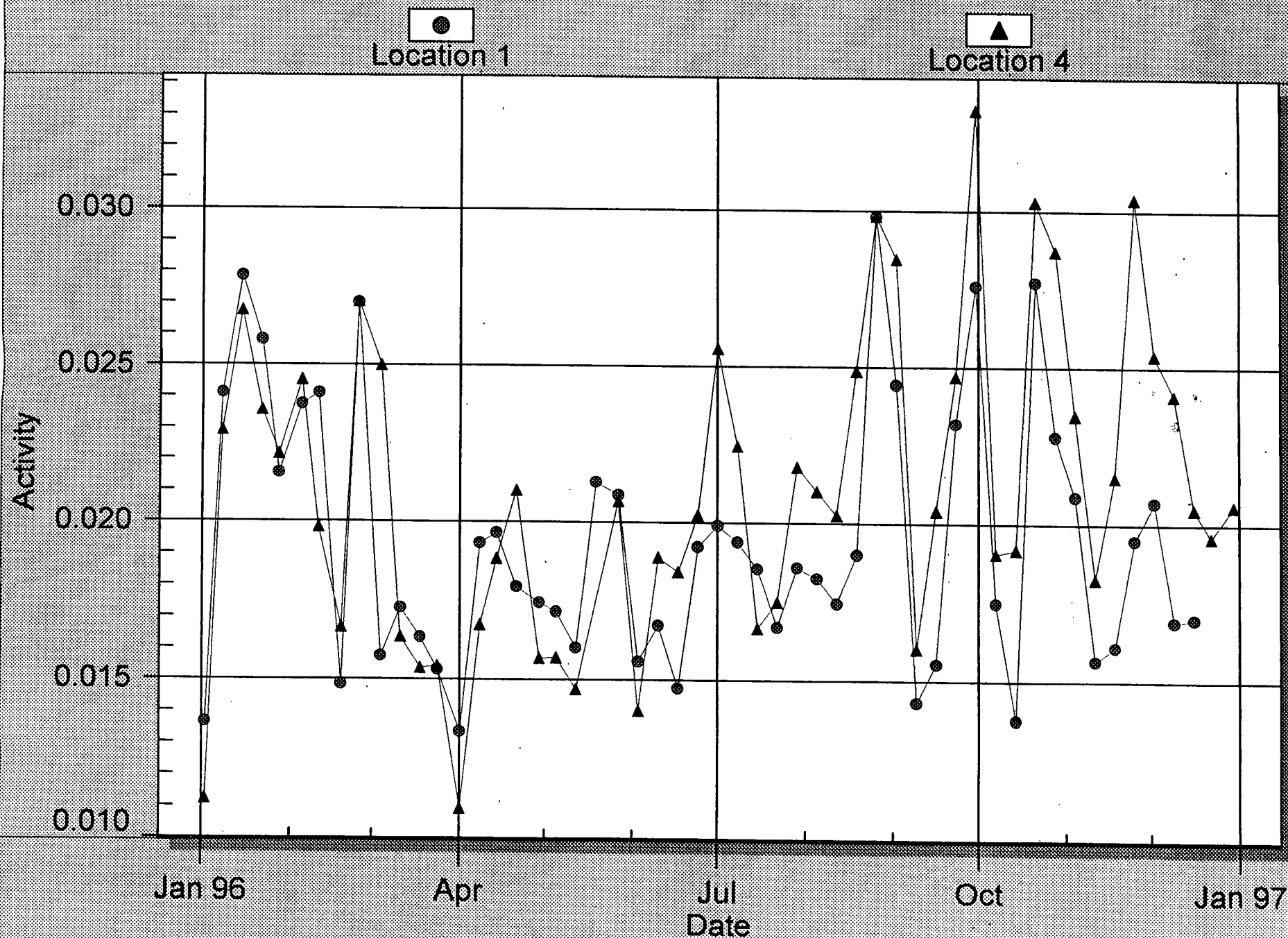


Figure 21 For RNP From 1/1/96 To 12/31/96

AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)



Location 1



Location 5

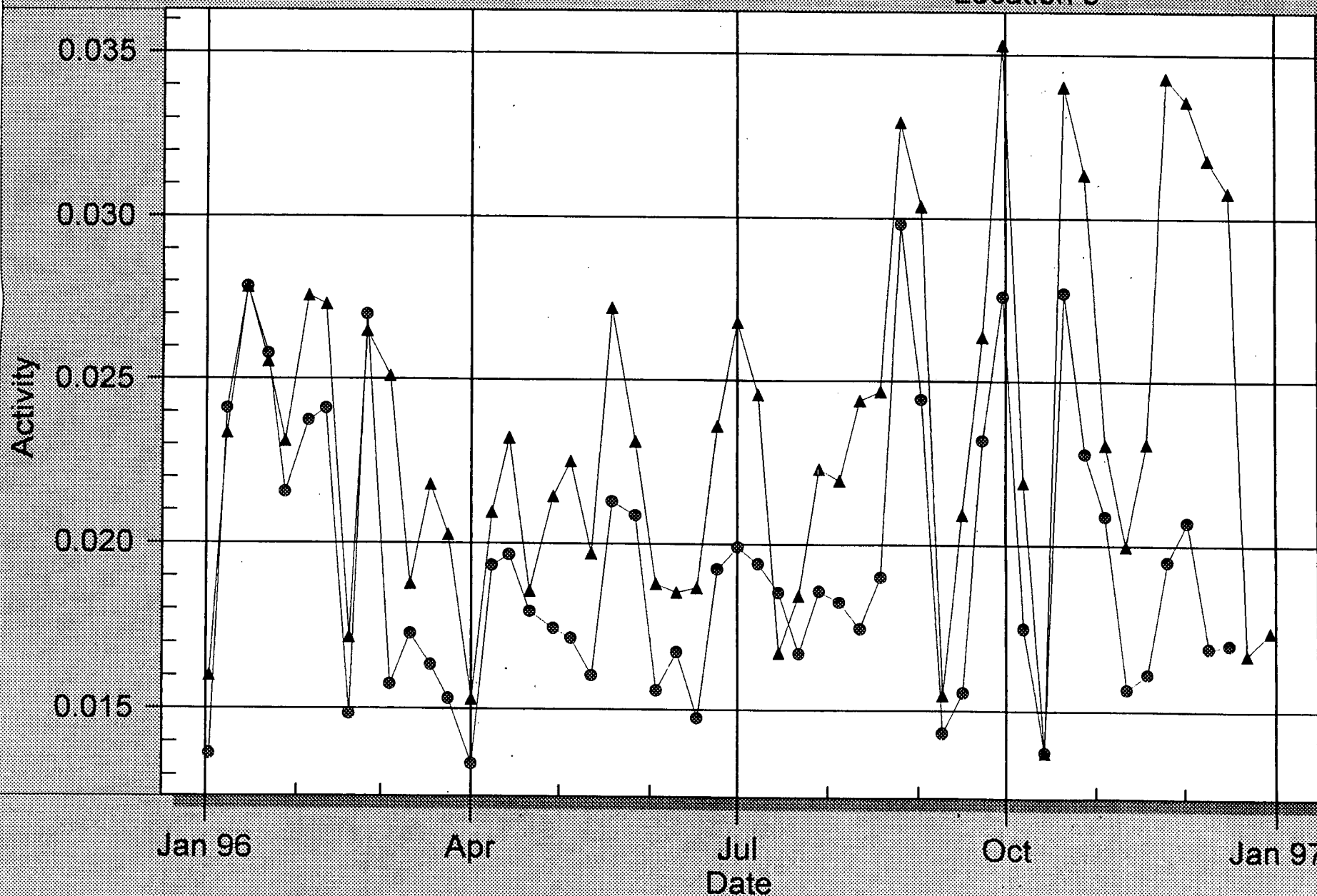


Figure 22 For RNP From 1/1/96 To 12/31/96
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)

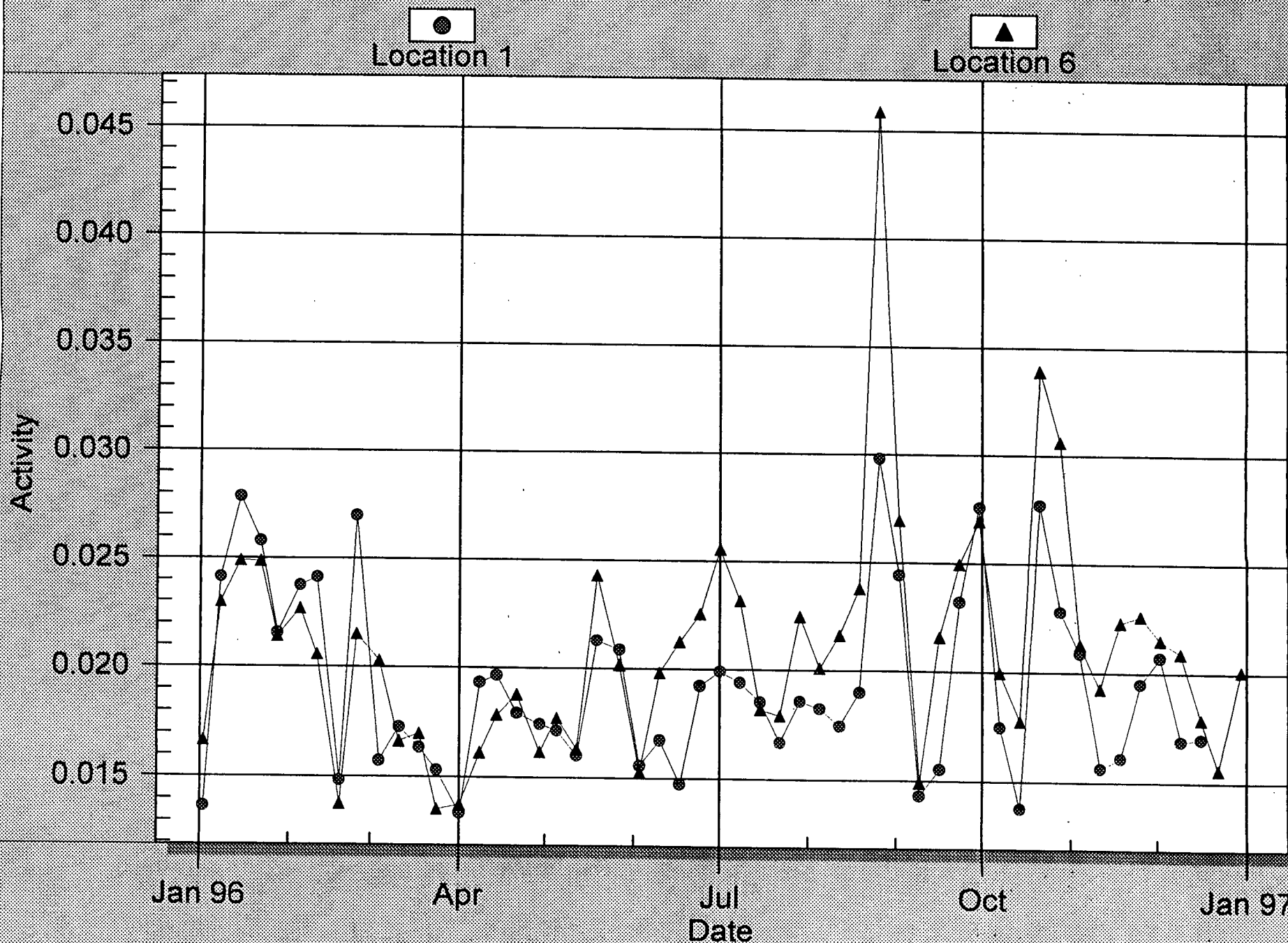


Figure 23 For RNP From 1/1/96 To 12/31/96
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)



Location 1



Location 7

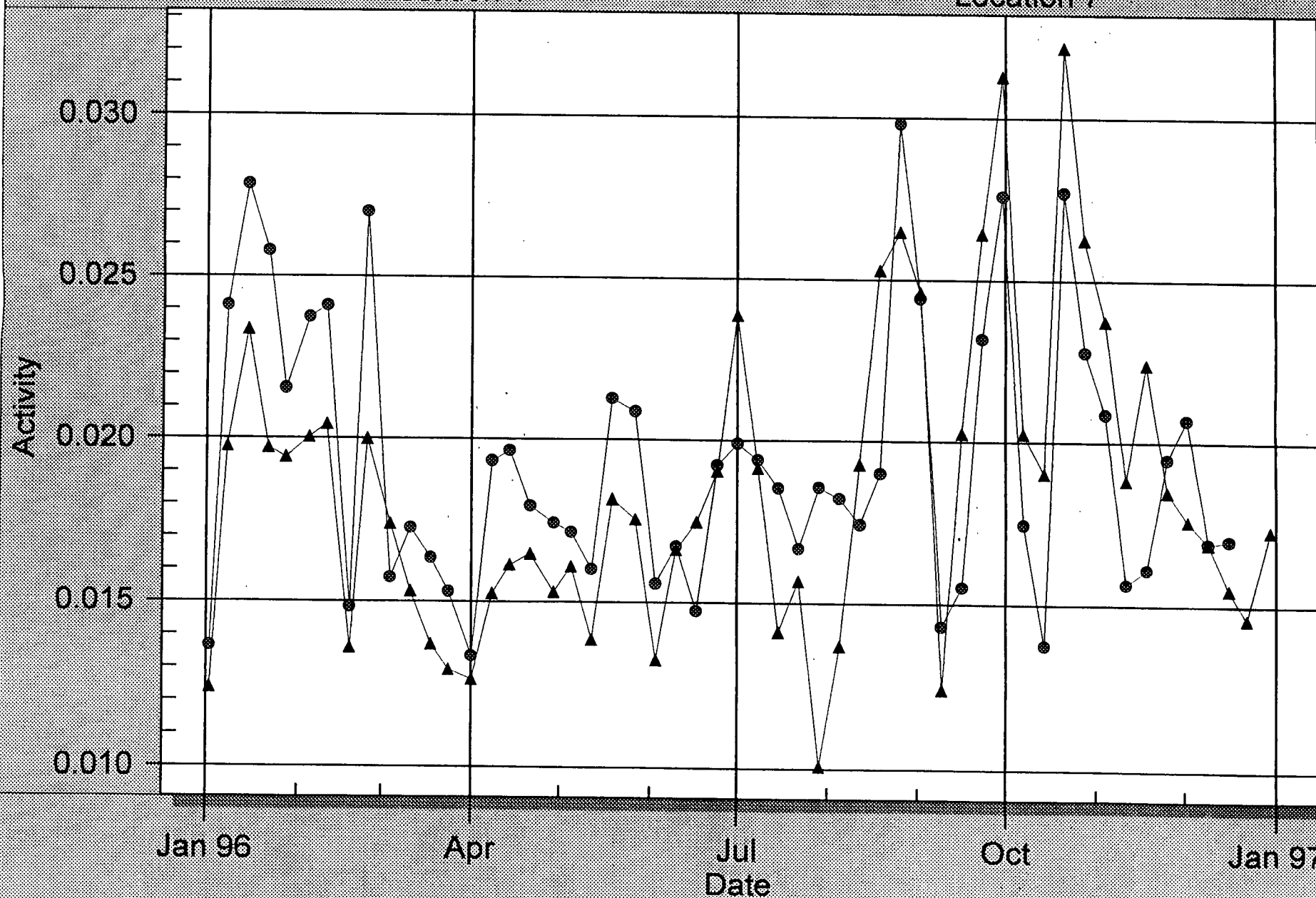


Figure 24 For RNP From 1/1/96 To 12/31/96
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)

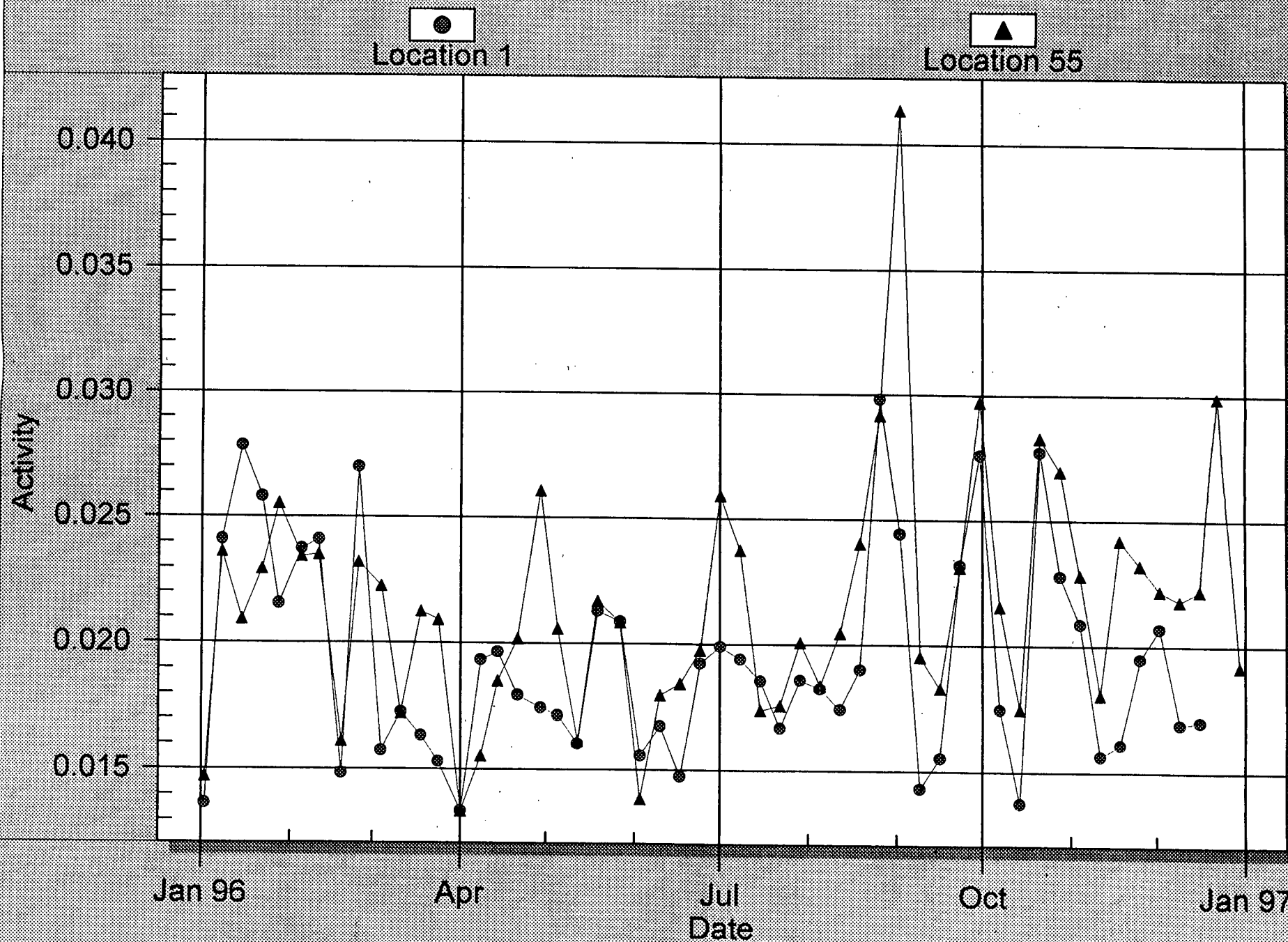


Figure 25 RNP 1996 Milk Samples Iodine-131 Activity (pCi/ Liter)

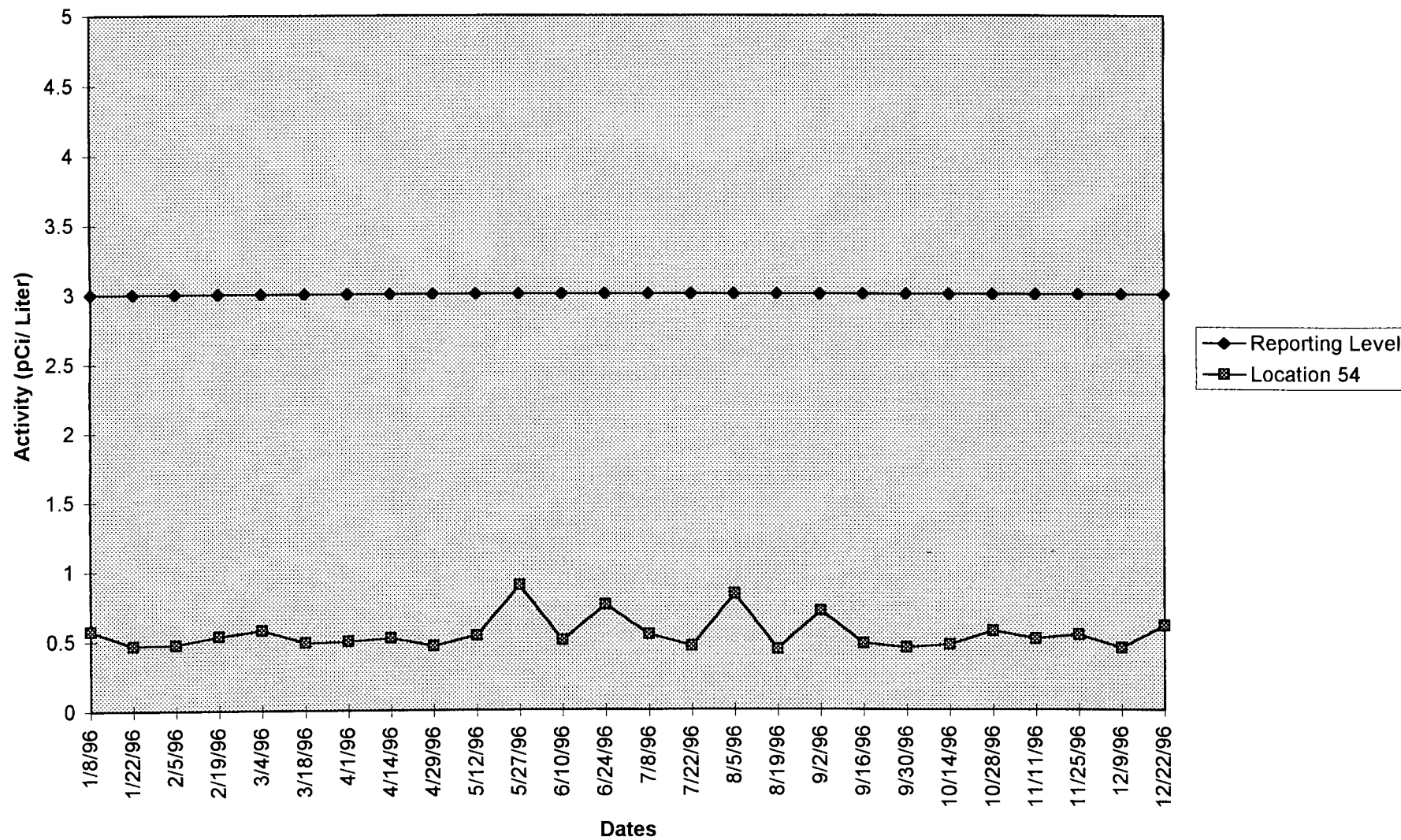
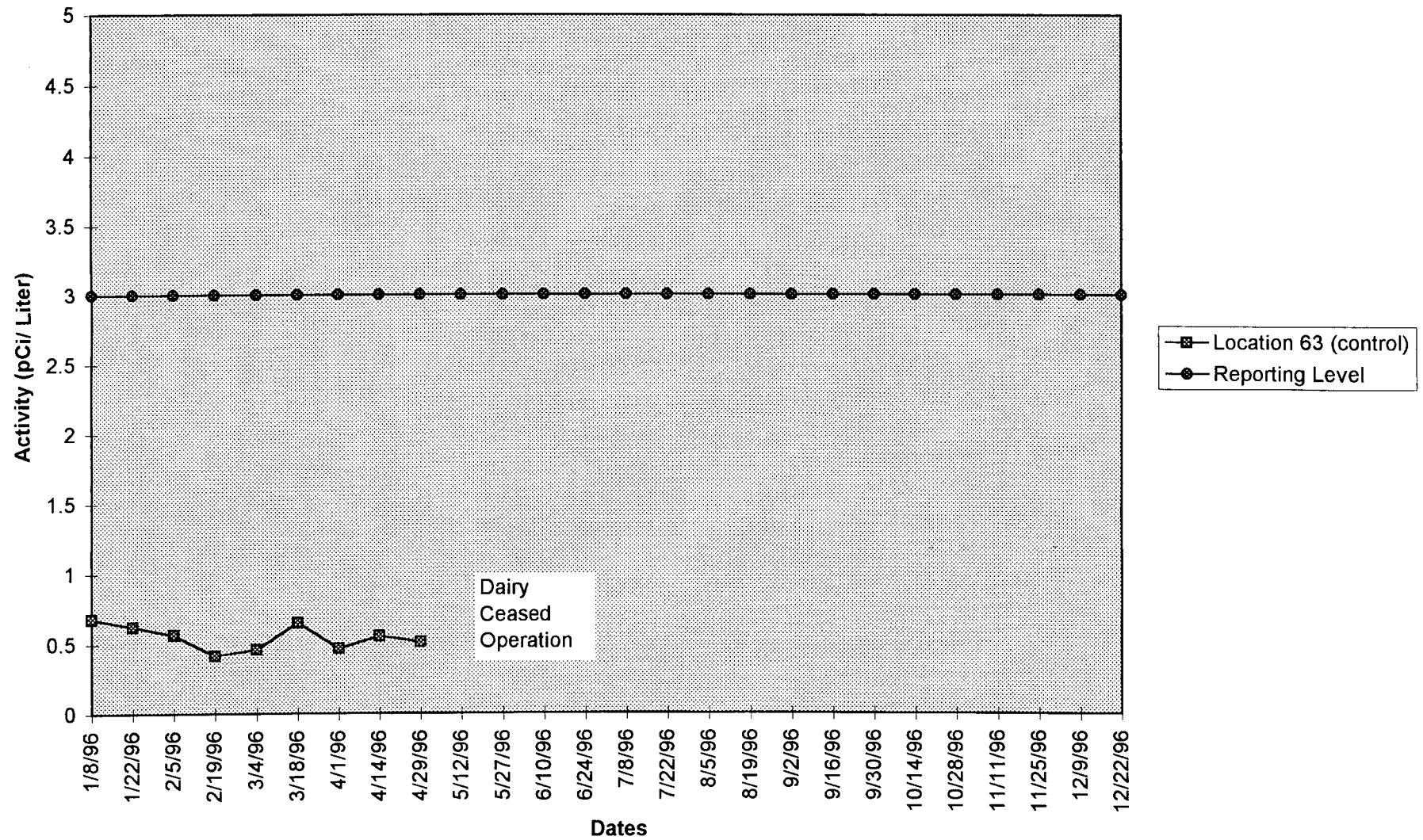


Figure 26 RNP 1996 Milk Samples Iodine-131 Activity (pCi/ Liter)



s-137

Figure 27 RNP 1996 Aquatic Vegetation Location 45 Gamma Activity (pCi/ gram wet)

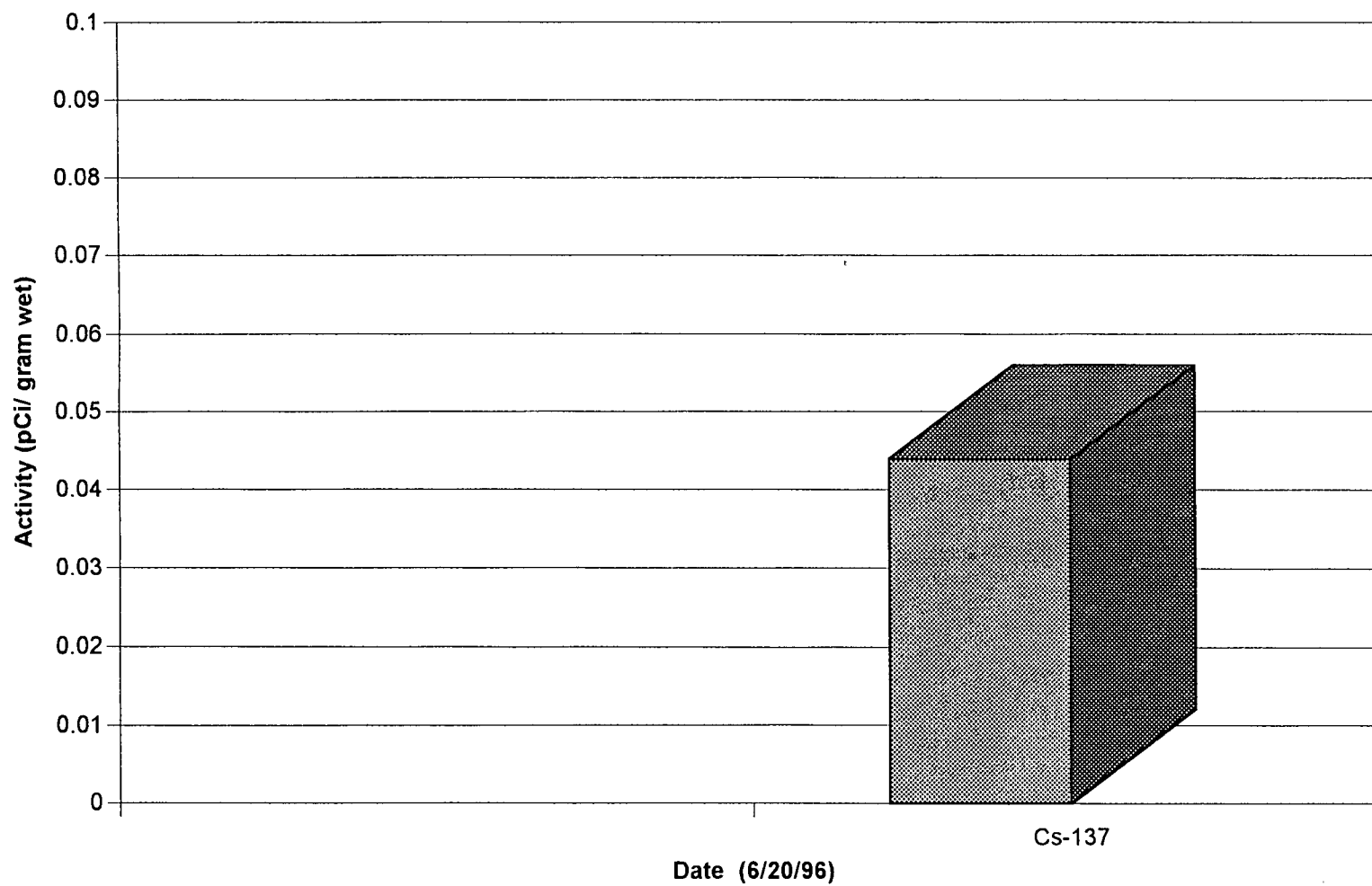


Figure 28 RNP 1996 Aquatic Vegetation Location 46 Gamma Activity (pCi/ gram wet)

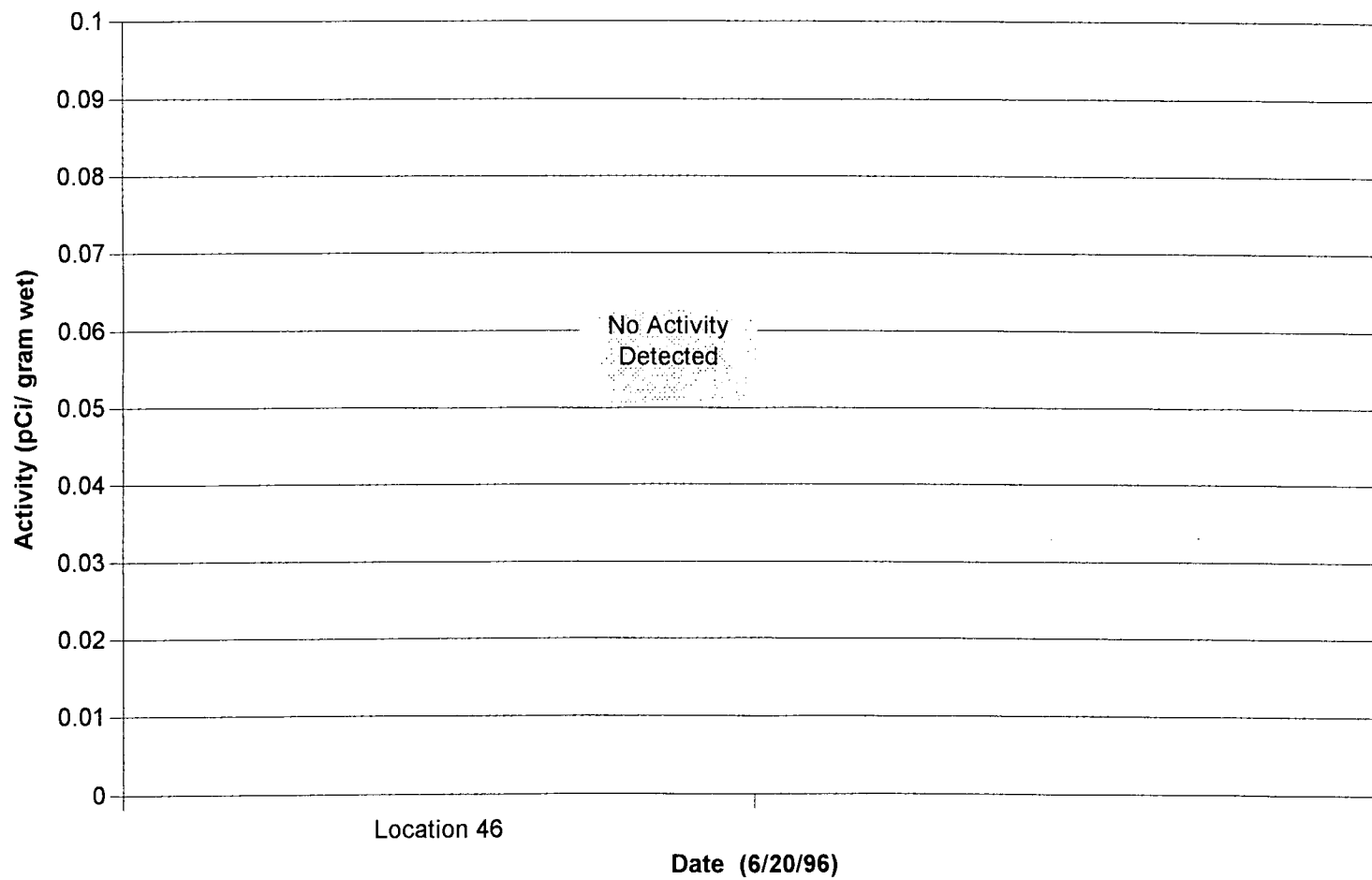


Figure 29 RNP 1996 Aquatic Vegetation Location 54 Gamma Activity (pCi/ gram wet)

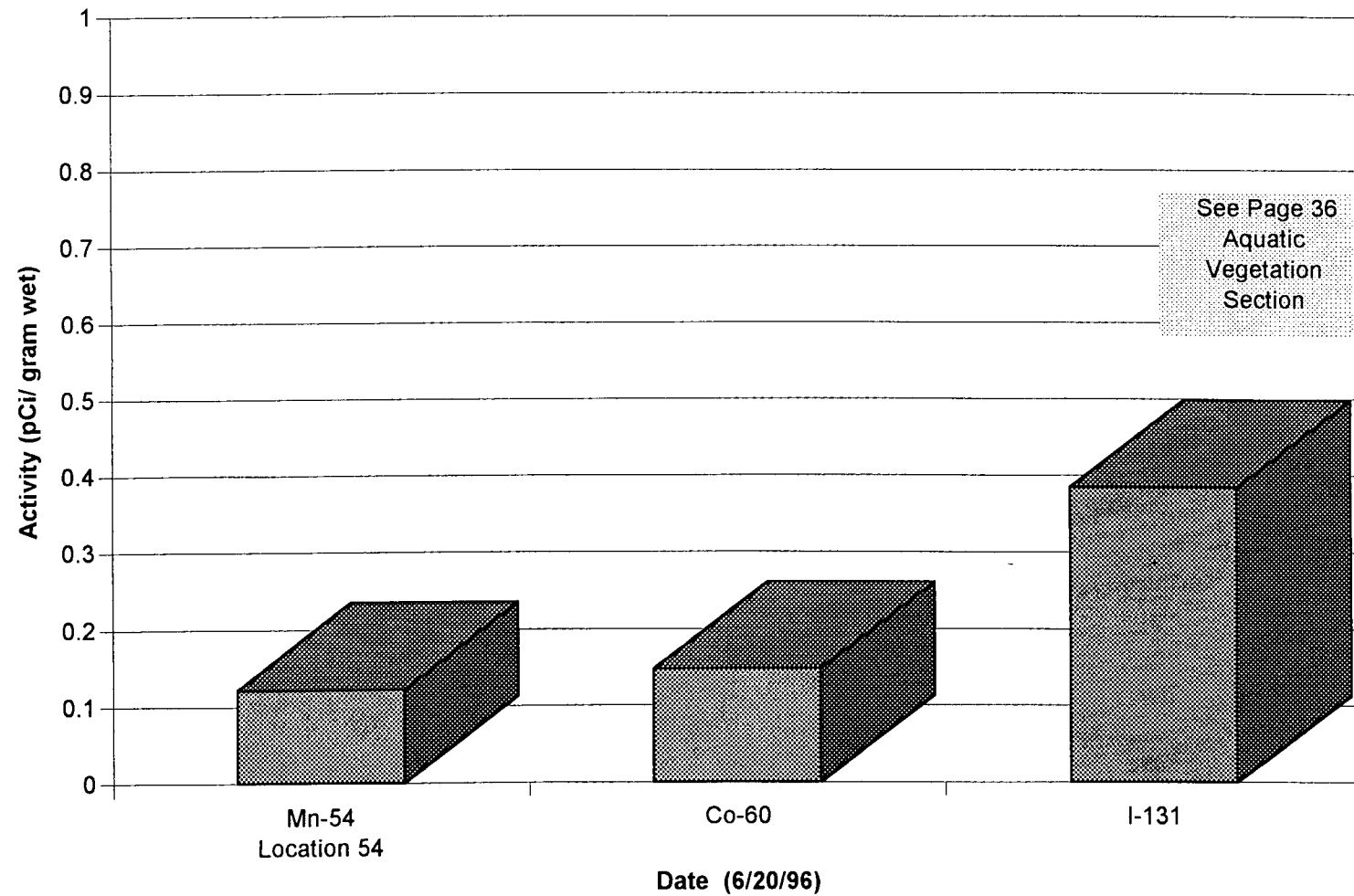


Figure 30 RNP 1996 Surface Water Tritium

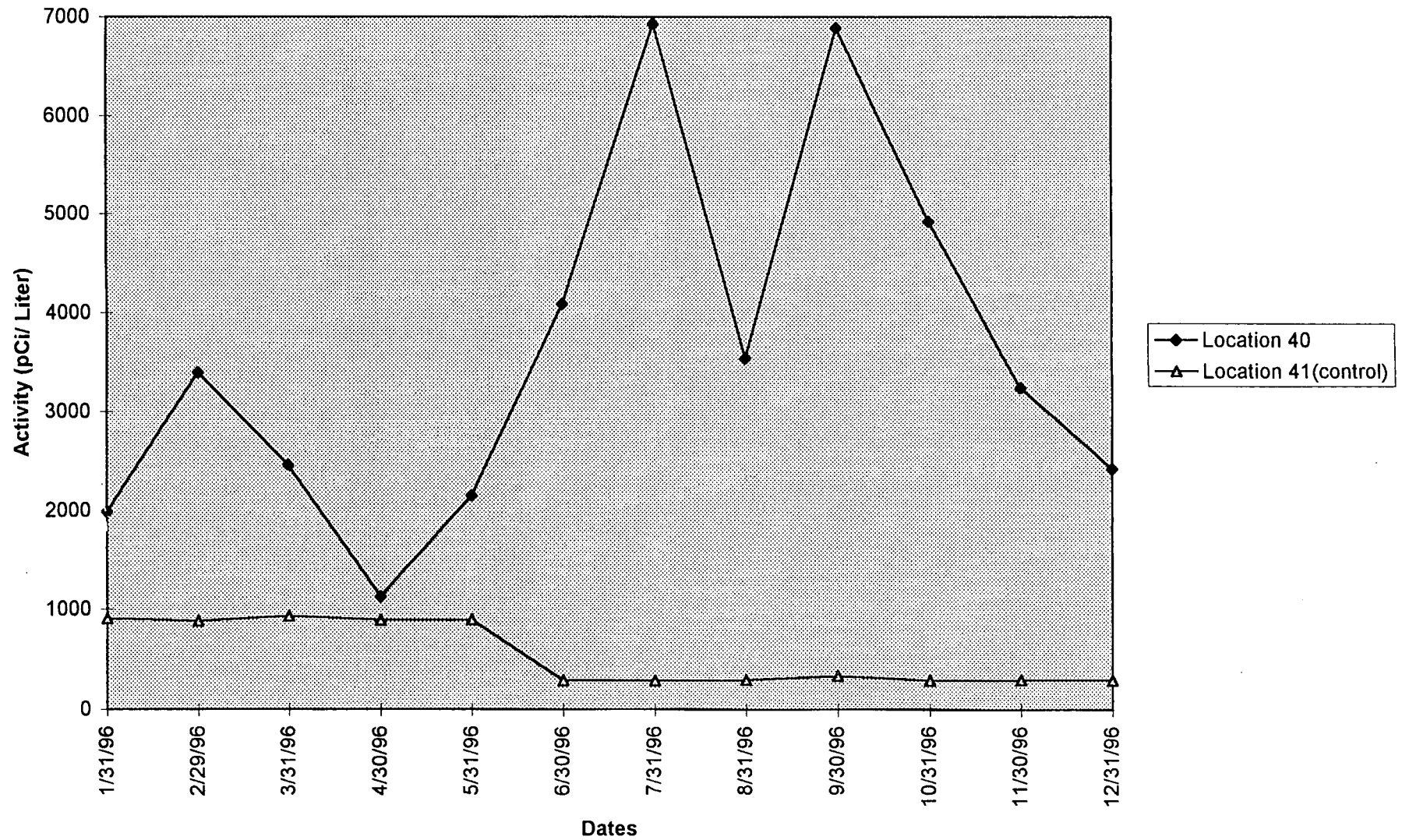


Figure 31 RNP 1996 Surface Water Tritium

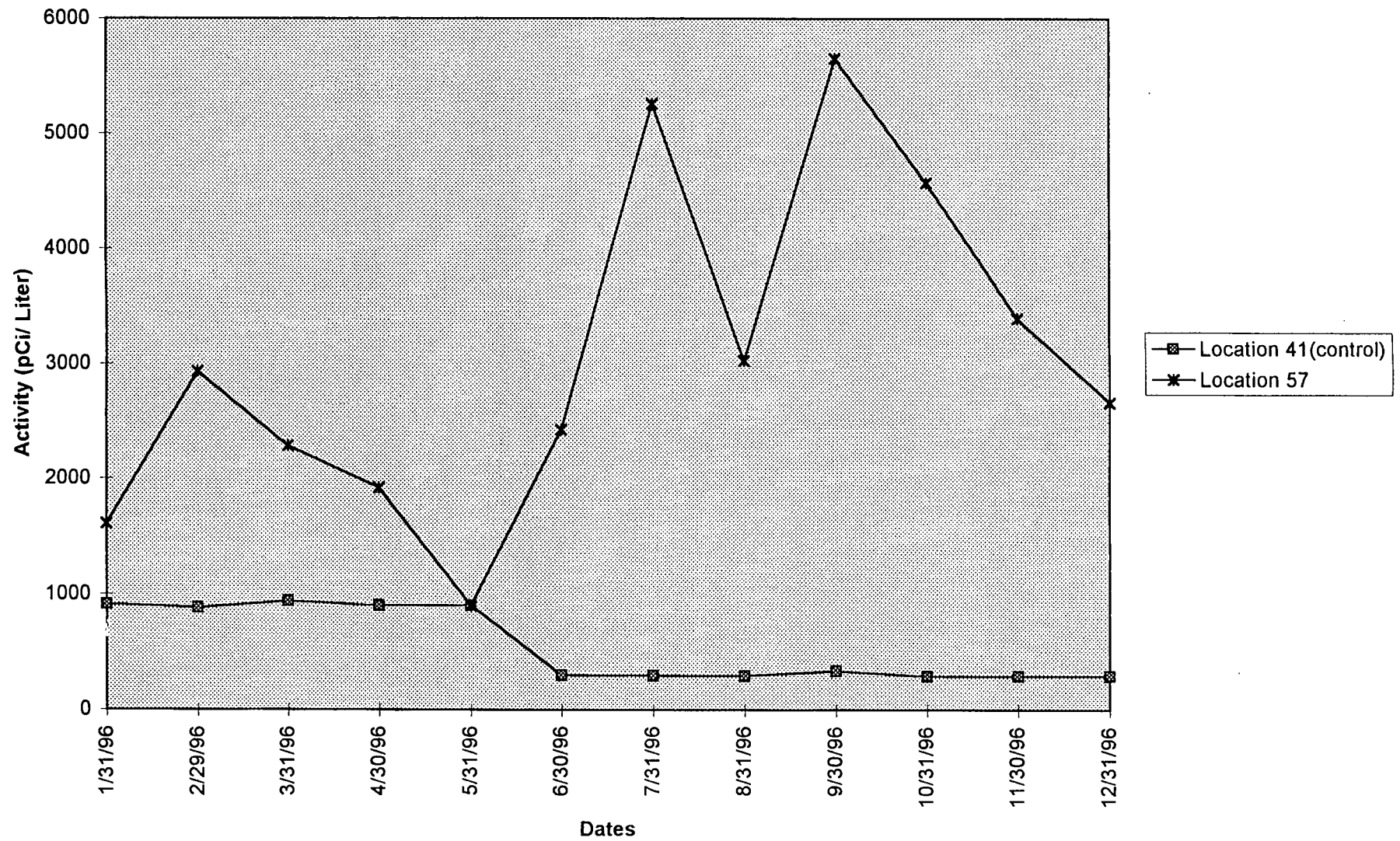
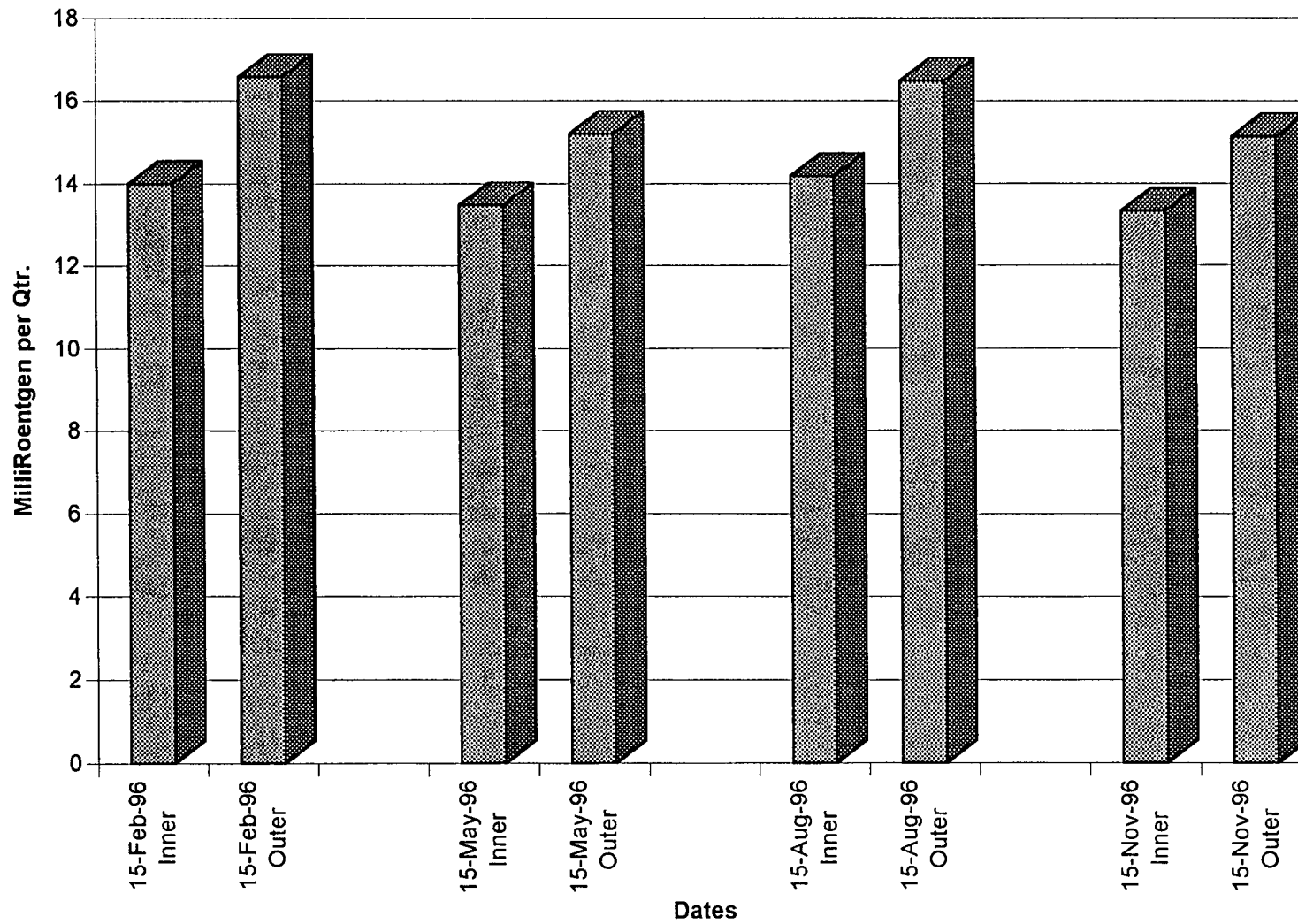
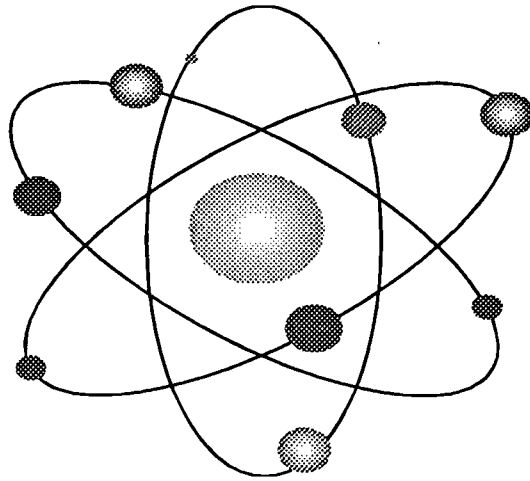


Figure 32 RNP 1996 TLD Averages for Inner and Outer Ring Locations





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Plant: RNP TLD in mR/QTR

Sample Point	SampleDate	Dose	2 SigmaError
1 - 26 MI ESE - FLORENCE - CONTROL	2/15/96	1.32E+001	3.40E+000
1	5/15/96	1.34E+001	1.00E+000
2 - 0.2 MI S - INFORMATION CENTER	2/15/96	1.49E+001	2.70E+000
2	5/15/96	1.44E+001	1.60E+000
3 - 0.7 MI N - MICROWAVE TOWER	2/15/96	1.51E+001	2.50E+000
3	5/15/96	1.57E+001	1.00E+000
4 - 0.4 MI ESE - SPILLWAY	2/15/96	1.01E+001	2.80E+000
4	5/15/96	1.05E+001	1.30E+000
5 - 0.9 MI ENE - JOHNSONS LANDING	2/15/96	1.54E+001	2.50E+000
5	5/15/96	1.29E+001	1.00E+000
6 - 0.3 MI SW - INFORMATION CENTER	2/15/96	1.71E+001	4.30E+000
6	5/15/96	1.46E+001	1.00E+000
7 - 6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	2/15/96	1.50E+001	3.00E+000
7	5/15/96	1.17E+001	2.00E+000
8 - 0.8 MI SSE - POWER POLES FROM HBR	2/15/96	1.15E+001	2.80E+000
8	5/15/96	1.15E+001	1.00E+000
9 - 1.0 MI S - POWER POLE NEAR HWY 151	2/15/96	1.90E+001	3.40E+000
9	5/15/96	2.01E+001	1.60E+000
10 - 1.0 MI WSW - CHURCH OF GOD CEMETERY	2/15/96	1.28E+001	2.80E+000
10	5/15/96	1.23E+001	1.50E+000
11 - 1.0 MI SW - POWER POLE AT OLD CAMDEN RD	2/15/96	1.04E+001	2.70E+000
11	5/15/96	1.13E+001	1.00E+000
12 - 1.2 MI SSW-PINE TREE AT 2ND INT DIRT RD	2/15/96	1.40E+001	2.50E+000
12	5/15/96	1.53E+001	1.70E+000
13 - 1.0 MI W-PINE TREE WHERE DIRT RD SPLITS	2/15/96	1.15E+001	2.80E+000
14 - 0.9 MI WNW - HWY 151 AT PINE RIDGE CH	2/15/96	1.62E+001	2.70E+000
14	5/15/96	1.53E+001	1.70E+000
15 - 1.0 MI NW -DIRT RD NEAR ASH POND	2/15/96	1.26E+001	2.40E+000
15	5/15/96	1.04E+001	1.10E+000
16 - 1.0 MI NNW - DARLINGTON IC TURBINE PLANT	2/15/96	1.27E+001	2.40E+000
16	5/15/96	1.28E+001	1.90E+000
17 - 1.1 MI N - DIS CANAL RD AT UNIT 1 WEIR	2/15/96	1.29E+001	2.50E+000
17	5/15/96	1.30E+001	1.10E+000
18 - 0.7 MI SE - TRAIN TRESTLE OVER BLACK CR	2/15/96	1.20E+001	2.40E+000
18	5/15/96	1.29E+001	1.00E+000
19 - 1.0 MI E - RD S-16-23	2/15/96	1.30E+001	2.60E+000
19	5/15/96	1.29E+001	1.20E+000
20 - 1.3 MI ENE - RD S-16-39 NORTH	2/15/96	1.44E+001	2.40E+000
20	5/15/96	1.31E+001	1.70E+000
21 - ATKINSONS BOAT LANDING	2/15/96	1.57E+001	2.60E+000

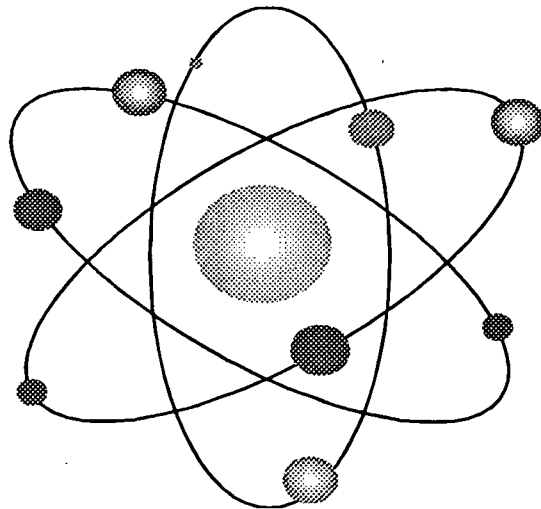
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Plant: RNP TLD in mR/QTR

Sample Point	SampleDate	Dose	2 SigmaError
21 - ATKINSONS BOAT LANDING	5/15/96	1.29E+001	1.50E+000
22 - 1.9 MI NNE - SHADY REST NEAR DOCK	2/15/96	1.49E+001	3.00E+000
22	5/15/96	1.23E+001	1.10E+000
23 - 1.2 MI ESE - INT RD 41E-5 AND S-16-39	2/15/96	1.72E+001	2.80E+000
23	5/15/96	1.23E+001	1.10E+000
24 - 5.0 MI NW - S-13-711 PAST PEACH FARM	2/15/96	1.53E+001	2.50E+000
24	5/15/96	1.56E+001	1.50E+000
25 - 4.6 MI NNW - RD S-13-346 OFF 151 NORTH	2/15/96	1.09E+001	2.70E+000
25	5/15/96	1.20E+001	1.20E+000
26 - 5.0 MI N - RD S-13-346	2/15/96	1.56E+001	2.90E+000
26	5/15/96	1.49E+001	1.00E+000
27 - 5.0 MI NNE - RD S-13-763 NEAR INTER	2/15/96	1.49E+001	2.90E+000
28 - 4.8 MI NE - NEAR DUMPSTER RD S-13-39	2/15/96	2.04E+001	3.70E+000
28	5/15/96	1.77E+001	1.70E+000
29 - RD S-16-20 SOUTH OF LOOKOUT TOWER	2/15/96	1.68E+001	2.60E+000
29	5/15/96	1.56E+001	2.80E+000
30 - 4.6 MI E - RD S-16-20 JOHNSON FENCE CO	2/15/96	1.70E+001	2.60E+000
30	5/15/96	1.43E+001	1.50E+000
31 - 4.6 MI ESE - LAKESHORE DRIVE	2/15/96	1.69E+001	2.80E+000
31	5/15/96	1.46E+001	1.20E+000
32 - 4.5 MI SE - END OF KALBER DRIVE	2/15/96	1.33E+001	2.50E+000
32	5/15/96	1.35E+001	1.40E+000
33 - 4.6 MI SSE-RD S16-493 NEAR SEGARS ENTR	2/15/96	1.50E+001	2.60E+000
33	5/15/96	1.65E+001	2.60E+000
34 - 4.6 MI S - RD S-16-772	2/15/96	1.08E+001	2.50E+000
34	5/15/96	1.08E+001	1.50E+000
35 - 4.4 MI SSW - INT RD S-31-51 & S-16-12	2/15/96	2.32E+001	4.40E+000
35	5/15/96	2.02E+001	1.90E+000
36 - 4.7 MI SW - PAVED RD OFF RD S-16-85	2/15/96	2.00E+001	2.60E+000
36	5/15/96	1.88E+001	2.40E+000
37 - 5.0 MI WSW - TRANS TOWER NEAR CLAY RD	2/15/96	2.12E+001	3.60E+000
37	5/15/96	1.86E+001	1.00E+000
38 - 4.9 MI W - RD S-16-231 AT UNION CHURCH	2/15/96	1.86E+001	4.20E+000
38	5/15/96	1.53E+001	1.10E+000
39 - 5.0 MI WNW - POWER POLE IN FIELD	2/15/96	1.50E+001	3.10E+000
39	5/15/96	1.53E+001	1.40E+000
55 - 0.3 MI SSE - SITE BOUNDARY	2/15/96	1.43E+001	2.70E+000
55	5/15/96	1.45E+001	1.20E+000
56 - 300 FT N OF ISFSI	2/15/96	1.68E+001	2.50E+000
56	5/15/96	1.30E+001	1.10E+000



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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
Plant: RNP Analysis: BETA Media Type: AIR PARTICULATE CUMETERS						
1 - 26 MI ESE - FLORENCE - CONTROL	1/ 2/96	902.40000	3.79E-001	1.36E-002	1.38E-003	0.00E+000
	1/ 8/96	609.40000	3.79E-001	2.41E-002	2.16E-003	0.00E+000
	1/15/96	733.20000	3.79E-001	2.78E-002	2.05E-003	0.00E+000
	1/22/96	786.00000	3.79E-001	2.58E-002	1.89E-003	0.00E+000
	1/28/96	613.20000	3.79E-001	2.16E-002	2.05E-003	0.00E+000
	2/ 5/96	998.00000	3.79E-001	2.37E-002	1.59E-003	0.00E+000
	2/11/96	705.00000	3.79E-001	2.41E-002	1.97E-003	0.00E+000
	2/19/96	882.60000	3.79E-001	1.48E-002	1.42E-003	0.00E+000
	2/25/96	571.40000	3.79E-001	2.70E-002	2.36E-003	0.00E+000
	3/ 4/96	1217.40000	3.79E-001	1.57E-002	1.22E-003	0.00E+000
	3/11/96	842.70000	3.79E-001	1.73E-002	1.56E-003	0.00E+000
	3/18/96	784.30000	3.79E-001	1.63E-002	1.55E-003	0.00E+000
	3/24/96	708.00000	3.79E-001	1.53E-002	1.69E-003	0.00E+000
	4/14/96	715.90000	3.79E-001	1.97E-002	1.81E-003	0.00E+000
	4/ 8/96	746.40000	3.79E-001	1.93E-002	1.75E-003	0.00E+000
	4/ 1/96	942.20000	3.79E-001	1.33E-002	1.33E-003	0.00E+000
	4/21/96	831.70000	3.79E-001	1.79E-002	1.63E-003	0.00E+000
	4/29/96	933.80000	3.79E-001	1.74E-002	1.46E-003	0.00E+000
	5/ 5/96	786.10000	3.79E-001	1.71E-002	1.60E-003	0.00E+000
	5/12/96	863.70000	3.79E-001	1.60E-002	1.49E-003	0.00E+000
	5/19/96	915.90000	3.79E-001	2.13E-002	1.62E-003	0.00E+000
	5/27/96	998.80000	3.79E-001	2.09E-002	1.53E-003	0.00E+000
	6/ 3/96	887.50000	3.76E-001	1.56E-002	1.45E-003	0.00E+000
	6/10/96	877.40000	3.76E-001	1.67E-002	1.54E-003	0.00E+000
	6/17/96	872.30000	3.76E-001	1.48E-002	1.47E-003	0.00E+000
	6/24/96	870.50000	3.76E-001	1.92E-002	1.58E-003	0.00E+000
2 - 0.2 MI S - INFORMATION CENTER	1/ 2/96	677.90000	3.79E-001	1.78E-002	1.82E-003	0.00E+000
	1/ 8/96	647.20000	3.79E-001	2.14E-002	1.99E-003	0.00E+000
	1/15/96	670.20000	3.79E-001	2.99E-002	2.23E-003	0.00E+000
	1/22/96	851.70000	3.79E-001	2.26E-002	1.70E-003	0.00E+000
	1/28/96	517.20000	3.79E-001	2.89E-002	2.55E-003	0.00E+000
	2/ 5/96	960.60000	3.79E-001	2.40E-002	1.63E-003	0.00E+000
	2/11/96	598.10000	3.79E-001	2.35E-002	2.15E-003	0.00E+000
	2/19/96	621.10000	3.79E-001	2.22E-002	2.06E-003	0.00E+000
	2/25/96	724.20000	3.79E-001	2.29E-002	1.92E-003	0.00E+000
	3/ 4/96	984.60000	3.79E-001	1.85E-002	1.47E-003	0.00E+000
	3/11/96	752.10000	3.79E-001	1.80E-002	1.70E-003	0.00E+000
	3/18/96	864.30000	3.79E-001	1.71E-002	1.50E-003	0.00E+000

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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
2 - 0.2 MI S - INFORMATION CENTER	3/24/96	712.50000	3.79E-001	1.42E-002	1.64E-003	0.00E+000
	4/14/96	696.00000	3.79E-001	1.74E-002	1.75E-003	0.00E+000
	4/ 8/96	815.20000	3.79E-001	1.53E-002	1.52E-003	0.00E+000
	4/ 1/96	965.80000	3.79E-001	1.31E-002	1.30E-003	0.00E+000
	4/21/96	825.20000	3.79E-001	1.96E-002	1.69E-003	0.00E+000
	4/29/96	964.70000	3.79E-001	1.59E-002	1.38E-003	0.00E+000
	5/ 5/96	714.10000	3.79E-001	1.60E-002	1.65E-003	0.00E+000
	5/12/96	871.70000	3.79E-001	1.49E-002	1.44E-003	0.00E+000
	5/19/96	826.50000	3.79E-001	2.18E-002	1.74E-003	0.00E+000
	5/27/96	962.40000	3.79E-001	1.98E-002	1.53E-003	0.00E+000
	6/ 3/96	680.80000	3.76E-001	1.58E-002	1.71E-003	0.00E+000
	6/10/96	816.80000	3.76E-001	1.67E-002	1.61E-003	0.00E+000
	6/17/96	816.80000	3.76E-001	1.60E-002	1.58E-003	0.00E+000
	6/24/96	826.40000	3.76E-001	1.96E-002	1.65E-003	0.00E+000
3 - 0.7 MI N - MICROWAVE TOWER	1/ 2/96	499.50000	3.79E-001	1.49E-002	2.09E-003	0.00E+000
	1/ 8/96	439.50000	3.79E-001	2.33E-002	2.61E-003	0.00E+000
	1/15/96	495.60000	3.79E-001	2.84E-002	2.60E-003	0.00E+000
	1/22/96	507.00000	3.79E-001	2.59E-002	2.43E-003	0.00E+000
	1/28/96	689.40000	3.79E-001	1.90E-002	1.81E-003	0.00E+000
	2/ 5/96	1182.40000	3.79E-001	2.04E-002	1.35E-003	0.00E+000
	2/11/96	794.30000	3.79E-001	1.67E-002	1.58E-003	0.00E+000
	2/19/96	1153.90000	3.79E-001	9.95E-003	1.03E-003	0.00E+000
	2/25/96	835.20000	3.79E-001	1.82E-002	1.60E-003	0.00E+000
	3/ 4/96	1137.20000	3.79E-001	1.83E-002	1.35E-003	0.00E+000
	3/11/96	1002.30000	3.79E-001	1.50E-002	1.33E-003	0.00E+000
	3/18/96	1007.60000	3.79E-001	1.47E-002	1.28E-003	0.00E+000
	3/24/96	850.70000	3.79E-001	1.29E-002	1.41E-003	0.00E+000
	4/14/96	844.70000	3.79E-001	1.54E-002	1.48E-003	0.00E+000
	4/ 8/96	980.50000	3.79E-001	1.31E-002	1.27E-003	0.00E+000
	4/ 1/96	1166.10000	3.79E-001	1.13E-002	1.09E-003	0.00E+000
	4/21/96	989.10000	3.79E-001	1.68E-002	1.43E-003	0.00E+000
	4/29/96	1136.30000	3.79E-001	1.37E-002	1.18E-003	0.00E+000
	5/ 5/96	814.70000	3.79E-001	1.48E-002	1.48E-003	0.00E+000
	5/12/96	986.00000	3.79E-001	1.48E-002	1.33E-003	0.00E+000
	5/19/96	981.20000	3.79E-001	1.93E-002	1.50E-003	0.00E+000
	5/27/96	1083.60000	3.79E-001	1.71E-002	1.34E-003	0.00E+000
	6/ 3/96	961.10000	3.76E-001	1.21E-002	1.25E-003	0.00E+000
	6/10/96	858.40000	3.76E-001	1.60E-002	1.54E-003	0.00E+000
	6/17/96	854.40000	3.76E-001	1.65E-002	1.56E-003	0.00E+000
	6/24/96	866.00000	3.76E-001	1.95E-002	1.60E-003	0.00E+000

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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
4 - 0.4 MI ESE - SPILLWAY	1/ 2/96	979.20000	3.79E-001	1.12E-002	1.22E-003	0.00E+000
	1/ 8/96	611.80000	3.79E-001	2.29E-002	2.12E-003	0.00E+000
	1/15/96	711.20000	3.79E-001	2.67E-002	2.05E-003	0.00E+000
	1/22/96	811.00000	3.79E-001	2.36E-002	1.78E-003	0.00E+000
	1/28/96	619.70000	3.79E-001	2.22E-002	2.06E-003	0.00E+000
	2/ 5/96	926.00000	3.79E-001	2.45E-002	1.68E-003	0.00E+000
	2/11/96	843.00000	3.79E-001	1.98E-002	1.64E-003	0.00E+000
	2/19/96	1046.50000	3.79E-001	1.66E-002	1.34E-003	0.00E+000
	2/25/96	580.70000	3.79E-001	2.70E-002	2.34E-003	0.00E+000
	3/ 4/96	950.00000	3.79E-001	2.50E-002	1.71E-003	0.00E+000
	3/11/96	984.30000	3.79E-001	1.63E-002	1.39E-003	0.00E+000
	3/18/96	976.40000	3.79E-001	1.54E-002	1.33E-003	0.00E+000
	3/24/96	834.90000	3.79E-001	1.54E-002	1.53E-003	0.00E+000
	4/14/96	822.60000	3.79E-001	1.88E-002	1.63E-003	0.00E+000
	4/ 8/96	952.70000	3.79E-001	1.67E-002	1.43E-003	0.00E+000
	4/ 1/96	1141.90000	3.79E-001	1.09E-002	1.09E-003	0.00E+000
	4/21/96	916.70000	3.79E-001	2.10E-002	1.64E-003	0.00E+000
	4/29/96	1093.10000	3.79E-001	1.57E-002	1.28E-003	0.00E+000
	5/ 5/96	903.60000	3.79E-001	1.57E-002	1.42E-003	0.00E+000
	5/12/96	1080.60000	3.79E-001	1.47E-002	1.30E-003	0.00E+000
	5/27/96	1027.20000	3.79E-001	2.07E-002	1.50E-003	0.00E+000
	6/ 3/96	1050.00000	3.76E-001	1.40E-002	1.26E-003	0.00E+000
	6/10/96	907.40000	3.76E-001	1.89E-002	1.58E-003	0.00E+000
	6/17/96	902.80000	3.76E-001	1.84E-002	1.57E-003	0.00E+000
	6/24/96	897.40000	3.76E-001	2.02E-002	1.59E-003	0.00E+000
5 - 0.9 MI ENE - JOHNSONS LANDING	1/ 2/96	693.50000	3.79E-001	1.60E-002	1.73E-003	0.00E+000
	1/ 8/96	605.20000	3.79E-001	2.34E-002	2.15E-003	0.00E+000
	1/15/96	686.70000	3.79E-001	2.78E-002	2.13E-003	0.00E+000
	1/22/96	693.50000	3.79E-001	2.55E-002	2.02E-003	0.00E+000
	1/28/96	587.20000	3.79E-001	2.31E-002	2.16E-003	0.00E+000
	2/ 5/96	791.40000	3.79E-001	2.76E-002	1.93E-003	0.00E+000
	2/11/96	574.50000	3.79E-001	2.73E-002	2.34E-003	0.00E+000
	2/19/96	782.60000	3.79E-001	1.72E-002	1.62E-003	0.00E+000
	2/25/96	582.30000	3.79E-001	2.65E-002	2.31E-003	0.00E+000
	3/ 4/96	791.40000	3.79E-001	2.51E-002	1.90E-003	0.00E+000
	3/11/96	685.10000	3.79E-001	1.88E-002	1.83E-003	0.00E+000
	3/18/96	688.10000	3.79E-001	2.18E-002	1.89E-003	0.00E+000
	3/24/96	571.30000	3.79E-001	2.03E-002	2.14E-003	0.00E+000
	4/14/96	593.90000	3.79E-001	2.32E-002	2.16E-003	0.00E+000
	4/ 8/96	667.00000	3.79E-001	2.10E-002	1.94E-003	0.00E+000

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5 - 0.9 MI ENE - JOHNSONS LANDING	4/ 1/96	803.60000	3.79E-001	1.53E-002	1.54E-003	0.00E+000
	4/21/96	871.00000	3.79E-001	1.86E-002	1.60E-003	0.00E+000
	4/29/96	781.40000	3.79E-001	2.14E-002	1.77E-003	0.00E+000
	5/ 5/96	594.60000	3.79E-001	2.25E-002	2.11E-003	0.00E+000
	5/12/96	695.90000	3.79E-001	1.97E-002	1.80E-003	0.00E+000
	5/19/96	685.00000	3.79E-001	2.72E-002	2.13E-003	0.00E+000
	5/27/96	797.60000	3.79E-001	2.31E-002	1.82E-003	0.00E+000
	6/ 3/96	678.60000	3.76E-001	1.88E-002	1.83E-003	0.00E+000
	6/10/96	697.80000	3.76E-001	1.85E-002	1.85E-003	0.00E+000
	6/17/96	700.40000	3.76E-001	1.87E-002	1.85E-003	0.00E+000
	6/24/96	694.10000	3.76E-001	2.36E-002	1.97E-003	0.00E+000
	1/ 2/96	651.30000	3.79E-001	1.66E-002	1.82E-003	0.00E+000
	1/ 8/96	571.40000	3.79E-001	2.30E-002	2.21E-003	0.00E+000
	1/15/96	677.20000	3.79E-001	2.49E-002	2.05E-003	0.00E+000
6 - 0.3 MI SW - INFORMATION CENTER	1/22/96	681.40000	3.79E-001	2.49E-002	2.01E-003	0.00E+000
	1/28/96	687.30000	3.79E-001	2.14E-002	1.91E-003	0.00E+000
	2/ 5/96	1021.00000	3.79E-001	2.27E-002	1.54E-003	0.00E+000
	2/11/96	730.10000	3.79E-001	2.06E-002	1.81E-003	0.00E+000
	2/19/96	1006.70000	3.79E-001	1.38E-002	1.27E-003	0.00E+000
	2/25/96	724.80000	3.79E-001	2.15E-002	1.87E-003	0.00E+000
	3/ 4/96	983.20000	3.79E-001	2.03E-002	1.53E-003	0.00E+000
	3/11/96	875.40000	3.79E-001	1.66E-002	1.50E-003	0.00E+000
	3/18/96	872.20000	3.79E-001	1.70E-002	1.48E-003	0.00E+000
	3/24/96	728.20000	3.79E-001	1.35E-002	1.59E-003	0.00E+000
	4/14/96	740.10000	3.79E-001	1.79E-002	1.70E-003	0.00E+000
	4/ 8/96	844.10000	3.79E-001	1.61E-002	1.52E-003	0.00E+000
	4/ 1/96	1012.90000	3.79E-001	1.38E-002	1.28E-003	0.00E+000
	4/21/96	860.30000	3.79E-001	1.88E-002	1.62E-003	0.00E+000
	4/29/96	967.90000	3.79E-001	1.62E-002	1.39E-003	0.00E+000
	5/ 5/96	718.40000	3.79E-001	1.77E-002	1.72E-003	0.00E+000
	5/19/96	839.60000	3.79E-001	2.43E-002	1.81E-003	0.00E+000
	5/27/96	960.10000	3.79E-001	2.02E-002	1.54E-003	0.00E+000
	6/ 3/96	835.30000	3.76E-001	1.53E-002	1.49E-003	0.00E+000
	6/10/96	746.50000	3.76E-001	1.98E-002	1.82E-003	0.00E+000
	6/17/96	740.80000	3.76E-001	2.12E-002	1.87E-003	0.00E+000
	6/24/96	744.60000	3.76E-001	2.26E-002	1.86E-003	0.00E+000
	5/12/96	861.20000	3.79E-001	1.63E-002	1.50E-003	0.00E+000
7 - 6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	1/ 2/96	895.80000	3.79E-001	1.24E-002	1.34E-003	0.00E+000
	1/ 8/96	667.40000	3.79E-001	1.98E-002	1.89E-003	0.00E+000
	1/15/96	714.00000	3.79E-001	2.34E-002	1.94E-003	0.00E+000

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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
7 - 6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	1/22/96	801.20000	3.79E-001	1.97E-002	1.66E-003	0.00E+000
	1/28/96	675.30000	3.79E-001	1.94E-002	1.85E-003	0.00E+000
	2/ 5/96	896.10000	3.79E-001	2.01E-002	1.57E-003	0.00E+000
	2/11/96	688.40000	3.79E-001	2.04E-002	1.87E-003	0.00E+000
	2/19/96	895.80000	3.79E-001	1.36E-002	1.36E-003	0.00E+000
	2/25/96	699.00000	3.79E-001	2.00E-002	1.85E-003	0.00E+000
	3/ 4/96	897.90000	3.79E-001	1.74E-002	1.52E-003	0.00E+000
	3/11/96	820.50000	3.79E-001	1.53E-002	1.51E-003	0.00E+000
	3/18/96	784.70000	3.79E-001	1.37E-002	1.45E-003	0.00E+000
	3/24/96	696.80000	3.79E-001	1.29E-002	1.61E-003	0.00E+000
	4/14/96	689.00000	3.79E-001	1.61E-002	1.71E-003	0.00E+000
	4/ 8/96	812.10000	3.79E-001	1.52E-002	1.52E-003	0.00E+000
	4/ 1/96	895.70000	3.79E-001	1.26E-002	1.34E-003	0.00E+000
	4/21/96	803.20000	3.79E-001	1.65E-002	1.61E-003	0.00E+000
	4/29/96	923.30000	3.79E-001	1.53E-002	1.40E-003	0.00E+000
	5/ 5/96	719.00000	3.79E-001	1.61E-002	1.65E-003	0.00E+000
	5/12/96	816.30000	3.79E-001	1.39E-002	1.46E-003	0.00E+000
	5/19/96	833.10000	3.79E-001	1.82E-002	1.61E-003	0.00E+000
	5/27/96	950.60000	3.79E-001	1.76E-002	1.46E-003	0.00E+000
	6/ 3/96	815.20000	3.76E-001	1.33E-002	1.43E-003	0.00E+000
	6/10/96	708.30000	3.76E-001	1.66E-002	1.76E-003	0.00E+000
	6/17/96	709.60000	3.76E-001	1.75E-002	1.79E-003	0.00E+000
	6/24/96	713.80000	3.76E-001	1.91E-002	1.77E-003	0.00E+000
55 - 0.3 MI SSE - SITE BOUNDARY	1/ 2/96	801.60000	3.79E-001	1.47E-002	1.53E-003	0.00E+000
	1/ 8/96	533.20000	3.79E-001	2.36E-002	2.33E-003	0.00E+000
	1/15/96	876.50000	3.79E-001	2.09E-002	1.64E-003	0.00E+000
	1/22/96	831.00000	3.79E-001	2.29E-002	1.74E-003	0.00E+000
	1/28/96	515.70000	3.79E-001	2.55E-002	2.43E-003	0.00E+000
	2/ 5/96	955.50000	3.79E-001	2.34E-002	1.62E-003	0.00E+000
	2/11/96	660.30000	3.79E-001	2.35E-002	2.03E-003	0.00E+000
	2/19/96	798.00000	3.79E-001	1.61E-002	1.56E-003	0.00E+000
	2/25/96	640.30000	3.79E-001	2.32E-002	2.07E-003	0.00E+000
	3/ 4/96	910.30000	3.79E-001	2.22E-002	1.66E-003	0.00E+000
	3/11/96	794.30000	3.79E-001	1.72E-002	1.62E-003	0.00E+000
	3/18/96	668.90000	3.79E-001	2.13E-002	1.90E-003	0.00E+000
	3/24/96	511.20000	3.79E-001	2.09E-002	2.33E-003	0.00E+000
	4/14/96	685.90000	3.79E-001	1.85E-002	1.81E-003	0.00E+000
	4/ 8/96	777.40000	3.79E-001	1.55E-002	1.57E-003	0.00E+000
	4/ 1/96	930.00000	3.79E-001	1.34E-002	1.34E-003	0.00E+000
	4/21/96	812.60000	3.79E-001	2.02E-002	1.73E-003	0.00E+000

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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
55 - 0.3 MI SSE - SITE BOUNDARY	4/29/96	250.70000	3.79E-001	2.61E-002	3.86E-003	0.00E+000
	5/ 5/96	433.90000	3.79E-001	2.06E-002	2.48E-003	0.00E+000
	5/12/96	831.00000	3.79E-001	1.61E-002	1.53E-003	0.00E+000
	5/19/96	818.60000	3.79E-001	2.17E-002	1.75E-003	0.00E+000
	5/27/96	934.00000	3.79E-001	2.08E-002	1.59E-003	0.00E+000
	6/ 3/96	812.20000	3.76E-001	1.39E-002	1.46E-003	0.00E+000
	6/10/96	762.60000	3.76E-001	1.80E-002	1.73E-003	0.00E+000
	6/17/96	757.10000	3.76E-001	1.84E-002	1.75E-003	0.00E+000
	6/24/96	768.90000	3.76E-001	1.98E-002	1.72E-003	0.00E+000
Plant: RNP Analysis: IODINE MediaType: AIR CARTRIDGE CUMETERS						
1 - 26 MI ESE - FLORENCE - CONTROL	1/ 2/96	902.40000		0.00E+000	0.00E+000	2.36E-002
	1/ 8/96	609.40000		0.00E+000	0.00E+000	1.80E-002
	1/15/96	733.20000		0.00E+000	0.00E+000	1.68E-002
	1/22/96	786.00000		0.00E+000	0.00E+000	1.67E-002
	1/28/96	613.20000		0.00E+000	0.00E+000	1.06E-002
	2/ 5/96	998.00000		0.00E+000	0.00E+000	1.64E-002
	2/11/96	705.00000		0.00E+000	0.00E+000	1.91E-002
	2/19/96	882.60000		0.00E+000	0.00E+000	1.58E-002
	2/25/96	571.40000		0.00E+000	0.00E+000	2.05E-002
	3/ 4/96	1217.40000		0.00E+000	0.00E+000	7.89E-003
	3/11/96	842.70000		0.00E+000	0.00E+000	1.27E-002
	3/18/96	784.30000		0.00E+000	0.00E+000	1.67E-002
	3/24/96	708.00000		0.00E+000	0.00E+000	2.08E-002
	4/ 1/96	942.20000		0.00E+000	0.00E+000	1.12E-002
	4/ 8/96	746.40000		0.00E+000	0.00E+000	1.93E-002
	4/14/96	715.90000		0.00E+000	0.00E+000	1.86E-002
	4/21/96	831.70000		0.00E+000	0.00E+000	1.78E-002
	4/29/96	933.80000		0.00E+000	0.00E+000	1.34E-002
	5/27/96	998.80000		0.00E+000	0.00E+000	1.72E-002
	5/ 5/96	786.10000		0.00E+000	0.00E+000	2.05E-002
	5/12/96	863.70000		0.00E+000	0.00E+000	1.20E-002
	5/19/96	915.90000		0.00E+000	0.00E+000	2.00E-002
	6/ 3/96	887.50000		0.00E+000	0.00E+000	1.29E-002
	6/10/96	877.40000		0.00E+000	0.00E+000	2.07E-002
	6/24/96	870.50000		0.00E+000	0.00E+000	1.49E-002
	6/17/96	872.30000		0.00E+000	0.00E+000	1.75E-002
2 - 0.2 MI S - INFORMATION CENTER	1/ 2/96	677.90000		0.00E+000	0.00E+000	3.46E-002
	1/ 8/96	647.20000		0.00E+000	0.00E+000	2.84E-002
	1/15/96	670.20000		0.00E+000	0.00E+000	1.39E-002

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2 - 0.2 MI S - INFORMATION CENTER	1/22/96	851.70000		0.00E+000	0.00E+000	1.55E-002
	1/28/96	517.20000		0.00E+000	0.00E+000	1.87E-002
	2/ 5/96	960.60000		0.00E+000	0.00E+000	1.55E-002
	2/11/96	598.10000		0.00E+000	0.00E+000	1.89E-002
	2/19/96	621.10000		0.00E+000	0.00E+000	1.57E-002
	2/25/96	724.20000		0.00E+000	0.00E+000	1.06E-002
	3/ 4/96	984.60000		0.00E+000	0.00E+000	1.34E-002
	3/11/96	752.10000		0.00E+000	0.00E+000	2.34E-002
	3/18/96	864.30000		0.00E+000	0.00E+000	8.72E-003
	3/24/96	712.50000		0.00E+000	0.00E+000	1.90E-002
	4/ 1/96	965.80000		0.00E+000	0.00E+000	1.53E-002
	4/ 8/96	815.20000		0.00E+000	0.00E+000	1.54E-002
	4/14/96	696.00000		0.00E+000	0.00E+000	2.64E-002
	4/21/96	825.20000		0.00E+000	0.00E+000	1.48E-002
	4/29/96	964.70000		0.00E+000	0.00E+000	1.71E-002
	5/27/96	962.40000		0.00E+000	0.00E+000	1.89E-002
	5/ 5/96	714.10000		0.00E+000	0.00E+000	3.73E-002
	5/12/96	871.70000		0.00E+000	0.00E+000	1.77E-002
	5/19/96	826.50000		0.00E+000	0.00E+000	2.43E-002
	6/ 3/96	680.80000		0.00E+000	0.00E+000	1.97E-002
	6/10/96	816.80000		0.00E+000	0.00E+000	3.48E-002
	6/24/96	826.40000		0.00E+000	0.00E+000	2.23E-002
	6/17/96	816.80000		0.00E+000	0.00E+000	2.98E-002
3 - 0.7 MI N - MICROWAVE TOWER	1/ 2/96	499.50000		0.00E+000	0.00E+000	3.89E-002
	1/ 8/96	439.50000		0.00E+000	0.00E+000	3.36E-002
	1/15/96	495.60000		0.00E+000	0.00E+000	3.29E-002
	1/22/96	507.00000		0.00E+000	0.00E+000	3.97E-002
	1/28/96	689.40000		0.00E+000	0.00E+000	1.01E-002
	2/ 5/96	1182.40000		0.00E+000	0.00E+000	1.21E-002
	2/11/96	794.30000		0.00E+000	0.00E+000	2.41E-002
	2/19/96	1153.90000		0.00E+000	0.00E+000	1.58E-002
	2/25/96	835.20000		0.00E+000	0.00E+000	2.31E-002
	3/ 4/96	1137.20000		0.00E+000	0.00E+000	9.87E-003
	3/11/96	1002.30000		0.00E+000	0.00E+000	1.96E-002
	3/18/96	1007.60000		0.00E+000	0.00E+000	2.35E-002
	3/24/96	850.70000		0.00E+000	0.00E+000	2.37E-002
	4/ 1/96	1166.10000		0.00E+000	0.00E+000	1.97E-002
	4/ 8/96	980.50000		0.00E+000	0.00E+000	1.81E-002
	4/14/96	844.70000		0.00E+000	0.00E+000	1.72E-002
	4/21/96	989.10000		0.00E+000	0.00E+000	1.60E-002

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3 - 0.7 MI N - MICROWAVE TOWER	4/29/96	1136.30000		0.00E+000	0.00E+000	2.09E-002
	5/27/96	1083.60000		0.00E+000	0.00E+000	1.75E-002
	5/ 5/96	814.70000		0.00E+000	0.00E+000	1.51E-002
	5/12/96	986.00000		0.00E+000	0.00E+000	2.07E-002
	5/19/96	981.20000		0.00E+000	0.00E+000	1.87E-002
	6/ 3/96	961.10000		0.00E+000	0.00E+000	1.47E-002
	6/10/96	858.40000		0.00E+000	0.00E+000	1.99E-002
	6/24/96	866.00000		0.00E+000	0.00E+000	2.34E-002
4 - 0.4 MI ESE - SPILLWAY	6/17/96	854.40000		0.00E+000	0.00E+000	2.01E-002
	1/ 2/96	979.20000		0.00E+000	0.00E+000	1.30E-002
	1/ 8/96	611.80000		0.00E+000	0.00E+000	2.59E-002
	1/15/96	711.20000		0.00E+000	0.00E+000	2.77E-002
	1/22/96	811.00000		0.00E+000	0.00E+000	2.49E-002
	1/28/96	619.70000		0.00E+000	0.00E+000	2.10E-002
	2/ 5/96	926.00000		0.00E+000	0.00E+000	2.10E-002
	2/11/96	843.00000		0.00E+000	0.00E+000	2.29E-002
	2/19/96	1046.50000		0.00E+000	0.00E+000	1.37E-002
	2/25/96	580.70000		0.00E+000	0.00E+000	5.00E-002
	3/ 4/96	950.00000		0.00E+000	0.00E+000	2.29E-002
	3/11/96	984.30000		0.00E+000	0.00E+000	1.80E-002
	3/18/96	976.40000		0.00E+000	0.00E+000	1.68E-002
	3/24/96	834.90000		0.00E+000	0.00E+000	1.91E-002
	4/ 1/96	1141.90000		0.00E+000	0.00E+000	1.60E-002
	4/ 8/96	952.70000		0.00E+000	0.00E+000	1.25E-002
	4/14/96	822.60000		0.00E+000	0.00E+000	1.42E-002
	4/21/96	916.70000		0.00E+000	0.00E+000	7.83E-003
	4/29/96	1093.10000		0.00E+000	0.00E+000	1.00E-002
	5/27/96	1027.20000		0.00E+000	0.00E+000	1.50E-002
	5/ 5/96	903.60000		0.00E+000	0.00E+000	2.58E-002
	5/12/96	1080.60000		0.00E+000	0.00E+000	8.19E-003
	6/ 3/96	1050.00000		0.00E+000	0.00E+000	1.12E-002
	6/10/96	907.40000		0.00E+000	0.00E+000	2.24E-002
	6/24/96	897.40000		0.00E+000	0.00E+000	2.34E-002
	6/17/96	902.80000		0.00E+000	0.00E+000	2.98E-002
5 - 0.9 MI ENE - JOHNSONS LANDING	1/ 2/96	693.50000		0.00E+000	0.00E+000	2.05E-002
	1/ 8/96	605.20000		0.00E+000	0.00E+000	3.04E-002
	1/15/96	686.70000		0.00E+000	0.00E+000	1.07E-002
	1/22/96	693.50000		0.00E+000	0.00E+000	1.24E-002
	1/28/96	587.20000		0.00E+000	0.00E+000	1.83E-002
	2/ 5/96	791.40000		0.00E+000	0.00E+000	2.41E-002

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5 - 0.9 MI ENE - JOHNSONS LANDING	2/11/96	574.50000		0.00E+000	0.00E+000	1.04E-002
	2/19/96	782.60000		0.00E+000	0.00E+000	1.01E-002
	2/25/96	582.30000		0.00E+000	0.00E+000	2.18E-002
	3/ 4/96	791.40000		0.00E+000	0.00E+000	1.02E-002
	3/11/96	685.10000		0.00E+000	0.00E+000	1.74E-002
	3/18/96	688.10000		0.00E+000	0.00E+000	2.45E-002
	3/24/96	571.30000		0.00E+000	0.00E+000	3.17E-002
	4/ 1/96	803.60000		0.00E+000	0.00E+000	2.22E-002
	4/ 8/96	667.00000		0.00E+000	0.00E+000	2.57E-002
	4/14/96	593.90000		0.00E+000	0.00E+000	2.23E-002
	4/21/96	871.00000		0.00E+000	0.00E+000	2.22E-002
	4/29/96	781.40000		0.00E+000	0.00E+000	1.65E-002
	5/27/96	797.60000		0.00E+000	0.00E+000	1.36E-002
	5/ 5/96	594.50000		0.00E+000	0.00E+000	2.90E-002
	5/12/96	695.90000		0.00E+000	0.00E+000	1.81E-002
	5/19/96	685.00000		0.00E+000	0.00E+000	2.36E-002
	6/ 3/96	678.60000		0.00E+000	0.00E+000	2.44E-002
	6/10/96	697.80000		0.00E+000	0.00E+000	1.64E-002
	6/24/96	694.10000		0.00E+000	0.00E+000	2.06E-002
	6/17/96	700.40000		0.00E+000	0.00E+000	2.88E-002
6 - 0.3 MI SW - INFORMATION CENTER	1/ 2/96	651.30000		0.00E+000	0.00E+000	1.38E-002
	1/ 8/96	571.40000		0.00E+000	0.00E+000	3.77E-002
	1/15/96	677.20000		0.00E+000	0.00E+000	2.86E-002
	1/22/96	681.40000		0.00E+000	0.00E+000	2.16E-002
	1/28/96	687.30000		0.00E+000	0.00E+000	2.47E-002
	2/ 5/96	1021.00000		0.00E+000	0.00E+000	1.43E-002
	2/11/96	730.10000		0.00E+000	0.00E+000	1.32E-002
	2/19/96	1006.70000		0.00E+000	0.00E+000	8.63E-003
	2/25/96	724.80000		0.00E+000	0.00E+000	1.50E-002
	3/ 4/96	983.20000		0.00E+000	0.00E+000	1.48E-002
	3/11/96	875.40000		0.00E+000	0.00E+000	2.22E-002
	3/18/96	872.20000		0.00E+000	0.00E+000	1.92E-002
	3/24/96	728.20000		0.00E+000	0.00E+000	2.00E-002
	4/ 1/96	1012.90000		0.00E+000	0.00E+000	2.10E-002
	4/ 8/96	844.10000		0.00E+000	0.00E+000	1.74E-002
	4/14/96	740.10000		0.00E+000	0.00E+000	1.97E-002
	4/21/96	860.30000		0.00E+000	0.00E+000	1.51E-002
	4/29/96	967.90000		0.00E+000	0.00E+000	1.30E-002
	5/27/96	960.10000		0.00E+000	0.00E+000	1.94E-002
	5/ 5/96	718.40000		0.00E+000	0.00E+000	2.47E-002

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6 - 0.3 MI SW - INFORMATION CENTER	5/12/96	861.20000		0.00E+000	0.00E+000	1.95E-002
	5/19/96	839.60000		0.00E+000	0.00E+000	1.16E-002
	6/ 3/96	835.30000		0.00E+000	0.00E+000	1.38E-002
	6/10/96	746.50000		0.00E+000	0.00E+000	2.10E-002
	6/24/96	744.60000		0.00E+000	0.00E+000	2.98E-002
	6/17/96	740.80000		0.00E+000	0.00E+000	3.64E-002
7 - 6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	1/ 2/96	895.80000		0.00E+000	0.00E+000	5.15E-003
	1/ 8/96	667.40000		0.00E+000	0.00E+000	1.92E-002
	1/15/96	714.00000		0.00E+000	0.00E+000	2.64E-002
	1/22/96	801.20000		0.00E+000	0.00E+000	2.72E-002
	1/28/96	675.30000		0.00E+000	0.00E+000	2.27E-002
	2/ 5/96	896.10000		0.00E+000	0.00E+000	1.32E-002
	2/11/96	688.40000		0.00E+000	0.00E+000	2.62E-002
	2/19/96	895.80000		0.00E+000	0.00E+000	1.70E-002
	2/25/96	699.00000		0.00E+000	0.00E+000	1.74E-002
	3/ 4/96	897.90000		0.00E+000	0.00E+000	1.53E-002
	3/11/96	820.50000		0.00E+000	0.00E+000	1.98E-002
	3/18/96	784.70000		0.00E+000	0.00E+000	1.70E-002
	3/24/96	696.80000		0.00E+000	0.00E+000	1.65E-002
	4/ 1/96	895.70000		0.00E+000	0.00E+000	1.18E-002
	4/ 8/96	812.10000		0.00E+000	0.00E+000	2.12E-002
	4/14/96	689.00000		0.00E+000	0.00E+000	2.40E-002
	4/21/96	803.20000		0.00E+000	0.00E+000	1.30E-002
	4/29/96	923.30000		0.00E+000	0.00E+000	1.55E-002
	5/27/96	950.60000		0.00E+000	0.00E+000	8.34E-003
	5/ 5/96	719.00000		0.00E+000	0.00E+000	2.18E-002
	5/12/96	816.30000		0.00E+000	0.00E+000	2.29E-002
	5/19/96	833.10000		0.00E+000	0.00E+000	2.61E-002
	6/ 3/96	815.20000		0.00E+000	0.00E+000	1.41E-002
	6/10/96	708.30000		0.00E+000	0.00E+000	2.56E-002
	6/24/96	713.80000		0.00E+000	0.00E+000	1.81E-002
	6/17/96	709.60000		0.00E+000	0.00E+000	3.18E-002
55 - 0.3 MI SSE - SITE BOUNDARY	1/ 2/96	801.60000		0.00E+000	0.00E+000	2.14E-002
	1/ 8/96	533.20000		0.00E+000	0.00E+000	2.97E-002
	1/15/96	876.50000		0.00E+000	0.00E+000	1.07E-002
	1/22/96	831.00000		0.00E+000	0.00E+000	1.88E-002
	1/28/96	515.70000		0.00E+000	0.00E+000	2.53E-002
	2/ 5/96	955.50000		0.00E+000	0.00E+000	1.60E-002
	2/11/96	660.30000		0.00E+000	0.00E+000	3.48E-002
	2/19/96	798.00000		0.00E+000	0.00E+000	1.07E-002

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55 - 0.3 MI SSE - SITE BOUNDARY	2/25/96	640.30000		0.00E+000	0.00E+000	2.85E-002
	3/ 4/96	910.30000		0.00E+000	0.00E+000	1.36E-002
	3/11/96	794.30000		0.00E+000	0.00E+000	1.94E-002
	3/18/96	668.90000		0.00E+000	0.00E+000	2.88E-002
	3/24/96	511.20000		0.00E+000	0.00E+000	3.41E-002
	4/ 1/96	930.00000		0.00E+000	0.00E+000	1.92E-002
	4/ 8/96	777.40000		0.00E+000	0.00E+000	1.09E-002
	4/14/96	685.90000		0.00E+000	0.00E+000	2.43E-002
	4/21/96	812.60000		0.00E+000	0.00E+000	2.25E-002
	4/29/96	250.70000		0.00E+000	0.00E+000	6.26E-002
	5/27/96	934.00000		0.00E+000	0.00E+000	1.69E-002
	5/ 5/96	433.90000		0.00E+000	0.00E+000	2.89E-002
	5/12/96	831.00000		0.00E+000	0.00E+000	1.99E-002
	5/19/96	818.60000		0.00E+000	0.00E+000	2.94E-002
	6/ 3/96	812.20000		0.00E+000	0.00E+000	1.52E-002
	6/10/96	762.60000		0.00E+000	0.00E+000	1.86E-002
	6/24/96	768.90000		0.00E+000	0.00E+000	2.15E-002
	6/17/96	757.10000		0.00E+000	0.00E+000	3.17E-002
Plant: RNP Analysis: IODINE MediaType: MILK LITERS						
54 - 10.1 MI E - AUBURNDALE PLANTATION	1/ 8/96	4.00000		0.00E+000	0.00E+000	5.73E-001
	1/22/96	4.00000		0.00E+000	0.00E+000	4.67E-001
	2/ 5/96	4.00000		0.00E+000	0.00E+000	4.76E-001
	2/19/96	4.00000		0.00E+000	0.00E+000	5.34E-001
	3/ 4/96	4.00000		0.00E+000	0.00E+000	5.75E-001
	3/18/96	4.00000		0.00E+000	0.00E+000	4.84E-001
	4/ 1/96	4.00000		0.00E+000	0.00E+000	4.98E-001
	4/14/96	4.00000		0.00E+000	0.00E+000	5.17E-001
	4/29/96	4.00000		0.00E+000	0.00E+000	4.61E-001
	5/12/96	4.00000		0.00E+000	0.00E+000	5.35E-001
	5/27/96	4.00000		0.00E+000	0.00E+000	8.94E-001
	6/10/96	4.00000		0.00E+000	0.00E+000	4.99E-001
	6/24/96	4.00000		0.00E+000	0.00E+000	7.56E-001
63 - 18 MI ESE - CUNNINGHAM FARM - CONTROL	1/ 8/96	4.00000		0.00E+000	0.00E+000	6.80E-001
	1/22/96	4.00000		0.00E+000	0.00E+000	6.24E-001
	2/ 5/96	4.00000		0.00E+000	0.00E+000	5.66E-001
	2/19/96	4.00000		0.00E+000	0.00E+000	4.16E-001
	3/ 4/96	4.00000		0.00E+000	0.00E+000	4.61E-001
	3/18/96	4.00000		0.00E+000	0.00E+000	6.54E-001
	4/ 1/96	4.00000		0.00E+000	0.00E+000	4.68E-001

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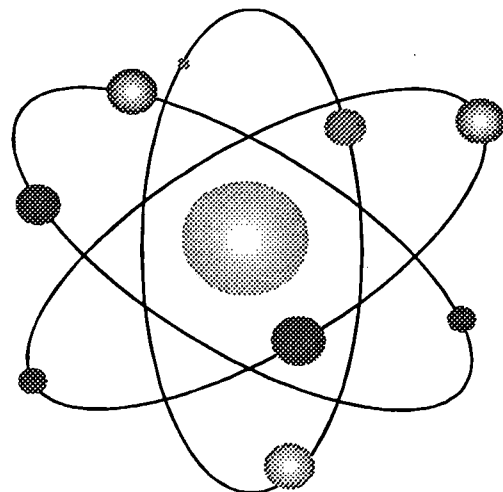
Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
63 - 18 MI ESE - CUNNINGHAM FARM - CONTROL	4/14/96	4.00000		0.00E+000	0.00E+000	5.53E-001
	4/29/96	4.00000		0.00E+000	0.00E+000	5.11E-001
Plant: RNP Analysis: TRITIUM MediaType: GROUNDWATER LITERS						
40 - 0.6 MI ESE-SC23 AT BLACK CR AND ART WELL	1/ 2/96	.00500	2.95E-001	0.00E+000	0.00E+000	9.46E+002
	2/ 1/96	.00500	2.95E-001	0.00E+000	0.00E+000	9.11E+002
	3/ 5/96	.00500	2.91E-001	0.00E+000	0.00E+000	9.37E+002
	4/ 1/96	.00500	2.91E-001	0.00E+000	0.00E+000	9.37E+002
	5/ 5/96	.00500	2.94E-001	0.00E+000	0.00E+000	9.00E+002
	6/ 3/96	.00500	2.93E-001	0.00E+000	0.00E+000	2.93E+002
42 - UNIT 1 DEEP WELL NEAR SITE ENTRANCE	1/ 2/96	.00500	2.95E-001	0.00E+000	0.00E+000	9.46E+002
	2/ 1/96	.00500	2.95E-001	0.00E+000	0.00E+000	9.11E+002
	3/ 5/96	.00500	2.91E-001	0.00E+000	0.00E+000	9.37E+002
	4/ 1/96	.00500	2.91E-001	0.00E+000	0.00E+000	9.37E+002
	5/ 5/96	.00500	2.94E-001	0.00E+000	0.00E+000	9.00E+002
	6/ 3/96	.00500	2.93E-001	0.00E+000	0.00E+000	2.93E+002
43 - UNIT 2 DEEP WELL	1/ 2/96	.00500	2.95E-001	0.00E+000	0.00E+000	9.46E+002
	2/ 1/96	.00500	2.95E-001	0.00E+000	0.00E+000	9.11E+002
	3/ 5/96	.00500	2.91E-001	0.00E+000	0.00E+000	9.37E+002
	4/ 1/96	.00500	2.91E-001	0.00E+000	0.00E+000	9.37E+002
	5/ 5/96	.00500	2.94E-001	0.00E+000	0.00E+000	9.00E+002
	6/ 3/96	.00500	2.93E-001	0.00E+000	0.00E+000	2.93E+002
Plant: RNP Analysis: TRITIUM MediaType: SURFACE WATER LITERS						
40 - 0.6 MI ESE-SC23 AT BLACK CR AND ART WELL	1/31/96	.00500	2.95E-001	1.99E+003	6.00E+002	9.11E+002
	2/29/96	.00500	2.99E-001	3.40E+003	6.10E+002	8.82E+002
	3/31/96	.00500	2.91E-001	2.46E+003	6.20E+002	9.37E+002
	4/30/96	.00500	2.96E-001	1.13E+003	5.70E+002	8.96E+002
	5/31/96	.00500	2.93E-001	2.15E+003	5.90E+002	8.98E+002
	6/30/96	.00500	2.93E-001	4.09E+003	2.00E+002	2.92E+002
41 - 7.2 MI NNW - BLACK CREEK - CONTROL	1/31/96	.00500	2.95E-001	0.00E+000	0.00E+000	9.11E+002
	2/29/96	.00500	2.99E-001	0.00E+000	0.00E+000	8.82E+002
	3/31/96	.00500	2.91E-001	0.00E+000	0.00E+000	9.37E+002
	4/30/96	.00500	2.96E-001	0.00E+000	0.00E+000	8.96E+002
	5/31/96	.00500	2.93E-001	0.00E+000	0.00E+000	8.98E+002
	6/30/96	.00500	2.93E-001	0.00E+000	0.00E+000	2.92E+002
57 - 0.9 MI NNW - ASH POND	1/31/96	.00500	2.95E-001	1.61E+003	5.90E+002	9.11E+002
	2/29/96	.00500	2.99E-001	2.93E+003	6.00E+002	8.82E+002
	3/31/96	.00500	2.91E-001	2.28E+003	6.20E+002	9.37E+002
	4/30/96	.00500	2.96E-001	1.92E+003	5.90E+002	8.96E+002

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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
57 - 0.9 MI NNW - ASH POND	5/31/96	.00500	2.93E-001	0.00E+000	0.00E+000	8.98E+002
	6/30/96	.00500	2.93E-001	2.42E+003	1.90E+002	2.92E+002



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Sample Point	SampleDate	Quantity	Isotope	Activity	2 SigmaError	LLD
Plant: RNP Analysis: GAMMA Media Type: AIR PARTICULATE Units: CUMETERS						
1 - 26 MI ESE - FLORENCE - CONTROL	2/15/96	10353.60000	BE-7	1.34E-001	2.30E-002	0.00E+000
	5/15/96	11242.20000	BE-7	1.75E-001	2.60E-002	0.00E+000
2 - 0.2 MI S - INFORMATION CENTER	2/15/96	9581.70000	BE-7	9.53E-002	3.11E-002	0.00E+000
	5/15/96	10782.40000	BE-7	1.57E-001	2.70E-002	0.00E+000
3 - 0.7 MI N - MICROWAVE TOWER	2/15/96	10594.60000	BE-7	7.85E-002	2.83E-002	0.00E+000
	5/15/96	12522.10000	BE-7	1.26E-001	2.40E-002	0.00E+000
	2/15/96	10594.60000	K-40	3.60E-002	1.57E-002	0.00E+000
4 - 0.4 MI ESE - SPILLWAY	2/15/96	10874.70000	BE-7	7.30E-002	2.85E-002	0.00E+000
	5/15/96	11906.20000	BE-7	1.62E-001	2.50E-002	0.00E+000
5 - 0.9 MI ENE - JOHNSONS LANDING	2/15/96	8732.80000	BE-7	1.44E-001	2.60E-002	0.00E+000
	5/15/96	9260.80000	BE-7	1.88E-001	3.00E-002	0.00E+000
6 - 0.3 MI SW - INFORMATION CENTER	5/15/96	10871.80000	BE-7	1.66E-001	2.70E-002	0.00E+000
	2/15/96	10210.20000	BE-7	1.34E-001	2.30E-002	0.00E+000
7 - 6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	2/15/96	10132.90000	BE-7	5.57E-002	2.89E-002	0.00E+000
	2/15/96	10132.90000	K-40	1.97E-002	1.19E-002	0.00E+000
	5/15/96	10389.20000	BE-7	1.53E-001	2.70E-002	0.00E+000
55 - 0.3 MI SSE - SITE BOUNDARY	2/15/96	9496.80000	K-40	1.78E-002	1.61E-002	0.00E+000
	2/15/96	9496.80000	BE-7	1.53E-001	2.70E-002	0.00E+000
	5/15/96	9574.90000	BE-7	1.57E-001	2.60E-002	0.00E+000
Plant: RNP Analysis: GAMMA Media Type: AQUATIC VEGETATION Units: GRAMS						
41 - 7.2 MI NNW - BLACK CREEK - CONTROL	6/20/96	509.90000	BE-7	4.04E-001	1.86E-001	0.00E+000
	6/20/96	509.90000	TL-208	8.28E-002	2.36E-002	0.00E+000
	6/20/96	509.90000	PB-212	1.47E-001	3.80E-002	0.00E+000
	6/20/96	509.90000	BI-214	1.61E-001	4.80E-002	0.00E+000
	6/20/96	509.90000	PB-214	1.26E-001	5.80E-002	0.00E+000
	6/20/96	509.90000	RA-226	1.00E+000	5.00E-001	0.00E+000
	6/20/96	509.90000	AC-228	2.77E-001	7.70E-002	0.00E+000
	6/20/96	509.90000	I-131	0.00E+000	0.00E+000	4.05E-002
	6/20/96	509.90000	CS-134	0.00E+000	0.00E+000	3.32E-002
	6/20/96	509.90000	CS-137	0.00E+000	0.00E+000	3.03E-002
	6/20/96	509.90000	K-40	2.51E+000	3.80E-001	0.00E+000
45 - SITE VARIES WITHIN LAKE ROBINSON	6/20/96	591.00000	PB-212	2.34E-001	3.40E-002	0.00E+000
	6/20/96	591.00000	BE-7	1.28E+000	2.30E-001	0.00E+000
	6/20/96	591.00000	TL-208	9.81E-002	2.58E-002	0.00E+000
	6/20/96	591.00000	BI-214	2.28E-001	5.00E-002	0.00E+000
	6/20/96	591.00000	PB-214	2.25E-001	5.10E-002	0.00E+000
	6/20/96	591.00000	RA-226	9.12E-001	5.14E-001	0.00E+000
	6/20/96	591.00000	AC-228	4.94E-001	8.60E-002	0.00E+000

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45 - SITE VARIES WITHIN LAKE ROBINSON	6/20/96	591.00000	CS-137	4.39E-002	1.75E-002	0.00E+000
	6/20/96	591.00000	I-131	0.00E+000	0.00E+000	4.05E-002
	6/20/96	591.00000	CS-134	0.00E+000	0.00E+000	2.99E-002
	6/20/96	591.00000	K-40	1.17E+000	3.60E-001	0.00E+000
46 - 4.9 MI ESE - PRESTWOOD LAKE	6/20/96	616.00000	BE-7	9.78E-001	2.48E-001	0.00E+000
	6/20/96	616.00000	TL-208	4.76E-002	1.67E-002	0.00E+000
	6/20/96	616.00000	BI-214	9.42E-002	4.56E-002	0.00E+000
	6/20/96	616.00000	PB-214	1.62E-001	4.60E-002	0.00E+000
	6/20/96	616.00000	RA-226	7.29E-001	4.87E-001	0.00E+000
	6/20/96	616.00000	AC-228	5.36E-001	1.09E-001	0.00E+000
	6/20/96	616.00000	I-131	0.00E+000	0.00E+000	3.82E-002
	6/20/96	616.00000	CS-134	0.00E+000	0.00E+000	3.16E-002
	6/20/96	616.00000	CS-137	0.00E+000	0.00E+000	2.80E-002
	6/20/96	616.00000	K-40	7.29E-001	3.57E-001	0.00E+000
	6/20/96	558.20000	BE-7	2.88E+000	4.50E-001	0.00E+000
	6/20/96	558.20000	TL-208	4.82E-001	5.90E-002	0.00E+000
54 - 10.1 MI E - AUBURNDALE PLANTATION	6/20/96	558.20000	PB-212	1.34E+000	7.00E-002	0.00E+000
	6/20/96	558.20000	BI-214	1.55E+000	1.20E-001	0.00E+000
	6/20/96	558.20000	PB-214	1.66E+000	1.10E-001	0.00E+000
	6/20/96	558.20000	RA-226	1.23E+001	1.10E+000	0.00E+000
	6/20/96	558.20000	AC-228	6.23E+000	3.00E-001	0.00E+000
	6/20/96	558.20000	MN-54	1.22E-001	3.20E-002	0.00E+000
	6/20/96	558.20000	CO-60	1.48E-001	3.60E-002	0.00E+000
	6/20/96	558.20000	I-131	3.84E-001	9.20E-002	0.00E+000
	6/20/96	558.20000	CS-134	0.00E+000	0.00E+000	8.74E-002
	6/20/96	558.20000	CS-137	0.00E+000	0.00E+000	5.94E-002
	6/20/96	558.20000	K-40	2.30E+000	4.70E-001	0.00E+000
Plant: RNP Analysis: GAMMA MediaType: BOTTOM FEEDER Units: GRAMS Media: BOTTOM FEEDERS						
45 - SITE VARIES WITHIN LAKE ROBINSON	6/12/96	505.50000	K-40	3.75E+000	1.06E+000	0.00E+000
	6/12/96	505.50000	CS-137	9.49E-002	5.07E-002	0.00E+000
46 - 4.9 MI ESE - PRESTWOOD LAKE	6/12/96	480.60000	K-40	3.07E+000	1.03E+000	0.00E+000
47 - 13 MI NNW - LAKE BEE - CONTROL	6/12/96	558.40000	K-40	3.23E+000	9.60E-001	0.00E+000
	6/12/96	558.40000	CS-137	8.57E-002	4.78E-002	0.00E+000
	6/12/96	558.40000	PB-214	2.49E-001	7.90E-002	0.00E+000
Plant: RNP Analysis: GAMMA MediaType: BOTTOM SEDIMENT Units: GRAMS						
41 - 7.2 MI NNW - BLACK CREEK - CONTROL	6/12/96	1006.20000	K-40	1.14E+000	3.20E-001	0.00E+000
	6/12/96	1006.20000	PB-212	6.06E-001	6.00E-002	0.00E+000
	6/12/96	1006.20000	BI-214	4.49E-001	7.90E-002	0.00E+000
	6/12/96	1006.20000	PB-214	4.61E-001	7.30E-002	0.00E+000

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41 - 7.2 MI NNW - BLACK CREEK - CONTROL	6/12/96	1006.20000	RA-226	1.39E+000	6.90E-001	0.00E+000
	6/12/96	1006.20000	AC-228	6.74E-001	1.38E-001	0.00E+000
	6/12/96	1006.20000	TL-208	2.26E-001	4.60E-002	0.00E+000
45 - SITE VARIES WITHIN LAKE ROBINSON	6/12/96	855.60000	K-40	7.25E-001	4.34E-001	0.00E+000
	6/12/96	855.60000	PB-212	8.25E-001	8.00E-002	0.00E+000
	6/12/96	855.60000	BI-214	6.75E-001	1.13E-001	0.00E+000
	6/12/96	855.60000	PB-214	7.43E-001	1.06E-001	0.00E+000
	6/12/96	855.60000	AC-228	9.22E-001	1.98E-001	0.00E+000
	6/12/96	855.60000	CO-60	2.49E-001	5.10E-002	0.00E+000
	6/12/96	855.60000	CS-137	9.84E-002	4.88E-002	0.00E+000
	6/12/96	855.60000	TL-208	3.06E-001	6.20E-002	0.00E+000
46 - 4.9 MI ESE - PRESTWOOD LAKE	6/12/96	129.20000	TL-208	5.32E-001	5.80E-002	0.00E+000
	6/12/96	129.20000	K-40	5.38E+000	6.20E-001	0.00E+000
	6/12/96	129.20000	PB-212	1.42E+000	7.00E-002	0.00E+000
	6/12/96	129.20000	BI-214	1.99E+000	1.40E-001	0.00E+000
	6/12/96	129.20000	PB-214	2.12E+000	1.30E-001	0.00E+000
	6/12/96	129.20000	RA-226	5.01E+000	8.60E-001	0.00E+000
	6/12/96	129.20000	AC-228	1.23E+000	2.50E-001	0.00E+000
	6/12/96	129.20000	CO-60	5.21E-001	7.30E-002	0.00E+000
	6/12/96	129.20000	CS-137	8.15E-001	8.70E-002	0.00E+000
	6/12/96	129.20000	PB-212	1.42E+000	7.00E-002	0.00E+000
	6/12/96	839.40000	K-40	2.31E+000	6.30E-001	0.00E+000
	6/12/96	839.40000	PB-212	1.94E+000	1.20E-001	0.00E+000
54 - 10.1 MI E - AUBURNDALE PLANTATION	6/12/96	839.40000	BI-214	1.65E+000	1.90E-001	0.00E+000
	6/12/96	839.40000	PB-214	1.72E+000	1.60E-001	0.00E+000
	6/12/96	839.40000	RA-226	4.75E+000	1.41E+000	0.00E+000
	6/12/96	839.40000	AC-228	2.29E+000	3.00E-001	0.00E+000
	6/12/96	839.40000	CS-137	5.96E-002	5.18E-002	0.00E+000
	6/12/96	839.40000	TL-208	6.40E-001	8.90E-002	0.00E+000
Plant: RNP Analysis: GAMMA MediaType: BROADLEAF VEGETATION Units: GRAMS Media: CHERRY						
50 - SSE - CP&L PROPERTY	5/ 5/96	437.00000	BE-7	4.45E-001	2.39E-001	0.00E+000
	5/ 5/96	437.00000	I-131	0.00E+000	0.00E+000	2.98E-002
	5/ 5/96	437.00000	CS-134	0.00E+000	0.00E+000	3.10E-002
	5/ 5/96	437.00000	CS-137	0.00E+000	0.00E+000	3.27E-002
	5/ 5/96	437.00000	K-40	3.48E+000	4.90E-001	0.00E+000
	6/ 3/96	358.60000	BE-7	3.64E-001	1.88E-001	0.00E+000
	6/ 3/96	358.60000	I-131	0.00E+000	0.00E+000	4.05E-002
	6/ 3/96	358.60000	CS-134	0.00E+000	0.00E+000	3.54E-002
	6/ 3/96	358.60000	CS-137	0.00E+000	0.00E+000	4.09E-002
	6/ 3/96	358.60000	K-40	2.74E+000	6.10E-001	0.00E+000

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51 - SSW - CP&L PROPERTY	5/ 5/96	426.70000	K-40	3.27E+000	5.50E-001	0.00E+000
	5/ 5/96	426.70000	I-131	0.00E+000	0.00E+000	2.96E-002
	5/ 5/96	426.70000	CS-134	0.00E+000	0.00E+000	3.07E-002
	5/ 5/96	426.70000	CS-137	5.58E-002	2.46E-002	0.00E+000
	6/ 3/96	443.70000	BE-7	3.41E-001	2.00E-001	0.00E+000
	6/ 3/96	443.70000	AC-228	1.81E-001	7.20E-002	0.00E+000
	6/ 3/96	443.70000	CS-137	7.37E-002	2.16E-002	0.00E+000
	6/ 3/96	443.70000	I-131	0.00E+000	0.00E+000	3.17E-002
	6/ 3/96	443.70000	CS-134	0.00E+000	0.00E+000	3.29E-002
	6/ 3/96	443.70000	K-40	2.41E+000	4.40E-001	0.00E+000
	5/ 5/96	447.30000	BE-7	3.65E-001	2.51E-001	0.00E+000
	5/ 5/96	447.30000	I-131	0.00E+000	0.00E+000	2.72E-002
	5/ 5/96	447.30000	CS-134	0.00E+000	0.00E+000	3.26E-002
52 - 10 MI W - BETHUNE - CONTROL	5/ 5/96	447.30000	CS-137	0.00E+000	0.00E+000	3.19E-002
	5/ 5/96	447.30000	K-40	2.76E-001	4.70E-002	0.00E+000
	6/ 3/96	398.40000	BE-7	3.69E-001	1.19E-001	0.00E+000
	6/ 3/96	398.40000	CS-137	5.61E-002	1.80E-002	0.00E+000
	6/ 3/96	398.40000	I-131	0.00E+000	0.00E+000	2.99E-002
	6/ 3/96	398.40000	CS-134	0.00E+000	0.00E+000	2.36E-002
	6/ 3/96	398.40000	K-40	1.42E+000	3.40E-001	0.00E+000
Plant: RNP Analysis: GAMMA MediaType: BROADLEAF VEGETATION Units: GRAMS Media: OAK						
50 - SSE - CP&L PROPERTY	5/ 5/96	413.90000	K-40	3.28E+000	6.30E-001	0.00E+000
	5/ 5/96	413.90000	I-131	0.00E+000	0.00E+000	3.38E-002
	5/ 5/96	413.90000	CS-134	0.00E+000	0.00E+000	2.90E-002
	5/ 5/96	413.90000	CS-137	4.16E-001	5.00E-002	0.00E+000
	6/ 3/96	279.80000	BE-7	9.38E-001	2.82E-001	0.00E+000
	6/ 3/96	279.80000	PB-212	4.36E-002	3.92E-002	0.00E+000
	6/ 3/96	279.80000	CS-137	8.07E-001	7.50E-002	0.00E+000
	6/ 3/96	279.80000	I-131	0.00E+000	0.00E+000	4.71E-002
	6/ 3/96	279.80000	CS-134	0.00E+000	0.00E+000	4.22E-002
	6/ 3/96	279.80000	K-40	4.74E+000	7.00E-001	0.00E+000
	5/ 5/96	407.30000	BE-7	3.95E-001	2.05E-001	0.00E+000
	5/ 5/96	407.30000	CS-137	3.44E-001	4.30E-002	0.00E+000
	5/ 5/96	407.30000	I-131	0.00E+000	0.00E+000	3.41E-002
51 - SSW - CP&L PROPERTY	5/ 5/96	407.30000	CS-134	0.00E+000	0.00E+000	2.85E-002
	5/ 5/96	407.30000	K-40	2.60E+000	5.60E-001	0.00E+000
	6/ 3/96	252.80000	BE-7	9.62E-001	3.89E-001	0.00E+000
	6/ 3/96	252.80000	PB-212	6.62E-002	4.38E-002	0.00E+000
	6/ 3/96	252.80000	CS-137	8.75E-001	8.30E-002	0.00E+000
	6/ 3/96	252.80000	I-131	0.00E+000	0.00E+000	5.20E-002

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51 - SSW - CP&L PROPERTY	6/ 3/96	252.80000	CS-134	0.00E+000	0.00E+000	4.80E-002
	6/ 3/96	252.80000	K-40	3.52E+000	6.60E-001	0.00E+000
52 - 10 MI W - BETHUNE - CONTROL	5/ 5/96	355.50000	K-40	2.21E+000	6.50E-001	0.00E+000
	5/ 5/96	355.50000	I-131	0.00E+000	0.00E+000	4.31E-002
	5/ 5/96	355.50000	CS-134	0.00E+000	0.00E+000	3.50E-002
	5/ 5/96	355.50000	CS-137	4.76E-001	5.70E+000	0.00E+000
	6/ 3/96	285.60000	BE-7	1.17E+000	3.10E-001	0.00E+000
	6/ 3/96	285.60000	CS-137	7.71E-001	7.10E-002	0.00E+000
	6/ 3/96	285.60000	I-131	0.00E+000	0.00E+000	4.99E-002
	6/ 3/96	285.60000	CS-134	0.00E+000	0.00E+000	3.74E-002
	6/ 3/96	285.60000	K-40	4.43E+000	7.30E-001	0.00E+000
Plant: RNP Analysis: GAMMA MediaType: BROADLEAF VEGETATION Units: GRAMS Media: SASSAFRAS						
50 - SSE - CP&L PROPERTY	6/ 3/96	360.20000	BE-7	5.65E-001	3.48E-001	0.00E+000
	6/ 3/96	360.20000	RA-226	6.62E-001	4.92E-001	0.00E+000
	6/ 3/96	360.20000	CS-137	5.94E-001	6.90E-002	0.00E+000
	6/ 3/96	360.20000	I-131	0.00E+000	0.00E+000	3.62E-002
	6/ 3/96	360.20000	CS-134	0.00E+000	0.00E+000	3.46E-002
	6/ 3/96	360.20000	K-40	1.60E+000	5.00E-001	0.00E+000
51 - SSW - CP&L PROPERTY	6/ 3/96	372.30000	BE-7	8.37E-001	2.27E-001	0.00E+000
	6/ 3/96	372.30000	PB-212	6.42E-002	5.51E-002	0.00E+000
	6/ 3/96	372.30000	RA-226	6.13E-001	4.98E-001	0.00E+000
	6/ 3/96	372.30000	AC-228	2.34E-001	9.50E-002	0.00E+000
	6/ 3/96	372.30000	CS-137	1.43E-001	3.60E-002	0.00E+000
	6/ 3/96	372.30000	I-131	0.00E+000	0.00E+000	3.47E-002
	6/ 3/96	372.30000	CS-134	0.00E+000	0.00E+000	4.03E-002
	6/ 3/96	372.30000	K-40	3.62E+000	4.80E-001	0.00E+000
52 - 10 MI W - BETHUNE - CONTROL	6/ 3/96	361.90000	BE-7	1.01E+000	3.20E-001	0.00E+000
	6/ 3/96	361.90000	PB-212	4.81E-002	4.18E-002	0.00E+000
	6/ 3/96	361.90000	AC-228	2.01E-001	9.50E-002	0.00E+000
	6/ 3/96	361.90000	CS-137	3.24E-001	4.50E-002	0.00E+000
	6/ 3/96	361.90000	I-131	0.00E+000	0.00E+000	3.64E-002
	6/ 3/96	361.90000	CS-134	0.00E+000	0.00E+000	3.58E-002
	6/ 3/96	361.90000	K-40	3.21E+000	5.50E-001	0.00E+000
Plant: RNP Analysis: GAMMA MediaType: FREE SWIMMER Units: GRAMS Media: FREE SWIMMERS						
45 - SITE VARIES WITHIN LAKE ROBINSON	6/12/96	469.80000	CS-137	1.48E-001	4.90E-002	0.00E+000
	6/12/96	469.80000	K-40	4.25E+000	1.11E+000	0.00E+000
46 - 4.9 MI ESE - PRESTWOOD LAKE	6/12/96	494.20000	K-40	2.37E+000	1.10E+000	0.00E+000
47 - 13 MI NNW - LAKE BEE - CONTROL	6/12/96	548.40000	CS-137	2.52E-001	7.00E-002	0.00E+000

Sample Point	SampleDate	Quantity	Isotope	Activity	2 SigmaError	LLD
47 - 13 MI NNW - LAKE BEE - CONTROL	6/12/96	548.40000	K-40	4.08E+000	1.00E+000	0.00E+000
Plant: RNP Analysis: GAMMA Media Type: GROUNDWATER Units: LITERS						
40 - 0.6 MI ESE-SC23 AT BLACK CR AND ART WE	1/ 2/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	2/ 1/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	4/ 1/96	1.00000	RA-226	9.73E+001	8.39E+001	0.00E+000
	3/ 5/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	4/ 1/96	1.00000	K-40	4.02E+002	7.50E+001	0.00E+000
	5/ 5/96	1.00000	K-40	3.88E+002	7.40E+001	0.00E+000
	6/ 3/96	1.00000	K-40	2.75E+002	6.90E+001	0.00E+000
42 - UNIT 1 DEEP WELL NEAR SITE ENTRANCE	1/ 2/96	1.00000	K-40	1.66E+002	3.40E+001	0.00E+000
	2/ 1/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	3/ 5/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	4/ 1/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	5/ 5/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	6/ 3/96	1.00000	K-40	7.07E+001	5.37E+001	0.00E+000
	1/ 2/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
43 - UNIT 2 DEEP WELL	2/ 1/96	1.00000	TL-208	4.66E+000	4.34E+000	0.00E+000
	3/ 5/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	4/ 1/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	5/ 5/96	1.00000	K-40	4.01E+002	7.10E+001	0.00E+000
	6/ 3/96	1.00000	K-40	3.37E+002	4.60E+001	0.00E+000
	6/ 3/96	1.00000	PB-212	2.82E+000	2.28E+000	0.00E+000
	6/ 3/96	1.00000	RA-226	5.21E+001	3.49E+001	0.00E+000
	6/ 3/96	1.00000	TL-208	3.79E+000	2.30E+000	0.00E+000
	Plant: RNP Analysis: GAMMA Media Type: MILK Units: LITERS					
	1/22/96	1.00000	K-40	1.70E+003	2.20E+002	0.00E+000
54 - 10.1 MI E - AUBURNDALE PLANTATION	1/ 8/96	1.00000	K-40	1.24E+003	1.80E+002	0.00E+000
	1/ 8/96	1.00000	TL-208	8.54E+000	8.47E+000	0.00E+000
	2/ 5/96	1.00000	RA-226	1.65E+002	1.47E+002	0.00E+000
	2/ 5/96	1.00000	K-40	1.81E+003	1.90E+002	0.00E+000
	5/12/96	1.00000	PB-212	2.20E+001	1.61E+001	0.00E+000
	2/19/96	1.00000	K-40	1.23E+003	2.00E+002	0.00E+000
	3/ 4/96	1.00000	K-40	6.44E+002	2.52E+002	0.00E+000
	3/18/96	1.00000	K-40	1.80E+003	2.00E+002	0.00E+000
	4/ 1/96	1.00000	K-40	1.30E+003	2.00E+002	0.00E+000
	4/14/96	1.00000	K-40	1.29E+003	1.90E+002	0.00E+000
	4/29/96	1.00000	K-40	1.27E+003	2.00E+002	0.00E+000
	5/12/96	1.00000	K-40	1.75E+003	1.90E+002	0.00E+000
	5/12/96	1.00000	BI-214	2.36E+001	1.38E+001	0.00E+000

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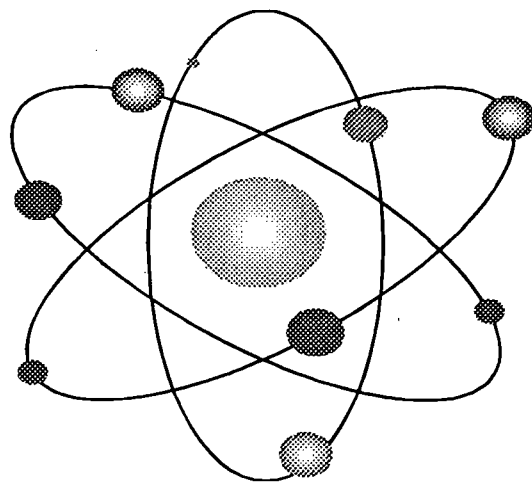
Sample Point	SampleDate	Quantity	Isotope	Activity	2 SigmaError	LLD
54 - 10.1 MI E - AUBURNDALE PLANTATION	5/27/96	1.00000	K-40	1.82E+003	2.00E+002	0.00E+000
	6/24/96	1.00000	K-40	1.27E+003	2.00E+002	0.00E+000
	6/10/96	1.00000	K-40	1.28E+003	1.60E+002	0.00E+000
63 - 18 MI ESE - CUNNINGHAM FARM - CONTROL	1/22/96	1.00000	K-40	1.13E+003	1.90E+002	0.00E+000
	1/22/96	1.00000	BI-214	3.03E+001	1.59E+001	0.00E+000
	1/ 8/96	1.00000	K-40	2.14E+003	2.10E+002	0.00E+000
	2/ 5/96	1.00000	K-40	1.06E+003	1.90E+002	0.00E+000
	2/19/96	1.00000	K-40	1.93E+003	1.90E+002	0.00E+000
	3/ 4/96	1.00000	K-40	1.04E+003	1.80E+002	0.00E+000
	3/18/96	1.00000	K-40	1.35E+003	1.70E+002	0.00E+000
	4/ 1/96	1.00000	K-40	1.96E+003	2.00E+002	0.00E+000
	4/ 1/96	1.00000	RA-226	1.88E+002	1.36E+002	0.00E+000
	4/14/96	1.00000	K-40	1.53E+003	1.70E+002	0.00E+000
Plant: RNP Analysis: GAMMA Media Type: SHORELINE SEDIMENT Units: GRAMS						
44 - 1.9 MI NNE - SHADY REST CLUB	1/15/96	1001.40000	TL-208	5.51E-002	1.81E-002	0.00E+000
	1/15/96	1001.40000	PB-214	1.31E-001	6.30E-002	0.00E+000
57 - 0.9 MI NNW - ASH POND	1/15/96	1000.40000	BE-7	3.22E-001	1.95E-001	0.00E+000
	1/15/96	1000.40000	PB-212	5.32E-001	5.60E-002	0.00E+000
	1/15/96	1000.40000	BI-214	4.29E-001	8.60E-002	0.00E+000
	1/15/96	1000.40000	PB-214	4.01E-001	7.10E-002	0.00E+000
	1/15/96	1000.40000	RA-226	1.01E+000	7.10E-001	0.00E+000
	1/15/96	1000.40000	AC-228	5.84E-001	1.39E-001	0.00E+000
	1/15/96	1000.40000	TL-208	1.73E-001	4.40E-002	0.00E+000
Plant: RNP Analysis: GAMMA Media Type: SURFACE WATER Units: LITERS						
40 - 0.6 MI ESE-SC23 AT BLACK CR AND ART WE	1/31/96	1.00000	K-40	1.97E+002	6.20E+001	0.00E+000
	2/29/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	6/30/96	1.00000	PB-212	6.55E+000	3.35E+000	0.00E+000
	3/31/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	4/30/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	5/31/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	6/30/96	1.00000	K-40	3.09E+002	5.80E+001	0.00E+000
	1/31/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
41 - 7.2 MI NNW - BLACK CREEK - CONTROL	2/29/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	3/31/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	4/30/96	1.00000	K-40	1.08E+002	4.10E+001	0.00E+000
	5/31/96	1.00000	K-40	1.93E+002	6.70E+001	0.00E+000
	6/30/96	1.00000	K-40	1.32E+002	6.50E+001	0.00E+000
	1/31/96	1.00000	K-40	3.35E+002	6.90E+001	0.00E+000
57 - 0.9 MI NNW - ASH POND	1/31/96	1.00000	K-40	3.35E+002	6.90E+001	0.00E+000

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57 - 0.9 MI NNW - ASH POND	2/29/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	3/31/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	4/30/96	1.00000	K-40	3.35E+002	8.90E+001	0.00E+000
	5/31/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	6/30/96	1.00000	RA-226	1.12E+002	7.10E+001	0.00E+000



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Plant: RNP

TLD in mR/QTR

Sample Point

SampleDate

Dose

2 SigmaError

1 - 26 MI ESE - FLORENCE - CONTROL	11/15/96	1.35E+001	1.10E+000
1	8/15/96	1.31E+001	2.50E+000
2 - 0.2 MI S - INFORMATION CENTER	11/15/96	1.47E+001	1.90E+000
2	8/15/96	1.54E+001	2.60E+000
3 - 0.7 MI N - MICROWAVE TOWER	11/15/96	1.58E+001	1.30E+000
3	8/15/96	1.57E+001	2.70E+000
4 - 0.4 MI ESE - SPILLWAY	11/15/96	1.12E+001	1.30E+000
4	8/15/96	1.04E+001	2.50E+000
5 - 0.9 MI ENE - JOHNSONS LANDING	11/15/96	1.24E+001	1.10E+000
5	8/15/96	1.57E+001	3.00E+000
6 - 0.3 MI SW - INFORMATION CENTER	11/15/96	1.43E+001	1.30E+000
6	8/15/96	1.59E+001	3.80E+000
7 - 6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	11/15/96	1.16E+001	1.30E+000
7	8/15/96	1.43E+001	2.50E+000
8 - 0.8 MI SSE - POWER POLES FROM HBR	11/15/96	1.05E+001	1.10E+000
8	8/15/96	1.14E+001	2.50E+000
9 - 1.0 MI S - POWER POLE NEAR HWY 151	11/15/96	1.94E+001	1.50E+000
9	8/15/96	1.94E+001	4.20E+000
10 - 1.0 MI WSW - CHURCH OF GOD CEMETERY	11/15/96	1.17E+001	1.10E+000
10	8/15/96	1.13E+001	2.60E+000
11 - 1.0 MI SW - POWER POLE AT OLD CAMDEN RD	11/15/96	1.11E+001	1.10E+000
11	8/15/96	1.05E+001	2.50E+000
12 - 1.2 MI SSW-PINE TREE AT 2ND INT DIRT RD	8/15/96	1.42E+001	3.20E+000
13 - 1.0 MI W-PINE TREE WHERE DIRT RD SPLITS	11/15/96	1.16E+001	1.10E+000
13	8/15/96	1.34E+001	2.60E+000
14 - 0.9 MI WNW - HWY 151 AT PINE RIDGE CH	11/15/96	1.60E+001	1.80E+000
14	8/15/96	1.64E+001	2.70E+000
15 - 1.0 MI NW -DIRT RD NEAR ASH POND	11/15/96	1.04E+001	2.00E+000
15	8/15/96	1.08E+001	2.50E+000
16 - 1.0 MI NNW - DARLINGTON IC TURBINE PLANT	11/15/96	1.26E+001	1.80E+000
16	8/15/96	1.28E+001	2.70E+000
17 - 1.1 MI N - DIS CANAL RD AT UNIT 1 WEIR	11/15/96	1.26E+001	1.20E+000
17	8/15/96	1.43E+001	2.60E+000
18 - 0.7 MI SE - TRAIN TRESTLE OVER BLACK CR	11/15/96	1.25E+001	1.20E+000
18	8/15/96	1.28E+001	2.90E+000
19 - 1.0 MI E - RD S-16-23	11/15/96	1.22E+001	2.10E+000
19	8/15/96	1.32E+001	2.60E+000
20 - 1.3 MI ENE - RD S-16-39 NORTH	11/15/96	1.37E+001	1.10E+000
20	8/15/96	1.60E+001	3.10E+000
21 - ATKINSONS BOAT LANDING	11/15/96	1.35E+001	1.10E+000

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Plant: RNP TLD in mR/QTR

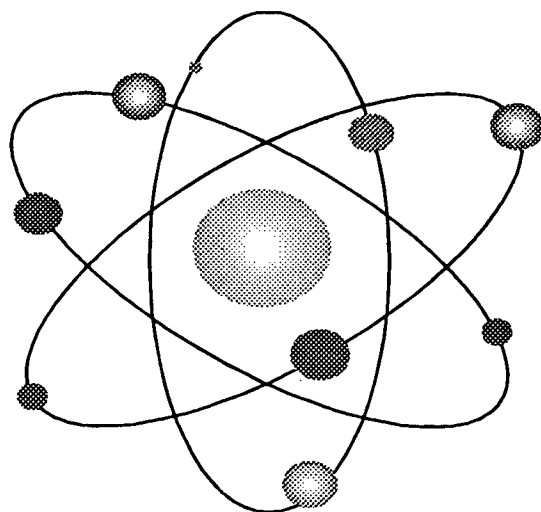
Sample Point

SampleDate

Dose

2 SigmaError

21 - ATKINSONS BOAT LANDING	8/15/96	1.60E+001	2.80E+000
22 - 1.9 MI NNE - SHADY REST NEAR DOCK	11/15/96	1.16E+001	1.10E+000
22	8/15/96	1.51E+001	2.50E+000
23 - 1.2 MI ESE - INT RD 41E-5 AND S-16-39	11/15/96	1.57E+001	1.60E+000
23	8/15/96	1.66E+001	2.50E+000
24 - 5.0 MI NW - S-13-711 PAST PEACH FARM	11/15/96	1.59E+001	1.40E+000
24	8/15/96	1.58E+001	2.50E+000
25 - 4.6 MI NNW - RD S-13-346 OFF 151 NORTH	11/15/96	1.35E+001	1.30E+000
26 - 5.0 MI N - RD S-13-346	11/15/96	1.50E+001	1.10E+000
26	8/15/96	1.56E+001	2.50E+000
27 - 5.0 MI NNE - RD S-13-763 NEAR INTER	11/15/96	1.10E+001	1.20E+000
27	8/15/96	1.14E+001	2.50E+000
28 - 4.8 MI NE - NEAR DUMPSTER RD S-13-39	11/15/96	1.85E+001	2.40E+000
28	8/15/96	2.06E+001	2.70E+000
29 - RD S-16-20 SOUTH OF LOOKOUT TOWER	11/15/96	1.54E+001	1.20E+000
29	8/15/96	1.69E+001	2.50E+000
30 - 4.6 MI E - RD S-16-20 JOHNSON FENCE CO	11/15/96	1.43E+001	2.00E+000
30	8/15/96	1.68E+001	2.50E+000
31 - 4.6 MI ESE - LAKESHORE DRIVE	11/15/96	1.44E+001	2.50E+000
31	8/15/96	1.65E+001	2.50E+000
32 - 4.5 MI SE - END OF KALBER DRIVE	8/15/96	1.31E+001	2.80E+000
33 - 4.6 MI SSE-RD S16-493 NEAR SEGARS ENTR	11/15/96	1.59E+001	1.80E+000
33	8/15/96	1.53E+001	2.60E+000
34 - 4.6 MI S - RD S-16-772	11/15/96	1.10E+001	1.60E+000
34	8/15/96	1.07E+001	2.50E+000
35 - 4.4 MI SSW - INT RD S-31-51 & S-16-12	11/15/96	2.13E+001	2.60E+000
35	8/15/96	2.31E+001	2.60E+000
36 - 4.7 MI SW - PAVED RD OFF RD S-16-85	11/15/96	1.83E+001	2.70E+000
36	8/15/96	1.94E+001	2.40E+000
37 - 5.0 MI WSW - TRANS TOWER NEAR CLAY RD	11/15/96	1.86E+001	2.00E+000
37	8/15/96	2.07E+001	4.00E+000
38 - 4.9 MI W - RD S-16-231 AT UNION CHURCH	11/15/96	1.50E+001	2.00E+000
38	8/15/96	1.78E+001	2.90E+000
39 - 5.0 MI WNW - POWER POLE IN FIELD	11/15/96	1.55E+001	2.20E+000
39	8/15/96	1.57E+001	2.90E+000
55 - 0.3 MI SSE - SITE BOUNDARY	11/15/96	1.40E+001	1.70E+000
56 - 300 FT N OF ISFSI	11/15/96	1.25E+001	1.10E+000
56	8/15/96	1.56E+001	2.60E+000



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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
Plant: RNP Analysis: BETA MediaType: AIR PARTICULATE CUMETERS						
1 - 26 MI ESE - FLORENCE - CONTROL	7/ 1/96	870.00000	3.76E-001	1.99E-002	1.62E-003	0.00E+000
	7/ 8/96	885.30000	3.76E-001	1.94E-002	1.61E-003	0.00E+000
	7/15/96	934.20000	3.76E-001	1.85E-002	1.50E-003	0.00E+000
	7/22/96	866.70000	3.76E-001	1.67E-002	1.54E-003	0.00E+000
	7/29/96	870.40000	3.76E-001	1.86E-002	1.56E-003	0.00E+000
	8/26/96	888.60000	3.76E-001	2.98E-002	1.90E-003	0.00E+000
	8/ 5/96	862.90000	3.76E-001	1.82E-002	1.54E-003	0.00E+000
	8/12/96	870.70000	3.76E-001	1.74E-002	1.57E-003	0.00E+000
	8/19/96	889.80000	3.76E-001	1.90E-002	1.56E-003	0.00E+000
	9/ 2/96	840.20000	3.76E-001	2.44E-002	1.79E-003	0.00E+000
	9/ 9/96	882.10000	3.76E-001	1.43E-002	1.43E-003	0.00E+000
	9/16/96	860.50000	3.76E-001	1.55E-002	1.50E-003	0.00E+000
	9/23/96	890.40000	3.76E-001	2.32E-002	1.72E-003	0.00E+000
	9/30/96	876.00000	3.76E-001	2.76E-002	1.87E-003	0.00E+000
	10/ 7/96	887.10000	3.76E-001	1.75E-002	1.53E-003	0.00E+000
	10/14/96	868.50000	3.76E-001	1.38E-002	1.40E-003	0.00E+000
	10/21/96	871.40000	3.76E-001	2.77E-002	1.88E-003	0.00E+000
	10/28/96	870.70000	3.76E-001	2.28E-002	1.74E-003	0.00E+000
	11/ 4/96	878.10000	3.76E-001	2.09E-002	1.68E-003	0.00E+000
	11/11/96	872.50000	3.76E-001	1.57E-002	1.47E-003	0.00E+000
	11/18/96	905.60000	3.76E-001	1.61E-002	1.47E-003	1.12E-003
	11/25/96	830.30000	3.76E-001	1.95E-002	1.66E-003	1.18E-003
	12/ 2/96	845.00000	3.76E-001	2.07E-002	1.73E-003	1.31E-003
	12/ 9/96	819.50000	3.76E-001	1.69E-002	1.59E-003	1.21E-003
	12/16/96	838.40000	3.76E-001	1.70E-002	1.56E-003	1.15E-003
2 - 0.2 MI S - INFORMATION CENTER	7/ 1/96	816.80000	3.76E-001	2.48E-002	1.84E-003	0.00E+000
	7/ 8/96	821.70000	3.76E-001	2.03E-002	1.71E-003	0.00E+000
	7/15/96	910.00000	3.76E-001	1.71E-002	1.47E-003	0.00E+000
	7/22/96	818.70000	3.76E-001	1.57E-002	1.56E-003	0.00E+000
	7/29/96	803.80000	3.76E-001	2.02E-002	1.69E-003	0.00E+000
	8/26/96	803.70000	3.76E-001	3.18E-002	2.07E-003	0.00E+000
	8/ 5/96	829.70000	3.76E-001	1.58E-002	1.48E-003	0.00E+000
	8/12/96	816.80000	3.76E-001	1.85E-002	1.67E-003	0.00E+000
	8/19/96	790.50000	3.76E-001	2.38E-002	1.83E-003	0.00E+000
	9/ 2/96	800.00000	3.76E-001	2.57E-002	1.88E-003	0.00E+000
	9/ 9/96	832.10000	3.76E-001	1.53E-002	1.52E-003	0.00E+000
	9/16/96	790.00000	3.76E-001	1.95E-002	1.73E-003	0.00E+000
	9/23/96	802.80000	3.76E-001	2.27E-002	1.81E-003	0.00E+000

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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
2 - 0.2 MI S - INFORMATION CENTER	9/30/96	754.20000	3.76E-001	3.28E-002	2.20E-003	0.00E+000
	10/ 7/96	794.40000	3.76E-001	1.86E-002	1.67E-003	0.00E+000
	10/14/96	792.50000	3.76E-001	1.77E-002	1.63E-003	0.00E+000
	10/21/96	777.30000	3.76E-001	3.06E-002	2.09E-003	0.00E+000
	10/28/96	780.60000	3.76E-001	2.78E-002	2.02E-003	0.00E+000
	11/ 4/96	795.00000	3.76E-001	2.23E-002	1.83E-003	0.00E+000
	11/11/96	776.20000	3.76E-001	1.79E-002	1.66E-003	0.00E+000
	11/18/96	765.90000	3.76E-001	2.04E-002	1.79E-003	1.33E-003
	11/25/96	738.60000	3.76E-001	2.76E-002	2.06E-003	1.33E-003
	12/ 2/96	740.20000	3.76E-001	2.29E-002	1.95E-003	1.49E-003
	12/ 9/96	734.30000	3.76E-001	2.29E-002	1.91E-003	1.35E-003
	12/16/96	718.80000	3.76E-001	2.11E-002	1.86E-003	1.34E-003
	12/22/96	602.30000	3.76E-001	1.82E-002	1.97E-003	1.64E-003
	12/30/96	758.90000	3.76E-001	2.32E-002	1.89E-003	1.32E-003
3 - 0.7 MI N - MICROWAVE TOWER	7/ 1/96	835.90000	3.76E-001	2.30E-002	1.76E-003	0.00E+000
	7/ 8/96	856.40000	3.76E-001	1.93E-002	1.64E-003	0.00E+000
	7/15/96	905.30000	3.76E-001	1.66E-002	1.46E-003	0.00E+000
	7/22/96	844.80000	3.76E-001	1.55E-002	1.52E-003	0.00E+000
	7/29/96	849.10000	3.76E-001	1.85E-002	1.58E-003	0.00E+000
	8/26/96	775.80000	3.76E-001	4.29E-002	2.41E-003	0.00E+000
	8/ 5/96	301.60000	3.76E-001	3.07E-002	3.55E-003	0.00E+000
	8/12/96	672.20000	3.76E-001	2.12E-002	1.98E-003	0.00E+000
	8/19/96	746.70000	3.76E-001	1.84E-002	1.70E-003	0.00E+000
	9/ 2/96	672.50000	3.76E-001	2.74E-002	2.13E-003	0.00E+000
	9/ 9/96	777.60000	3.76E-001	1.51E-002	1.58E-003	0.00E+000
	9/16/96	747.40000	3.76E-001	1.83E-002	1.75E-003	0.00E+000
	9/23/96	759.30000	3.76E-001	2.22E-002	1.86E-003	0.00E+000
	9/30/96	770.00000	3.76E-001	2.93E-002	2.07E-003	0.00E+000
	10/ 7/96	773.60000	3.76E-001	2.11E-002	1.79E-003	0.00E+000
	10/14/96	784.00000	3.76E-001	1.59E-002	1.62E-003	0.00E+000
	10/21/96	752.40000	3.76E-001	2.87E-002	2.07E-003	0.00E+000
	10/28/96	760.20000	3.76E-001	2.60E-002	1.99E-003	0.00E+000
	11/ 4/96	768.90000	3.76E-001	2.13E-002	1.84E-003	0.00E+000
	11/11/96	685.20000	3.76E-001	1.59E-002	1.71E-003	0.00E+000
	11/18/96	553.50000	3.76E-001	2.15E-002	2.23E-003	1.84E-003
	11/25/96	809.70000	3.76E-001	1.87E-002	1.66E-003	1.21E-003
	12/ 2/96	836.30000	3.76E-001	1.85E-002	1.66E-003	1.32E-003
	12/ 9/96	814.70000	3.76E-001	1.94E-002	1.68E-003	1.22E-003
	12/16/96	804.30000	3.76E-001	1.53E-002	1.53E-003	1.19E-003
	12/22/96	703.40000	3.76E-001	1.33E-002	1.59E-003	1.40E-003

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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
3 - 0.7 MI N - MICROWAVE TOWER	12/30/96	945.20000	3.76E-001	1.68E-002	1.45E-003	1.06E-003
	7/ 1/96	887.30000	3.76E-001	2.56E-002	1.78E-003	0.00E+000
4 - 0.4 MI ESE - SPILLWAY	7/ 8/96	837.60000	3.76E-001	2.25E-002	1.77E-003	0.00E+000
	7/15/96	1036.90000	3.76E-001	1.67E-002	1.35E-003	0.00E+000
	7/22/96	823.40000	3.76E-001	1.75E-002	1.62E-003	0.00E+000
	7/29/96	821.30000	3.76E-001	2.18E-002	1.73E-003	0.00E+000
	8/26/96	826.20000	3.76E-001	2.98E-002	1.98E-003	0.00E+000
	8/ 5/96	846.00000	3.76E-001	2.10E-002	1.66E-003	0.00E+000
	8/12/96	827.90000	3.76E-001	2.03E-002	1.72E-003	0.00E+000
	8/19/96	805.30000	3.76E-001	2.49E-002	1.85E-003	0.00E+000
	9/ 2/96	820.60000	3.76E-001	2.85E-002	1.94E-003	0.00E+000
	9/ 9/96	846.50000	3.76E-001	1.60E-002	1.53E-003	0.00E+000
	9/16/96	813.50000	3.76E-001	2.04E-002	1.73E-003	0.00E+000
	9/23/96	848.80000	3.76E-001	2.47E-002	1.82E-003	0.00E+000
	9/30/96	820.20000	3.76E-001	3.32E-002	2.11E-003	0.00E+000
	10/ 7/96	847.60000	3.76E-001	1.91E-002	1.62E-003	0.00E+000
	10/14/96	425.70000	3.76E-001	1.92E-002	2.48E-003	0.00E+000
	10/21/96	830.30000	3.76E-001	3.03E-002	2.01E-003	0.00E+000
	10/28/96	810.10000	3.76E-001	2.87E-002	2.00E-003	0.00E+000
	11/ 4/96	776.00000	3.76E-001	2.35E-002	1.90E-003	0.00E+000
	11/11/96	792.50000	3.76E-001	1.83E-002	1.65E-003	0.00E+000
	11/18/96	828.90000	3.76E-001	2.15E-002	1.74E-003	1.23E-003
	11/25/96	750.10000	3.76E-001	3.04E-002	2.12E-003	1.31E-003
	12/ 2/96	772.00000	3.76E-001	2.54E-002	1.98E-003	1.43E-003
	12/ 9/96	731.40000	3.76E-001	2.41E-002	1.96E-003	1.36E-003
	12/16/96	700.60000	3.76E-001	2.05E-002	1.87E-003	1.37E-003
	12/22/96	610.70000	3.76E-001	1.96E-002	2.01E-003	1.61E-003
	12/30/96	827.40000	3.76E-001	2.06E-002	1.71E-003	1.21E-003
5 - 0.9 MI ENE - JOHNSONS LANDING	7/ 1/96	701.10000	3.76E-001	2.68E-002	2.08E-003	0.00E+000
	7/ 8/96	692.10000	3.76E-001	2.46E-002	2.05E-003	0.00E+000
	7/15/96	900.80000	3.76E-001	1.67E-002	1.47E-003	0.00E+000
	7/22/96	697.70000	3.76E-001	1.84E-002	1.83E-003	0.00E+000
	7/29/96	692.00000	3.76E-001	2.23E-002	1.92E-003	0.00E+000
	8/26/96	702.60000	3.76E-001	3.29E-002	2.27E-003	0.00E+000
	8/ 5/96	702.10000	3.76E-001	2.19E-002	1.88E-003	0.00E+000
	8/12/96	695.00000	3.76E-001	2.44E-002	2.05E-003	0.00E+000
	8/19/96	681.40000	3.76E-001	2.47E-002	2.03E-003	0.00E+000
	9/ 2/96	675.10000	3.76E-001	3.04E-002	2.22E-003	0.00E+000
	9/ 9/96	693.30000	3.76E-001	1.55E-002	1.72E-003	0.00E+000
	9/16/96	683.40000	3.76E-001	2.09E-002	1.94E-003	0.00E+000

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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
5 - 0.9 MI ENE - JOHNSONS LANDING	9/23/96	698.70000	3.76E-001	2.64E-002	2.09E-003	0.00E+000
	9/30/96	680.70000	3.76E-001	3.53E-002	2.40E-003	0.00E+000
	10/ 7/96	683.70000	3.76E-001	2.19E-002	1.95E-003	0.00E+000
	10/14/96	896.00000	3.76E-001	1.37E-002	1.37E-003	0.00E+000
	10/21/96	678.50000	3.76E-001	3.40E-002	2.37E-003	0.00E+000
	10/28/96	670.10000	3.76E-001	3.14E-002	2.32E-003	0.00E+000
	11/ 4/96	682.30000	3.76E-001	2.31E-002	2.04E-003	0.00E+000
	11/11/96	659.40000	3.76E-001	2.00E-002	1.91E-003	0.00E+000
	11/18/96	679.40000	3.76E-001	2.31E-002	2.02E-003	1.50E-003
	11/25/96	488.60000	3.76E-001	3.43E-002	2.86E-003	2.01E-003
	12/ 2/96	483.20000	3.76E-001	3.36E-002	2.93E-003	2.29E-003
	12/ 9/96	495.50000	3.76E-001	3.18E-002	2.76E-003	2.00E-003
	12/16/96	482.30000	3.76E-001	3.08E-002	2.75E-003	1.99E-003
	12/22/96	672.00000	3.76E-001	1.67E-002	1.78E-003	1.47E-003
	12/30/96	932.80000	3.76E-001	1.74E-002	1.49E-003	1.07E-003
6 - 0.3 MI SW - INFORMATION CENTER	7/ 1/96	734.30000	3.76E-001	2.55E-002	1.99E-003	0.00E+000
	7/ 8/96	739.20000	3.76E-001	2.32E-002	1.93E-003	0.00E+000
	7/15/96	895.50000	3.76E-001	1.82E-002	1.52E-003	0.00E+000
	7/22/96	738.30000	3.76E-001	1.79E-002	1.74E-003	0.00E+000
	7/29/96	741.70000	3.76E-001	2.25E-002	1.85E-003	0.00E+000
	8/26/96	741.40000	3.76E-001	4.59E-002	2.55E-003	0.00E+000
	8/ 5/96	795.20000	3.76E-001	2.01E-002	1.68E-003	0.00E+000
	8/12/96	748.80000	3.76E-001	2.16E-002	1.87E-003	0.00E+000
	8/19/96	726.20000	3.76E-001	2.38E-002	1.92E-003	0.00E+000
	9/ 2/96	747.40000	3.76E-001	2.70E-002	1.99E-003	0.00E+000
	9/ 9/96	768.80000	3.76E-001	1.49E-002	1.59E-003	0.00E+000
	9/16/96	732.70000	3.76E-001	2.16E-002	1.88E-003	0.00E+000
	9/23/96	767.60000	3.76E-001	2.49E-002	1.94E-003	0.00E+000
	9/30/96	897.60000	3.76E-001	2.69E-002	1.83E-003	0.00E+000
	10/ 7/96	764.20000	3.76E-001	2.00E-002	1.76E-003	0.00E+000
	10/14/96	774.80000	3.76E-001	1.78E-002	1.66E-003	0.00E+000
	10/21/96	747.60000	3.76E-001	3.39E-002	2.24E-003	0.00E+000
	10/28/96	726.20000	3.76E-001	3.06E-002	2.19E-003	0.00E+000
	11/ 4/96	785.00000	3.76E-001	2.13E-002	1.81E-003	0.00E+000
	11/11/96	757.40000	3.76E-001	1.93E-002	1.74E-003	0.00E+000
	11/18/96	772.60000	3.76E-001	2.23E-002	1.84E-003	1.32E-003
	11/25/96	784.80000	3.76E-001	2.26E-002	1.82E-003	1.25E-003
	12/ 2/96	809.70000	3.76E-001	2.15E-002	1.80E-003	1.37E-003
	12/ 9/96	780.20000	3.76E-001	2.09E-002	1.78E-003	1.27E-003
	12/16/96	785.10000	3.76E-001	1.79E-002	1.65E-003	1.22E-003

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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
6 - 0.3 MI SW - INFORMATION CENTER	12/22/96	676.00000	3.76E-001	1.56E-002	1.73E-003	1.46E-003
	12/30/96	913.50000	3.76E-001	2.01E-002	1.60E-003	1.09E-003
7 - 6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	7/ 1/96	712.50000	3.76E-001	2.39E-002	1.97E-003	0.00E+000
	7/ 8/96	697.80000	3.76E-001	1.92E-002	1.85E-003	0.00E+000
	7/15/96	907.10000	3.76E-001	1.41E-002	1.36E-003	0.00E+000
	7/22/96	713.00000	3.76E-001	1.57E-002	1.70E-003	0.00E+000
	7/29/96	713.80000	3.76E-001	1.01E-002	1.39E-003	0.00E+000
	8/26/96	714.80000	3.76E-001	2.65E-002	2.04E-003	0.00E+000
	8/ 5/96	709.40000	3.76E-001	1.37E-002	1.54E-003	0.00E+000
	8/12/96	707.00000	3.76E-001	1.93E-002	1.85E-003	0.00E+000
	8/19/96	704.90000	3.76E-001	2.53E-002	2.01E-003	0.00E+000
	9/ 2/96	671.70000	3.76E-001	2.46E-002	2.04E-003	0.00E+000
	9/ 9/96	721.70000	3.76E-001	1.24E-002	1.55E-003	0.00E+000
	9/16/96	692.00000	3.76E-001	2.03E-002	1.90E-003	0.00E+000
	9/23/96	707.40000	3.76E-001	2.64E-002	2.08E-003	0.00E+000
	9/30/96	694.60000	3.76E-001	3.13E-002	2.26E-003	0.00E+000
	10/ 7/96	697.90000	3.76E-001	2.03E-002	1.87E-003	0.00E+000
	10/14/96	707.20000	3.76E-001	1.90E-002	1.80E-003	0.00E+000
	10/21/96	687.10000	3.76E-001	3.22E-002	2.30E-003	0.00E+000
	10/28/96	688.30000	3.76E-001	2.62E-002	2.12E-003	0.00E+000
	11/ 4/96	692.00000	3.76E-001	2.38E-002	2.04E-003	0.00E+000
	11/11/96	675.30000	3.76E-001	1.88E-002	1.84E-003	0.00E+000
	11/18/96	686.80000	3.76E-001	2.24E-002	1.98E-003	1.48E-003
	11/25/96	843.00000	3.76E-001	1.85E-002	1.61E-003	1.16E-003
	12/ 2/96	839.30000	3.76E-001	1.76E-002	1.63E-003	1.32E-003
	12/ 9/96	864.60000	3.76E-001	1.69E-002	1.54E-003	1.15E-003
	12/16/96	836.60000	3.76E-001	1.55E-002	1.50E-003	1.15E-003
	12/22/96	716.90000	3.76E-001	1.46E-002	1.63E-003	1.38E-003
	12/30/96	983.00000	3.76E-001	1.73E-002	1.44E-003	1.02E-003
55 - 0.3 MI SSE - SITE BOUNDARY	7/ 1/96	769.60000	3.76E-001	2.59E-002	1.95E-003	0.00E+000
	7/ 8/96	762.80000	3.76E-001	2.37E-002	1.91E-003	0.00E+000
	7/15/96	865.10000	3.76E-001	1.74E-002	1.53E-003	0.00E+000
	7/22/96	756.40000	3.76E-001	1.76E-002	1.71E-003	0.00E+000
	7/29/96	755.80000	3.76E-001	2.01E-002	1.75E-003	0.00E+000
	8/26/96	762.40000	3.76E-001	2.92E-002	2.05E-003	0.00E+000
	8/ 5/96	782.20000	3.76E-001	1.84E-002	1.64E-003	0.00E+000
	8/12/96	764.20000	3.76E-001	2.05E-002	1.81E-003	0.00E+000
	8/19/96	741.80000	3.76E-001	2.40E-002	1.91E-003	0.00E+000
	9/ 2/96	484.30000	3.76E-001	4.14E-002	3.07E-003	0.00E+000
	9/ 9/96	633.00000	3.76E-001	1.95E-002	1.98E-003	0.00E+000

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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
55 - 0.3 MI SSE - SITE BOUNDARY	9/16/96	746.00000	3.76E-001	1.83E-002	1.75E-003	0.00E+000
	9/23/96	752.80000	3.76E-001	2.31E-002	1.90E-003	0.00E+000
	9/30/96	765.20000	3.76E-001	2.97E-002	2.09E-003	0.00E+000
	10/ 7/96	746.50000	3.76E-001	2.16E-002	1.84E-003	0.00E+000
	10/14/96	750.70000	3.76E-001	1.75E-002	1.68E-003	0.00E+000
	10/21/96	721.00000	3.76E-001	2.83E-002	2.11E-003	0.00E+000
	10/28/96	741.30000	3.76E-001	2.70E-002	2.05E-003	0.00E+000
	11/ 4/96	741.70000	3.76E-001	2.28E-002	1.93E-003	0.00E+000
	11/11/96	718.50000	3.76E-001	1.81E-002	1.75E-003	0.00E+000
	11/18/96	726.20000	3.76E-001	2.42E-002	1.98E-003	1.40E-003
	11/25/96	780.20000	3.76E-001	2.32E-002	1.85E-003	1.26E-003
	12/ 2/96	786.50000	3.76E-001	2.22E-002	1.85E-003	1.41E-003
	12/ 9/96	770.90000	3.76E-001	2.18E-002	1.82E-003	1.29E-003
	12/16/96	646.60000	3.76E-001	2.22E-002	2.03E-003	1.49E-003
	12/22/96	367.40000	3.76E-001	2.99E-002	3.23E-003	2.68E-003
	12/30/96	896.40000	3.76E-001	1.92E-002	1.58E-003	1.11E-003
Plant: RNP Analysis: IODINE MediaType: AIR CARTRIDGE CUMETERS						
1 - 26 MI ESE - FLORENCE - CONTROL	7/ 1/96	870.00000		0.00E+000	0.00E+000	7.78E-003
	7/ 8/96	885.30000		0.00E+000	0.00E+000	1.36E-002
	7/15/96	934.20000		0.00E+000	0.00E+000	1.63E-002
	7/22/96	866.70000		0.00E+000	0.00E+000	2.84E-002
	7/29/96	870.40000		0.00E+000	0.00E+000	1.37E-002
	8/ 5/96	862.90000		0.00E+000	0.00E+000	1.83E-002
	8/12/96	870.70000		0.00E+000	0.00E+000	1.07E-002
	8/19/96	889.80000		0.00E+000	0.00E+000	2.74E-002
	8/26/96	888.60000		0.00E+000	0.00E+000	8.47E-003
	9/ 2/96	840.20000		0.00E+000	0.00E+000	1.38E-002
	9/ 9/96	882.10000		0.00E+000	0.00E+000	1.74E-002
	9/16/96	860.50000		0.00E+000	0.00E+000	1.93E-002
	9/23/96	890.40000		0.00E+000	0.00E+000	1.83E-002
	9/30/96	876.00000		0.00E+000	0.00E+000	1.75E-002
	10/ 7/96	887.10000		0.00E+000	0.00E+000	1.37E-002
	10/14/96	868.50000		0.00E+000	0.00E+000	1.70E-002
	10/21/96	871.40000		0.00E+000	0.00E+000	1.95E-002
	10/28/96	870.70000		0.00E+000	0.00E+000	1.71E-002
	11/ 4/96	878.10000		0.00E+000	0.00E+000	1.00E-002
	11/11/96	872.50000				1.85E-002
	11/25/96	830.30000				1.96E-002
	11/18/96	905.60000		0.00E+000	0.00E+000	1.62E-002

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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
1 - 26 MI ESE - FLORENCE - CONTROL	12/ 2/96	845.00000				1.70E-002
	12/ 9/96	819.50000				1.63E-002
	12/16/96	838.40000				2.06E-002
2 - 0.2 MI S - INFORMATION CENTER	7/ 1/96	816.80000		0.00E+000	0.00E+000	1.64E-002
	7/ 8/96	821.70000		0.00E+000	0.00E+000	2.26E-002
	12/22/96	602.30000				2.79E-002
	12/30/96	758.90000				2.14E-002
	7/15/96	901.00000		0.00E+000	0.00E+000	1.12E-002
	7/22/96	818.70000		0.00E+000	0.00E+000	1.54E-002
	7/29/96	803.80000		0.00E+000	0.00E+000	1.91E-002
	8/ 5/96	829.70000		0.00E+000	0.00E+000	1.93E-002
	8/12/96	816.80000		0.00E+000	0.00E+000	2.51E-002
	8/19/96	790.50000		0.00E+000	0.00E+000	2.35E-002
	8/26/96	803.70000		0.00E+000	0.00E+000	2.07E-002
	9/ 2/96	800.00000		0.00E+000	0.00E+000	3.22E-002
	9/ 9/96	832.10000		0.00E+000	0.00E+000	1.73E-002
	9/16/96	790.00000		0.00E+000	0.00E+000	1.08E-002
	9/23/96	802.80000		0.00E+000	0.00E+000	1.80E-002
	9/30/96	754.20000		0.00E+000	0.00E+000	1.96E-002
	10/ 7/96	794.40000		0.00E+000	0.00E+000	2.36E-002
	10/14/96	792.50000		0.00E+000	0.00E+000	1.83E-002
	10/21/96	777.30000		0.00E+000	0.00E+000	2.13E-002
	10/28/96	780.60000		0.00E+000	0.00E+000	1.74E-002
	11/ 4/96	795.00000		0.00E+000	0.00E+000	1.18E-002
	11/11/96	776.20000				3.05E-002
	11/18/96	765.90000				1.78E-002
	11/25/96	738.60000				1.65E-002
	12/ 2/96	740.20000				1.86E-002
	12/ 9/96	734.30000				2.54E-002
	12/16/96	718.80000				2.66E-002
3 - 0.7 MI N - MICROWAVE TOWER	7/ 1/96	835.90000		0.00E+000	0.00E+000	2.85E-002
	7/ 8/96	856.40000		0.00E+000	0.00E+000	2.40E-002
	12/22/96	703.40000				3.59E-002
	12/30/96	945.20000				3.66E-002
	7/15/96	905.30000		0.00E+000	0.00E+000	1.30E-002
	7/22/96	844.80000		0.00E+000	0.00E+000	2.14E-002
	7/29/96	849.10000		0.00E+000	0.00E+000	1.72E-002
	8/ 5/96	300.10000		0.00E+000	0.00E+000	7.01E-002
	8/12/96	672.20000		0.00E+000	0.00E+000	2.77E-002
	8/19/96	746.70000		0.00E+000	0.00E+000	2.39E-002

Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
3 - 0.7 MI N - MICROWAVE TOWER	8/26/96	775.80000		0.00E+000	0.00E+000	1.70E-002
	9/ 2/96	672.50000		0.00E+000	0.00E+000	2.95E-002
	9/ 9/96	777.60000		0.00E+000	0.00E+000	3.36E-002
	9/16/96	747.40000		0.00E+000	0.00E+000	2.30E-002
	9/23/96	759.30000		0.00E+000	0.00E+000	1.27E-002
	9/30/96	770.00000		0.00E+000	0.00E+000	3.02E-002
	10/ 7/96	773.60000		0.00E+000	0.00E+000	2.19E-002
	10/14/96	784.00000		0.00E+000	0.00E+000	2.13E-002
	10/21/96	752.40000		0.00E+000	0.00E+000	1.95E-002
	10/28/96	760.20000		0.00E+000	0.00E+000	1.30E-002
	11/ 4/96	768.90000		0.00E+000	0.00E+000	3.03E-002
	11/11/96	685.20000				1.89E-002
	11/18/96	553.50000				1.46E-002
	11/25/96	809.70000				2.40E-002
	12/ 2/96	836.30000				2.01E-002
	12/ 9/96	814.70000				2.40E-002
	12/16/96	804.30000				1.02E-002
4 - 0.4 MI ESE - SPILLWAY	7/ 1/96	887.30000		0.00E+000	0.00E+000	1.54E-002
	7/ 8/96	837.60000		0.00E+000	0.00E+000	1.63E-002
	12/22/96	610.70000				2.64E-002
	12/30/96	827.40000				1.76E-002
	7/15/96	1036.90000		0.00E+000	0.00E+000	9.29E-003
	7/22/96	823.40000		0.00E+000	0.00E+000	1.55E-002
	7/29/96	821.30000		0.00E+000	0.00E+000	1.18E-002
	8/ 5/96	846.00000		0.00E+000	0.00E+000	1.40E-002
	8/12/96	827.90000		0.00E+000	0.00E+000	1.95E-002
	8/19/96	805.30000		0.00E+000	0.00E+000	2.11E-002
	8/26/96	826.20000		0.00E+000	0.00E+000	9.61E-003
	9/ 2/96	820.60000		0.00E+000	0.00E+000	2.00E-002
	9/ 9/96	846.50000		0.00E+000	0.00E+000	2.19E-002
	9/16/96	813.50000		0.00E+000	0.00E+000	1.81E-002
	9/23/96	848.80000		0.00E+000	0.00E+000	2.33E-002
	9/30/96	820.20000		0.00E+000	0.00E+000	1.49E-002
	10/ 7/96	847.60000		0.00E+000	0.00E+000	9.84E-003
	10/14/96	425.70000		0.00E+000	0.00E+000	4.79E-002
	10/21/96	830.30000		0.00E+000	0.00E+000	1.47E-002
	10/28/96	810.10000		0.00E+000	0.00E+000	2.17E-002
	11/ 4/96	776.00000		0.00E+000	0.00E+000	2.08E-002
	11/11/96	792.50000				3.78E-002
	11/18/96	828.90000				2.20E-002

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4 - 0.4 MI ESE - SPILLWAY	11/25/96	750.10000				1.98E-002
	12/ 2/96	772.00000				2.19E-002
	12/ 9/96	731.40000				1.89E-002
	12/16/96	700.60000				2.52E-002
5 - 0.9 MI ENE - JOHNSONS LANDING	7/ 1/96	701.10000		0.00E+000	0.00E+000	2.29E-002
	7/ 8/96	692.10000		0.00E+000	0.00E+000	1.51E-002
	12/22/96	672.00000				1.55E-002
	12/30/96	932.80000				1.78E-002
	7/15/96	900.80000		0.00E+000	0.00E+000	1.19E-002
	7/22/96	697.70000		0.00E+000	0.00E+000	1.56E-002
	7/29/96	692.00000		0.00E+000	0.00E+000	2.97E-002
	8/ 5/96	702.10000		0.00E+000	0.00E+000	2.98E-002
	8/12/96	695.00000		0.00E+000	0.00E+000	2.46E-002
	8/19/96	681.40000		0.00E+000	0.00E+000	2.74E-002
	8/26/96	702.60000		0.00E+000	0.00E+000	2.75E-002
	9/ 2/96	675.10000		0.00E+000	0.00E+000	3.28E-002
	9/ 9/96	693.30000		0.00E+000	0.00E+000	2.71E-002
	9/16/96	683.40000		0.00E+000	0.00E+000	2.76E-002
	9/23/96	698.70000		0.00E+000	0.00E+000	2.87E-002
	9/30/96	680.70000		0.00E+000	0.00E+000	2.17E-002
	10/ 7/96	683.70000		0.00E+000	0.00E+000	2.11E-002
	10/14/96	896.00000		0.00E+000	0.00E+000	1.90E-002
	10/21/96	678.50000		0.00E+000	0.00E+000	2.14E-002
	10/28/96	670.10000		0.00E+000	0.00E+000	2.08E-002
	11/ 4/96	682.30000		0.00E+000	0.00E+000	3.29E-002
	11/11/96	659.40000				1.39E-002
	11/18/96	679.40000				3.81E-002
	11/25/96	488.60000				2.46E-002
	12/ 2/96	483.20000				4.92E-002
	12/ 9/96	495.50000				3.40E-002
	12/16/96	482.30000				2.18E-002
6 - 0.3 MI SW - INFORMATION CENTER	7/ 1/96	734.30000		0.00E+000	0.00E+000	2.51E-002
	7/ 8/96	739.20000		0.00E+000	0.00E+000	1.99E-002
	12/30/96	913.50000				1.70E-002
	12/22/96	676.00000				2.38E-002
	7/15/96	895.50000		0.00E+000	0.00E+000	1.65E-002
	7/22/96	738.30000		0.00E+000	0.00E+000	2.41E-002
	7/29/96	741.70000		0.00E+000	0.00E+000	2.54E-002
	8/ 5/96	795.20000		0.00E+000	0.00E+000	2.26E-002
	8/12/96	748.80000		0.00E+000	0.00E+000	1.59E-002

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6 - 0.3 MI SW - INFORMATION CENTER	8/19/96	726.20000		0.00E+000	0.00E+000	1.28E-002
	8/26/96	741.40000		0.00E+000	0.00E+000	2.25E-002
	9/ 2/96	747.40000		0.00E+000	0.00E+000	3.77E-002
	9/ 9/96	768.80000		0.00E+000	0.00E+000	2.38E-002
	9/16/96	732.70000		0.00E+000	0.00E+000	1.65E-002
	9/23/96	767.60000		0.00E+000	0.00E+000	2.37E-002
	9/30/96	897.60000		0.00E+000	0.00E+000	3.02E-002
	10/ 7/96	764.20000		0.00E+000	0.00E+000	2.68E-002
	10/14/96	774.80000		0.00E+000	0.00E+000	1.56E-002
	10/21/96	747.60000		0.00E+000	0.00E+000	1.59E-002
	10/28/96	726.20000		0.00E+000	0.00E+000	3.40E-002
	11/ 4/96	785.00000		0.00E+000	0.00E+000	1.91E-002
	11/11/96	757.40000				2.81E-002
	11/18/96	772.60000				1.48E-002
	11/25/96	784.80000				2.45E-002
	12/ 2/96	809.70000				2.09E-002
	12/ 9/96	780.20000				1.77E-002
	12/16/96	785.10000				2.36E-002
7 - 6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	7/ 1/96	712.50000		0.00E+000	0.00E+000	1.92E-002
	7/ 8/96	697.80000		0.00E+000	0.00E+000	4.13E-002
	12/16/96	836.60000				1.91E-002
	12/22/96	716.90000				1.72E-002
	12/30/96	983.00000				1.48E-002
	7/15/96	907.10000		0.00E+000	0.00E+000	1.50E-002
	7/22/96	713.00000		0.00E+000	0.00E+000	2.31E-002
	7/29/96	713.80000		0.00E+000	0.00E+000	1.70E-002
	8/ 5/96	709.40000		0.00E+000	0.00E+000	2.09E-002
	8/12/96	707.00000		0.00E+000	0.00E+000	2.96E-002
	8/19/96	704.90000		0.00E+000	0.00E+000	1.85E-002
	8/26/96	714.80000		0.00E+000	0.00E+000	1.49E-002
	9/ 2/96	671.70000		0.00E+000	0.00E+000	1.95E-002
	9/ 9/96	721.70000		0.00E+000	0.00E+000	1.36E-002
	9/16/96	692.00000		0.00E+000	0.00E+000	2.39E-002
	9/23/96	707.40000		0.00E+000	0.00E+000	2.04E-002
	9/30/96	694.60000		0.00E+000	0.00E+000	1.61E-002
	10/ 7/96	697.90000		0.00E+000	0.00E+000	2.68E-002
	10/14/96	707.20000		0.00E+000	0.00E+000	2.66E-002
	10/21/96	687.10000		0.00E+000	0.00E+000	2.74E-002
	10/28/96	688.30000		0.00E+000	0.00E+000	2.03E-002
	11/ 4/96	692.00000		0.00E+000	0.00E+000	2.28E-002

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7 - 6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	11/11/96	675.30000				1.99E-002
	11/18/96	686.80000				2.74E-002
	11/25/96	843.00000				1.85E-002
	12/ 2/96	839.30000				1.00E-002
	12/ 9/96	864.60000				2.19E-002
55 - 0.3 MI SSE - SITE BOUNDARY	7/ 1/96	769.60000		0.00E+000	0.00E+000	1.71E-002
	7/ 8/96	762.80000		0.00E+000	0.00E+000	1.59E-002
	12/16/96	646.60000				2.68E-002
	12/22/96	367.40000				4.88E-002
	12/30/96	896.40000				2.40E-002
	7/15/96	865.10000		0.00E+000	0.00E+000	1.35E-002
	7/22/96	756.40000		0.00E+000	0.00E+000	2.94E-002
	7/29/96	755.80000		0.00E+000	0.00E+000	2.13E-002
	8/ 5/96	782.20000		0.00E+000	0.00E+000	2.07E-002
	8/12/96	764.20000		0.00E+000	0.00E+000	2.43E-002
	8/19/96	741.80000		0.00E+000	0.00E+000	2.24E-002
	8/26/96	762.40000		0.00E+000	0.00E+000	2.48E-002
	9/ 2/96	484.30000		0.00E+000	0.00E+000	3.27E-002
	9/ 9/96	633.00000		0.00E+000	0.00E+000	2.45E-002
	9/16/96	746.00000		0.00E+000	0.00E+000	1.28E-002
	9/23/96	752.80000		0.00E+000	0.00E+000	2.69E-002
	9/30/96	765.20000		0.00E+000	0.00E+000	1.92E-002
	10/ 7/96	746.50000		0.00E+000	0.00E+000	2.24E-002
	10/14/96	750.70000		0.00E+000	0.00E+000	1.58E-002
	10/21/96	721.00000		0.00E+000	0.00E+000	2.00E-002
	10/28/96	741.30000		0.00E+000	0.00E+000	2.82E-002
	11/ 4/96	741.70000		0.00E+000	0.00E+000	2.74E-002
	11/11/96	718.50000				1.49E-002
	11/18/96	726.20000				2.91E-002
	11/25/96	780.20000				2.40E-002
	12/ 2/96	786.50000				2.76E-002
	12/ 9/96	770.90000				2.47E-002
Plant: RNP Analysis: IODINE MediaType: MILK LITERS						
54 - 10.1 MI E - AUBURNDALE PLANTATION	7/ 8/96	4.00000		0.00E+000	0.00E+000	5.41E-001
	12/ 9/96	4.00000				4.44E-001
	12/22/96	4.00000				6.07E-001
	7/22/96	4.00000		0.00E+000	0.00E+000	4.57E-001
	8/ 5/96	4.00000		0.00E+000	0.00E+000	8.32E-001
	8/19/96	4.00000		0.00E+000	0.00E+000	4.36E-001

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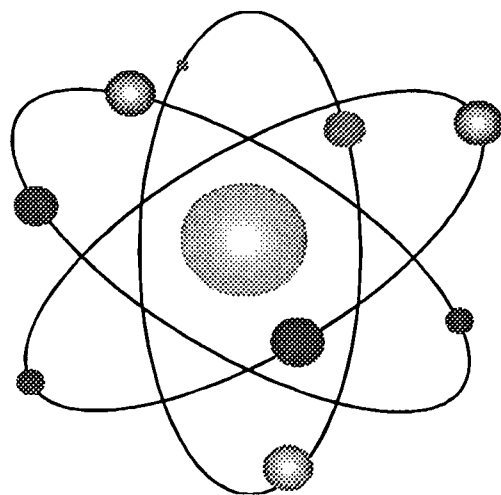
Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
54 - 10.1 MI E - AUBURNDALE PLANTATION	9/ 2/96	4.00000		0.00E+000	0.00E+000	7.12E-001
	9/16/96	4.00000		0.00E+000	0.00E+000	4.75E-001
	9/30/96	4.00000		0.00E+000	0.00E+000	4.45E-001
	10/14/96	4.00000				4.68E-001
	10/28/96	4.00000				5.67E-001
	11/11/96	4.00000				5.11E-001
	11/25/96	4.00000				5.39E-001
Plant: RNP Analysis: TRITIUM MediaType: GROUNDWATER LITERS						
40 - 0.6 MI ESE-SC23 AT BLACK CR AND ART WELL	12/ 2/96	.00500	2.87E-001	0.00E+000	0.00E+000	2.97E+002
	7/ 1/96	.00500	2.93E-001	0.00E+000	0.00E+000	2.93E+002
	8/ 5/96	.00500	2.94E-001	0.00E+000	0.00E+000	2.94E+002
	9/ 2/96	.00500	2.94E-001	0.00E+000	0.00E+000	2.94E+002
	10/ 7/96	.00500	2.89E-001	0.00E+000	0.00E+000	2.95E+002
	11/ 4/96	.00500	2.87E-001	0.00E+000	0.00E+000	2.91E+002
42 - UNIT 1 DEEP WELL NEAR SITE ENTRANCE	12/ 2/96	.00500	2.87E-001	0.00E+000	0.00E+000	2.97E+002
	7/ 1/96	.00500	2.93E-001	0.00E+000	0.00E+000	2.93E+002
	8/ 5/96	.00500	2.94E-001	0.00E+000	0.00E+000	2.94E+002
	9/ 2/96	.00500	2.94E-001	0.00E+000	0.00E+000	2.94E+002
	10/ 7/96	.00500	2.89E-001	0.00E+000	0.00E+000	2.95E+002
	11/ 4/96	.00500	2.87E-001	0.00E+000	0.00E+000	2.91E+002
43 - UNIT 2 DEEP WELL	12/ 2/96	.00500	2.87E-001	0.00E+000	0.00E+000	2.97E+002
	7/ 1/96	.00500	2.93E-001	0.00E+000	0.00E+000	2.93E+002
	8/ 5/96	.00500	2.94E-001	0.00E+000	0.00E+000	2.94E+002
	9/ 2/96	.00500	2.94E-001	0.00E+000	0.00E+000	2.94E+002
	10/ 7/96	.00500	2.89E-001	0.00E+000	0.00E+000	2.95E+002
	11/ 4/96	.00500	2.87E-001	0.00E+000	0.00E+000	2.91E+002
Plant: RNP Analysis: TRITIUM MediaType: SURFACE WATER LITERS						
40 - 0.6 MI ESE-SC23 AT BLACK CR AND ART WELL	12/31/96	.00500	2.87E-001	2.42E+003	1.95E+002	2.94E+002
	7/31/96	.00500	2.93E-001	6.93E+003	2.20E+002	2.93E+002
	8/31/96	.00500	4.41E-001	3.54E+003	4.00E+002	5.22E+002
	9/30/96	.00500	2.94E-001	6.89E+003	2.40E+002	3.36E+002
	10/31/96	.00500	4.31E-001	4.92E+003	4.54E+002	5.79E+002
	11/30/96	.00500	4.35E-001	3.24E+003	3.76E+002	5.12E+002
41 - 7.2 MI NNW - BLACK CREEK - CONTROL	12/31/96	.00500	2.87E-001	0.00E+000	0.00E+000	2.94E+002
	9/30/96	.00500	2.94E-001	0.00E+000	0.00E+000	3.36E+002
	7/31/96	.00500	2.93E-001	0.00E+000	0.00E+000	2.93E+002
	8/31/96	.00500	2.94E-001	0.00E+000	0.00E+000	2.94E+002
	11/30/96	.00500	2.87E-001	0.00E+000	0.00E+000	2.94E+002

Semiannual Analysis Report

CP&L Radiological Environmental Monitoring Analysis Report

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Sample Point	SampleDate	Quantity	Efficiency	Activity	2 SigmaError	LLD
41 - 7.2 MI NNW - BLACK CREEK - CONTROL	10/31/96	.00500	2.89E-001	0.00E+000	0.00E+000	2.92E+002
57 - 0.9 MI NNW - ASH POND	12/31/96	.00500	2.87E-001	2.66E+003	1.97E+002	2.94E+002
	9/30/96	.00500	2.94E-001	5.65E+003	2.40E+002	3.36E+002
	7/31/96	.00500	2.93E-001	5.26E+003	2.10E+002	2.93E+002
	8/31/96	.00500	4.41E-001	3.02E+003	3.90E+002	5.22E+002
	11/30/96	.00500	4.35E-001	3.39E+003	3.79E+002	5.12E+002
	10/31/96	.00500	4.31E-001	4.57E+003	4.47E+002	5.79E+002



CP&L
Radiological Environmental Monitoring
Isotopic Analysis Report

3/18/97

Semiannual Analysis Report

CP&L Radiological Environmental Monitoring Analysis Report

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Sample Point	SampleDate	Quantity	Isotope	Activity	2 SigmaError	LLD
Plant: RNP Analysis: GAMMA MediaType: AIR PARTICULATE Units: CUMETERS						
1 - 26 MI ESE - FLORENCE - CONTROL	11/15/96	9689.10000	BE-7	1.12E-001	2.48E-002	
	8/15/96	12287.80000	BE-7	1.21E-001	2.10E-002	0.00E+000
2 - 0.2 MI S - INFORMATION CENTER	11/15/96	9775.00000	BE-7	1.01E-001	2.07E-002	
	8/15/96	11381.80000	BE-7	1.40E-001	2.40E-002	0.00E+000
3 - 0.7 MI N - MICROWAVE TOWER	11/15/96	9991.40000	BE-7	1.22E-001	1.80E-002	
	8/15/96	10514.60000	BE-7	1.45E-001	2.70E-002	0.00E+000
4 - 0.4 MI ESE - SPILLWAY	11/15/96	9703.30000	BE-7	1.46E-001	2.01E-002	
	8/15/96	11861.50000	BE-7	1.51E-001	2.70E-002	0.00E+000
5 - 0.9 MI ENE - JOHNSONS LANDING	11/15/96	8503.80000	BE-7	1.56E-001	2.20E-002	
	8/15/96	9896.00000	BE-7	1.52E-001	2.80E-002	0.00E+000
6 - 0.3 MI SW - INFORMATION CENTER	11/15/96	10077.10000	BE-7	1.32E-001	2.46E-002	
	8/15/96	10774.70000	BE-7	1.31E-001	2.50E-002	0.00E+000
7 - 6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	11/15/96	9918.00000	BE-7	1.12E-001	1.57E-002	
	8/15/96	10067.70000	BE-7	1.46E-001	2.80E-002	0.00E+000
55 - 0.3 MI SSE - SITE BOUNDARY	11/15/96	9393.90000	BE-7	1.64E-001	2.09E-002	
	8/15/96	10341.60000	BE-7	1.47E-001	3.10E-002	0.00E+000
Plant: RNP Analysis: GAMMA MediaType: BOTTOM FEEDER Units: GRAMS						
45 - SITE VARIES WITHIN LAKE ROBINSON	11/12/96	327.90000	K-40	2.31E+000	8.00E-001	
	11/12/96	327.90000	TL-208	2.92E-002	2.38E-002	
	11/12/96	327.90000	PB-214	8.73E-002	6.32E-002	
46 - 4.9 MI ESE - PRESTWOOD LAKE	11/12/96	360.30000	K-40	3.46E+000	1.56E+000	
47 - 13 MI NNW - LAKE BEE - CONTROL	11/12/96	223.70000	K-40	2.92E+000	7.63E-001	
	11/12/96	223.70000	TL-208	8.09E-002	4.88E-002	
	11/12/96	223.70000	PB-212	9.67E-002	4.60E-002	
	11/12/96	223.70000	BI-214	4.13E-001	9.25E-002	
	11/12/96	223.70000	PB-214	3.35E-001	8.08E-002	
	11/12/96	223.70000	AC-228	2.63E-001	1.43E-001	
	11/12/96	223.70000	CS-137	9.03E-002	3.63E-002	
Plant: RNP Analysis: GAMMA MediaType: BROADLEAF VEGETATION Units: GRAMS Media: CHERRY						
50 - SSE - CP&L PROPERTY	7/ 8/96	336.40000	BE-7	6.92E-001	2.46E-001	0.00E+000
	7/ 8/96	336.40000	PB-212	8.58E-002	3.39E-002	0.00E+000
	7/ 8/96	336.40000	I-131	0.00E+000	0.00E+000	3.30E-002
	7/ 8/96	336.40000	CS-134	0.00E+000	0.00E+000	4.43E-002
	7/ 8/96	336.40000	CS-137	0.00E+000	0.00E+000	4.39E-002
	7/ 8/96	336.40000	K-40	4.89E+000	6.80E-001	0.00E+000
	8/26/96	356.10000	BE-7	8.17E-001	2.83E-001	0.00E+000
	8/26/96	356.10000	PB-212	5.99E-002	3.56E-002	0.00E+000
	8/26/96	356.10000	RA-226	6.97E-001	4.01E-001	0.00E+000

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Sample Point	SampleDate	Quantity	Isotope	Activity	2 SigmaError	LLD
50 - SSE - CP&L PROPERTY	8/26/96	356.10000	I-131	0.00E+000	0.00E+000	3.52E-002
	8/26/96	356.10000	CS-134	0.00E+000	0.00E+000	3.88E-002
	8/26/96	356.10000	CS-137	0.00E+000	0.00E+000	4.28E-002
	8/26/96	356.10000	K-40	3.43E+000	4.80E-001	0.00E+000
	7/29/96	403.50000	BE-7	9.57E-001	2.53E-001	0.00E+000
	7/29/96	403.50000	PB-212	4.11E-002	3.50E-002	0.00E+000
	7/29/96	403.50000	RA-226	5.60E-001	4.25E-001	0.00E+000
	7/29/96	403.50000	AC-228	1.89E-001	9.60E-002	0.00E+000
	7/29/96	403.50000	I-131	0.00E+000	0.00E+000	3.71E-002
	7/29/96	403.50000	CS-134	0.00E+000	0.00E+000	3.44E-002
	7/29/96	403.50000	CS-137	0.00E+000	0.00E+000	3.73E-002
	7/29/96	403.50000	K-40	3.66E+000	5.10E-001	0.00E+000
	9/26/96	426.10000	BE-7	9.39E-001	2.69E-001	0.00E+000
	9/26/96	426.10000	PB-212	5.10E-002	3.46E-002	0.00E+000
	9/26/96	426.10000	AC-228	2.50E-001	1.44E-001	0.00E+000
	9/26/96	426.10000	I-131	0.00E+000	0.00E+000	3.75E-002
	9/26/96	426.10000	CS-134	0.00E+000	0.00E+000	3.89E-002
	9/26/96	426.10000	CS-137	0.00E+000	0.00E+000	4.15E-002
	9/26/96	426.10000	K-40	1.82E+000	4.90E-001	0.00E+000
	10/21/96	333.50000	BE-7	8.99E-001	3.18E-001	0.00E+000
	10/21/96	333.50000	RA-226	1.07E+000	7.20E-001	0.00E+000
	10/21/96	333.50000	I-131	0.00E+000	0.00E+000	3.61E-002
	10/21/96	333.50000	CS-134	0.00E+000	0.00E+000	3.76E-002
	10/21/96	333.50000	CS-137	0.00E+000	0.00E+000	3.74E-002
	10/21/96	333.50000	K-40	2.15E+000	6.20E-001	0.00E+000
51 - SSW - CP&L PROPERTY	7/ 8/96	384.40000	BE-7	9.62E-001	2.16E-001	0.00E+000
	7/ 8/96	384.40000	TL-208	4.32E-002	2.87E-002	0.00E+000
	7/ 8/96	384.40000	CS-137	4.69E-002	2.19E-002	0.00E+000
	7/ 8/96	384.40000	I-131	0.00E+000	0.00E+000	3.08E-002
	7/ 8/96	384.40000	CS-134	0.00E+000	0.00E+000	2.96E-002
	7/ 8/96	384.40000	K-40	6.22E+000	7.30E-001	0.00E+000
	8/26/96	517.50000	BE-7	6.36E-001	1.72E-001	0.00E+000
	8/26/96	517.50000	CS-137	4.95E-002	2.07E-002	0.00E+000
	8/26/96	517.50000	I-131	0.00E+000	0.00E+000	2.54E-002
	8/26/96	517.50000	CS-134	0.00E+000	0.00E+000	2.34E-002
	8/26/96	517.50000	PB-214	4.91E-002	3.99E-002	0.00E+000
	8/26/96	517.50000	K-40	2.91E+000	4.50E-001	0.00E+000
	7/29/96	413.30000	BE-7	9.25E-001	2.56E-001	0.00E+000
	7/29/96	413.30000	AC-228	1.87E-001	9.00E-002	0.00E+000
	7/29/96	413.30000	I-131	0.00E+000	0.00E+000	3.97E-002
	7/29/96	413.30000	CS-134	0.00E+000	0.00E+000	3.75E-002

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Sample Point	SampleDate	Quantity	Isotope	Activity	2 SigmaError	LLD
51 - SSW - CP&L PROPERTY	7/29/96	413.30000	CS-137	0.00E+000	0.00E+000	3.60E-002
	7/29/96	413.30000	K-40	1.66E+000	5.60E-001	0.00E+000
	9/26/96	444.80000	BE-7	1.21E+000	2.50E-001	0.00E+000
	9/26/96	444.80000	I-131	0.00E+000	0.00E+000	3.39E-002
	9/26/96	444.80000	CS-134	0.00E+000	0.00E+000	2.99E-002
	9/26/96	444.80000	CS-137	0.00E+000	0.00E+000	3.32E-002
	9/26/96	444.80000	K-40	4.32E+000	6.20E-001	0.00E+000
	10/21/96	262.90000	BE-7	1.41E+000	3.90E-001	0.00E+000
	10/21/96	262.90000	I-131	0.00E+000	0.00E+000	4.75E-002
	10/21/96	262.90000	CS-134	0.00E+000	0.00E+000	5.10E-002
	10/21/96	262.90000	CS-137	0.00E+000	0.00E+000	4.54E-002
	10/21/96	262.90000	K-40	2.07E+000	7.70E-001	0.00E+000
52 - 10 MI W - BETHUNE - CONTROL	7/ 8/96	425.50000	BE-7	6.02E-001	1.99E-001	0.00E+000
	7/ 8/96	425.50000	PB-212	5.77E-002	4.44E-002	0.00E+000
	7/ 8/96	425.50000	CS-137	4.77E-002	2.23E-002	0.00E+000
	7/ 8/96	425.50000	I-131	0.00E+000	0.00E+000	3.00E-002
	7/ 8/96	425.50000	CS-134	0.00E+000	0.00E+000	3.54E-002
	7/ 8/96	425.50000	K-40	3.89E+000	4.60E-001	0.00E+000
	8/26/96	487.10000	BE-7	1.03E+000	2.00E-001	0.00E+000
	8/26/96	487.10000	PB-212	5.33E-002	2.69E-002	0.00E+000
	8/26/96	487.10000	PB-214	5.35E-002	4.21E-002	0.00E+000
	8/26/96	487.10000	CS-137	3.18E-002	1.69E-002	0.00E+000
	8/26/96	487.10000	I-131	0.00E+000	0.00E+000	2.52E-002
	8/26/96	487.10000	CS-134	0.00E+000	0.00E+000	2.97E-002
	8/26/96	487.10000	K-40	2.79E+000	4.40E-001	0.00E+000
	7/29/96	437.70000	I-131	0.00E+000	0.00E+000	4.30E-002
	7/29/96	437.70000	CS-134	0.00E+000	0.00E+000	3.17E-002
	7/29/96	437.70000	CS-137	0.00E+000	0.00E+000	3.03E-002
	7/29/96	437.70000	K-40	2.54E+000	5.50E-001	0.00E+000
	9/26/96	329.80000	BE-7	7.93E-001	3.40E-001	0.00E+000
	9/26/96	329.80000	PB-212	6.43E-002	3.60E-002	0.00E+000
	9/26/96	329.80000	RA-226	8.59E-001	4.17E-001	0.00E+000
	9/26/96	329.80000	I-131	0.00E+000	0.00E+000	4.70E-002
	9/26/96	329.80000	CS-134	0.00E+000	0.00E+000	4.46E-002
	9/26/96	329.80000	CS-137	0.00E+000	0.00E+000	3.79E-002
	9/26/96	329.80000	K-40	4.49E+000	6.20E-001	0.00E+000
	10/21/96	314.70000	BE-7	1.27E+000	3.50E-001	0.00E+000
	10/21/96	314.70000	I-131	0.00E+000	0.00E+000	4.38E-002
	10/21/96	314.70000	CS-134	0.00E+000	0.00E+000	5.03E-002
	10/21/96	314.70000	CS-137	0.00E+000	0.00E+000	3.84E-002

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Sample Point	SampleDate	Quantity	Isotope	Activity	2 SigmaError	LLD
52 - 10 MI W - BETHUNE - CONTROL	10/21/96	314.70000	K-40	2.39E+000	6.60E-001	0.00E+000
Plant: RNP Analysis: GAMMA MediaType: BROADLEAF VEGETATION Units: GRAMS Media: OAK						
50 - SSE - CP&L PROPERTY	7/ 8/96	345.30000	BE-7	1.32E+000	2.90E-001	0.00E+000
	7/ 8/96	345.30000	I-131	0.00E+000	0.00E+000	3.46E-002
	7/ 8/96	345.30000	CS-134	0.00E+000	0.00E+000	4.24E-002
	7/ 8/96	345.30000	CS-137	0.00E+000	0.00E+000	4.71E-002
	7/ 8/96	345.30000	K-40	2.45E+000	5.60E-001	0.00E+000
	8/26/96	401.30000	BE-7	1.57E+000	3.10E-001	0.00E+000
	8/26/96	401.30000	CS-137	4.15E-002	2.79E-002	0.00E+000
	8/26/96	401.30000	I-131	0.00E+000	0.00E+000	3.02E-002
	8/26/96	401.30000	CS-134	0.00E+000	0.00E+000	3.66E-002
	8/26/96	401.30000	K-40	1.50E+000	4.90E-001	0.00E+000
	7/29/96	330.40000	BE-7	1.30E+000	2.90E-001	0.00E+000
	7/29/96	330.40000	CS-137	1.27E-001	4.60E-002	0.00E+000
	7/29/96	330.40000	I-131	0.00E+000	0.00E+000	4.03E-002
	7/29/96	330.40000	CS-134	0.00E+000	0.00E+000	3.95E-002
	7/29/96	330.40000	K-40	1.42E+000	5.30E-001	0.00E+000
	9/26/96	354.80000	K-40	3.52E+000	5.20E-001	0.00E+000
	9/26/96	354.80000	PB-212	5.39E-002	3.08E-002	0.00E+000
	9/26/96	354.80000	CS-137	1.55E-001	4.30E-002	0.00E+000
	9/26/96	354.80000	I-131	0.00E+000	0.00E+000	3.56E-002
	9/26/96	354.80000	CS-134	0.00E+000	0.00E+000	3.45E-002
	9/26/96	354.80000	BE-7	1.74E+000	3.40E-001	0.00E+000
	10/21/96	253.40000	BE-7	2.12E+000	3.80E-001	0.00E+000
	10/21/96	253.40000	CS-137	5.77E-002	3.65E-002	0.00E+000
	10/21/96	253.40000	I-131	0.00E+000	0.00E+000	4.88E-002
	10/21/96	253.40000	CS-134	0.00E+000	0.00E+000	5.28E-002
	10/21/96	253.40000	K-40	2.46E+000	7.00E-001	0.00E+000
51 - SSW - CP&L PROPERTY	7/ 8/96	269.90000	BE-7	1.81E+000	4.00E-001	0.00E+000
	7/ 8/96	269.90000	PB-212	7.90E-002	4.30E-002	0.00E+000
	7/ 8/96	269.90000	CS-137	1.09E-001	4.50E-002	0.00E+000
	7/ 8/96	269.90000	I-131	0.00E+000	0.00E+000	4.36E-002
	7/ 8/96	269.90000	CS-134	0.00E+000	0.00E+000	5.31E-002
	7/ 8/96	269.90000	K-40	4.20E+000	7.20E-001	0.00E+000
	8/26/96	329.90000	BE-7	2.18E+000	4.20E-001	0.00E+000
	8/26/96	329.90000	PB-212	5.20E-002	5.12E-002	0.00E+000
	8/26/96	329.90000	AC-228	1.62E-001	8.70E-002	0.00E+000
	8/26/96	329.90000	CS-137	9.71E-002	4.35E-002	0.00E+000
	8/26/96	329.90000	I-131	0.00E+000	0.00E+000	3.98E-002
	8/26/96	329.90000	CS-134	0.00E+000	0.00E+000	4.56E-002

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Sample Point	SampleDate	Quantity	Isotope	Activity	2 SigmaError	LLD
51 - SSW - CP&L PROPERTY	8/26/96	329.90000	K-40	3.25E+000	7.00E-001	0.00E+000
	7/29/96	288.10000	BE-7	8.37E-001	3.03E-001	0.00E+000
	7/29/96	288.10000	TL-208	3.90E-002	3.78E-002	0.00E+000
	7/29/96	288.10000	PB-212	7.90E-002	3.78E-002	0.00E+000
	7/29/96	288.10000	CS-137	4.90E-002	3.08E-002	0.00E+000
	7/29/96	288.10000	I-131	0.00E+000	0.00E+000	5.75E-002
	7/29/96	288.10000	CS-134	0.00E+000	0.00E+000	2.79E-002
	7/29/96	288.10000	K-40	4.45E+000	7.90E-001	0.00E+000
	9/26/96	254.50000	BE-7	4.20E+000	4.90E-001	0.00E+000
	9/26/96	254.50000	I-131	0.00E+000	0.00E+000	5.96E-002
	9/26/96	254.50000	CS-134	0.00E+000	0.00E+000	5.86E-002
	9/26/96	254.50000	CS-137	0.00E+000	0.00E+000	6.77E-002
	9/26/96	254.50000	K-40	2.32E+000	8.60E-001	0.00E+000
	10/21/96	214.10000	BE-7	9.36E-001	2.50E-001	0.00E+000
	10/21/96	214.10000	CS-137	3.14E-001	4.00E-002	0.00E+000
	10/21/96	214.10000	I-131	0.00E+000	0.00E+000	4.49E-002
	10/21/96	214.10000	CS-134	0.00E+000	0.00E+000	3.01E-002
	10/21/96	214.10000	K-40	1.97E+000	4.70E-001	0.00E+000
52 - 10 MI W - BETHUNE - CONTROL	7/ 8/96	315.70000	BE-7	1.06E+000	3.40E-001	0.00E+000
	7/ 8/96	315.70000	RA-226	1.01E+000	7.50E-001	0.00E+000
	7/ 8/96	315.70000	CS-137	1.96E-001	5.70E-002	0.00E+000
	7/ 8/96	315.70000	I-131	0.00E+000	0.00E+000	4.32E-002
	7/ 8/96	315.70000	CS-134	0.00E+000	0.00E+000	4.46E-002
	7/ 8/96	315.70000	K-40	3.04E+000	5.60E-001	0.00E+000
	8/26/96	354.00000	BE-7	1.97E+000	3.60E-001	0.00E+000
	8/26/96	354.00000	PB-212	5.45E-002	4.59E-002	0.00E+000
	8/26/96	354.00000	CS-137	5.27E-001	6.10E-002	0.00E+000
	8/26/96	354.00000	I-131	0.00E+000	0.00E+000	3.91E-002
	8/26/96	354.00000	CS-134	0.00E+000	0.00E+000	3.74E-002
	8/26/96	354.00000	K-40	2.00E+000	6.20E-001	0.00E+000
	7/29/96	317.70000	BE-7	1.68E+000	3.30E-001	0.00E+000
	7/29/96	317.70000	CS-137	5.34E-002	3.22E-002	0.00E+000
	7/29/96	317.70000	I-131	0.00E+000	0.00E+000	4.92E-002
	7/29/96	317.70000	CS-134	0.00E+000	0.00E+000	3.97E-002
	7/29/96	317.70000	K-40	2.32E+000	6.10E-001	0.00E+000
	9/26/96	307.00000	BE-7	2.46E+000	4.70E-001	0.00E+000
	9/26/96	307.00000	CS-137	9.59E-001	8.10E-002	0.00E+000
	9/26/96	307.00000	I-131	0.00E+000	0.00E+000	5.16E-002
	9/26/96	307.00000	CS-134	0.00E+000	0.00E+000	5.05E-002
	9/26/96	307.00000	K-40	2.16E+000	6.00E-001	0.00E+000
	10/21/96	317.60000	BE-7	2.61E+000	4.00E-001	0.00E+000

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52 - 10 MI W - BETHUNE - CONTROL	10/21/96	317.60000	PB-212	7.64E-002	5.76E-002	0.00E+000
	10/21/96	317.60000	RA-226	6.51E-001	5.46E-001	0.00E+000
	10/21/96	317.60000	CS-137	2.27E-001	4.90E-002	0.00E+000
	10/21/96	317.60000	I-131	0.00E+000	0.00E+000	4.64E-002
	10/21/96	317.60000	CS-134	0.00E+000	0.00E+000	5.00E-002
	10/21/96	317.60000	K-40	2.17E+000	6.50E-001	0.00E+000
Plant: RNP Analysis: GAMMA MediaType: BROADLEAF VEGETATION Units: GRAMS Media: PERSIMMONS						
50 - SSE - CP&L PROPERTY	7/ 8/96	499.00000	BE-7	6.17E-001	2.12E-001	0.00E+000
	7/ 8/96	499.00000	I-131	0.00E+000	0.00E+000	2.46E-002
	7/ 8/96	499.00000	CS-134	0.00E+000	0.00E+000	2.74E-002
	7/ 8/96	499.00000	CS-137	0.00E+000	0.00E+000	2.46E-002
	7/ 8/96	499.00000	K-40	1.40E+000	3.40E-001	0.00E+000
	7/29/96	458.20000	BE-7	9.14E-001	2.47E-001	0.00E+000
	7/29/96	458.20000	RA-226	5.75E-001	4.52E-001	0.00E+000
	7/29/96	458.20000	I-131	0.00E+000	0.00E+000	3.59E-002
	7/29/96	458.20000	CS-134	0.00E+000	0.00E+000	3.13E-002
	7/29/96	458.20000	CS-137	0.00E+000	0.00E+000	3.42E-002
	7/29/96	458.20000	K-40	2.21E+000	5.90E-001	0.00E+000
	9/26/96	416.20000	BE-7	2.11E+000	2.80E-001	0.00E+000
	9/26/96	416.20000	I-131	0.00E+000	0.00E+000	3.28E-002
	9/26/96	416.20000	CS-134	0.00E+000	0.00E+000	3.36E-002
	9/26/96	416.20000	CS-137	0.00E+000	0.00E+000	3.04E-002
	9/26/96	416.20000	K-40	1.22E+000	3.70E-001	0.00E+000
	10/21/96	175.80000	BE-7	2.24E+000	3.90E-001	0.00E+000
	10/21/96	175.80000	TL-208	4.32E-002	3.38E-002	0.00E+000
	10/21/96	175.80000	PB-212	9.95E-002	6.43E-002	0.00E+000
	10/21/96	175.80000	I-131	0.00E+000	0.00E+000	5.37E-002
	10/21/96	175.80000	CS-134	0.00E+000	0.00E+000	5.18E-002
	10/21/96	175.80000	CS-137	0.00E+000	0.00E+000	5.48E-002
	10/21/96	175.80000	K-40	1.95E+000	7.80E-001	0.00E+000
51 - SSW - CP&L PROPERTY	7/ 8/96	437.30000	BE-7	8.61E-001	2.03E-001	0.00E+000
	7/ 8/96	437.30000	RA-226	4.31E-001	3.86E-001	0.00E+000
	7/ 8/96	437.30000	CS-137	7.88E-002	3.00E-002	0.00E+000
	7/ 8/96	437.30000	I-131	0.00E+000	0.00E+000	2.59E-002
	7/ 8/96	437.30000	CS-134	0.00E+000	0.00E+000	3.05E-002
	7/ 8/96	437.30000	K-40	2.58E+000	5.50E-001	0.00E+000
	7/29/96	502.00000	BE-7	1.09E+000	2.40E-001	0.00E+000
	7/29/96	502.00000	I-131	0.00E+000	0.00E+000	2.86E-002
	7/29/96	502.00000	CS-134	0.00E+000	0.00E+000	2.86E-002
	7/29/96	502.00000	CS-137	0.00E+000	0.00E+000	2.65E-002

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51 - SSW - CP&L PROPERTY	7/29/96	502.00000	K-40	5.21E+000	5.90E-001	0.00E+000
	9/26/96	358.70000	BE-7	9.86E-001	2.84E-001	0.00E+000
	9/26/96	358.70000	RA-226	9.26E-001	5.60E-001	0.00E+000
	9/26/96	358.70000	AC-228	2.18E-001	1.14E-001	0.00E+000
	9/26/96	358.70000	CS-137	8.19E-002	3.07E-002	0.00E+000
	9/26/96	358.70000	I-131	0.00E+000	0.00E+000	4.72E-002
	9/26/96	358.70000	CS-134	0.00E+000	0.00E+000	4.34E-002
	9/26/96	358.70000	K-40	2.82E+000	6.70E-001	0.00E+000
	10/21/96	155.40000	BE-7	1.67E+000	4.40E-001	0.00E+000
	10/21/96	155.40000	I-131	0.00E+000	0.00E+000	5.88E-002
	10/21/96	155.40000	CS-134	0.00E+000	0.00E+000	5.89E-002
	10/21/96	155.40000	CS-137	0.00E+000	0.00E+000	5.22E-002
	10/21/96	155.40000	K-40	3.41E+000	8.70E-001	0.00E+000
52 - 10 MI W - BETHUNE - CONTROL	7/ 8/96	406.50000	BE-7	6.88E-001	2.04E-001	0.00E+000
	7/ 8/96	406.50000	CS-137	7.31E-002	3.56E-002	0.00E+000
	7/ 8/96	406.50000	I-131	0.00E+000	0.00E+000	3.26E-002
	7/ 8/96	406.50000	CS-134	0.00E+000	0.00E+000	3.52E-002
	7/ 8/96	406.50000	K-40	2.39E+000	6.10E-001	0.00E+000
	7/29/96	526.30000	K-40	3.72E+000	4.80E-001	0.00E+000
	7/29/96	526.30000	BE-7	4.34E-001	2.12E-001	0.00E+000
	7/29/96	526.30000	TL-208	3.64E-002	1.67E-002	0.00E+000
	7/29/96	526.30000	PB-212	3.67E-002	2.43E-002	0.00E+000
	7/29/96	526.30000	I-131	0.00E+000	0.00E+000	3.24E-002
	7/29/96	526.30000	CS-134	0.00E+000	0.00E+000	2.71E-002
	7/29/96	526.30000	CS-137	0.00E+000	0.00E+000	1.29E-002
	9/26/96	407.40000	BE-7	1.42E+000	2.70E-001	0.00E+000
	9/26/96	407.40000	I-131	0.00E+000	0.00E+000	4.14E-002
	9/26/96	407.40000	CS-134	0.00E+000	0.00E+000	3.63E-002
	9/26/96	407.40000	CS-137	0.00E+000	0.00E+000	3.78E-002
	9/26/96	407.40000	K-40	3.74E+000	6.40E-001	0.00E+000

Plant: RNP Analysis: GAMMA MediaType: BROADLEAF VEGETATION Units: GRAMS Media: SASSAFRAS

50 - SSE - CP&L PROPERTY	8/26/96	435.20000	BE-7	1.54E+000	2.70E-001	0.00E+000
	8/26/96	435.20000	CS-137	7.35E-002	2.91E-002	0.00E+000
	8/26/96	435.20000	I-131	0.00E+000	0.00E+000	2.82E-002
	8/26/96	435.20000	CS-134	0.00E+000	0.00E+000	3.37E-002
	8/26/96	435.20000	K-40	1.98E+000	4.00E-001	0.00E+000
51 - SSW - CP&L PROPERTY	8/26/96	445.60000	BE-7	1.22E+000	2.40E-001	0.00E+000
	8/26/96	445.60000	PB-212	5.16E-002	3.13E-002	0.00E+000
	8/26/96	445.60000	PB-214	1.14E-001	5.00E-002	0.00E+000
	8/26/96	445.60000	CS-137	1.04E-001	2.80E-002	0.00E+000

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51 - SSW - CP&L PROPERTY	8/26/96	445.60000	I-131	0.00E+000	0.00E+000	2.64E-002
	8/26/96	445.60000	CS-134	0.00E+000	0.00E+000	2.71E-002
	8/26/96	445.60000	K-40	3.34E+000	4.60E-001	0.00E+000
52 - 10 MI W - BETHUNE - CONTROL	8/26/96	433.40000	BE-7	2.07E+000	3.10E-001	0.00E+000
	8/26/96	433.40000	RA-226	5.78E-001	3.95E-001	0.00E+000
	8/26/96	433.40000	CS-137	1.48E-001	3.40E-002	0.00E+000
	8/26/96	433.40000	I-131	0.00E+000	0.00E+000	3.10E-002
	8/26/96	433.40000	CS-134	0.00E+000	0.00E+000	3.13E-002
	8/26/96	433.40000	K-40	1.84E+000	4.50E-001	0.00E+000
Plant: RNP Analysis: GAMMA MediaType: FOOD CROP Units: GRAMS Media: CORN						
54 - 10.1 MI E - AUBURNDALE PLANTATION	7/29/96	596.10000	K-40	2.08E+000	3.50E-001	0.00E+000
	7/29/96	596.10000	CS-134	0.00E+000	0.00E+000	2.20E-002
	7/29/96	596.10000	CS-137	0.00E+000	0.00E+000	2.22E-002
	7/29/96	596.10000	I-131	0.00E+000	0.00E+000	1.90E-002
Plant: RNP Analysis: GAMMA MediaType: FOOD CROP Units: GRAMS Media: TOMATOES						
49 - GREATER THAN 5 MI FROM SITE - CONTROL	7/29/96	641.40000	K-40	2.75E+000	3.40E-001	0.00E+000
	7/29/96	641.40000	I-131	0.00E+000	0.00E+000	1.76E-002
	7/29/96	641.40000	CS-134	0.00E+000	0.00E+000	1.81E-002
	7/29/96	641.40000	CS-137	0.00E+000	0.00E+000	2.09E-002
	7/29/96	641.40000	PB-212	3.18E-002	2.36E-002	0.00E+000
58 - SITE VARIES FROM PLANT	7/29/96	642.70000	K-40	2.39E+000	3.30E-001	0.00E+000
	7/29/96	642.70000	TL-208	1.58E-002	1.22E-002	0.00E+000
	7/29/96	642.70000	PB-212	2.70E-002	2.26E-002	0.00E+000
	7/29/96	642.70000	I-131	0.00E+000	0.00E+000	1.75E-002
	7/29/96	642.70000	CS-134	0.00E+000	0.00E+000	2.03E-002
	7/29/96	642.70000	CS-137	0.00E+000	0.00E+000	2.12E-002
Plant: RNP Analysis: GAMMA MediaType: FREE SWIMMER Units: GRAMS						
45 - SITE VARIES WITHIN LAKE ROBINSON	11/12/96	351.30000	K-40	2.46E+000	1.45E+000	
46 - 4.9 MI ESE - PRESTWOOD LAKE	11/12/96	431.00000	K-40	2.32E+000	1.27E+000	
	11/12/96	431.00000	PB-212	9.96E-002	8.16E-002	
47 - 13 MI NNW - LAKE BEE - CONTROL	11/12/96	315.80000	K-40	2.91E+000	1.00E+000	
	11/12/96	315.80000	CS-137	2.52E-001	9.05E-002	
Plant: RNP Analysis: GAMMA MediaType: GROUNDWATER Units: LITERS						
40 - 0.6 MI ESE-SC23 AT BLACK CR AND ART WE	12/ 2/96	1.00000	NO-ACT			
	8/ 5/96	1.00000	PB-212	5.09E+000	3.03E+000	0.00E+000
	9/ 2/96	1.00000	PB-212	3.50E+000	2.68E+000	0.00E+000
	8/ 5/96	1.00000	K-40	2.82E+002	4.10E+001	0.00E+000
	8/ 5/96	1.00000	RA-226	4.30E+001	3.45E+001	0.00E+000

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40 - 0.6 MI ESE-SC23 AT BLACK CR AND ART WE	7/ 1/96	1.00000	K-40	2.44E+002	6.80E+001	0.00E+000
	9/ 2/96	1.00000	K-40	3.27E+002	4.30E+001	0.00E+000
	9/ 2/96	1.00000	RA-226	5.74E+001	3.06E+001	0.00E+000
	10/ 7/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	11/ 4/96	1.00000	K-40	5.38E+001	5.28E+001	0.00E+000
	11/ 4/96	1.00000	TL-208	2.58E+000	1.71E+000	0.00E+000
42 - UNIT 1 DEEP WELL NEAR SITE ENTRANCE	12/ 2/96	1.00000	NO-ACT			
	8/ 5/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	7/ 1/96	1.00000	TL-208	2.36E+000	1.90E+000	0.00E+000
	9/ 2/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	10/ 7/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	11/ 4/96	1.00000	NO-ACT			
43 - UNIT 2 DEEP WELL	12/ 2/96	1.00000	NO-ACT			
	9/ 2/96	1.00000	RA-226	7.35E+001	5.12E+001	0.00E+000
	8/ 5/96	1.00000	RA-226	5.66E+001	4.24E+001	0.00E+000
	7/ 1/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	9/ 2/96	1.00000	PB-212	4.35E+000	3.36E+000	0.00E+000
	10/ 7/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	11/ 4/96	1.00000	K-40	6.37E+001	5.19E+001	
Plant: RNP Analysis: GAMMA MediaType: MILK Units: LITERS						
54 - 10.1 MI E - AUBURNDALE PLANTATION	7/ 8/96	1.00000	K-40	1.23E+003	2.20E+002	0.00E+000
	7/22/96	1.00000	RA-226	1.97E+002	1.44E+002	0.00E+000
	12/ 9/96	1.00000	K-40	1.27E+003	2.04E+002	0.00E+000
	12/22/96	1.00000	K-40	1.38E+003	1.84E+002	0.00E+000
	10/14/96	1.00000	RA-226	2.18E+002	1.79E+002	0.00E+000
	9/ 2/96	1.00000	RA-226	1.52E+002	1.16E+002	0.00E+000
	7/22/96	1.00000	K-40	1.41E+003	2.00E+002	0.00E+000
	9/ 2/96	1.00000	K-40	1.28E+003	1.50E+002	0.00E+000
	8/ 5/96	1.00000	K-40	1.82E+003	1.80E+002	0.00E+000
	8/19/96	1.00000	K-40	1.34E+003	2.00E+002	0.00E+000
	8/19/96	1.00000	RA-226	2.73E+002	1.63E+001	0.00E+000
	9/16/96	1.00000	K-40	1.27E+003	2.00E+002	0.00E+000
	9/30/96	1.00000	K-40	1.89E+003	2.00E+002	0.00E+000
	9/30/96	1.00000	RA-226	2.26E+002	1.21E+002	0.00E+000
	9/30/96	1.00000	PB-212	1.35E+001	7.10E+000	0.00E+000
	10/28/96	1.00000	K-40	1.32E+003	2.10E+002	0.00E+000
	10/14/96	1.00000	K-40	1.33E+003	2.00E+002	0.00E+000
	11/11/96	1.00000	K-40	1.11E+003	2.06E+002	0.00E+000
	11/25/96	1.00000	K-40	9.80E+002	2.01E+002	0.00E+000

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Plant: RNP Analysis: GAMMA Media Type: SHORELINE SEDIMENT Units: GRAMS						
44 - 1.9 MI NNE - SHADY REST CLUB	8/26/96	1068.70000	K-40	4.92E-001	2.55E-001	0.00E+000
	8/26/96	1068.70000	PB-212	8.62E-002	3.61E-002	0.00E+000
	8/26/96	1068.70000	BI-214	1.57E-001	5.40E-002	0.00E+000
	8/26/96	1068.70000	PB-214	1.14E-001	4.20E-002	0.00E+000
	8/26/96	1068.70000	TL-208	4.92E-001	2.55E-001	0.00E+000
57 - 0.9 MI NNW - ASH POND	8/26/96	818.10000	K-40	1.42E+001	1.50E+000	0.00E+000
	8/26/96	818.10000	BI-212	1.68E+000	5.80E-001	0.00E+000
	8/26/96	818.10000	PB-212	2.58E+000	1.50E-001	0.00E+000
	8/26/96	818.10000	BI-214	3.57E+000	2.50E-001	0.00E+000
	8/26/96	818.10000	PB-214	3.71E+000	2.30E-001	0.00E+000
	8/26/96	818.10000	RA-226	7.04E+000	1.84E+000	0.00E+000
	8/26/96	818.10000	AC-228	2.51E+000	3.60E-001	0.00E+000
	8/26/96	818.10000	TL-208	7.99E-001	1.04E-001	0.00E+000
Plant: RNP Analysis: GAMMA Media Type: SURFACE WATER Units: LITERS						
40 - 0.6 MI ESE-SC23 AT BLACK CR AND ART WE	12/31/96	1.00000	NO-ACT			
	7/31/96	1.00000	PB-212	4.12E+000	2.74E+000	0.00E+000
	7/31/96	1.00000	K-40	2.83E+002	3.30E+001	0.00E+000
	7/31/96	1.00000	BI-214	9.84E+000	4.77E+000	0.00E+000
	7/31/96	1.00000	RA-226	2.42E+001	2.18E+001	0.00E+000
	8/31/96	1.00000	K-40	2.50E+002	6.00E+001	0.00E+000
	9/30/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	10/31/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	11/30/96	1.00000	NO-ACT			
	12/31/96	1.00000	NO-ACT			
41 - 7.2 MI NNW - BLACK CREEK - CONTROL	9/30/96	1.00000	PB-212	5.26E+000	4.70E+000	0.00E+000
	7/31/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	8/31/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	9/30/96	1.00000	K-40	2.74E+002	6.60E+001	0.00E+000
	10/31/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	11/30/96	1.00000	NO-ACT			
	12/31/96	1.00000	NO-ACT			
	7/31/96	1.00000	RA-226	7.35E+001	3.33E+001	0.00E+000
57 - 0.9 MI NNW - ASH POND	8/31/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	9/30/96	1.00000	RA-226	1.35E+002	8.30E+001	0.00E+000
	10/31/96	1.00000	NO-ACT	0.00E+000	0.00E+000	0.00E+000
	11/30/96	1.00000	NO-ACT			
	12/31/96	1.00000	NO-ACT			
	7/31/96	1.00000	NO-ACT			