The Light company
Houston Lighting & Power South Texas Project Electric Generating Station P. O. Box 289 Wadsworth, Texas 77483

April 30, 1992
ST-HL-AE-4073
File No. G07
10CFR50.73

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

South Texas Project
Units 1 & 2
Docket Nos. STN 50-498 & 50-499
Annual Radiological Environmental Operating Report for 1991

Pursuant to the South Texas Project (STP) Technical Specification 6.9.1.3, attached is a copy of the Annual Radiological Environmental Operating Report for the calendar year 1991.

If you should have any questions on this matter please contact Mr. H. W. Bergendahl at (512) 972-7779.

William J. Jump
Manager,
Nuclear Licensing

MKJ/lf

Attachments: Annual Radiological Environmental Operating Report for 1991

040013

RREP\92112002.1&2

IE25
1/1

cc:

* Regional Administrator, Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

* George Dick, Project Manager
U.S. Nuclear Regulatory Commission
Washington, DC 20555

* J. I. Tapia
Senior Resident Inspector
c/o U. S. Nuclear Regulatory
Commission
P. O. Box 910
Bay City, TX 77414

J. R. Newman, Esquire
Newman & Holtzinger, P.C.
1615 L Street, N.W.
Washington, DC 20036

D. E. Ward/T. M. Puckett
Central Power and Light Company
P. O. Box 2121
Corpus Christi, TX 78403

J. C. Lanier/M. B. Lee
City of Austin
Electric Utility Department
P.O. Box 1088
Austin, TX 78767

K. J. Fiedler/M. T. Hardt
City Public Service Board
P. O. Box 1771
San Antonio, TX 78296

Rufus S. Scott
Associate General Counsel
Houston Lighting & Power Company
P. O. Box 61867
Houston, TX 77208

INPO
Records Center
1100 Circle 75 Parkway
Atlanta, GA 30339-3064

Dr. Joseph M. Hendrie
50 Bellport Lane
Bellport, NY 11713

* D. K. Lacker
Bureau of Radiation Control
Texas Department of Health
1100 West 49th Street
Austin, TX 78756-3189

*NOTE: The above copies distributed without attachments except if noted by asterik (*).

Revised 10/11/91

L4/NRC/

South Texas Project
Electric Generating Station

Annual Radiological Environmental Operating Report

1991

EXCELLENCE THROUGH SERVICE, TEAMWORK, PRIDE

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

FOR

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

1991

PREPARED BY:
RADIOLOGICAL LABORATORY
TECHNICAL SERVICES DEPARTMENT
HOUSTON LIGHTING & POWER COMPANY

APRIL 1992

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The 1991 Radiological Environmental Operating Report provides the results of data collected and analyzed for the Radiological Environmental Monitoring Program (REMP) during 1991.

The objective of the REMP is to verify that the South Texas Project Electric Generating Station (STPEGS) is operating within its design parameters and to assure effluent release into the environment do not result in a significant dose to individuals off-site. This objective is accomplished by thoroughly evaluating known and predictable relationships between the plant and the environment while performing additional evaluations where unique relationships exist. Approximately 2,000 analyses of air, water, soils, sediments, vegetation, and meat products were performed during 1991.

No nuclides of interest or elevated levels of radioactivity were measured in samples taken from the environment around the plant site. This has special significance since the analysis sensitivities were significantly lower than required. The tritium level measured on-site in the Main Cooling Reservoir (MCR) was one third the predicted concentration.

A special study was performed in 1991 to evaluate the behavior of radionuclides in liquid effluents released into the MCR. This study showed that the majority of the Cobalt-60 in the MCR is fixed to the bottom sediments and is not expected to migrate off-site to the river. Calculations show that the dose from the Cobalt-60 to a hypothetical person living on-site and consuming water and fish from the MCR was one thousandth of the exposure from natural resources.

In conclusion, the data shows no radioactive material originating from STPEGS has been deposited in the environment around the site and the doses calculated based on measured effluents in 1991 indicate that STPEGS operations continue to have no adverse effect on the general public or the environment.

South Texas Project Electric Generating Station

SITE & AREA DISCRIPTION

SITE AND AREA DESCRIPTION

The South Texas Project Electric Generating Station (STPEGS) is located in rural southwest Matagorda County approximately 12 miles south of Bay City and 90 miles southwest of Houston. Matagorda County has a population of approximately 38,000. The site is approximately 11 miles north of Matagorda Bay/Gulf of Mexico and lies on the west bank of the Colorado River.

Within a ten-mile radius of STPEGS there are several communities of a few hundred people or less. Matagorda, being the exception, is located 8 miles southwest of the site and has a population of nearly 2,000. The nearest full-time residence is in the west-southwest sector approximately 2.4 miles from the containment buildings. The nearest development is Selkirk Island/Exotic Island which represents approximately 500 homesites and is located 4 miles southeast of the containment buildings. These developments are primarily utilized for recreational purposes or retirement investment. The nearest population center, as defined in 10CFR20 is the city of Victoria, Texas, which had a population of 55,076 in 1990. Victoria's nearest corporate boundary is 59 miles west of the site.

STPEGS consists of two 1250 megawatt Westinghouse Corporation pressurized water reactors (PWR). Unit 1 received a low-power testing license on August 21, 1987, obtained initial criticality on March 8, 1988 and was declared commercially operational by HL&P management on August 25, 1988. Unit 2 received a low-power testing license on December 16, 1988, obtained initial criticality on March 12, 1989 and was declared commercially operational on June 19, 1989.

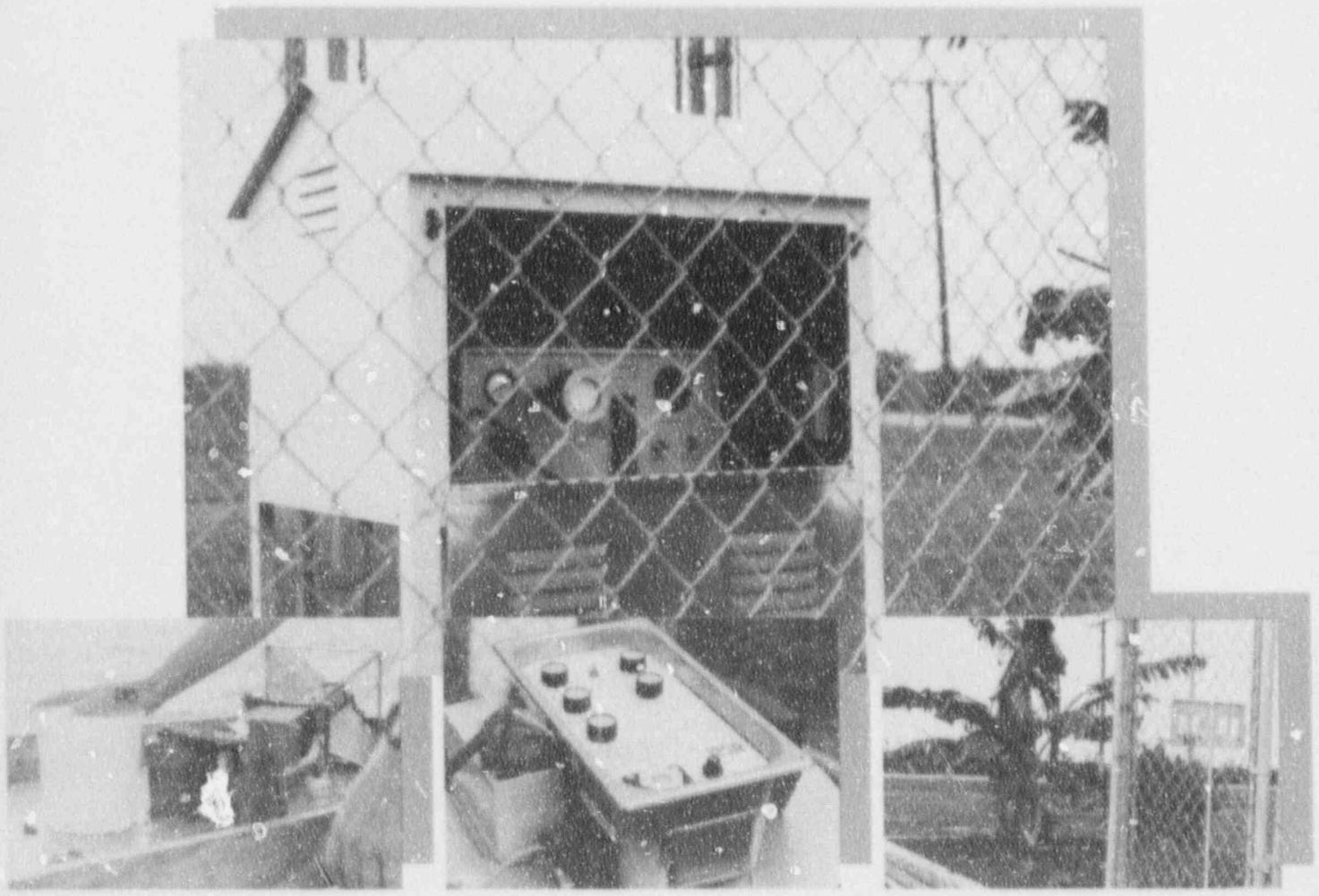
The units are situated on an approximately 12,300-acre site. A 10 mile radius map and site area map can be found in the Program Description section of this report for reference. Sixty-five (65) acres are modified or occupied by the plant and plant facilities while approximately 7,000 acres make up the aboveground cooling reservoir. Numerous smaller bodies of water on-site include the essential cooling pond, Kelly Lake and a number of drainage ditches, sloughs and depressions. The majority of the land east of the cooling reservoir and bounded by the Colorado River is leased for cattle grazing. Approximately 1700 acres remain in a more natural state as a lowland habitat. The surrounding area is characterized by coastal plain with farmland and pasture predominating. The local relief of the area is characterized by flat land, approximately 23 feet above sea level.

The economic base for this area is agricultural related. Consequently, the majority of the land in the vicinity of the site is utilized for the production of five major agricultural crops: beef, rice, milo, soybeans and cotton. In addition to the agriculture industry, there is commercial fishing in the lower Colorado River, East and West Matagorda Bays, Intercoastal Canal and the Gulf of Mexico. Currently shrimp, oysters, and crab are the target commercial fish while fin fishes have been less important commercially in recent years.

Although the surrounding area is heavily cultivated, significant amounts of woodlands, thicket, brush, fields, marsh and open water exist to support wildlife. The area lies in the southern region of the central flyway and hosts an abundance of migratory birds while the local estuary environments provide the necessary habitat for a variety of fish types to complete their life cycles. The area is well suited for recreational hunting and fishing.

The climate of the region is subtropical maritime, with continental influence, and is characterized by short mild winters and long hot and humid summers. The winter season's average temperature is 55°F and the summer's average is 80°F, with an annual monthly average of 68°F. Rainfall is usually abundant throughout the year with a yearly average of 42 inches. The prevailing wind direction is from south-southeast from spring through fall, shifting to north-northeast during the winter months.

South Texas Project Electric Generating Station



PROGRAM DESCRIPTION

Stations identified on the maps can be referenced to station information found in Table 2. Figure 2 is a zone map used to identify mobile sample stations (e.g. active/inactive agricultural areas, wildlife etc.). Zone stations are not specified in Table 2. The zone station number is determined in the following manner when referencing Figure 2:

- The first character of the station number is "Z" to identify it as a zone station.
- The second character is the direction coordinate numbers 1-8.
- The third character is the distance from site numbers 1-6.

Figure 3 is a map of the MCR divided into five regions. Region I is located closest to the effluent release point into the MCR and Region V the most distant. The MCR is also divided into hundreds of grids (not shown) that have been cross referenced to their respective latitude and longitude coordinates. These grids can be evaluated as distinct sample locations or combined with other grids making up an MCR region.

Program Status

Ninety-nine percent of the collection and analysis requirements found in Table 1 were completed in 1991. The seven program requirements not completed are discussed in Table 4, Sample Collection and Analysis Deviations. All required analysis sensitivities were met and no measurements resulted in a non-routine report.

Critical pathway analysis requires that samples be taken from aquatic, atmospheric, and terrestrial environments. Samples of various media are selected to obtain data for evaluation of potential radiation dose to man. Sample types are based on established pathways and through experience gained at existing nuclear facilities. A special study was also performed by Houston Lighting & Power in conjunction with Texas A&M University to evaluate site-specific wildlife sample types. Sample locations were determined after considering site meteorology, Colorado River hydrology, local demography and land use. Sampling locations were further evaluated and modified according to field and analysis experience.

Sampling locations may be referred to as an "indicator" or "control" station. Indicator stations are locations on- or off-site that are assumed to be influenced by plant discharges during plant operation. Control stations are locations where plant influence is not expected. Though most samples analyzed are accompanied by a control sample, it should be noted that this practice is not always possible or meaningful with all media types. Fluctuations in the concentration of radionuclides and direct radiation exposure at indicator stations will ultimately be evaluated with respect to analogous fluctuations at control stations. Indicator stations will also be compared and evaluated relative to characteristics identified during the preoperational REMP and meteorological conditions.

Program Implementation

The minimum collection and analysis requirements are described in Table 1, Radiological Environmental Monitoring Program. Additional samples from same or alternate locations may be collected and additional analytical analyses may be performed. Other operating requirements, including analysis sensitivity and non-routine operating, are described in the Off-site Dose Calculation Manual (ODCM). All requirements are monitored and controlled for compliance.

Table 2 gives the location description for the sample station, vector and media type sampled. The table is enhanced to differentiate between designated control locations, on-site indicator locations and off-site indicator locations. Table 3 is a listing of media code descriptions used in Table 2.

A number of maps and sample collection location methods are used to implement the program. Figure 1 includes two maps that identify permanent sample stations. One map includes stations in a 10-mile radius while the other is limited to on-site stations.

PROGRAM DESCRIPTION

Objectives

The South Texas Project Electric Generating Station initiated a comprehensive and fully implemented preoperational Radiological Environmental Monitoring Program (REMP) on July 1985. That program terminated on March 7, 1988 fulfilling the following objectives outlined in the NRC Regulatory Guide 4.1.

- Personnel training.
- Evaluation of procedures, equipment and techniques.
- Identification of probable critical pathways to be monitored after the plant was in operation.
- Measurement of background levels and their variations along anticipated critical pathways.

Since March 8, 1988, the REMP's operational objective has been to verify that the South Texas Project Electric Generating Station is operating within its design parameters and to assure effluent releases into the environment do not result in a significant dose to individuals off-site. In doing so, the evaluation of sensitive environmental analyses will confirm a controlled and predictable plant operation that results in an insignificant impact on the environment.

Design Philosophy

The REMP was designed and implemented by Houston Lighting & Power. The overall program design is written to meet the intent of the NRC November 1979 Branch Technical Position, An Acceptable Radiological Environmental Monitoring Program. The REMP's quality assurance program has been written to parallel the program described in NRC Regulatory Guide 4.15, Quality Assurance for Radiological Monitoring Program. Furthermore, the REMP design and operating philosophy parallels the EPA/Health Physics Society Committee Report, Upgrading Environmental Radiation Data, HPSR-2(1980) recommendation that, "if possible, the implementation of all program aspects should be under the direction of one organization rather than fragmented into areas of separate group responsibilities so that continuity and overall understanding are maintained." The report also states that reliable results and interpretations come from programs formulated and implemented by individuals who are knowledgeable in all facets of the program. Lastly, the report maintains that all aspects of the REMP have equal priorities and share primary objectives. In practice, sample selection and appropriate collection techniques have been viewed as important as the employment of state-of-the-art detection equipment and data analysis methods.

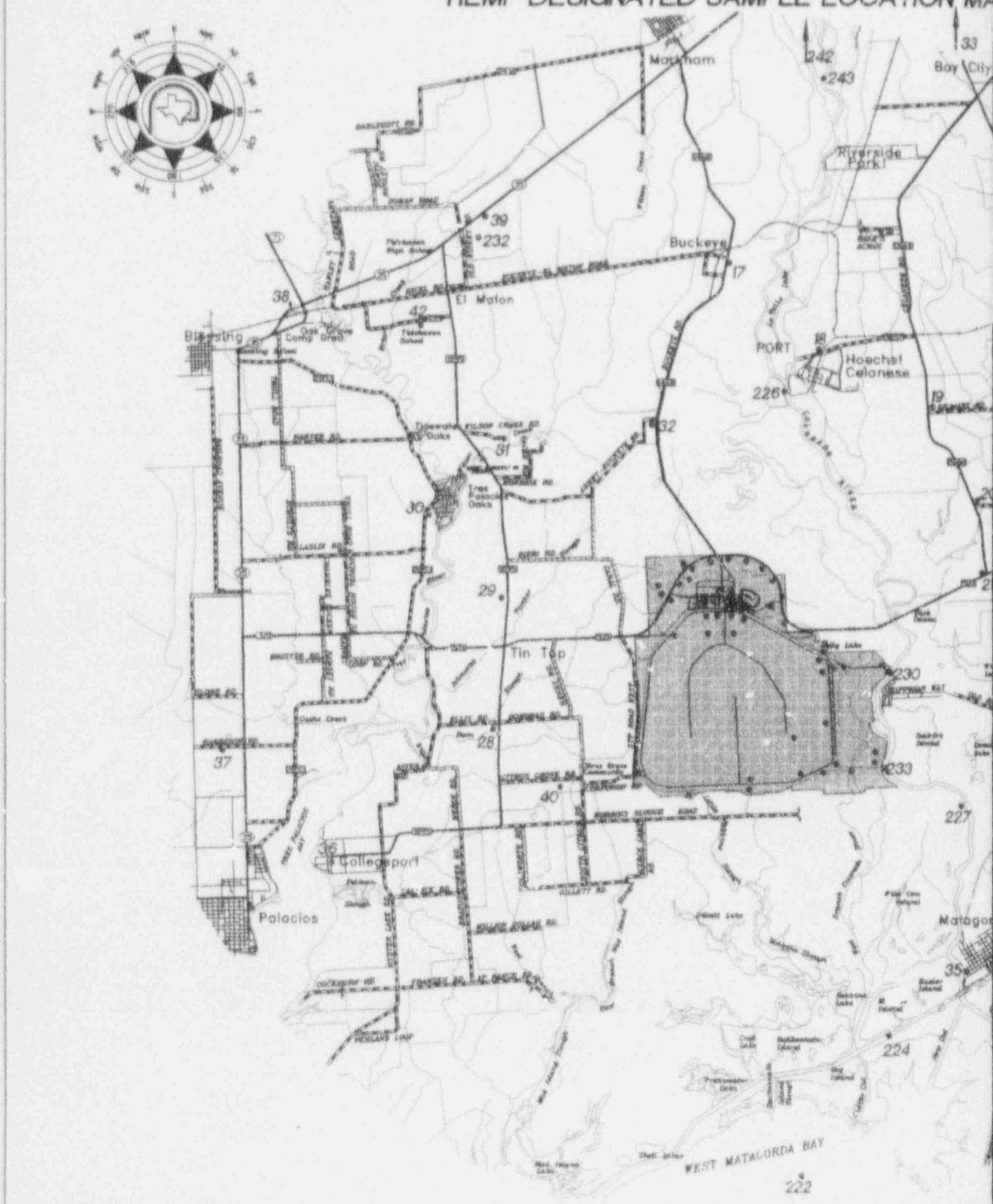
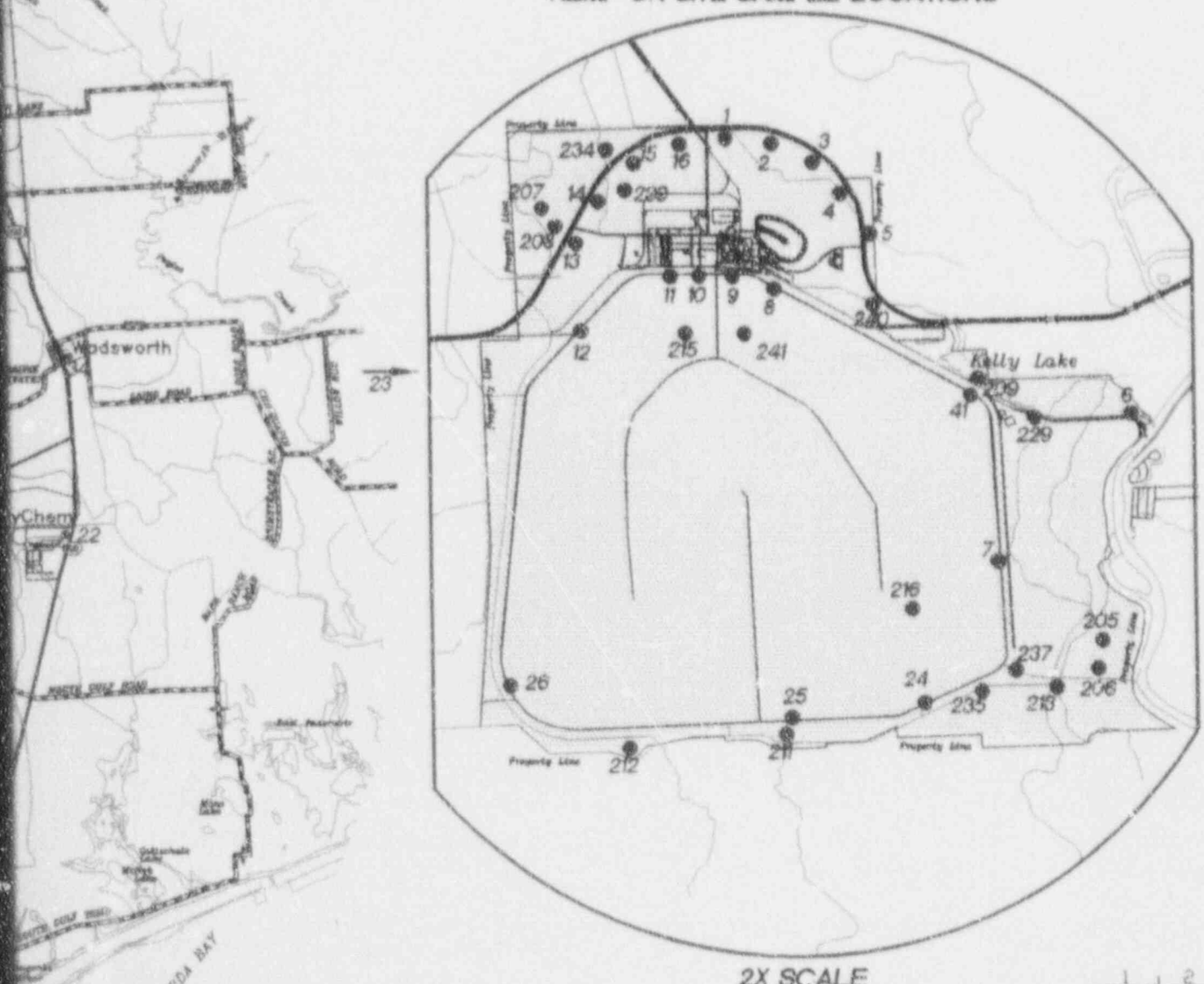

REMP DESIGNATED SAMPLE LOCATION MA
Matagorda
Bay City
Riverside Park
Buckeye
El Maton
Blessing
Oak Grove Camp Grnd
PORT
Hoechst Celanese
Tidewater Oaks
Tres Palacios Oaks
Tin Top
Collegeport
Palacios
WEST MATAGORDA BAY
242
243
39
232
38
42
17
18
226
32
31
30
29
28
37
40
230
233
227
35
224
222

FIGURE 1

REMP ON SITE SAMPLE LOCATIONS



(FIGURE 2)

REMP ZONE LOCATION MAP

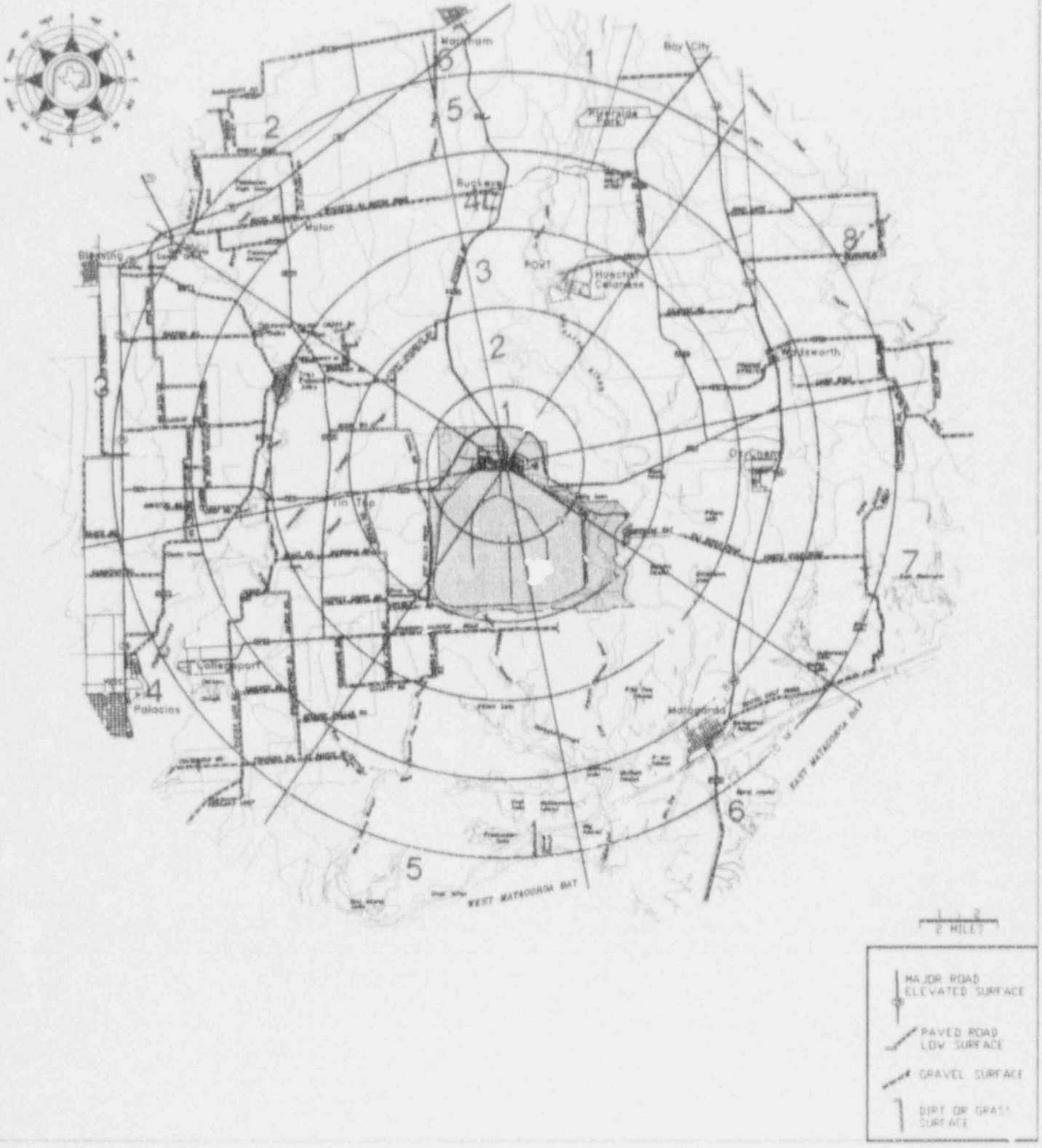
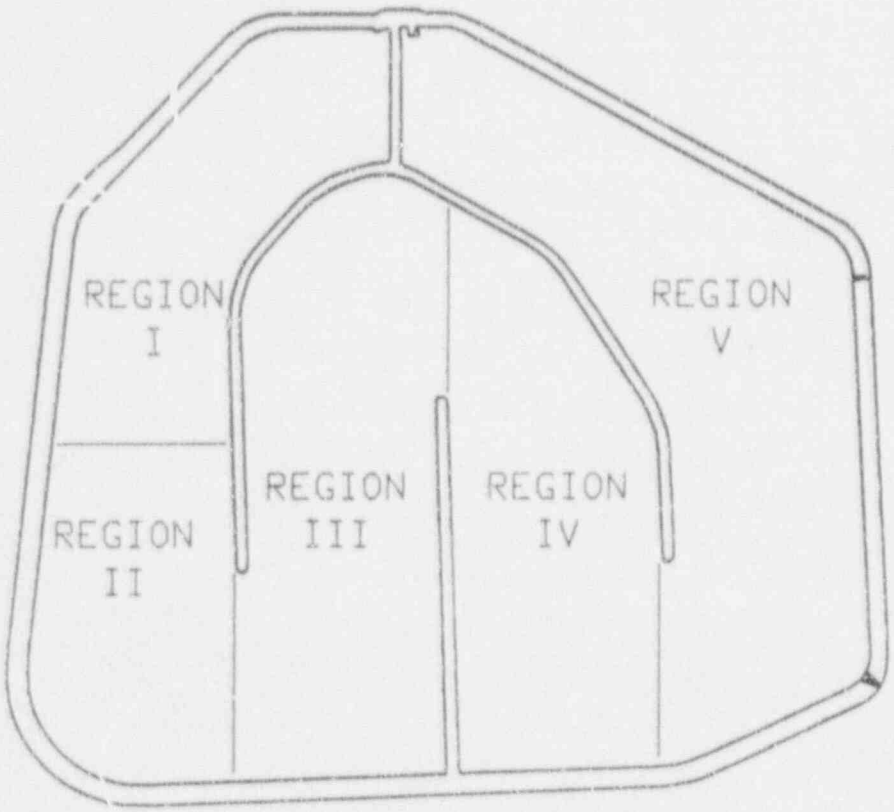


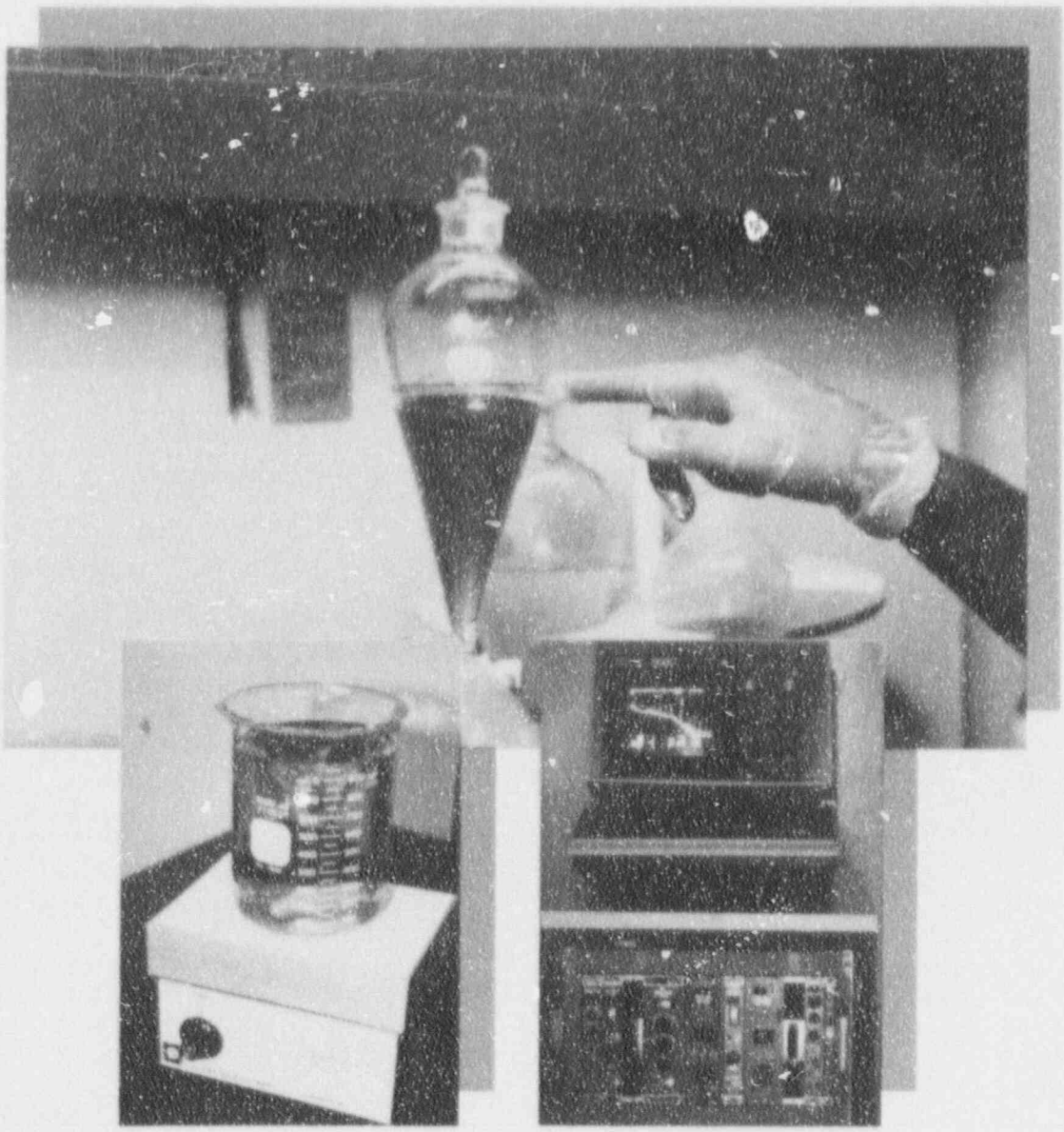
FIGURE 3

STPEGS MAIN COOLING RESERVOIR

REGION DESIGNATION



South Texas Project Electric Generating Station



ANALYSIS OF RESULTS & TRENDS

ANALYSIS OF RESULTS AND TRENDS

Annual Radiological Environmental Operating Report Summary

Table 5, 1991 Annual Radiological Environmental Operating Report Summary, is a digest of the REMP analytical data. All environmental analyses have been included in this evaluation including additional analyses not required by the minimal program. The summary has been formatted to resemble an NRC and industry standard. Modifications were made for the sole purpose of reading ease. The type of media is printed at the top left of each page, and the units of measurement are printed at the top right. The left-hand column contains the radionuclide followed by the total number of analyses of the radionuclide and the number of non-routine measurements in the second column. For the purpose of this report, "non-routine" is a result exceeding the values listed in Table A-53 of the ODCM, Reporting Levels for Radioactivity Concentrations in Environmental Samples. The next column lists the average achieved Lower Limit of Detection (LLD) for each analysis type and the LLD requirement. The limits are found in Table A-52 of the ODCM, Detection Capabilities for Environmental Sample Analysis. Those sampling stations which could conceivably be affected by the operation of STPEGS are identified as "Indicators." Results data are reported using two significant digits in order to establish consistency in the report and to parallel established conventions in similar reports.

A set of statistical parameters are calculated for each radionuclide for each media. The parameter includes separate analyses for (1) the indicator stations, (2) the station having the highest annual mean concentration, and (3) the control stations. For each of these groups of data, the following is calculated:

- The mean value (including negative values and values below the LLD).
- The fraction of analyses that the results were greater than 3 times the random error.
- The lowest and highest calculated concentration.

Typically, the achieved LLDs are significantly lower than the required limits. As an example, LLDs for gross beta in water will average a factor of five below the requirement while the LLD for gross beta in air particulate will be orders of magnitude below the committed level. In the case of I-131 in drinking water, no committed LLD is indicated. The reasoning is drinking water in the vicinity of STPEGS originates from deep wells in which I-131, with its 8.04-day half-life along with the slow migration of surface water to the aquifer, dose not constitute a pathway.

Similarly, there would also be no I-131 LLD indicated for stored grains (e.g. rice, soy bean, etc.) because of the long periods between sample harvest, sample collection and sample analyses.

In summary, positive measurements (e.g. tritium in the MCR and Co-60 in the MCR bottom sediments) were within anticipated ranges. There were no positive measurements of nuclides of interest from samples collected off-site. There were no non-routine measurements and all the achieved average LLDs were less than the committed sensitivities.

Trending and Data Interpretation

Data has been analyzed from a historical perspective as well as in comparison to critical variables such as wind direction.

Figure 4 is a historical comparison of average monthly beta activity from three on-site indicator stations and a single control station for air particulate samples. The control data trends identically to on-site data in preoperational and operational years. This analysis demonstrates that plant operations is not resulting in impact on particulate contamination even at the most strategically located monitoring stations. Figure 5 shows the annual gross beta in air particulate samples in relationship to wind direction. The bar illustrates the mean value and associated ± 1 standard deviation. This graph also shows no significant difference between indicator stations and the control. The graph clearly shows that key indicator stations (#15 and #16) are not influenced by the plant although they are located in close proximity to the plant and in a leeward location.

Direct gamma radiation as measured by TLD is depicted in Figure 6. Again, the data from strategically located stations #15 and #16, shows no influence from plant operations.

Figure 7 illustrates the tritium concentration in surface waters for eight quarterly composite samples. Stations #226 and #227 are off-site control and indicator stations, respectively. The remaining stations are on-site indicators with #210 representing the MCR and the others representing adjacent ditches and sloughs. The tritium concentration in the MCR is increasing at a predictable rate and will reach equilibrium at a level below the predicted 21,000 pCi/L stated in the Updated Final Safety Analysis Report (UFSAR). Tritium enters the sloughs and ditches by way of the MCR relief well system. The activity at these locations is considerably less than in the MCR and is variable depending on how much run-off (rain) has occurred. With the exception of a single analysis resulting in a Co-60 concentration of <1 pCi/L for an MCR sample no other nuclide of interest has been identified in any

surface water sample. This particular analysis was 30 times more sensitive than the required analysis sensitivity. Future trending will include Co-60 in the MCR bottom sediments. Typically, the concentration levels range from nondetectable in MCR Region V to a few hundred pCi/Kg (dry weight) in MCR Region I (Figure 3). The majority of the Co-60 is found in MCR Regions I and II. Co-60 has not been detected in on-site slough or ditches, or in off-site waterway bottom sediment sample.

Figure 4

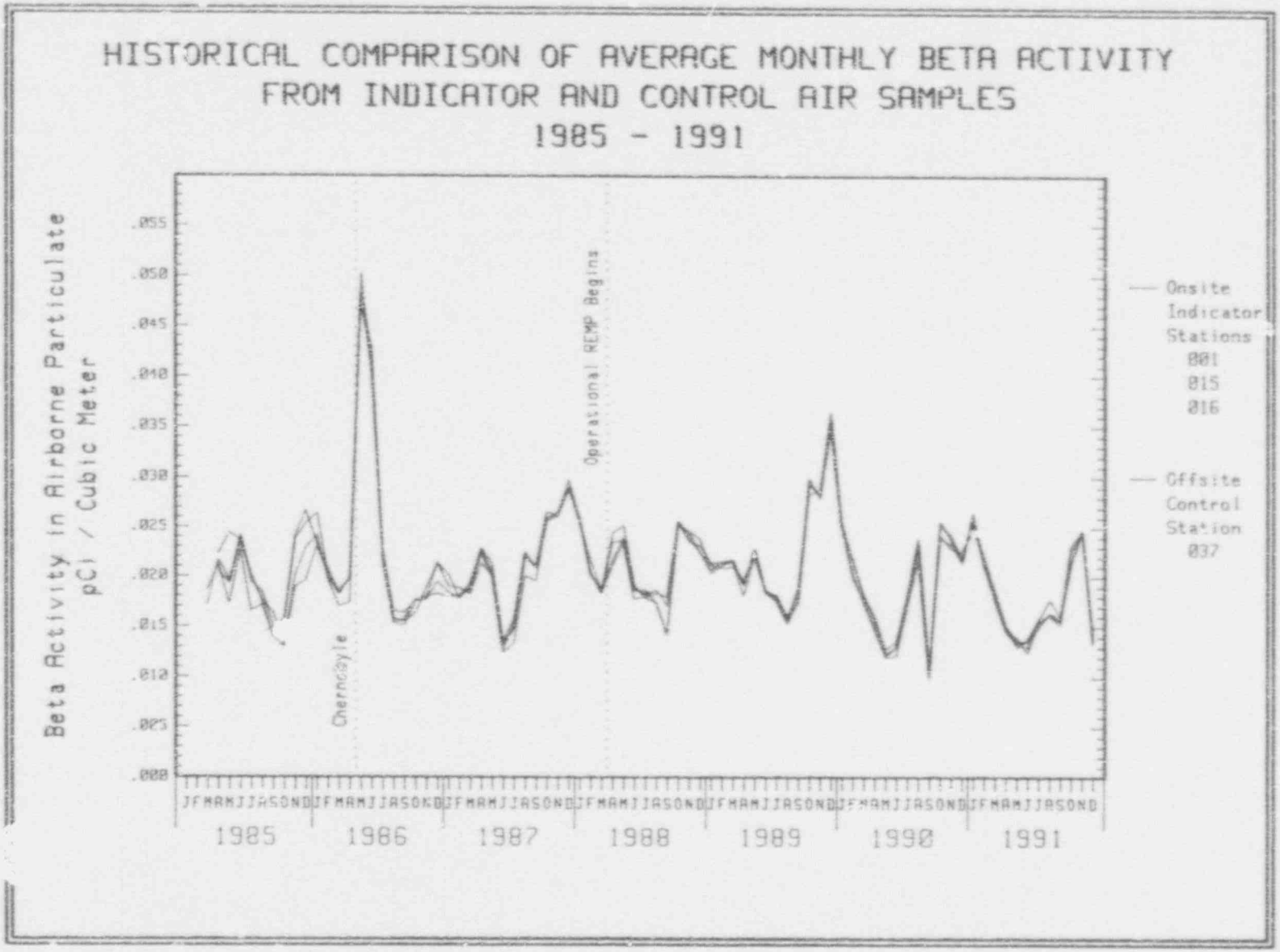

HISTORICAL COMPARISON OF AVERAGE MONTHLY BETA ACTIVITY
FROM INDICATOR AND CONTROL AIR SAMPLES
1985 - 1991
Beta Activity in Airborne Particulate
pCi / Cubic Meter
.055
.050
.045
.040
.035
.030
.025
.020
.015
.010
.005
.000
Chernobyle
Operational REMP Begins
JFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMAMJJASOND
1985
1986
1987
1988
1989
1990
1991
Onsite Indicator Stations
001
015
016
Offsite Control Station
037

Figure 5

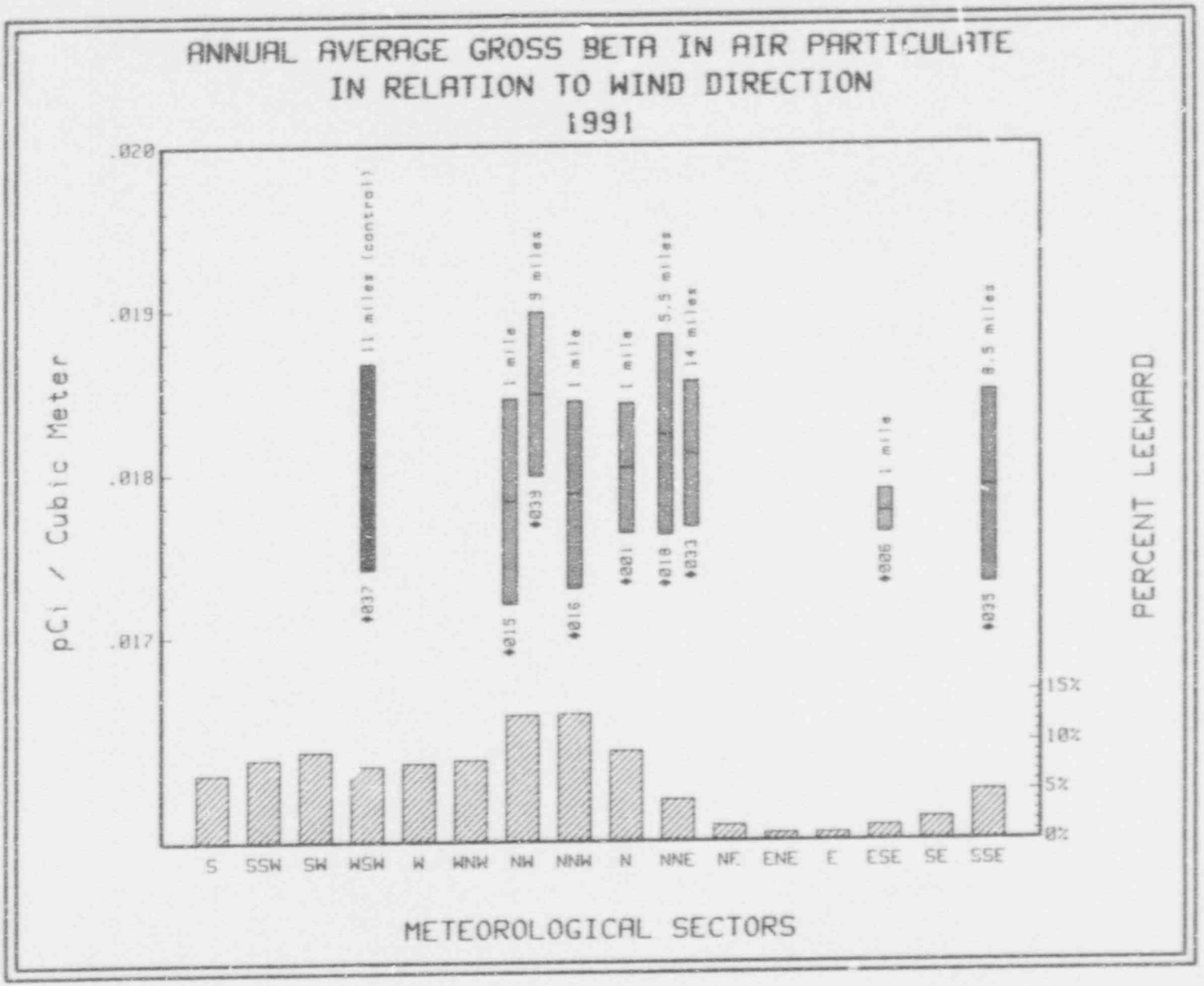

ANNUAL AVERAGE GROSS BETA IN AIR PARTICULATE
IN RELATION TO WIND DIRECTION
1991
pCi / Cubic Meter
.020
.019
.018
.017
11 miles (control)
1 mile
9 miles
1 mile
1 mile
5.5 miles
14 miles
1 mile
8.5 miles
.037
.015
.039
.016
.001
.010
.033
.006
.035
PERCENT LEEWARD
15%
10%
5%
0%
S
SSW
SW
WSW
W
WNW
NW
NNW
N
NNE
NE
ENE
E
ESE
SE
SSE
METEOROLOGICAL SECTORS

FIGURE 6

DIRECT GAMMA RADIATION
IN RELATION TO WIND DIRECTION
1991

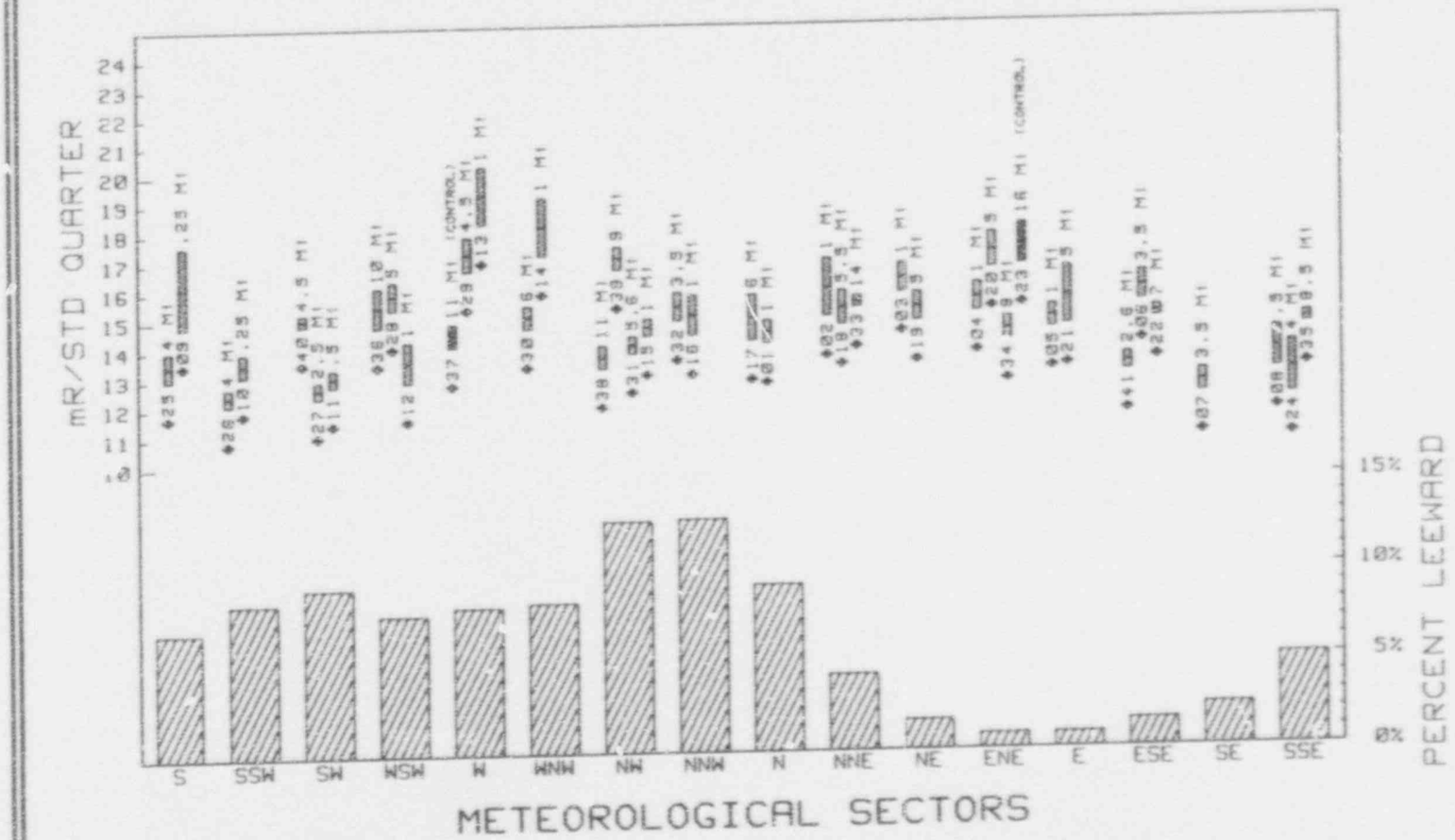
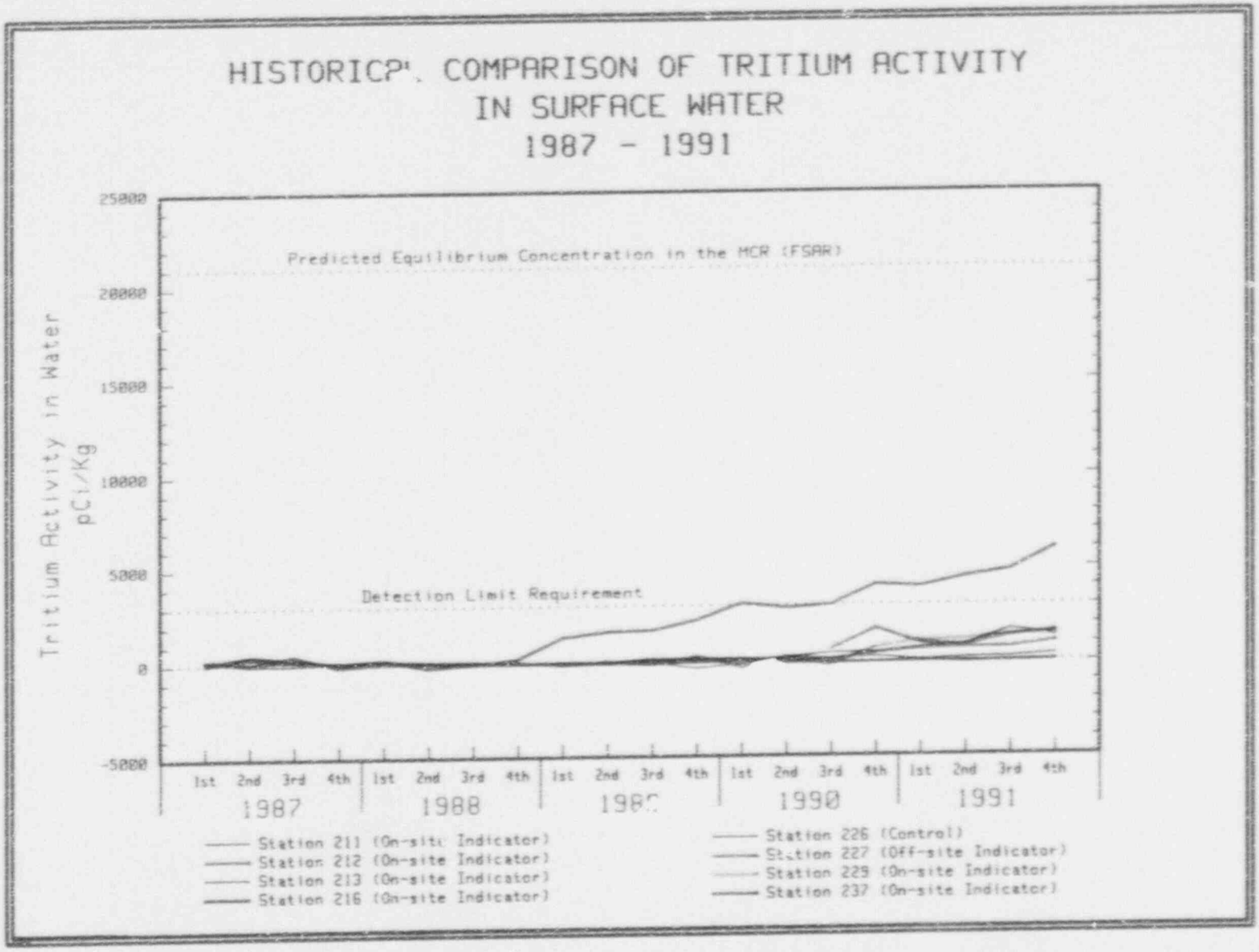


Figure 7


HISTORICAL COMPARISON OF TRITIUM ACTIVITY
IN SURFACE WATER
1987 - 1991
Predicted Equilibrium Concentration in the MCR (FSAR)
Detection Limit Requirement
Tritium Activity in Water
pCi/Kg
25000
20000
15000
10000
5000
0
-5000
1st 2nd 3rd 4th 1st 2nd 3rd 4th 1st 2nd 3rd 4th 1st 2nd 3rd 4th 1st 2nd 3rd 4th
1987
1988
1989
1990
1991
Station 211 (On-site Indicator)
Station 212 (On-site Indicator)
Station 213 (On-site Indicator)
Station 216 (On-site Indicator)
Station 226 (Control)
Station 227 (Off-site Indicator)
Station 229 (On-site Indicator)
Station 237 (On-site Indicator)

South Texas Project Electric Generating Station

LAND USE CENSUS

LAND USE CENSUS

Purpose/Design

The 1991 Land Use Census was performed in accordance with NRC Regulatory Guide 4.8, Environmental Technical Support Specifications for Nuclear Power Plants, which states "enumeration by using information from county agricultural agents or other reliable sources" is acceptable and fulfills the annual census requirements. Sixteen individuals were contacted in support of the census and a list of their names and affiliation are on file.

The regulatory guidelines define the census scope in relatively narrow terms (e.g. nearest resident, nearest garden, nearest milk cow, etc.), but where additional information was desirable (e.g. change in agricultural practices or irrigation methods), a broader scope was applied. The annual land use census process serves as an opportunity to assess the REMP and determine if program modifications are deemed necessary. This assures that the surveillance activities are relevant and based on current conditions. Information is obtained primarily from local authorities via direct contact or phone conversations. Additional sources included contact with utility personnel and information obtained while performing routine REMP field activities.

The five-mile radius area surrounding STPEGS was also surveyed by car. The primary objective was to verify the nearest resident in the sixteen meteorological sectors and also obtain other relevant information.

Results

The 1991 Land Use Census was submitted as a reference for the most current revision to the ODCM and the Semiannual Effluent Report. Highlights of the land use census are as follows:

- Broadleaf vegetation sampling is performed at the site boundary in the three most sensitive sectors and at a control location in lieu of the garden census. Broadleaf vegetation samples also satisfy the collection requirement when milk samples are not available.

- Agricultural and ranching practices remained unchanged in 1991. Irrigation practices remained consistent with past years depending primarily on the canal system originating at the Lower Colorado River Authority (LCRA) facility in Bay City. Production acreage for soybean and milo was slightly down from 1990 in Matagorda County, while cotton was more widely planted. County-wide total grain acreage was consistent with past years.

- No commercial dairies are located in Matagorda County. Milk from a dedicated cow and used exclusively for family consumption is not commonly practiced. No milk supply of this type was located.

- Commercial vegetable farms (truck farms) are not located in Matagorda County. From time-to-time an individual resident may operate a small-volume fruit and vegetable stand with locally grown produce such as corn, pecans, and watermelon. However, these produce stands sometimes offer produce that is not locally grown.

- The Army Corps of Engineers (ACE) have completed the redirection of the Lower Colorado River into West Matagorda Bay. This project also includes the construction of a diversion dam just south of the intercoastal canal on the Colorado River and the development of recreational area along the mouth of the Colorado River. The targeted completion date for the dam construction is late 1992. Permanent water quality and habitat changes are expected in the Lower Colorado River and Matagorda Bay once the project is completed. For example, 5,000 acres of wetland habitat is predicted to be created over the next few decades in Matagorda Bay. No definitive information was provided that might suggest an impact on the reservoir makeup schedule. However, it is speculated that the proposed dam will reduce tidal flow and decrease salinity in region of the Colorado River near STPEGS's intake structure.

- The 1991 Land Use Census identifies the nearest resident in nine of the sixteen sectors within the five-mile radius of STPEGS. Two additional sectors are also included because of the residents' close proximity to the five-mile radius reference. No changes are noted from the 1990 Land Use Census.

Sector	Distance (approx. miles)	Location
ESE	3.5	Selkirk Island
SE	3.5	Selkirk Island
SW	4.5	Citrus Grove
WSW	2.5	FM 521
W	4.5	FM 1095
WNW	4.0	Ashby-Buckey Road
NNW	3.5	Reynolds Ranch off FM 1468
N	3.5	Reynolds Ranch off FM 1468
NW	4.5	Wondirk Road
E	5.5	FM 521
ENE	5.2	FM 2668

- There has been little change in the number of home sites (full time residents) within the five-mile radius since the 1990 survey. The number of home sites are approximately 2001; and over 150 of these are located on Selkirk Island, four miles east of STPEGS. Matagorda County population was approximately 38,000 in 1991; virtually unchanged from the 1990 census.

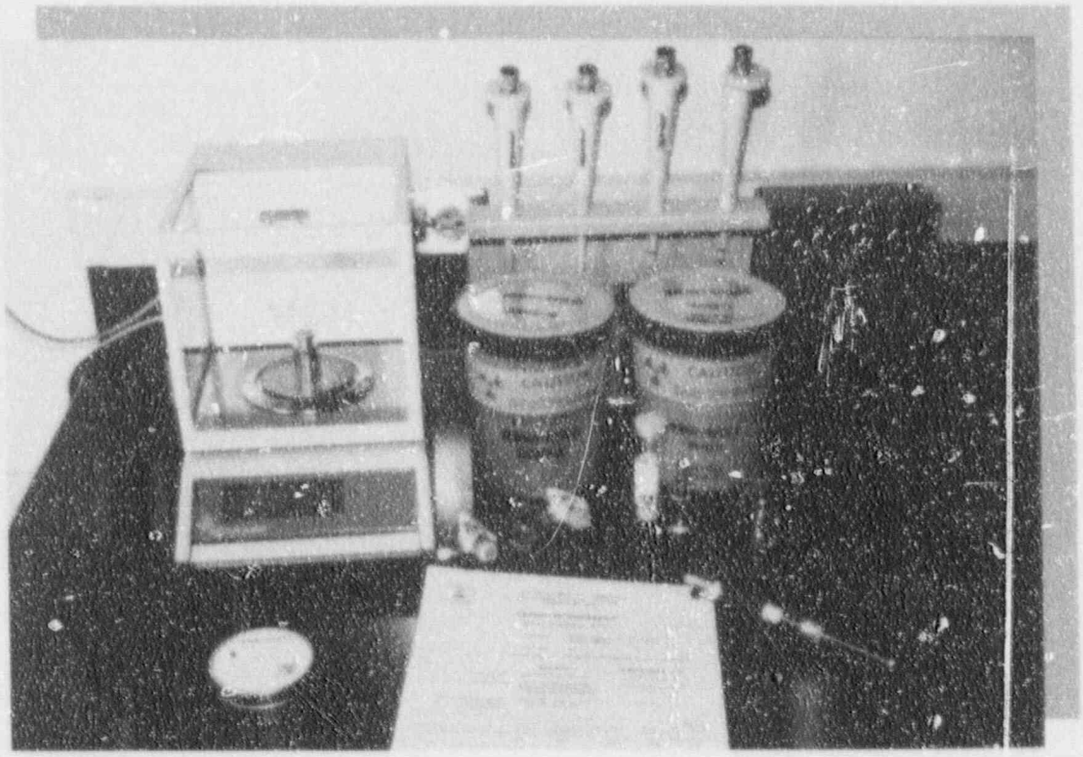
1990 Open Item

A drainage ditch originating immediately northeast of the protected area on-site was identified in 1990 and added to the collection program. Changes to Part B of the ODCM reflecting this change have been approved. This item is now closed.

ecommendations

The and Use Census did not produce any new information that lt in changes to the REMP. The existing surveillance ts continue to be effective in assessing the radiological ital quality of STPEGS environs.

South Texas Project Electric Generating Station



QUALITY ASSURANCE

QUALITY ASSURANCE

Design

The quality assurance program for the Radiological Environmental Monitoring Program has been designed to meet the intent of Regulatory Guides 4.15 Part C and 4.1. EPA documents 600/7-77-088, 600/8-78-008, and 600/4-79-019 were also consulted in the overall program design. Quality is measured and assessed by four distinct methods:

1. Houston Lighting & Power Nuclear Assurance Department

   - Performs periodic surveillance of specific REMP activities throughout the year
   - Performs an annual comprehensive audit of the REMP
   - Provides for an independent technical review by a technical specialist

2. Radiological Laboratory Quality Assurance Program

   - Routine instrument control checks including calibrations and calibration verification
   - Initial and annual testing and analysis
   - Intralaboratory quality control analyses
   - Quarterly internal assessments

3. Interlaboratory Measurement Assurance Programs

   - Participation in the U.S. Environmental Protection Agency's Intercomparison Studies Program
   - Participation in the U.S. Citizens for Energy Awareness/National Institute of Standards and Technology (USCEA/NIST) Measurement Assurance Program for the Nuclear Industry
   - Participation in the Battelle Pacific Northwest Laboratories' Measurement Assurance Program.
   - Participation in an interutility measurement assurance program.

4. Periodic reviews by outside organizations or agencies (e.g. NRC, ANI, INPO, etc.)

   - Perform programmatic content and effectiveness reviews in order to assure license compliance and establish the degree of compliance with select operational guidelines.

Results

The assessment process determined the radiological environmental program has sufficient depth to accurately monitor the plant's influence on the radiological quality of the environment. The program complies with licensing and regulatory requirements. The provisions to initiate corrective action to prevent or limit departures from the requirements are effective.

Six performance objectives were identified to ensure a successful radiological surveillance program. They include analytical accuracy, analytical precision, analysis sensitivity, sample turnaround, scheduled collection and analysis compliance, and percent quality control samples analyzed. Performance goal criteria vary from 95-100% compliance which is an attempt to weight the criteria depending on actual limits of control available. The performance objectives have been summarized and the performance results are found in Table 6, Performance Summary for Program Controls. The identification and control of the performance objectives has resulted in a higher quality program.

Radioanalytical capabilities were demonstrated by periodic testing of environmental media similar to the analysis required by the REMP. Two acceptable laboratory measurement assurance programs specifically designed to measure environmental radioanalytical capabilities are the USEPA Interlaboratory Comparison Program and the Battelle Pacific Northwest Laboratories' Direct Radiation Testing Program. The radiological laboratory's performance in these programs is illustrated in Figures 8 through 11. A 15% acceptance criteria for accuracy and precision (where applicable) has been applied. Where the criteria has not been met the percent difference from the known is printed in red. In one test situation the accuracy criteria was not met. Figure 9 shows a positive bias for gross beta in water (sample #10624). The bias is attributed to multiple nuclides with multiple beta energies present in the test sample, in comparison to the reference calibration which uses a single nuclide with a dominant energy.

Figure 8

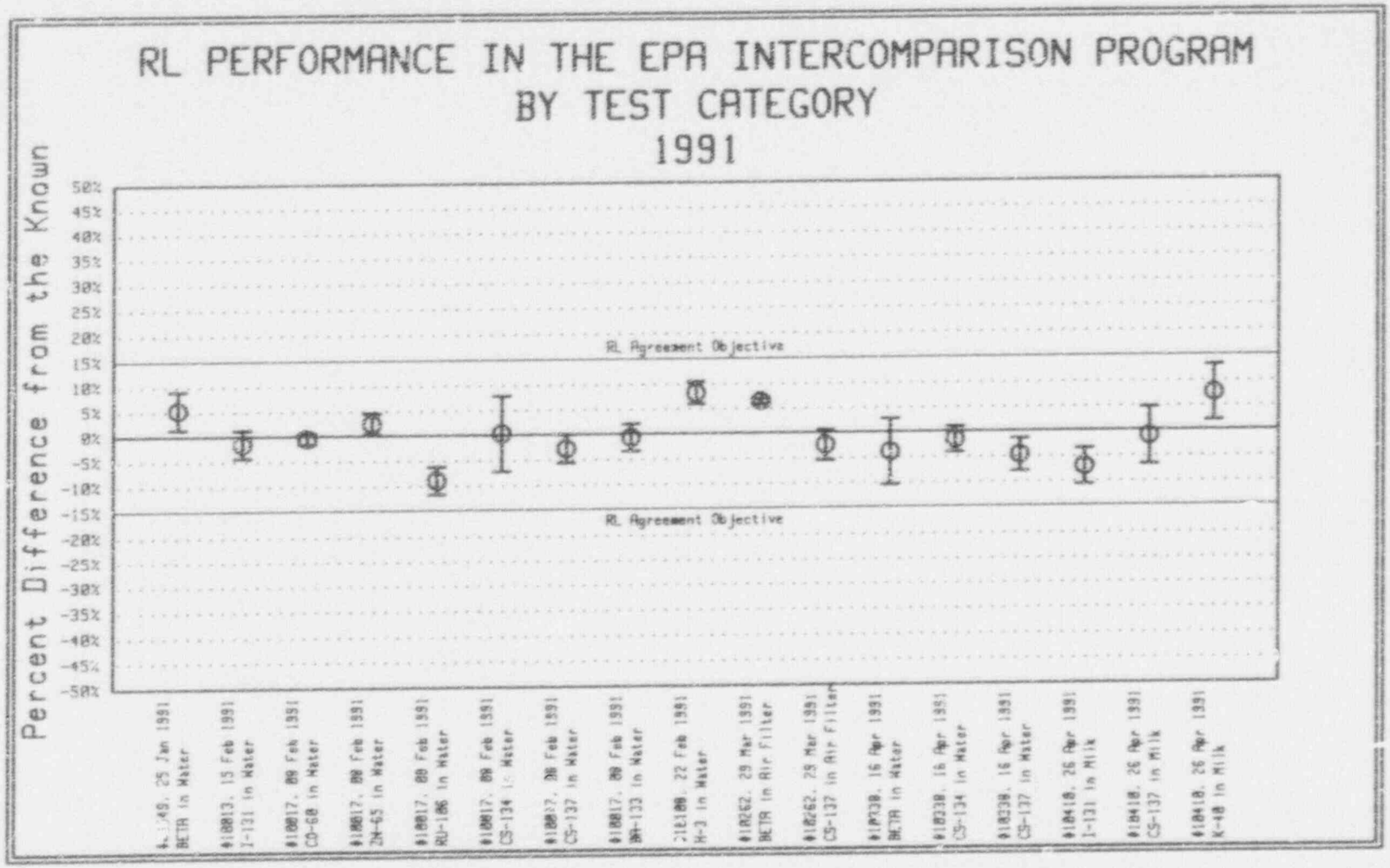

RL PERFORMANCE IN THE EPA INTERCOMPARISON PROGRAM
BY TEST CATEGORY
1991
Percent Difference from the Known
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
-5%
-10%
-15%
-20%
-25%
-30%
-35%
-40%
-45%
-50%
RL Agreement Objective
RL Agreement Objective
BETA in Water
I-131 in Water
CO-60 in Water
ZN-65 in Water
RU-106 in Water
CS-134 in Water
CS-137 in Water
BA-133 in Water
H-3 in Water
BETA in Air Filter
CS-137 in Air Filter
BETA in Water
CS-134 in Water
CS-137 in Water
I-131 in Milk
CS-137 in Milk
K-40 in Milk

Figure 9

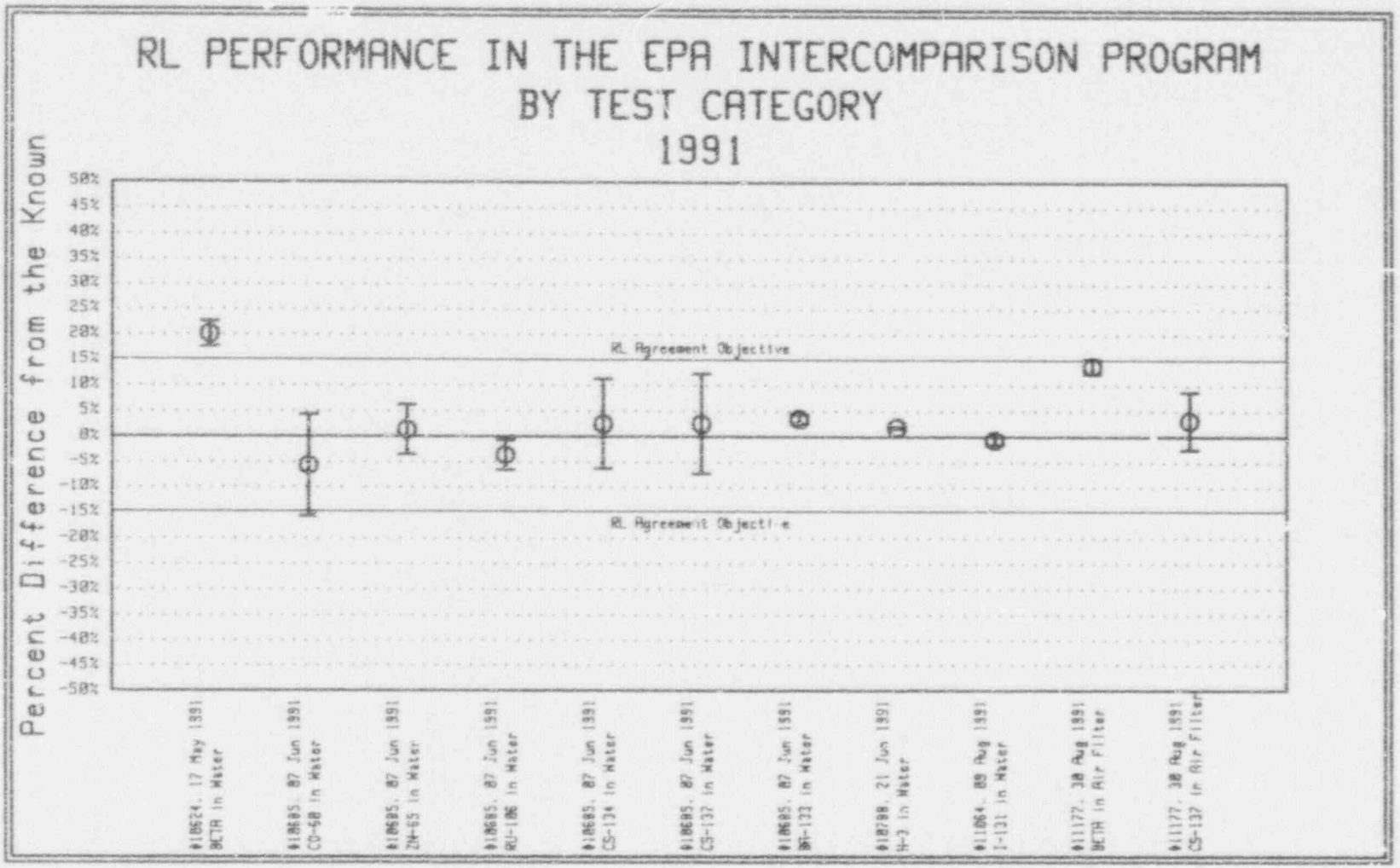

RL PERFORMANCE IN THE EPA INTERCOMPARISON PROGRAM
BY TEST CATEGORY
1991
Percent Difference from the Known
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
-5%
-10%
-15%
-20%
-25%
-30%
-35%
-40%
-45%
-50%
RL Agreement Objective
RL Agreement Objective
#10624, 17 May 1991
BETA in Water
#10685, 07 Jun 1991
CO-60 in Water
#10685, 07 Jun 1991
ZN-65 in Water
#10685, 07 Jun 1991
RU-106 in Water
#10685, 07 Jun 1991
CS-134 in Water
#10685, 07 Jun 1991
CS-137 in Water
#10685, 07 Jun 1991
BA-133 in Water
#10788, 21 Jun 1991
H-3 in Water
#11064, 09 Aug 1991
I-131 in Water
#11177, 30 Aug 1991
BETA in Air Filter
#11177, 30 Aug 1991
CS-137 in Air Filter

Figure 10

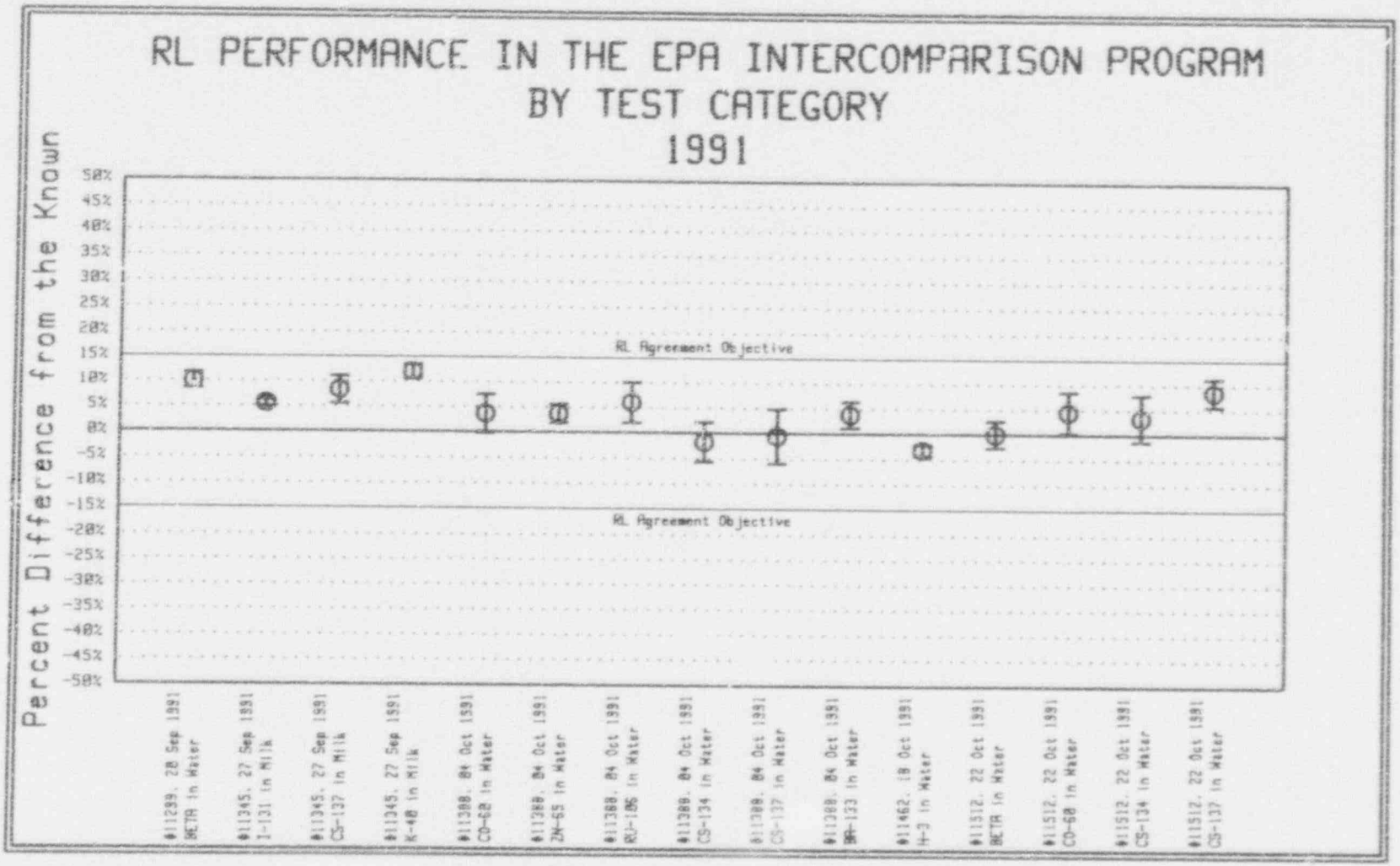
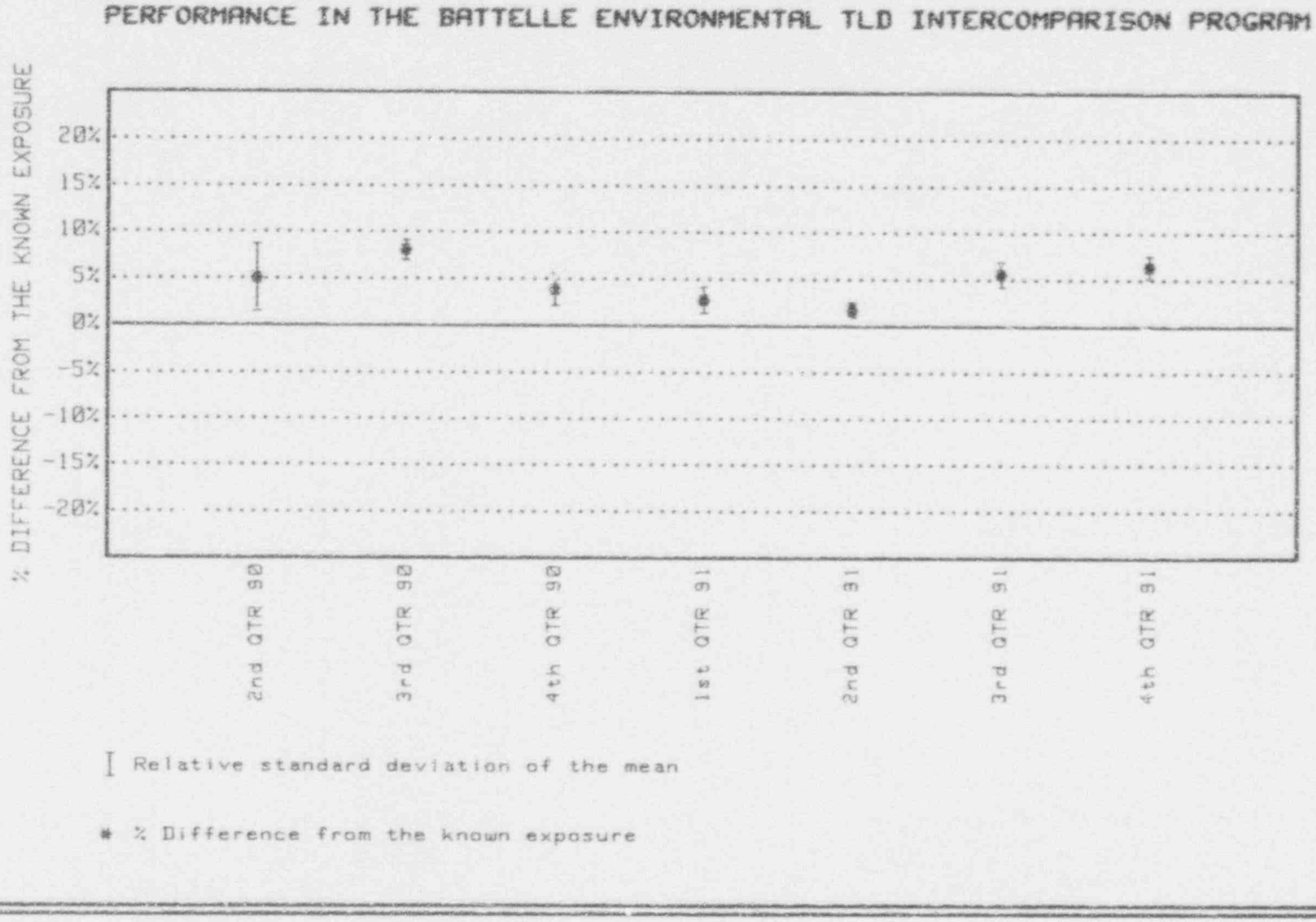

RL PERFORMANCE IN THE EPA INTERCOMPARISON PROGRAM
BY TEST CATEGORY
1991
Percent Difference from the Known
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
-5%
-10%
-15%
-20%
-25%
-30%
-35%
-40%
-45%
-50%
RL Agreement Objective
RL Agreement Objective
#11239. 28 Sep 1991
BETA in Water
#11345. 27 Sep 1991
I-131 in Milk
#11345. 27 Sep 1991
CS-137 in Milk
#11345. 27 Sep 1991
K-40 in Milk
#11388. 04 Oct 1991
CO-60 in Water
#11389. 04 Oct 1991
ZN-65 in Water
#11388. 04 Oct 1991
RU-106 in Water
#11388. 04 Oct 1991
CS-134 in Water
#11388. 04 Oct 1991
CS-137 in Water
#11388. 04 Oct 1991
BA-133 in Water
#11462. 18 Oct 1991
H-3 in Water
#11512. 22 Oct 1991
BETA in Water
#11512. 22 Oct 1991
CO-60 in Water
#11512. 22 Oct 1991
CS-134 in Water
#11512. 22 Oct 1991
CS-137 in Water

FIGURE 11


PERFORMANCE IN THE BATTELLE ENVIRONMENTAL TLD INTERCOMPARISON PROGRAM
% DIFFERENCE FROM THE KNOWN EXPOSURE
20%
15%
10%
5%
0%
-5%
-10%
-15%
-20%
2nd QTR 90
3rd QTR 90
4th QTR 90
1st QTR 91
2nd QTR 91
3rd QTR 91
4th QTR 91
I Relative standard deviation of the mean
* % Difference from the known exposure

South Texas Project Electric Generating Station

Annual Radiological Environmental Operating Report

1991

ADDENDUM OF TABLES

TABLE 1

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Exposure Pathway and/or Sample Media	Collection				Analysis	
	Nominal Number of Sample Locations	Routine Sampling Mode	Nominal Collection Frequency	Figure	Analysis Type	Minimum Analysis Frequency
Direct Radiation (TLDs)	Total Stations: 40 16 Stations located in sixteen sectors approximately 1 mile from containment. 16 Stations located in sixteen sectors 4-6 miles from containment. 6 Stations located in special interest areas (e.g. school, population center) within a 14-mile radius of containment. 2 Control Stations located in areas of minimal wind direction (W, ENE) 10-15 miles from containment.	Continuous	Quarterly	D1 & D2	Gamma	Quarterly
Airborne a. Radioiodine & Particulates	Total Stations: 12 (5) 3 Stations located at the exclusion zone, approximately 1 mile from containment in the N, NNW, and NW sectors. 1 Station located in Bay City, 14 miles from containment. 1 Control Station located in a minimal wind direction (W) 11	Continuous	Weekly	D1 & D2		Weekly
b. Soils	(7) 5 Same as air stations.	Grab	Annually	D1 & D2	Gamma-Isotopic	

TABLE 1

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Exposure Pathway and/or Sample Media	Collection				Analysis	
	Nominal Number of Sample Locations	Routine Sampling Mode	Nominal Collection Frequency	Figure	Analysis Type	Minimum Analysis Frequency
	2 Stations located adjacent to farms within 5 miles of containment					
Waterborne a. Surface	Total Stations: 21 (7) 1 Station located in reservoir at point of reservoir blowdown to Colorado River. 1 Control Station located above the site on the Colorado River not influenced by plant discharge. 1 Station approximately 2 miles downstream from blowdown entrance into Colorado River.	Composite (grab, if composite not available)	Monthly	D1 & D2	Gamma-Isotopic Tritium	Monthly Quarterly Composite
	1 Station located near Site boundary in the Little Robbins Slough. 1 Station located near Site boundary in the East Fork of Little Robbins Slough. 1 Station located near Site boundary in the West Branch of the Colorado River . 1 Station located in drainage ditch north of reservoir that empties into the Colorado River upstream of the reservoir makeup pumping facility.	Grab	Quarterly		Gamma-Isotopic Tritium	According to collection frequency

TABLE 1

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Exposure Pathway and/or Sample Media	Collection				Analysis	
	Nominal Number of Sample Locations	Routine Sampling Mode	Nominal Collection Frequency	Figure	Analysis Type	Minimum Analysis Frequency
b. Ground	(2) 1 Station located at well upgradient from the reservoir in the shallow aquifer. 1 Station located at well downgradient in the shallow aquifer.	Grab	quarterly	D1	Gamma-Isotopic Tritium	According to collection frequency
c. Portable Water	(9) 1 Station located on site. 1 Control Station at Bay City	Grab	Monthly	D2	Gamma-Isotopic Gross Tritium	Monthly Quarterly Composite
d. Sediment	(10) 1 Station located near site boundary in the Little Robbins Slough. 1 Station located near site boundary in the East Branch of the Little Robbins Slough. 1 Station located near Site in the West Branch of the Colorado River. 1 Control Station located above the site on the Colorado River not influenced by plant discharge.	Grab	Semi-annually	D1 & D2	Gamma-Isotopic	According to collection frequency

TABLE 1

RADIOLOGICAL ENVIRONMENTAL MONITORING PRO. RAM

Exposure Pathway and/or Sample Media	Collection				Analysis	
	Nominal Number of Sample Locations	Routine Sampling Mode	Nominal Collection Frequency	Figure	Analysis Type	Minimum Analysis Frequency
	1 Station located approximately 2 miles downstream from blowdown entrance into the Colorado River. 1 Station located in reservoir at point of reservoir blowdown to Colorado River. 1 Station located in reservoir near circulating water discharge. 1 Station located in the Colorado River where drainage ditch empties into it north of the reservoir makeup pumping facility. 1 Station located in the Colorado River where the reservoir spillway discharge channel empties into it. 1 Station located in drainage ditch originating NE of protected area that crosses Hwy 521 south of maintenance road and empties into Kelly Lake (a soil sample maybe taken in lieu of sediment sample during dry conditions). Total Stations: 10					
Ingestion a. Milk	----------Limited source of sample in vicinity of STPEGS---------- (Attempts will be made to obtain samples when available)					

TABLE 1

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Exposure Pathway and/or Sample Media	Collection				Analysis	
	Nominal Number of Sample Locations	Routine Sampling Mode	Nominal Collection Frequency	Figure	Analysis Type	Minimum Analysis Frequency
		Grab	Semi-monthly when on pasture, monthly at other times	D-3	Gamma-Isotopic Low Level I-131	According to collection frequency
b. Broadleaf Vegetation	(4) 3 Stations located at the exclusion zone, approximately 1 mile from containment, in the N, NW, and NNW sectors. 1 Control Station located in a minimal wind direction (W), 11 miles from containment.	Grab	Monthly during growing season (when available)	D1 & D2	Gamma-Isotopic	According to collection frequency
c. Agricultural Products	------No sample stations have been identified in the vicinity of the Site.----- Presently no agricultural land is irrigated by water into which liquid plant wastes will be discharged. Agricultural products will be considered if these conditions change.					
d. Terrestrial & Aquatic Animals (edible portions)	(3) 1 Sample representing commercially and/or recreationally important species in vicinity of STPEGS that maybe influenced by plant operation *1 Sample of same or analogous species in area not influenced by STPEGS.	Grab	Sample in season or semi-annually if they are not seasonal	D3	Gamma-Isotopic	According to collection frequency

TABLE 1

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Exposure Pathway and/or Sample Media	Collection				Analysis	
	Nominal Number of Sample Locations	Routine Sampling Mode	Nominal Collection Frequency	Figure	Analysis Type	Minimum Analysis Frequency
	1 Sample of same or analogous species in the reservoir.					
e. Pasture Grass	(2) 1 Station located at the exclusion zone, in any of the three sectors (N, NW, NNW). 1 Control Station located 11 miles W.	Grab	Quarterly (when cattle are on pasture)	D1 & D2	Gamma-Isotopic	According to collection frequency
f. Domestic Meat	(1) 1 Sample represents domestic stock fed on crops exclusively grown within 10 miles of containment.					

TABLE 2

SAMPLE SUBMISSION CODE INFORMATION LIST

MEDIA CODE	FIG	STATION CODE	VECTOR	LOCATION DESCRIPTION
DR AI AP VB VP SO	1	001	1 mile N	Exclusion Zone - FM 521
DR	1	002	1 mile NNE	Exclusion Zone - FM 521
DR	1	003	1 mile NE	Exclusion Zone - FM 521
DR	1	004	1 mile ENE	Exclusion Zone - FM 521
DR	1	005	1 mile E	STPEGS Visitor Center - FM 521
DR AI AP SO	1	006	3.5 miles ESE	Site near reservoir makeup pumping facility
DR	1	007	3.5 miles SE	Site on Dike
DR	1	008	0.5 mile SSE	Site on Dike
DR	1	009	0.25 mile S	Site on Dike
DR	1	010	0.25 mile SSW	Site on Dike
DR	1	011	0.5 mile SW	Site on Dike
DR	1	012	1 mile WSW	Site on Dike
DR	1	013	1 mile W	Exclusion Zone - FM 521
DR	1	014	1 mile WNW	Exclusion Zone - FM 521
DR AI AP VB SO VP	1	015	1 mile NW	Exclusion Zone - FM 521
DR AI AP VB SO VP	1	016	1 mile NNW	Exclusion Zone - FM 521
DR	2	**017**	6 miles N	Buckeye - FM 1468

♦ This station may be used to obtain the required aquatic samples in the vicinity of STPEGS that may be influenced by plant operations.

♣ This station is not found on one of the figures.

* Control Station

Media codes typed in bold satisfy collection requirement described in Table 1.

Station codes printed in bold identify offsite locations.

TABLE 2

SAMPLE SUBMISSION CODE INFORMATION LIST

MEDIA CODE	FIG	STATION CODE	VECTOR	LOCATION DESCRIPTION
DR AI AP SO	2	**018**	5.5 miles NNE	Hoescht Celanese Plant - FM 3057
DR	2	**019**	5 miles NE	FM 2668
DR	2	**020**	5 miles ENE	FM 2668
DR	2	**021**	5 miles E	FM 521
DR	1	**022**	7 miles ESE	Cain Chemical Plant, TX 60
DR	1	***023**	16 miles ENE	Intersection of FM 521 and FM 2540
DR	1	024	4 miles SSE	Site on Dike
DR	1	025	4 miles S	Site on Dike
DR	1	026	4 miles SSW	Site on Dike
DR	1	027	2.5 miles SW	Site on Dike
DR	1	**028**	5 miles WSW	FM 1095
DR SO	1	**029**	4.5 miles W	FM 1095
DR	1	**030**	6 miles WNW	Tres Palacios Oaks, FM 2853
DR	1	**031**	5.6 miles NW	Wilson Creek Road
DR	1	**032**	3.5 miles NNW	FM 1468
DR AI AP SO	1	**033**	14 miles NNE	Bay City
DR	1	**034**	8 miles ENE	Wadsworth

♦ This station may be used to obtain the required aquatic samples in the vicinity of STPEGS that may be influenced by plant operations.

♣ This station is not found on one of the figures.

* Control Station

Media codes typed in bold satisfy collection requirement described in Table 1.

Station codes printed in bold identify offsite locations.

TABLE 2

SAMPLE SUBMISSION CODE INFORMATION LIST

MEDIA CODE	FIG	STATION CODE	VECTOR	LOCATION DESCRIPTION
DR AI AP SO	1	**035**	8.5 miles SSE	Matagorda
DR	1	**036**	10 miles WSW	College Port
DR AI AP VB VP SO	1	***037**	11 miles W	Palacios Substation
DR	1	**038**	11 miles NW	Blessing
DR AI AP SO	1	**039**	9 miles NW	El Maton
DR	1	**040**	4.5 miles SW	Citrus Grove
DR	1	041	2.6 miles ESE	Site on Dike
DR	1	**042**	8.2 miles NW	FM 459 at Tidehaven Intermediate School
WG	1	205	4 miles SE	Well #446A, .5 Mile north of reservoir blowdown canal (30' deep)
WG	1	206	4 miles SE	Well #446, .5 Mile north of reservoir blowdown canal (75' deep)
WG	1	*207	1.5 miles W	Well #603A, .25 mile west of TX 521 (75' deep)
WG	1	*208	1.5 miles W	Well #603B, .25 mile west of TX 521 (150' deep)
WS	1	209	2 miles E	Kelly Lake
WD	♣	210	On Site	Approved drinking water supply from STPEGS
WS SS	1	211	3.5 miles S	Site, E. Branch Little Robbins Slough

♦ This station may be used to obtain the required aquatic samples in the vicinity of STPEGS that may be influenced by plant operations.

♣ This station is not found on one of the figures.

* Control Station

Media codes typed in bold satisfy collection requirement described in Table 1.

Station codes printed in bold identify offsite locations.

TABLE 2

SAMPLE SUBMISSION CODE INFORMATION LIST

MEDIA CODE	FIG	STATION CODE	VECTOR	LOCATION DESCRIPTION
WS SS	1	212	3.5 miles S	Little Robbins Slough
WS SS	1	213	3 miles SE	Site, W. Branch Colorado River
	1	214♦	2 miles E	Makeup Water Discharge (Reservoir)
	1	215♦	1 mile SW	Site, Reservoir - Circulating water discharge
WS	1	216♦	3 miles SSE	Site, Reservoir - blowdown
	♣	217♦		Region 1 (mouth of Colorado River to marker 1)
WS F1 F2 F3 CC	♣	218♦		Region 2 (marker #1 to marker #27)
	♣	219♦		Region 3 (marker #27 to Highway 521 overpass)
CC	♣	*220♦		Region 4 (Highway 521 overpass to Bay City Dam)
SS F1 F2 F3 WS	♣	*221		Region 5 (Above Bay City Dam)
F1 F2 F3 CC CS OY	♣	222♦	>10 miles	West Matagorda Bay
	1	223♦	>10 miles	East Matagorda Bay
	1	224♦	>10 miles	West Intercoastal Canal

♦ This station may be used to obtain the required aquatic samples in the vicinity of STPEGS that may be influenced by plant operations.

♣ This station is not found on one of the figures.

* Control Station

Media codes typed in bold satisfy collection requirement described in Table 1.

Station codes printed in bold identify offsite locations.

TABLE 2

SAMPLE SUBMISSION CODE INFORMATION LIST

MEDIA CODE	FIG	STATION CODE	VECTOR	LOCATION DESCRIPTION
	1	**225♦**	>10 miles	East Intercoastal Canal
WS	1	***226**	5.5 miles NNE	Colorado River at Hoescht Celanese Plant
WS SS	1	**227**	6 miles SE	West bank of Colorado River 1.5 miles downstream of STPEGS across from channel marker #22
WD	**♣**	***228**	14 miles NNE	Bay City Public water supply
WS	1	229	1 mile SE	Drainage ditch north of reservoir that empties into the Colorado River upstream of the reservoir makeup pumping facility
SS	1	**230**	3.5 miles ESE	Colorado River at point where drainage ditch (station #229) empties into it
SO	**♣**	**231**	11 miles W	Soil in vegetation plot at station #37
SO	1	**232**	9 miles NW	Farmland behind station #39
F1 F2 F3 CC SS WS	1	**233♦**	4.3 miles SE	Colorado River where blowdown discharge channel empties into it
SO	1	234	1 mile NW	Farm across from station #15

♦ This station may be used to obtain the required aquatic samples in the vicinity of STPEGS that may be influenced by plant operations.

♣ This station is not found on one of the figures.

* Control Station

Media codes typed in bold sutisfy collection requirement described in Table 1.

Station codes printed in bold identify offsite locations.

TABLE 2

SAMPLE SUBMISSION CODE INFORMATION LIST

MEDIA CODE	FIG	STATION CODE	VECTOR	LOCATION DESCRIPTION
WG	1	235	3.8 miles S	Well B-3 directly south from reservoir
	♣	236		STPEGS Protected Area
WS	1	237	3.7 miles SE	Blowdown discharge channel from reservoir
WG	♣	238	3.7 miles S	Reservoir relief well
WG	1	*239	1 mile NW	Well B-1B, near REMP sampling station #15
WS SO SS	1	240	1 mile E	Drainage ditch originating NE of protected area that crosses Hwy 521 south of main entrance road and empties into Kelly Lake
	1	241	<1 mile S	Reservoir - Circulating water intake
SS WS	1	***242**	>10 miles NNE	Colorado River where it intersects Highway 35
WS	1	**243**	>10 miles N	Colorado River upstream of Bay City Dam at the LCRA pumping station
F1 F2 F3 CC	3	300♦	<1 mile S	STPEGS Main Cooling Reservoir

♦ This station may be used to obtain the required aquatic samples in the vicinity of STPEGS that may be influenced by plant operations.

♣ This station is not found on one of the figures.

* Control Station

Media codes typed in bold satisfy collection requirement described in Table 1.

Station codes printed in bold identify offsite locations.

TABLE 2

SAMPLE SUBMISSION CODE INFORMATION LIST				
MEDIA CODE	FIG	STATION CODE	VECTOR	LOCATION DESCRIPTION
SS F1 F2 F3 CC	♣	301-631♦		Grids located in main cooling reservoir. One SS shall be taken at any of the grids 304, 305, 312-314, 323-326 and another one at any of the grids 364-566 or 584-586.

♦ This station may be used to obtain the required aquatic samples in the vicinity of STPEGS that may be influenced by plant operations.

♣ This station is not found on one of the figures.

* Control Station

Media codes typed in bold satisfy collection requirement described in Table 1.

Station codes printed in bold identify offsite locations.

TABLE 3

SAMPLE MEDIA CODES

AI	Airborne Radioiodine
AP	Airborne Particulate
AS	(Ash Sludge) Ash tank
as	(Water portion of AS)
BE	Wild Blackberries
B1	Resident Dabbler Duck
B2	Resident Diver Duck
B3	Migratory Dabbler Duck
B4	Migratory Diver Duck
B5	Goose
B6	Dove
B7	Quail
B8	Pigeon
CC	Crustacean Crab
CS	Crustacean Shrimp
DR	Direct radiation
FD	Food
F1	Fish - Piscivorous
F2	Fish - Crustacean & Insect Feeders
F3	Fish - Plantivores & Detritus Feeders
MC	Cow Milk
MG	Goat Milk
ML	(Mixed Liquid) Aeration Tank
ml	(Water portion of ML)
M1	Beef Meat
M2	Poultry Meat
M3	Wild Swine
M4	Domestic Swine
M5	Eggs
M6	Game Dear
M7	Alligator
M8	Rabbit
N1	Pecans
N2	Acorns
OY	Oyster
RA	Rooted Aquatic Vegetation
SB	Soybean
SO	Soil
SS	Shoreline Sediment
UR	Urine
VB	Broadleaf Vegetation
L1	Banana Leaves
L2	Cana Leaves
L3	Lettuce
L4	Turnip Greens
L5	Cabbage
L6	Collard Greens
VC	Corn
VP	Pasture Grass
VR	Rice
VS	Grain Sorghum
WD	Drinking Water
WG	Ground Water
WR	Rain Water
WS	Surface Water

TABLE 4
SAMPLE COLLECTION AND ANALYSIS DEVIATIONS

Item	Media Code	Location # and/or Sample #	Prescribed REMP Activity	Deviation and/or Deficiency	Comments
1	WG	#255	quarterly sample collection/ gamma isotopic and tritium analysis	4th qtr sample not collected	The sample location was unaccessible due to local flooding.
2	WG	#239	quarterly sample collection/ gamma isotopic and tritium analysis	3rd qtr sample not collected	The pump did not operate sufficiently to collect a well sample.
3	WG	#239	quarterly sample collection/ gamma isotopic and tritium analysis	4th qtr sample not collected	The sample location was unaccessible due to local flooding.
4	AI	#016 G10387	monthly sample collection/ gamma isotopic analysis	data rejected, results not reported	Electrical and/or mechanical abnormality or failure associated with the sampler.
5	AP	#016 B10397	weekly sample collection/ gross beta analysis	data rejected, results not reported	Electrical and/or mechanical abnormality or failure associated with the sampler.
6	AI	#001 G10923	monthly sample collection/ gamma isotopic analysis	data rejected, results not reported	Electrical and/or mechanical abnormality or failure associated with the sampler.
7	AP	#001 B10933	weekly sample collection/ gross beta analysis	data rejected, results not reported	Electrical and/or mechanical abnormality or failure associated with the sampler.

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Drinking Water

UNITS: pCi/Kg

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
Beta	25/ 0	1.9E+00 4.0E+00	4.6E+00 (10 / 12) (9.5E-01 - 1.5E+01)	On Site (#210)	4.6E+00 (10 / 12) (9.5E-01 - 1.5E+01)	3.2E+00 (10 / 13) (1.2E+00 - 4.4E+00)
H-3	11/ 0	2.8E+02 3.0E+03	-3.9E+01 (0 / 6) (-1.1E+02 - 3.3E+01)	14 miles NNE (#228)	-3.1E+01 (0 / 5) (-7.8E+01 - -1.2E+00)	-3.1E+01 (0 / 5) (-7.8E+01 - -1.2E+00)
I-131	25/ 0	4.1E+00 ---	-4.2E-01 (0 / 12) (-3.5E+00 - 2.1E+00)	On Site (#210)	-4.2E-01 (0 / 12) (-3.5E+00 - 2.1E+00)	-6.9E-01 (0 / 13) (-2.2E+00 - 1.0E+00)
Cs-134	25/ 0	2.0E+00 1.5E+01	-3.7E+00 (0 / 12) (-1.5E+01 - 4.9E-01)	On Site (#210)	-3.7E+00 (0 / 12) (-1.5E+01 - 4.9E-01)	-5.6E+00 (0 / 13) (-2.9E+01 - -5.5E-01)
Cs-137	25/ 0	2.0E+00 1.8E+01	-2.0E-01 (0 / 12) (-1.3E+00 - 6.8E-01)	On Site (#210)	-2.0E-01 (0 / 12) (-1.3E+00 - 6.8E-01)	-2.1E-01 (0 / 13) (-1.7E+00 - 8.2E-01)
Mn-54	25/ 0	1.8E+00 1.5E+01	-1.9E-02 (0 / 12) (-7.0E-01 - 9.6E-01)	14 miles NNE (#228)	1.9E-01 (0 / 13) (-6.5E-01 - 1.0E+00)	1.9E-01 (0 / 13) (-6.5E-01 - 1.0E+00)
Fe-59	25/ 0	3.8E+00 3.0E+01	-5.1E-02 (0 / 12) (-1.4E+00 - 1.4E+00)	14 miles NNE (#228)	8.2E-03 (0 / 13) (-1.3E+00 - 1.7E+00)	8.2E-03 (0 / 13) (-1.3E+00 - 1.7E+00)
Co-58	25/ 0	1.9E+00 1.5E+01	-1.9E-02 (0 / 12) (-1.7E+00 - 2.0E+00)	On Site (#210)	-1.9E-02 (0 / 12) (-1.7E+00 - 2.0E+00)	-7.6E-02 (0 / 13) (-1.4E+00 - 1.1E+00)
Co-60	25/ 0	1.8E+00 1.5E+01	1.1E-01 (0 / 12) (-1.1E+00 - 1.3E+00)	On Site (#210)	1.1E-01 (0 / 12) (-1.1E+00 - 1.3E+00)	-5.5E-02 (0 / 13) (-1.3E+00 - 9.8E-01)
Zn-65	25/ 0	3.8E+00 3.0E+01	-2.1E+00 (0 / 12) (-1.1E+01 - 9.4E-01)	On Site (#210)	-2.1E+00 (0 / 12) (-1.1E+01 - 9.4E-01)	-3.0E+00 (0 / 13) (-1.5E+01 - 2.3E+00)
Zr-95	25/ 0	3.4E+00 1.5E+01	-1.9E-01 (0 / 12) (-1.7E+00 - 6.5E-01)	On Site (#210)	-1.9E-01 (0 / 12) (-1.7E+00 - 6.5E-01)	-5.9E-01 (0 / 13) (-2.3E+00 - 1.1E+00)
Nb-95	25/ 0	2.2E+00 1.5E+01	4.2E-01 (0 / 12) (-2.6E+00 - 3.8E-01)	14 miles NNE (#228)	-2.6E-01 (0 / 13) (-2.5E+00 - 7.8E-01)	-2.6E-01 (0 / 13) (-2.5E+00 - 7.8E-01)
Ba-140	25/ 0	8.4E+00 1.0E+03	-1.5E+00 (0 / 12) (-4.8E+00 - 2.1E+00)	14 miles NNE (#228)	-4.4E-01 (0 / 13) (-6.5E+00 - 7.4E+00)	-4.4E-01 (0 / 13) (-6.5E+00 - 7.4E+00)
La-140	25/ 0	1.3E+01 1.5E+01	3.1E-02 (0 / 12) (-1.2E+00 - 1.1E+00)	On Site (#210)	3.1E-02 (0 / 12) (-1.2E+00 - 1.1E+00)	-5.1E+00 (0 / 13) (-6.4E+01 - 3.0E+00)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Ground Water

UNITS: pCi/Kg

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
H-3	15/ 0	3.7E+02 3.0E+03	9.8E+02 (5 / 9) (2.0E+01 - 2.3E+03)	3.7 miles S (#238)	1.7E+03 (5 / 5) (7.4E+02 - 2.3E+03)	2.1E+01 (0 / 6) (-9.0E+01 - 1.0E+02)
I-131	18/ 0	3.9E+00 ---	-1.1E+00 (0 / 12) (-4.6E+00 - 6.2E-01)	1.5 miles W (#207)	1.2E-01 (0 / 3) (-9.2E-01 - 1.8E+00)	-4.6E-01 (0 / 6) (-1.2E+00 - 1.8E+00)
Cs-134	18/ 0	2.0E+00 1.5E+01	-3.3E+00 (0 / 12) (-1.5E+01 - -2.2E-01)	1.5 miles W (#207)	-9.6E-01 (0 / 3) (-1.4E+00 - -6.7E-01)	-1.2E+00 (0 / 6) (-1.9E+00 - -6.7E-01)
Cs-137	18/ 0	2.0E+00 1.8E+01	-1.0E-01 (0 / 12) (-1.4E+00 - 8.3E-01)	4 miles SE (#206)	3.4E-01 (0 / 2) (1.5E-01 - 5.4E-01)	-1.2E-01 (0 / 6) (-5.3E-01 - 3.9E-01)
Mn-54	18/ 0	1.8E+00 1.5E+01	-1.1E-01 (0 / 12) (-9.9E-01 - 6.1E-01)	4 miles SE (#206)	1.3E-01 (0 / 2) (-2.0E-01 - 4.6E-01)	3.3E-02 (0 / 6) (-3.1E-01 - 4.6E-01)
Fe-59	18/ 0	3.6E+00 3.0E+01	-4.5E-01 (0 / 12) ([illegible]E+00 - 1.8E+00)	4 miles SE (#205)	1.5E+00 (0 / 1) (1.5E+00 - 1.5E+00)	1.1E+00 (0 / 6) (4.1E-01 - 1.9E+00)
Co-58	18/ 0	2.0E+00 1.5E+01	[illegible] 0 / 12) (-1.0E+00 - 1.1E+00)	4 miles SE (#205)	6.6E-01 (0 / 1) (6.6E-01 - 6.6E-01)	1.6E-01 (0 / 6) (-4.4E-01 - 9.9E-01)
Co-60	18/ 0	1.9E+00 1.5E+01	3.5E-01 (0 / 12) (-5.9E-01 - 1.9E+00)	3.8 miles S (#235)	5.2E-01 (0 / 4) (3.8E-01 - 6.8E-01)	1.9E-01 (0 / 6) (-4.5E-02 - 7.7E-01)
Zn-65	18/ 0	3.6E+00 3.0E+01	-2.4E+00 (0 / 12) (-9.4E+00 - -7.8E-02)	4 miles SE (#206)	-7.2E-01 (0 / 2) (-1.4E+00 - -7.8E-02)	-1.5E+00 (0 / 6) (-2.9E+00 - -2.7E-01)
Zr-95	18/ 0	3.5E+00 1.5E+01	-3.6E-01 (0 / 12) (-2.3E+00 - 1.3E+00)	1.5 miles W (#208)	5.9E-01 (0 / 3) (3.5E-01 - 1.1E+00)	3.1E-01 (0 / 6) (-6.6E-01 - 1.1E+00)
Nb-95	18/ 0	2.1E+00 1.5E+01	-4.7E-01 (0 / 12) (-2.8E+00 - 4.3E-01)	3.8 miles S (#235)	1.8E-01 (0 / 4) (-2.8E-01 - 4.3E-01)	-2.6E-01 (0 / 6) (-1.5E+00 - 1.2E+00)
Ba-140	18/ 0	7.6E+00 1.0E+03	-1.9E-01 (0 / 12) (-6.7E+00 - 8.3E+00)	3.7 miles S (#238)	1.4E+00 (0 / 5) (-5.1E+00 - 8.3E+00)	7.0E-01 (0 / 6) (-2.3E+00 - 3.7E+00)
La-140	18/ 0	3.1E+00 1.5E+01	3.1E-01 (0 / 12) (-1.3E+00 - 4.7E+00)	3.7 miles S (#238)	1.1E+00 (0 / 5) (-1.1E+00 - 4.7E+00)	1.1E-01 (0 / 6) (-4.2E-01 - 5.4E-01)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Surface Water

UNITS: pCi/Kg

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
H-3	47/ 0	3.1E+02 3.0E+03	1.3E+03 (27 / 43) (-7.6E+01 - 5.0E+03)	3 miles SSE (#216)	4.8E+03 (7 / 7) (3.9E+03 - 6.0E+03)	-2.4E+01 (0 / 4) (-9.5E+01 - 8.4E+01)
I-131	75/ 0	8.2E+00 ---	-6.7E-01 (0 / 61) (-1.9E+01 - 7.2E+00)	5.5 miles NNE (#226)	1.2E+00 (0 / 14) (-2.6E+00 - 1.0E+01)	1.2E+00 (0 / 14) (-2.6E+00 - 1.0E+01)
Cs-134	76/ 0	2.0E+00 1.5E+01	-2.1E+00 (0 / 61) (-1.2E+01 - 9.3E-01)	3 miles SSE (#216)	-9.7E-01 (0 / 16) (-2.1E+00 - 9.3E-01)	-1.1E+00 (0 / 15) (-2.5E+00 - 1.3E-01)
Cs-137	76/ 0	2.0E+00 1.8E+01	-5.6E-02 (0 / 61) (-1.5E+00 - 1.3E+00)	3 miles SE (#213)	6.4E-01 (0 / 4) (-1.3E-01 - 1.3E+00)	-1.6E-01 (0 / 15) (-1.3E+00 - 8.9E-01)
Mn-54	76/ 0	1.9E+00 1.5E+01	-8.0E-02 (0 / 61) (-1.9E+00 - 1.0E+00)	5.5 miles NNE (#226)	4.2E-01 (0 / 15) (-3.2E-01 - 1.6E+00)	4.2E-01 (0 / 15) (-3.2E-01 - 1.6E+00)
Fe-59	76/ 0	4.2E+00 3.0E+01	1.4E-01 (0 / 61) (-3.1E+00 - 8.0E+00)	3.5 miles S (#212)	1.5E+00 (0 / 6) (-1.3E+00 - 8.0E+00)	7.0E-01 (0 / 15) (-2.0E+00 - 4.8E+00)
Co-58	76/ 0	2.1E+00 1.5E+01	-2.4E-02 (0 / 61) (-1.8E+00 - 2.7E+00)	3.5 miles S (#211)	4.9E-01 (0 / 5) (-1.5E-01 - 8.8E-01)	1.5E-02 (0 / 15) (-7.7E-01 - 1.8E+00)
Co-60	76/ 0	1.9E+00 1.5E+01	1.6E-01 (1 / 61) (-3.1E+00 - 1.5E+00)	3.7 miles SE (#237)	9.3E-01 (0 / 5) (6.0E-01 - 1.5E+00)	1.2E-01 (0 / 15) (-5.8E-01 - 7.5E-01)
Zn-65	76/ 0	3.7E+00 3.0E+01	-1.5E+00 (0 / 61) (-8.5E+00 - 1.3E+00)	5.5 miles NNE (#226)	-3.0E-01 (0 / 15) (-2.1E+00 - 1.8E+00)	-3.0E-01 (0 / 15) (-2.1E+00 - 1.8E+00)
Zr-95	76/ 0	3.8E+00 1.5E+01	2.3E-01 (0 / 61) (-2.4E+00 - 3.2E+00)	1 mile SE (#229)	9.9E-01 (0 / 4) (2.3E-01 - 2.8E+00)	-1.2E-01 (0 / 15) (-1.9E+00 - 2.6E+00)
Nb-95	74/ 0	2.5E+00 1.5E+01	-3.2E-03 (0 / 59) (-2.2E+00 - 5.9E+00)	1 mile SE (#229)	6.5E-01 (0 / 4) (-4.4E-02 - 1.4E+00)	-1.5E-01 (0 / 15) (-1.5E+00 - 1.2E+00)
Ba-140	76/ 0	1.2E+01 1.0E+03	1.8E-01 (0 / 61) (-9.7E+00 - 2.0E+01)	6 miles SE (#227)	2.3E+00 (0 / 10) (-7.8E+00 - 2.0E+01)	2.3E+00 (0 / 15) (-5.0E+00 - 1.7E+01)
La-140	76/ 0	4.8E+01 1.5E+01	-1.5E+01 (0 / 61) (-6.8E+02 - 5.8E+00)	5.5 miles NNE (#226)	2.8E+01 (0 / 15) (-2.7E+00 - 4.0E+02)	2.8E+01 (0 / 15) (-2.1E+00 - 4.0E+02)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Rain Water

UNITS: pCi/Kg

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
H-3	9/ 0	2.8E+02 3.0E+03	-1.1E+01 (0 / 4) (-9.4E+01 - 4.8E+01)	1 mile NNW (#016)	-1.1E+01 (0 / 4) (-9.4E+01 - 4.8E+01)	-2.6E+01 (0 / 5) (-8.7E+01 - 8.5E+01)
I-131	9/ 0	1.8E+01 ---	-7.4E+00 (0 / 4) (-2.0E+01 - 1.2E+00)	11 miles W (#037)	-1.2E-01 (0 / 5) (-8.1E+00 - 1.0E+01)	-1.2E-01 (0 / 5) (-8.1E+00 - 1.0E+01)
Cs-134	9/ 0	1.8E+00 1.5E+01	-1.6E+00 (0 / 4) (-2.1E+00 - -5.6E-01)	11 miles W (#037)	-1.1E+00 (0 / 5) (-2.2E+00 - -8.3E-01)	-1.1E+00 (0 / 5) (-2.2E+00 - -8.3E-01)
Cs-137	9/ 0	1.8E+00 1.8E+01	-1.3E-01 (0 / 4) (-8.0E-01 - 8.2E-01)	1 mile NNW (#016)	-1.3E-01 (0 / 4) (-8.0E-01 - 8.2E-01)	-4.9E-01 (0 / 5) (-1.6E+00 - 1.0E-01)
Mn-54	9/ 0	1.7E+00 1.5E-01	-1.0E-01 (0 / 4) (-1.5E+00 - 1.1E+00)	11 miles W (#037)	9.4E-02 (0 / 5) (-6.0E-01 - 8.2E-01)	9.4E-02 (0 / 5) (-6.0E-01 - 8.2E-01)
Fe-59	9/ 0	5.0E+00 3.0E+01	-7.9E-01 (0 / 4) (-1.8E+00 - 5.3E-01)	11 miles W (#037)	1.8E+00 (0 / 5) (-1.2E+00 - 5.3E+00)	1.8E+00 (0 / 5) (-1.2E+00 - 5.3E+00)
Co-58	9/ 0	2.3E+00 1.5E+01	-4.7E-01 (0 / 4) (-7.5E-01 - -1.8E-01)	11 miles W (#037)	-4.5E-02 (0 / 5) (-6.8E-01 - 4.0E-01)	-4.5E-02 (0 / 5) (-6.8E-01 - 4.0E-01)
Co-60	9/ 0	1.7E+00 1.5E+01	2.4E-01 (0 / 4) (-1.4E+00 - 1.6E+00)	1 mile NNW (#016)	2.4E-01 (0 / 4) (-1.4E+00 - 1.6E+00)	1.5E-01 (0 / 5) (-3.0E-01 - 7.2E-01)
Zn-65	9/ 0	3.7E+00 3.0E+01	-8.6E-01 (0 / 4) (-1.5E+00 - 4.5E-01)	11 miles W (#037)	-7.3E-01 (0 / 5) (-1.4E+00 - 7.8E-01)	-7.3E-01 (0 / 5) (-1.4E+00 - 7.8E-01)
Zr-95	9/ 0	4.1E+00 1.5E+01	-1.2E-01 (0 / 4) (-1.1E+00 - 8.1E-01)	1 mile NNW (#016)	-1.2E-01 (0 / 4) (-1.1E+00 - 8.1E-01)	-1.4E+00 (0 / 5) (-2.5E+00 - 2.4E-01)
Nb-95	9/ 0	3.1E+00 1.5E+01	-1.4E-02 (0 / 4) (-8.8E-01 - 5.2E-01)	1 mile NNW (#016)	-1.4E-02 (0 / 4) (-8.8E-01 - 5.2E-01)	-5.4E-01 (0 / 5) (-2.2E+00 - 3.0E-01)
Ba-140	9/ 0	2.3E+01 1.0E+03	-3.0E+00 (0 / 4) (-6.7E+00 - 1.4E+00)	1 mile NNW (#016)	-3.0E+00 (0 / 4) (-6.7E+00 - 1.4E+00)	-4.4E+00 (0 / 5) (-1.7E+01 - 2.4E+00)
La-140	9/ 0	9.6E+00 1.5E+01	1.4E+00 (0 / 4) (-6.5E+00 - 1.0E+01)	1 mile NNW (#016)	1.4E+00 (0 / 4) (-6.5E+00 - 1.0E+01)	1.4E+00 (0 / 5) (-1.1E+00 - 4.8E+00)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Sediment

UNITS: pCi/Kg dry wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	89/ 0	1.7E+02 ---	-1.2E+02 (0 / 87) (-8.4E+03 - 9.1E+01)	3.5 miles S (#211)	3.9E+01 (0 / 2) (-1.2E+01 - 9.1E+01)	-9.4E+01 (0 / 2) (-1.3E+02 - -5.9E+01)
Cs-134	89/ 0	1.3E+01 1.5E+02	-2.3E+02 (0 / 87) (-4.4E+02 - -1.5E+01)	MCR Region I (#355)	-1.5E+01 (0 / 1) (-1.5E+01 - -1.5E+01)	-2.9E+02 (0 / 2) (-3.4E+02 - -2.4E+02)
Cs-137	89/ 0	1.5E+01 1.8E+02	6.8E+01 (76 / 87) (-1.3E+01 - 2.5E+02)	MCR Region III (#475)	2.3E+02 (1 / 1) (2.3E+02 - 2.3E+02)	4.9E+01 (2 / 2) (1.9E+01 - 7.8E+01)
Mn-54	89/ 0	1.4E+01 ---	2.3E+01 (47 / 87) (-7.9E+00 - 1.4E+02)	MCR Region I (#326)	1.3E+02 (2 / 2) (1.2E+02 - 1.4E+02)	6.5E-01 (0 / 2) (3.2E-01 - 9.9E-01)
Fe-59	89/ 0	3.0E+01 ---	-8.9E+00 (0 / 87) (-1.1E+02 - 2.4E+01)	MCR Region I (#408)	2.4E+01 (0 / 1) (2.4E+01 - 2.4E+01)	-3.6E+01 (0 / 2) (-3.8E+01 - -3.5E+01)
Co-58	89/ 0	1.4E+01 ---	7.1E+01 (60 / 87) (-3.2E+01 - 3.2E+02)	MCR Region I (#408)	3.2E+02 (1 / 1) (3.2E+02 - 3.2E+02)	-9.6E+00 (0 / 2) (-1.2E+01 - -7.4E+00)
Co-60	89/ 0	1.2E+01 ---	1.3E+02 (65 / 87) (-7.8E+00 - 7.7E+02)	MCR Region I (#326)	7.4E+02 (2 / 2) (7.0E+02 - 7.7E+02)	-6.2E+00 (0 / 2) (-7.8E+00 - -4.6E+00)
Zn-65	89/ 0	2.7E+01 ---	-1.4E+02 (0 / 87) (-3.2E+02 - 2.6E+01)	MCR Region II (#471)	-3.6E+01 (0 / 1) (-3.6E+01 - -3.6E+01)	-2.2E+02 (0 / 2) (-2.8E+02 - -1.7E+02)
Zr-95	47/ 0	2.8E+01 ---	1.3E+01 (0 / 45) (-7.9E+00 - 3.6E+01)	3.5 miles ESE (#230)	3.1E+01 (0 / 1) (3.1E+01 - 3.1E+01)	1.4E+00 (0 / 2) (-7.7E+00 - 1.0E+01)
Nb-95	85/ 0	1.8E+01 ---	-2.1E+01 (0 / 83) (-1.8E+02 - 2.1E+01)	MCR Region I (#326)	2.1E+01 (0 / 1) (2.1E+01 - 2.1E+01)	-4.0E+01 (0 / 2) (-5.0E+01 - -2.9E+01)
Ba-140	89/ 0	1.3E+02 ---	-5.5E+01 (0 / 87) (-4.0E+03 - 1.0E+02)	MCR Region V (#562)	7.1E+01 (0 / 1) (7.1E+01 - 7.1E+01)	-5.4E+01 (0 / 2) (-1.1E+02 - -9.1E-01)
La-140	71/ 0	4.6E+01 ---	-1.8E+01 (0 / 69) (-1.6E+03 - 6.0E+01)	2 miles E (#209)	4.8E+01 (0 / 2) (4.7E+01 - 4.9E+01)	-4.0E+01 (0 / 2) (-4.8E+01 - -3.2E+01)
Ag-110M	7/ 0	1.4E+01 ---	1.4E+01 (3 / 7) (3.8E+00 - 2.2E+01)	MCR Region I (#326)	2.2E+01 (0 / 1) (2.2E+01 - 2.2E+01)	———

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Soil

UNITS: pCi/Kg dry wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	25/ 0	1.5E+02 ---	-4.4E+01 (0 / 23) (-2.7E+02 - 1.1E+02)	11 miles W (#037)	1.1E+02 (0 / 2) (8.4E+01 - 1.4E+02)	1.1E+02 (0 / 2) (8.4E+01 - 1.4E+02)
Cs-134	25/ 0	1.2E+01 1.5E+02	-2.5E+02 (0 / 23) (-3.6E+02 --1.5E+02)	3.5 miles ESE (#006)	-2.0E+02 (0 / 2) (-2.2E+02 --1.9E+02)	-2.2E+02 (0 / 2) (-2.3E+02 --2.1E+02)
Cs-137	25/ 0	1.6E+01 1.8E+02	2.1E+02 (23 / 23) (6.5E+01 - 4.8E+02)	14 miles NNE (#033)	3.4E+02 (2 / 2) (2.1E+02 - 4.8E+02)	2.1E+02 (2 / 2) (1.2E+02 - 3.0E+02)
Mn-54	25/ 0	1.3E+01 ---	3.0E+00 (0 / 23) (-8.2E+00 - 1.8E+01)	1 mile NNW (#016)	6.6E+00 (0 / 2) (5.2E+00 - 8.1E+00)	5.0E+00 (0 / 2) (2.7E-01 - 9.7E+00)
Fe-59	25/ 0	3.3E+01 ---	-1.4E+01 (0 / 23) (-4.1E+01 - 1.7E+01)	3.5 miles ESE (#006)	7.8E+00 (0 / 2) (6.6E+00 - 9.0E+00)	-2.2E+00 (0 / 2) (-3.0E+00 --1.5E+00)
Co-58	25/ 0	1.4E+01 ---	-5.0E+00 (0 / 23) (-2.0E+01 - 6.0E+00)	9 miles NW (#039)	-9.6E-02 (0 / 2) (-2.3E+00 - 2.1E+00)	-5.5E+00 (0 / 2) (-6.4E+00 --4.5E+00)
Co-60	25/ 0	1.1E+01 ---	-1.7E+00 (0 / 23) (-9.2E+00 - 4.9E+00)	1 mile NW (#015)	2.4E+00 (0 / 2) (4.9E+00 - 4.9E+00)	-3.8E-01 (0 / 2) (-7.6E-01 - 0.0E+00)
Zn-65	25/ 0	2.6E+01 ---	-1.8E+02 (0 / 23) (-2.4E+02 --1.1E+02)	1 mile NW (#015)	-1.4E+02 (0 / 2) (-1.6E+02 --1.2E+02)	-1.5E+02 (0 / 2) (-1.6E+02 --1.3E+02)
Zr-95	13/ 0	3.1E+01 ---	1.5E+01 (0 / 12) (-3.0E+00 - 3.7E+01)	9 miles NW (#039)	3.7E+01 (0 / 1) (3.7E+01 - 3.7E+01)	1.9E+01 (0 / 1) (1.9E+01 - 1.9E+01)
Nb-95	25/ 0	2.1E+01 ---	-3.4E+01 (0 / 23) (-5.8E+01 --1.3E+01)	1 mile NW (#015)	-2.6E+01 (0 / 2) (-2.8E+01 --2.4E+01)	-3.9E+01 (0 / 2) (-4.1E+01 --3.6E+01)
Ba-140	25/ 0	1.8E+02 ---	-1.5E+01 (0 / 23) (-1.7E+02 - 1.7E+02)	9 miles NW (#039)	1.2E+02 (0 / 2) (7.7E+01 - 1.7E+02)	1.7E+01 (0 / 2) (1.6E+01 - 1.8E+01)
La-140	16/ 0	6.7E+01 ---	-1.6E+01 (0 / 15) (-8.4E+01 - 7.4E+01)	4.5 miles W (#029)	5.9E+01 (0 / 2) (4.4E+01 - 7.4E+01)	-9.8E+00 (0 / 1) (-9.8E+00 --9.8E+00)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Banana Leaves UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	2/ 0	1.7E+01 6.0E+01	no samples	11 miles W (#037)	-1.4E+01(0 / 2) (-2.8E+01 - 1.0E-01)	-1.4E+01 (0 / 2) (-2.8E+01 - 1.0E-01)
Cs-134	2/ 0	2.5E+00 6.0E+01	no samples	11 miles W (#037)	-1.6E+00(0 / 2) (-2.9E+00 - -3.0E-01)	-1.6E+00 (0 / 2) (-2.9E+00 - -3.0E-01)
Cs-137	2/ 0	3.0E+00 8.0E+01	no samples	11 miles W (#037)	-1.6E-01(0 / 2) (-6.1E-01 - 2.9E-01)	-1.6E-01 (0 / 2) (-6.1E-01 - 2.9E-01)
Mn-54	2/ 0	3.1E+00 ---	no samples	11 miles W (#037)	2.7E-01(0 / 2) (1.0E-01 - 4.3E-01)	2.7E-01 (0 / 2) (1.0E-01 - 4.3E-01)
Fe-59	2/ 0	1.0E+01 ---	no samples	11 miles W (#037)	-1.7E+00(0 / 2) (-7.0E+00 - 3.5E+00)	-1.7E+00 (0 / 2) (-7.0E+00 - 3.5E+00)
Co-58	2/ 0	3.4E+00 ---	no samples	11 miles W (#037)	-6.5E-01(0 / 2) (-1.4E+00 - 8.2E-02)	-6.5E-01 (0 / 2) (-1.4E+00 - 8.2E-02)
Co-60	2/ 0	3.5E+00 ---	no samples	11 miles W (#037)	3.2E-01(0 / 2) (7.2E-02 - 5.8E-01)	3.2E-01 (0 / 2) (7.2E-02 - 5.8E-01)
Zn-65	2/ 0	9.1E+00 ---	no samples	11 miles W (#037)	-3.8E+00(0 / 2) (-8.6E+00 - 9.0E-01)	-3.8E+00 (0 / 2) (-8.6E+00 - 9.0E-01)
Zr-95	2/ 0	5.9E+00 ---	no samples	11 miles W (#037)	-1.5E+00(0 / 2) (-2.1E+00 - -8.5E-01)	-1.5E+00 (0 / 2) (-2.1E+00 - -8.5E-01)
Nb-95	2/ 0	4.0E+00 ---	no samples	11 miles W (#037)	-1.1E+00(0 / 2) (-2.2E+00 - 4.3E-02)	-1.1E+00 (0 / 2) (-2.2E+00 - 4.3E-02)
Ba-140	2/ 0	2.9E+01 ---	no samples	11 miles W (#037)	-3.5E+00(0 / 2) (-6.6E+00 - -3.6E-01)	-3.5E+00 (0 / 2) (-6.6E+00 - -3.6E-01)
La-140	2/ 0	3.8E+01 ---	no samples	11 miles W (#037)	-4.7E+00(0 / 2) (-1.4E+01 - 4.2E+00)	-4.7E+00 (0 / 2) (-1.4E+01 - 4.2E+00)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Cana Leaves

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	18/ 0	2.2E+01 6.0E+01	-7.4E+00 (0 / 13) (-2.9E+01 - 1.1E+01)	1 mile N (#001)	-4.6E+00 (0 / 5) (-1.9E+01 - 1.1E+01)	-1.0E+01 (0 / 5) (-4.2E+01 - 1.6E+01)
Cs-134	18/ 0	3.1E+00 6.0E+01	-2.9E+00 (0 / 13) (-5.1E+00 - -8.9E-01)	11 miles W (#037)	-1.9E+00 (0 / 5) (-3.7E+00 - 2.7E+00)	-1.9E+00 (0 / 5) (-3.7E+00 - 2.7E+00)
Cs-137	18/ 0	3.4E+00 8.0E+01	-1.4E-02 (0 / 13) (-1.7E+00 - 1.8E+00)	1 mile N (#001)	1.4E-01 (0 / 5) (-1.3E+00 - 1.8E+00)	-8.6E-01 (0 / 5) (-2.3E+00 - 8.9E-01)
Mn-54	18/ 0	3.6E+00 ---	-1.1E+00 (0 / 13) (-3.8E+00 - 7.8E-01)	1 mile N (#001)	-6.6E-01 (0 / 5) (-2.0E+00 - 7.8E-01)	-1.3E+00 (0 / 5) (-4.6E+00 - 8.2E-01)
Fe-59	18/ 0	1.3E+01 ---	-2.7E+00 (0 / 13) (-8.1E+00 - 4.8E+00)	1 mile NW (#015)	1.2E+00 (0 / 2) (-2.5E+00 - 4.8E+00)	-4.7E+00 (0 / 5) (-8.1E+00 - 1.2E-01)
Co-58	18/ 0	4.3E+00 ---	-4.5E-01 (0 / 13) (-2.9E+00 - 2.3E+00)	1 mile NW (#015)	2.0E-01 (0 / 2) (-1.8E+00 - 2.2E+00)	-1.2E+00 (0 / 5) (-4.2E+00 - 6.9E-01)
Co-60	18/ 0	4.0E+00 ---	-5.8E-01 (0 / 13) (-2.6E+00 - 2.4E+00)	1 mile N (#001)	2.0E-01 (0 / 5) (-7.7E-01 - 2.4E+00)	-1.8E+00 (0 / 5) (-3.6E+00 - -5.9E-01)
Zn-65	18/ 0	1.1E+01 ---	-4.9E+00 (0 / 13) (-1.0E+01 - 7.6E+00)	1 mile NNW (#016)	-3.4E+00 (0 / 6) (-1.0E+01 - 7.6E+00)	-6.0E+00 (0 / 5) (-1.3E+01 - -4.3E+00)
Zr-95	18/ 0	7.3E+00 ---	-3.0E+00 (0 / 13) (-7.4E+00 - 2.1E+00)	1 mile N (#001)	-8.5E-01 (0 / 5) (-5.4E+00 - 2.1E+00)	-2.3E+00 (0 / 5) (-9.4E+00 - 2.1E+00)
Nb-95	18/ 0	5.3E+00 ---	-7.0E-01 (0 / 13) (-3.5E+00 - 2.9E+00)	1 mile N (#001)	2.9E-01 (0 / 5) (-2.6E+00 - 2.9E+00)	-2.5E+00 (0 / 5) (-3.7E+00 - 1.2E-01)
Ba-140	18/ 0	3.1E+01 ---	-3.4E+00 (0 / 13) (-2.1E+01 - 1.1E+01)	1 mile N (#001)	-1.3E+00 (0 / 5) (-2.1E+01 - 1.1E+01)	-1.4E+01 (0 / 5) (-4.8E+01 - 1.2E+00)
La-140	18/ 0	6.7E+01 ---	-1.8E+00 (0 / 13) (-8.0E+00 - 1.6E+00)	1 mile N (#001)	-1.1E+00 (0 / 5) (-3.8E+00 - 1.6E+00)	-5.3E+00 (0 / 5) (-1.7E+01 - 4.2E-01)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Turnip Greens UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	3/ 0	1.4E+01 6.0E+01	3.7E+00 (0 / 3) (5.7E+00 - 5.7E+00)	1 mile N (#001)	5.7E+00 (0 / 1) (5.7E+00 - 5.7E+00)	no samples
Cs-134	3/ 0	1.7E+00 6.0E+01	-1.4E+00 (0 / 3) (-2.4E+00 - -6.8E-01)	1 mile NW (#015)	-8.7E-01 (0 / 2) (-1.1E+00 - -6.8E-01)	no samples
Cs-137	3/ 0	1.8E+00 8.0E+01	1.1E+00 (1 / 3) (4.4E-01 - 2.9E+00)	1 mile N (#001)	2.9E+00 (1 / 1) (2.9E+00 - 2.9E+00)	no samples
Mn-54	3/ 0	1.9E+00 ---	-2.6E-01 (0 / 3) (-5.3E-01 - -1.6E-02)	1 mile N (#001)	-2.3E-01 (0 / 1) (-2.3E-01 - -2.3E-01)	no samples
Fe-59	3/ 0	7.3E+00 ---	-9.5E-02 (0 / 3) (-3.2E+00 - 1.6E+00)	1 mile NW (#015)	1.5E+00 (0 / 2) (1.3E+00 - 1.6E+00)	no samples
Co-58	3/ 0	2.2E+00 ---	-6.5E-01 (0 / 3) (-7.8E-01 - -4.5E-01)	1 mile N (#001)	-4.5E-01 (0 / 1) (-4.5E-01 - -4.5E-01)	no samples
Co-60	3/ 0	2.2E+00 ---	1.5E-01 (0 / 3) (-2.6E-01 - 5.9E-01)	1 mile NW (#015)	3.6E-01 (0 / 2) (1.4E-01 - 5.9E-01)	no samples
Zn-65	3/ 0	6.0E+00 ---	-1.2E+00 (0 / 3) (-2.0E+00 - -6.4E-01)	1 mile N (#001)	-8.9E-01 (0 / 1) (-8.9E-01 - -8.9E-01)	no samples
Zr-95	3/ 0	4.0E+00 ---	3.8E-01 (0 / 3) (-6.0E-01 - 2.0E+00)	1 mile NW (#015)	8.6E-01 (0 / 2) (-2.8E-01 - 2.0E+00)	no samples
Nb-95	3/ 0	2.9E+00 ---	3.5E-01 (0 / 3) (-7.5E-01 - 9.5E-01)	1 mile NW (#015)	9.1E-01 (0 / 2) (8.6E-01 - 9.5E-01)	no samples
Ba-140	3/ 0	1.6E+01 ---	-1.5E+00 (0 / 3) (-2.9E+00 - -2.9E-01)	1 mile NW (#015)	-7.3E-01 (0 / 2) (-1.2E+00 - -2.9E-01)	no samples
La-140	3/ 0	3.9E+00 ---	5.6E-01 (0 / 3) (4.1E-01 - 7.2E-01)	1 mile NW (#015)	6.3E-01 (0 / 2) (5.4E-01 - 7.2E-01)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Collard Greens

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	4/ 0	2.2E+01 6.0E+01	6.2E+00 (0 / 3) (-1.5E+01 - 2.2E+01)	1 mile NNW (#016)	6.2E+00 (0 / 3) (-1.5E+01 - 2.2E+01)	4.6E+00 (0 / 1) (4.6E+00 - 4.6E+00)
Cs-134	4/ 0	2.7E+00 6.0E+01	-7.6E+00 (0 / 3) (-1.7E+01 - -1.9E+00)	11 miles W (#037)	-1.4E+00 (0 / 1) (-1.4E+00 - -1.4E+00)	-1.4E+00 (0 / 1) (-1.4E+00 - -1.4E+00)
Cs-137	4/ 0	3.1E+00 8.0E+01	3.0E+00 (1 / 3) (-7.3E-01 - 8.6E+00)	1 mile NNW (#016)	3.0E+00 (1 / 3) (-7.3E-01 - 8.6E+00)	-4.9E-01 (0 / 1) (-4.9E-01 - -4.9E-01)
Mn-54	4/ 0	3.1E+00 ---	-2.1E-01 (0 / 3) (-7.7E-01 - 1.4E-01)	1 mile NNW (#016)	-2.1E-01 (0 / 3) (-7.7E-01 - 1.4E-01)	-2.8E+00 (0 / 1) (-2.8E+00 - -2.8E+00)
Fe-59	4/ 0	1.1E+01 ---	2.2E-01 (0 / 3) (-3.9E+00 - 3.4E+00)	1 mile NNW (#016)	2.2E-01 (0 / 3) (-3.9E+00 - 3.4E+00)	-2.8E+00 (0 / 1) (-2.8E+00 - -2.8E+00)
Co-58	4/ 0	3.6E+00 ---	-3.6E-01 (0 / 3) (-1.4E+00 - 4.6E-01)	11 miles W (#037)	8.0E-02 (0 / 1) (8.0E-02 - 8.0E-02)	8.0E-02 (0 / 1) (8.0E-02 - 8.0E-02)
Co-60	4/ 0	3.5E+00 ---	-1.3E-01 (0 / 3) (-1.1E+00 - 1.2E+00)	11 miles W (#037)	5.2E-01 (0 / 1) (5.2E-01 - 5.2E-01)	5.2E-01 (0 / 1) (5.2E-01 - 5.2E-01)
Zn-65	4/ 0	8.8E+00 ---	-6.3E+00 (0 / 3) (-1.7E+01 - -3.7E-01)	11 miles W (#037)	-3.7E-01 (0 / 1) (-3.7E-01 - -3.7E-01)	-3.7E-01 (0 / 1) (-3.7E-01 - -3.7E-01)
Zr-95	4/ 0	6.3E+00 ---	-2.7E+00 (0 / 3) (-3.8E+00 - -1.8E+00)	11 miles W (#037)	1.2E+00 (0 / 1) (1.2E+00 - 1.2E+00)	1.2E+00 (0 / 1) (1.2E+00 - 1.2E+00)
Nb-95	4/ 0	4.7E+00 ---	-5.6E-01 (0 / 3) (-1.6E+00 - 7.5E-01)	11 miles W (#037)	5.7E-01 (0 / 1) (5.7E-01 - 5.7E-01)	5.7E-01 (0 / 1) (5.7E-01 - 5.7E-01)
Ba-140	4/ 0	2.6E+01 ---	4.0E+00 (0 / 3) (-4.4E+00 - 1.9E+01)	1 mile NNW (#016)	4.0E+00 (0 / 3) (-4.4E+00 - 1.9E+01)	-3.4E+00 (0 / 1) (-3.4E+00 - -3.4E+00)
La-140	4/ 0	8.1E+00 ---	-5.6E-01 (0 / 3) (-3.6E+00 - 1.9E+00)	11 miles W (#037)	4.3E-01 (0 / 1) (4.3E-01 - 4.3E-01)	4.3E-01 (0 / 1) (4.3E-01 - 4.3E-01)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Turnip Roots UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	1/ 0	2.2E+01 6.0E+01	1.4E+01 (0 / 1) (1.4E+01 - 1.4E+01)	1 mile NW (#015)	1.4E+01 (0 / 1) (1.4E+01 - 1.4E+01)	no samples
Cs-134	1/ 0	2.0E+00 6.0E+01	-1.1E+00 (0 / 1) (-1.1E+00 --1.1E+00)	1 mile NW (#015)	-1.1E+00 (0 / 1) (-1.1E+00 --1.1E+00)	no samples
Cs-137	1/ 0	1.9E+00 8.0E+01	-5.9E-01 (0 / 1) (-5.9E-01 --5.9E-01)	1 mile NW (#015)	-5.9E-01 (0 / 1) (-5.9E-01 --5.9E-01)	no samples
Mn-54	1/ 0	2.2E+00 ---	-5.2E-01 (0 / 1) (-5.2E-01 --5.2E-01)	1 mile NW (#015)	-5.2E-01 (0 / 1) (-5.2E-01 --5.2E-01)	no samples
Fe-59	1/ 0	7.9E+00 ---	-1.1E+00 (0 / 1) (-1.1E+00 --1.1E+00)	1 mile NW (#015)	-1.1E+00 (0 / 1) (-1.1E+00 --1.1E+00)	no samples
Co-58	1/ 0	2.6E+00 ---	3.2E-01 (0 / 1) (3.2E-01 - 3.2E-01)	1 mile NW (#015)	3.2E-01 (0 / 1) (3.2E-01 - 3.2E-01)	no samples
Co-60	1/ 0	2.2E+00 ---	-6.6E-01 (0 / 1) (-6.6E-01 --6.6E-01)	1 mile NW (#015)	-6.6E-01 (0 / 1) (-6.6E-01 --6.6E-01)	no samples
Zn-65	1/ 0	6.5E+00 ---	-1.9E+00 (0 / 1) (-1.9E+00 --1.9E+00)	1 mile NW (#015)	-1.9E+00 (0 / 1) (-1.9E+00 --1.9E+00)	no samples
Zr-95	1/ 0	4.7E+00 ---	6.9E-01 (0 / 1) (6.9E-01 - 6.9E-01)	1 mile NW (#015)	6.9E-01 (0 / 1) (6.9E-01 - 6.9E-01)	no samples
Nb-95	1/ 0	3.2E+00 ---	-1.9E+00 (0 / 1) (-1.9E+00 --1.9E+00)	1 mile NW (#015)	-1.9E+00 (0 / 1) (-1.9E+00 --1.9E+00)	no samples
Ba-140	1/ 0	2.3E+01 ---	8.4E+00 (0 / 1) (8.4E+00 - 8.4E+00)	1 mile NW (#015)	8.4E+00 (0 / 1) (8.4E+00 - 8.4E+00)	no samples
La-140	1/ 0	5.4E+00 ---	-2.1E+00 (0 / 1) (-2.1E+00 --2.1E+00)	1 mile NW (#015)	-2.1E+00 (0 / 1) (-2.1E+00 --2.1E+00)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Rice Vegetation

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	5/ 0	4.6E+01 ---	-1.4E+01 (0 / 5) (-4.4E+01 - 9.7E+00)	4-6 miles S-SSW (#Z53)	6.0E+00 (0 / 2) (2.3E+00 - 9.7E+00)	no samples
Cs-134	5/ 0	8.1E+00 6.0E+01	-5.5E+00 (0 / 5) (-1.0E+01 - 3.0E+00)	4-6 miles S-SSW (#Z53)	-2.0E+00 (0 / 2) (-7.1E+00 - 3.0E+00)	no samples
Cs-137	5/ 0	8.2E+00 8.0E+01	1.7E+00 (0 / 5) (-7.9E-01 - 3.8E+00)	4-6 miles W-WNW (#Z33)	3.8E+00 (0 / 1) (3.8E+00 - 3.8E+00)	no samples
Mn-54	5/ 0	7.8E+00 ---	6.8E-01 (0 / 5) (-2.2E+00 - 4.5E+00)	6-8 miles NE-ENE (#Z84)	2.6E+00 (0 / 1) (2.6E+00 - 2.6E+00)	no samples
Fe-59	5/ 0	2.2E+01 ---	-3.2E+00 (0 / 5) (-9.8E+00 - 2.1E+00)	6-8 miles NE-ENE (#Z84)	2.1E+00 (0 / 1) (2.1E+00 - 2.1E+00)	no samples
Co-58	5/ 0	9.3E+00 ---	2.8E+00 (0 / 5) (-1.2E+00 - 6.5E+00)	6-8 miles NE-ENE (#Z84)	4.9E+00 (0 / 1) (4.9E+00 - 4.9E+00)	no samples
Co-60	5/ 0	8.1E+00 ---	-4.9E-01 (0 / 5) (-4.0E+00 - 2.4E+00)	6-8 miles N-NNE (#Z14)	2.2E+00 (0 / 1) (2.2E+00 - 2.2E+00)	no samples
Zn-65	5/ 0	1.8E+01 ---	-1.1E+01 (0 / 5) (-2.6E+01 - -4.0E+00)	6-8 miles N-NNE (#Z14)	-4.5E+00 (0 / 1) (-4.5E+00 - -4.5E+00)	no samples
Zr-95	5/ 0	1.6E+01 ---	-7.2E-02 (0 / 5) (-8.1E+00 - 1.0E+01)	4-6 miles S-SSW (#Z53)	5.2E+00 (0 / 2) (0.0E+00 - 1.0E+01)	no samples
Nb-95	5/ 0	1.2E+01 ---	1.9E+00 (0 / 5) (-1.5E+00 - 8.9E+00)	4-6 miles W-WNW (#Z33)	8.9E+00 (0 / 1) (8.9E+00 - 8.9E+00)	no samples
Ba-140	5/ 0	6.0E+01 ---	-3.4E+00 (0 / 5) (-1.4E+01 - 2.9E+00)	6-8 miles NE-ENE (#Z84)	2.9E+00 (0 / 1) (2.9E+00 - 2.9E+00)	no samples
La-140	5/ 0	2.3E+01 ---	-3.9E+00 (0 / 5) (-1.2E+01 - 4.6E+00)	6-8 miles N-NNE (#Z14)	4.6E+00 (0 / 1) (4.6E+00 - 4.6E+00)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Pasture Grass Vegetation UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	10/ 0	2.8E+01 ---	-4.9E+00 (0 / 4) (-6.6E+00 - -1.1E+00)	11 miles W (#037)	5.6E+00 (0 / 6) (-1.2E+01 - 3.8E+01)	5.6E+00 (0 / 6) (-1.2E+01 - 3.8E+01)
Cs-134	10/ 0	4.2E+00 6.0E+01	-5.6E+00 (0 / 4) (-8.8E+00 - -3.0E+00)	11 miles W (#037)	-1.9E+00 (0 / 6) (-4.1E+00 - 7.4E-01)	-1.9E+00 (0 / 6) (-4.1E+00 - 7.4E-01)
Cs-137	10/ 0	4.9E+00 8.0E+01	-4.6E-01 (0 / 4) (-5.7E+00 - 1.6E+00)	11 miles W (#037)	3.1E+00 (1 / 6) (-3.8E-01 - 1.2E+01)	3.1E+00 (1 / 6) (-3.8E-01 - 1.2E+01)
Mn-54	10/ 0	4.7E+00 ---	-9.6E-01 (0 / 4) (-3.4E+00 - -4.5E-01)	1 mile NW (#015)	0.0E+00 (0 / 1) (0.0E+00 - 0.0E+00)	-3.5E-01 (0 / 6) (-3.3E+00 - 8.3E-01)
Fe-59	10/ 0	1.6E+01 ---	-2.2E+00 (0 / 4) (-5.9E+00 - 1.7E+00)	1 mile NNW (#016)	1.7E+00 (0 / 1) (1.7E+00 - 1.7E+00)	5.2E-01 (0 / 6) (-5.9E-01 - 3.8E+00)
Co-58	10/ 0	5.5E+00 ---	-8.8E-01 (0 / 4) (-3.3E+00 - 2.3E+00)	11 miles W (#037)	1.0E+00 (0 / 6) (-5.2E-01 - 6.5E+00)	1.0E+00 (0 / 6) (-5.2E-01 - 6.5E+00)
Co-60	10/ 0	5.4E+00 ---	9.1E-01 (0 / 4) (-1.1E+ - 3.3E+00)	1 mile N (#001)	2.3E+00 (0 / 2) (1.4E+00 - 3.3E+00)	3.0E-01 (0 / 6) (-3.3E-01 - 9.8E-01)
Zn-65	10/ 0	1.3E+01 ---	-1.1E+01 (0 / 4) (-2.2E+01 - -3.2E+00)	11 miles W (#037)	-1.9E+00 (0 / 6) (-9.8E+00 - 3.9E+00)	-1.9E+00 (0 / 6) (-9.8E+00 - 3.9E+00)
Zr-95	10/ 0	9.8E+00 ---	-1.1E+00 (0 / 4) (-5.1E+00 - 2.5E+00)	1 mile NNW (#016)	1.7E+00 (0 / 1) (1.7E+00 - 1.7E+00)	1.4E+00 (0 / 6) (-4.9E+00 - 9.3E+00)
Nb-95	10/ 0	6.6E+00 ---	-4.1E-01 (0 / 4) (-2.2E+00 - 1.1E+00)	1 mile NNW (#016)	6.6E-01 (0 / 1) (6.6E-01 - 6.6E-01)	-5.3E-01 (0 / 6) (-6.9E+00 - 3.2E+00)
Ba-140	10/ 0	4.0E+01 ---	-1.9E-01 (0 / 4) (6.7E+00 - 8.8E+00)	1 mile NNW (#016)	8.8E+00 (0 / 1) (8.8E+00 - 8.8E+00)	-3.4E+00 (0 / 6) (-6.4E+00 - 2.1E+00)
La-140	10/ 0	2.0E+02 ---	6.0E+01 (0 / 4) (-1.0E+00 - 2.4E+02)	1 mile N (#001)	1.2E+02 (0 / 2) (-8.9E-01 - 2.4E+02)	1.6E-01 (0 / 6) (-5.4E+00 - 3.4E+00)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Migratory Dabbler Duck UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	2/ 0	8.0E+03 ---	-1.4E+03 (0 / 2) (-2.3E+03 --4.6E+02)	0-2 miles W-WNW (#Z31)	-1.4E+03 (0 / 2) (-2.3E+03 --4.6E+02)	no samples
Cs-134	2/ 0	2.0E+01 1.3E+02	-1.8E+01 (0 / 2) (-1.8E+01 --1.7E+01)	0-2 miles W-WNW (#Z31)	-1.8E+01 (0 / 2) (-1.8E+01 --1.7E+01)	no samples
Cs-137	2/ 0	1.9E+01 1.5E+02	3.1E-01 (0 / 2) (-5.8E-01 - 1.2E+00)	0-2 miles W-WNW (#Z31)	3.1E-01 (0 / 2) (-5.8E-01 - 1.2E+00)	no samples
Mn-54	2/ 0	2.1E+01 1.3E+02	-1.5E+00 (0 / 2) (-2.9E+00 - 0.0E+00)	0-2 miles W-WNW (#Z31)	-1.5E+00 (0 / 2) (-2.9E+00 - 0.0E+00)	no samples
Fe-59	2/ 0	1.0E+02 2.6E+02	-7.4E+00 (0 / 2) (-8.6E+00 --6.1E+00)	0-2 miles W-WNW (#Z31)	-7.4E+00 (0 / 2) (-8.6E+00 --6.1E+00)	no samples
Co-58	2/ 0	3.8E+01 1.3E+02	1.2E+01 (0 / 2) (7.6E+00 - 1.7E+01)	0-2 miles W-WNW (#Z31)	1.2E+01 (0 / 2) (7.6E+00 - 1.7E+01)	no samples
Co-60	2/ 0	2.0E+01 1.3E+02	-3.2E+00 (0 / 2) (-7.7E+00 - 1.4E+00)	0-2 miles W-WNW (#Z31)	-3.2E+00 (0 / 2) (-7.7E+00 - 1.4E+00)	no samples
Zn-65	2/ 0	5.0E+01 2.6E+02	-2.8E+01 (0 / 2) (-5.3E+01 --2.8E+00)	0-2 miles W-WNW (#Z31)	-2.8E+01 (0 / 2) (-5.3E+01 --2.8E+00)	no samples
Zr-95	2/ 0	7.1E+01 ---	9.0E+00 (0 / 2) (-6.8E+00 - 2.5E+01)	0-2 miles W-WNW (#Z31)	9.0E+00 (0 / 2) (-6.8E+00 - 2.5E+01)	no samples
Nb-95	2/ 0	7.7E+01 ---	4.5E+00 (0 / 2) (9.0E+00 - 9.0E+00)	0-2 miles W-WNW (#Z31)	4.5E+00 (0 / 2) (9.0E+00 - 9.0E+00)	no samples
Ba-140	2/ 0	2.1E+03 --	1.4E+02 (0 / 2) (-3.0E+02 - 5.7E+02)	0-2 miles W-WNW (#Z31)	1.4E+02 (0 / 2) (-3.0E+02 - 5.7E+02)	no samples
La-140	2/ 0	9.1E+02 ---	3.5E+02 (0 / 2) (2.0E+02 - 5.0E+02)	0-2 miles W-WNW (#Z31)	3.5E+02 (0 / 2) (2.0E+02 - 5.0E+02)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Goose UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	2/ 0	9.7E+01 ---	-4.3E+01 (0 / 2) (-9.3E+01 - 6.9E+00)	MCR Region I (#355)	6.9E+00 (0 / 1) (6.9E+00 - 6.9E+00)	no samples
Cs-134	2/ 0	1.1E+01 1.3E+02	-1.4E+01 (0 / 2) (-2.7E+01 - -7.5E-01)	MCR Region I (#355)	-7.5E-01 (0 / 1) (-7.5E-01 - -7.5E-01)	no samples
Cs-137	2/ 0	1.1E+01 1.5E+02	-1.1E+00 (0 / 2) (-[illegible]3E+00 - 3.0E+00)	MCR Region I (#355)	3.0E+00 (0 / 1) (3.0E+00 - 3.0E+00)	no samples
Mn-54	2, 0	1.1E+01 1.3E+02	-1.9E+00 (0 / 2) (-5.0E+00 - 1.3E+00)	MCR Region I (#355)	1.3E+00 (0 / 1) (1.3E+00 - 1.3E+00)	no samples
Fe-59	2/ 0	3.2E+01 2.6[illegible]+02	8.9E+00 (0 / 2) (7.9E+00 - 9.9E+00)	MCR Region I (#411)	9.9E+00 (0 / 1) (9.9E+00 - 9.9E+00)	no samples
Co-58	2/ 0	1.2E+01 1.3E+02	-6.3E+00 (0 / 2) (-1.1E+01 - -1.1E+00)	MCR Region I (#355)	-1.1E+00 (0 / 1) (-1.1E+00 - -1.1E+00)	no samples
Co-60	2/ 0	1.2E+01 1.3E+02	5.7E+00 (0 / 2) (1.9E+00 - 9.5E+00)	MCR Region I (#411)	9.5E+00 (0 / 1) (9.5E+00 - 9.5E+00)	no samples
Zn-65	2/ 0	2.7E+01 2.6E+02	-7.9E+00 (0 / 2) (-1.1E+01 - -4.9E+00)	MCR Region I (#355)	-4.9E+00 (0 / 1) (-4.9E+00 - -4.9E+00)	no samples
Zr-95	1/ 0	2.9E+01 ---	-2.7E+01 (0 / 1) (-2.7E+01 - -2.7E+01)	MCR Region I (#411)	-2.7E+01 (0 / 1) (-2.7E+01 - -2.7E+01)	no samples
Nb-95	2/ 0	1.8E+01 ---	2.2E+00 (0 / 2) (-4.2E-01 - 4.9E+00)	MCR Region I (#355)	4.9E+00 (0 / 1) (4.9E+00 - 4.9E+00)	no samples
Ba-140	2/ 0	1.1E+02 ---	-5.8E+01 (0 / 2) (-1.0E+02 - -1.4E+01)	MCR Region I (#355)	-1.4E+01 (0 / 1) (-1.4E+01 - -1.4E+01)	no samples
La-140	2/ 0	3.7E+01 ---	-3.9E+01 (0 / 2) (-7.0E+01 - -7.4E+00)	MCR Region I (#355)	-7.4E+00 (0 / 1) (-7.4E+00 - -7.4E+00)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Dove

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	1/ 0	7.8E+02 ---	-3.0E+02 (0 / 1) (-3.0E+02 --3.0E+02)	0-2 miles NW-NN (#Z21)	-3.0E+02 (0 / 1) (-3.0E+02 --3.0E+02)	no samples
Cs-134	1/ 0	2.2E+01 1.3E+02	-2.8E+01 (0 / 1) (-2.8E+01 --2.8E+01)	0-2 miles NW-NN (#Z21)	-2.8E+01 (0 / 1) (-2.8E+01 --2.8E+01)	no samples
Cs-137	1/ 0	3.1E+01 1.5E+02	1.1E+01 (0 / 1) (1.1E+01 - 1.1E+01)	0-2 miles NW-NN (#Z21)	1.1E+01 (0 / 1) (1.1E+01 - 1.1E+01)	no samples
Mn-54	1/ 0	2.6E+01 1.3E+02	-6.4E+00 (0 / 1) (-6.4E+00 --6.4E+00)	0-2 miles NW-NN (#Z21)	-6.4E+00 (0 / 1) (-6.4E+00 --6.4E+00)	no samples
Fe-59	1/ 0	8.5E+01 2.6E+02	-1.3E+01 (0 / 1) (-1.3E+01 --1.3E+01)	0-2 miles NW-NN (#Z21)	-1.3E+01 (0 / 1) (-1.3E+01 --1.3E+01)	no samples
Co-58	1/ 0	3.3E+01 1.3E+02	1.4E+01 (0 / 1) (1.4E+01 - 1.4E+01)	0-2 miles NW-NN (#Z21)	1.4E+01 (0 / 1) (1.4E+01 - 1.4E+01)	no samples
Co-60	1/ 0	3.0E+01 1.3E+02	4.5E+00 (0 / 1) (4.5E+00 - 4.5E+00)	0-2 miles NW-NN (#Z21)	4.5E+00 (0 / 1) (4.5E+00 - 4.5E+00)	no samples
Zn-65	1/ 0	6.3E+01 2.6E+02	-2.2E+01 (0 / 1) (-2.2E+01 --2.2E+01)	0-2 miles NW-NN (#Z21)	-2.2E+01 (0 / 1) (-2.2E+01 --2.2E+01)	no samples
Zr-95	1/ 0	7.2E+01 ---	3.0E+01 (0 / 1) (3.0E+01 - 3.0E+01)	0-2 miles NW-NN (#Z21)	3.0E+01 (0 / 1) (3.0E+01 - 3.0E+01)	no samples
Nb-95	1/ 0	5.5E+01 ---	8.2E+00 (0 / 1) (8.2E+00 - 8.2E+00)	0-2 miles NW-NN (#Z21)	8.2E+00 (0 / 1) (8.2E+00 - 8.2E+00)	no samples
Ba-140	1/ 0	8.0E+02 ---	2.5E+01 (0 / 1) (2.5E+01 - 2.5E+01)	0-2 miles NW-NN (#Z21)	2.5E+01 (0 / 1) (2.5E+01 - 2.5E+01)	no samples
La-140	1/ 0	2.6E+02 ---	-6.8E+01 (0 / 1) (-6.8E+01 --6.8E+01)	0-2 miles NW-NN (#Z21)	-6.8E+01 (0 / 1) (-6.8E+01 --6.8E+01)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Quail

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	1/ 0	9.2E+03 ---	3.2E+03 (0 / 1) (3.2E+03 - 3.2E+03)	0-2 miles W-WNW (#Z31)	3.2E+03 (0 / 1) (3.2E+03 - 3.2E+03)	no samples
Cs-134	1/ 0	2.2E+01 1.3E+02	-1.3E+01 (0 / 1) (-1.3E+01 --1.3E+01)	0-2 miles W-WNW (#Z31)	-1.3E+01 (0 / 1) (-1.3E+01 --1.3E+01)	no samples
Cs-137	1/ 0	2.3E+01 1.5E+02	4.5E+00 (0 / 1) (4.5E+00 - 4.5E+00)	0-2 miles W-WNW (#Z31)	4.5E+00 (0 / 1) (4.5E+00 - 4.5E+00)	no samples
Mn-54	1/ 0	2.5E+01 1.3E+02	3.6E+00 (0 / 1) (3.6E+00 - 3.6E+00)	0-2 miles W-WNW (#Z31)	3.6E+00 (0 / 1) (3.6E+00 - 3.6E+00)	no samples
Fe-59	1/ 0	1.4E+02 2.6E+02	2.6E+01 (0 / 1) (2.6E+01 - 2.6E+01)	0-2 miles W-WNW (#Z31)	2.6E+01 (0 / 1) (2.6E+01 - 2.6E+01)	no samples
Co-58	1/ 0	4.1E+01 1.3E+02	3.6E+00 (0 / 1) (3.6E+00 - 3.6E+00)	0-2 miles W-WNW (#Z31)	3.6E+00 (0 / 1) (3.6E+00 - 3.6E+00)	no samples
Co-60	1/ 0	2.7E+01 1.3E+02	1.1E+01 (0 / 1) (1.1E+01 - 1.1E+01)	0-2 miles W-WNW (#Z31)	1.1E+01 (0 / 1) (1.1E+01 - 1.1E+01)	no samples
Zn-65	1/ 0	5.2E+01 2.6E+02	-2.4E+01 (0 / 1) (-2.4E+01 --2.4E+01)	0-2 miles W-WNW (#Z31)	-2.4E+01 (0 / 1) (-2.4E+01 --2.4E+01)	no samples
Zr-95	1/ 0	8.1E+01 ---	2.2E+00 (0 / 1) (2.2E+00 - 2.2E+00)	0-2 miles W-WNW (#Z31)	2.2E+00 (0 / 1) (2.2E+00 - 2.2E+00)	no samples
Nb-95	1/ 0	8.3E+01 ---	-1.8E+01 (0 / 1) (-1.8E+01 --1.8E+01)	0-2 miles W-WNW (#Z31)	-1.8E+01 (0 / 1) (-1.8E+01 --1.8E+01)	no samples
Ba-140	1/ 0	2.5E+03 ---	8.3E+02 (0 / 1) (8.3E+02 - 8.3E+02)	0-2 miles W-WNW (#Z31)	8.3E+02 (0 / 1) (8.3E+02 - 8.3E+02)	no samples
La-140	1/ 0	1.3E+03 ---	5.3E+02 (0 / 1) (5.3E+02 - 5.3E+02)	0-2 miles W-WNW (#Z31)	5.3E+02 (0 / 1) (5.3E+02 - 5.3E+02)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE S

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Pigeon

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	ONTROL LOCATIONS MEAN (f) ** RANGE
I-131	2/ 0	3.0E+03 ---	-9.7E+02 (0 / 2) (-1.7E+03 -2.5E+02)	<1 mile S (#241)	-2.5E+02 (0 / 1) (-2.5E+02 -2.5E+02)	no samples
Cs-134	2/ 0	1.4E+01 1.3E+02	-1.7E+01 (0 / 2) (-2.0E+01 -1.5E+01)	<1 mile S (#241)	-1.5E+01 (0 / 1) (-1.5E+01 -1.5E+01)	no samples
Cs-137	2/ 0	1.4E+01 1.5E+0_	2.9E+01 (1 / 2) (-1.1E+00 - 5.8E+01)	0-2 miles SW-WS (#241)	5.8E+01 (1 / 1) (5.8E+01 - 5.8E+01)	no samples
Mn-54	2/ 0	1.4E+01 1.3E+02	-7.2E+00 (0 / 2) (-8.4E+00 -6.0E+00)	<1 mile S (#241)	-6.0E+00 (0 / 1) (-6.0E+00 -6.0E+00)	no samples
Fe-59	2/ 0	6.2E+01 2.6E+02	-1.6E+01 (0 / 2) (-2.2E+01 -9.0E+(	<1 mile S (#241)	-9.0E+00 (0 / 1) (-9.0E+00 -9.0E+00)	no samples
Co-58	2/ 0	2.1E+01 1.3E+02	-9.3E+00 (0 / 2) (-1.1E+01 -7.6E+00)	<1 mile S (#241)	-7.6E+00 (0 / 1) (-7.6E+00 -7.6E+00)	no samples
Co-60	2/ 0	1.6E+01 1.3E+02	5.7E+00 (0 / 2) (4.7E+00 - 6.7E+00)	<1 mile S (#241)	6.7E+00 (0 / 1) (6.7E+00 - 6.7E+00)	no samples
Zn-65	2/ 0	3.1E+01 2.6E+02	-3.3E+01 (0 / 2) (-4.5E+01 -2.2E+01)	<1 mile S (#241)	-2.2E+01 (0 / 1) (-2.2E+01 -2.2E+01)	no samples
Zr-95	2/ 0	3.8E+01 ---	-2.1E+01 (0 / 2) (-2.2E+01 -2.0E+01)	0-2 miles SW-WS (#241)	-2.0E+01 (0 / 1) (-2.0E+01 -2.0E+01)	no samples
Nb-95	2/ 0	4.1E+01 ---	9.7E+00 (0 / 2) (-1.8E+00 - 2.1E+01)	0-2 miles SW-WS (#241)	2.1E+01 (0 / 1) (2.1E+01 - 2.1E+01)	no samples
Ba-140	2/ 0	9.4E+02 ---	-2.4E+02 (0 / 2) (-4.4E+02 -4.5E+01)	<1 mile S (#241)	-4.5E+0 (0 / 1) (-4.5E+ -4 E+01)	no samples
La-140	2/ 0	6.1E+03 ---	-4.0E+03 (0 / 2) (-8.0E+03 - 2.4E+01)	0-2 miles SW-WS (#241)	2.4E+01 (0 / 1) (2.4E+01 - 2.4E+01)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Piscivorous Fish

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	7/ 0	9.9E+01 ---	-1.3E+01 (0 / 6) (-5.7E+01 - 3.9E+00)	2 miles E (#214)	-2.3E+00 (0 / 2) (-8.5E+00 - 3.9E+00)	-5.4E+01 (0 / 1) (-5.4E+01 - -5.4E+01)
Cs-134	7/ 0	9.9E+00 1.3E+02	-1.1E+00 (0 / 6) (-6.2E+00 - 9.2E+00)	MCR Region IV (#578)	1.4E+00 (0 / 3) (-3.5E+00 - 9.2E+00)	-2.9E+00 (0 / 1) (-2.9E+00 - -2.9E+00)
Cs-137	7/ 0	1.0E+01 1.5E+02	5.1E+00 (1 / 6) (-3.8E+00 - 2.3E+01)	MCR Region IV (#578)	8.6E+00 (1 / 3) (3.7E-01 - 2.3E+01)	1.6E+00 (0 / 1) (1.6E+00 - 1.6E+00)
Mn-54	7/ 0	1.0E+01 1.3E+02	-1.1E+00 (1 / 6) (-9.3E+00 - 1.3E+01)	MCR Region IV (#578)	1.9E-01 (1 / 3) (-9.3E+00 - 1.3E+01)	-4.3E+00 (0 / 1) (-4.3E+00 - -4.3E+00)
Fe-59	7/ 0	3.3E+01 2.6E+02	3.8E+00 (0 / 6) (-2.0E+01 - 2.5E+01)	2 miles E (#214)	1.2E+01 (0 / 2) (-1.4E+00 - 2.5E+01)	6.2E+00 (0 / 1) (6.2E+00 - 6.2E+00)
Co-58	7/ 0	1.2E+01 1.3E+02	-3.7E+00 (0 / 6) (-1.7E+01 - 4.6E+00)	3.5 miles S (#212)	4.6E+00 (0 / 1) (4.6E+00 - 4.6E+00)	1.8E+00 (0 / 1) (1.8E+00 - 1.8E+00)
Co-60	7/ 0	1.1E+01 1.3E+02	4.1E+00 (1 / 6) (-4.8E+00 - 3.0E+01)	MCR Region IV (#578)	1.2E+01 (1 / 3) (-1.1E+00 - 3.0E+01)	1.3E+00 (0 / 1) (1.3E+00 - 1.3E+00)
Zn-65	7/ 0	2.5E+01 2.6E+02	-1.3E+01 (0 / 6) (-3.9E+01 - -1.6E+00)	2 miles E (#214)	-4.0E+00 (0 / 2) (-6.2E+00 - -1.9E+00)	-6.6E+00 (0 / 1) (-6.6E+00 - -6.6E+00)
Zr-95	7/ 0	2.3E+01 ---	-8.6E+00 (0 / 6) (-3.6E+01 - 4.8E+00)	3.5 miles S (#212)	4.8E+00 (0 / 1) (4.8E+00 - 4.8E+00)	4.3E+00 (0 / 1) (4.3E+00 - 4.3E+00)
Nb-95	7/ 0	1.7E+01 ---	1.4E+00 (0 / 6) (-6.9E+00 - 1.4E+01)	MCR Region IV (#578)	3.2E+00 (0 / 3) (-5.6E+00 - 1.4E+01)	-6.0E+00 (0 / 1) (-6.0E+00 - -6.0E+00)
Ba-140	7/ 0	1.1E+02 ---	-1.4E+01 (0 / 6) (-7.4E+01 - 3.4E+01)	3.5 miles S (#212)	3.4E+01 (0 / 1) (3.4E+01 - 3.4E+01)	-1.1E+01 (0 / 1) (-1.1E+01 - -1.1E+01)
La-140	7/ 0	4.0E+01 ---	-7.3E+00 (0 / 6) (-7.0E+01 - 1.2E+01)	3.5 miles S (#212)	6.8E+00 (0 / 1) (6.8E+00 - 6.8E+00)	-6.8E+00 (0 / 1) (-6.8E+00 - -6.8E+00)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Arthropodivorous Fish

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	5/ 0	1.0E+02 ---	-1.4E+01 (0 / 4) (-3.3E+01 - 1.2E+00)	2 miles E (#214)	-7.3E+00 (0 / 1) (-7.3E+00 - -7.3E+00)	-7.6E+00 (0 / 1) (-7.6E+00 - -7.6E+00)
Cs-134	5/ 0	1.0E+01 1.3E+02	-7.7E+00 (0 / 4) (-1.8E+01 - -1.1E+00)	MCR Region IV (#578)	-3.0E+00 (0 / 2) (-4.9E+00 - -1.1E+00)	-4.4E+00 (0 / 1) (-4.4E+00 - -4.4E+00)
Cs-137	5/ 0	1.0E+01 1.5E+02	3.5E+00 (0 / 4) (-3.1E+00 - 8.5E+00)	MCR Region IV (#578)	6.3E+00 (0 / 2) (4.1E+00 - 8.5E+00)	2.3E+00 (0 / 1) (2.3E+00 - 2.3E+00)
Mn-54	5/ 0	9.9E+00 1.3E+02	7.5E-01 (0 / 4) (-3.0E+00 - 8.5E+00)	3.7 miles SE (#237)	8.5E+00 (0 / 1) (8.5E+00 - 8.5E+00)	-6.1E-01 (0 / 1) (-6.1E-01 - -6.1E-01)
Fe-59	5/ 0	3.1E+01 2.6E+02	6.4E+00 (0 / 4) (-1.3E+01 - 2.3E+01)	2 miles E (#214)	2.3E+01 (0 / 1) (2.3E+01 - 2.3E+01)	-5.0E+00 (0 / 1) (-5.0E+00 - -5.0E+00)
Co-58	5/ 0	1.2E+01 1.3E+02	-1.1E+00 (0 / 4) (-5.0E+00 - 4.6E+00)	2 miles E (#214)	4.6E+00 (0 / 1) (4.6E+00 - 4.6E+00)	2.6E+00 (0 / 1) (2.6E+00 - 2.6E+00)
Co-60	5/ 0	1.1E+01 1.3E+02	1.8E+00 (0 / 4) (-1.9E+00 - 4.6E+00)	2 miles E (#214)	4.6E+00 (0 / 1) (4.6E+00 - 4.6E+00)	7.4E-01 (0 / 1) (7.4E-01 - 7.4E-01)
Zn-65	5/ 0	2.4E+01 2.6E+02	1.6E+00 (0 / 4) (-2.1E+01 - 1.6E+01)	MCR Region IV (#578)	1.1E+01 (0 / 2) (6.0E+00 - 1.6E+01)	-4.1E+00 (0 / 1) (-4.1E+00 - -4.1E+00)
Zr-95	5/ 0	2.3E+01 ---	5.9E+00 (0 / 4) (-2.0E+00 - 1.0E+01)	2 miles E (#214)	1.0E+01 (0 / 1) (1.0E+01 - 1.0E+01)	3.9E-01 (0 / 1) (3.9E-01 - 3.9E-01)
Nb-95	5/ 0	1.6E+01 ---	-2.0E+00 (0 / 4) (-5.8E+00 - 8.3E-01)	>10 miles N-NNE (#216)	1.9E+00 (0 / 1) (1.9E+00 - 1.9E+00)	1.9E+00 (0 / 1) (1.9E+00 - 1.9E+00)
Ba-140	5/ 0	1.1E+02 ---	-8.3E+00 (0 / 4) (-9.5E+01 - 5.6E+01)	2 miles E (#214)	3.0E+01 (0 / 1) (3.0E+01 - 3.0E+01)	-3.2E+01 (0 / 1) (-3.2E+01 - -3.2E+01)
La-140	5/ 0	4.7E+01 ---	1.3E+01 (0 / 4) (-8.3E+00 - 4.7E+01)	MCR Region IV (#578)	2.5E+01 (0 / 2) (3.0E+00 - 4.7E+01)	-3.9E+00 (0 / 1) (-3.9E+00 - -3.9E+00)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Planktivorous Fish

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	4/ 0	1.3E+02 ---	7.7E-01 (0 / 4) (-3.3E+01 - 5.2E+01)	2 miles E (#214)	6.6E+00 (0 / 1) (6.6E+00 - 6.6E+00)	no samples
Cs-134	4/ 0	1.4E+01 1.3E+02	-5.8E+00 (0 / 4) (-1.2E+01 - -1.6E+00)	2 miles E (#214)	-1.6E+00 (0 / 1) (-1.6E+00 - -1.6E+00)	no samples
Cs-137	4/ 0	1.4E+01 1.5E+02	-3.8E-01 (0 / 4) (-1.3E+01 - 5.0E+00)	2 miles E (#214)	3.4E+00 (0 / 1) (3.4E+00 - 3.4E+00)	no samples
Mn-54	4/ 0	1.2E+01 1.3E+02	-2.8E+00 (0 / 4) (-8.2E+00 - 1.9E+00)	2 miles E (#214)	-1.9E+00 (0 / 1) (-1.9E+00 - -1.9E+00)	no samples
Fe-59	4/ 0	4.1E+01 2.6E+02	1.1E+01 (0 / 4) (-2.1E+00 - 4.3E+01)	MCR Region IV (#578)	1.6E+01 (0 / 3) (-8.0E-01 - 4.3E+01)	no samples
Co-58	4/ 0	1.5E+01 1.3E+02	-1.6E+00 (0 / 4) (-4.4E+00 - 1.0E+00)	2 miles E (#214)	-1.5E+00 (0 / 1) (-1.5E+00 - -1.5E+00)	no samples
Co-60	4/ 0	1.4E+01 1.3E+02	-1.0E+00 (0 / 4) (-4.3E+00 - 5.1E+00)	MCR Region IV (#578)	-3.0E-01 (0 / 3) (-4.3E+00 - 5.1E+00)	no samples
Zn-65	4/ 0	3.0E+01 2.6E+02	-5.6E+00 (0 / 4) (-1.7E+01 - 1.9E+00)	2 miles E (#214)	1.9E+00 (0 / 1) (1.9E+00 - 1.9E+00)	no samples
Zr-95	4/ 0	2.9E+01 ---	-7.5E-01 (0 / 4) (-7.1E+00 - 6.1E+00)	2 miles E (#214)	4.8E-01 (0 / 1) (4.8E-01 - 4.8E-01)	no samples
Nb-95	4/ 0	2.1E+01 ---	-5.2E+00 (0 / 4) (-1.2E+01 - -3.7E-01)	2 miles E (#214)	-3.5E+00 (0 / 1) (-3.5E+00 - -3.5E+00)	no samples
Ba-140	4/ 0	1.4E+02 ---	-7.6E+00 (0 / 4) (-5.7E+01 - 2.3E+01)	2 miles E (#214)	2.3E+01 (0 / 1) (2.3E+01 - 2.3E+01)	no samples
La-140	4/ 0	4.6E+01 ---	-1.0E+01 (0 / 4) (-2.3E+01 - 4.2E+00)	2 miles E (#214)	-5.8E+00 (0 / 1) (-5.8E+00 - -5.8E+00)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Crustacean Crab

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	5/ 0	2.6E+01 ---	-5.7E-01 (0 / 5) (-1.2E+01 - 6.3E+00)	<1 mile S (#241)	4.2E+00 (0 / 1) (4.2E+00 - 4.2E+00)	no samples
Cs-134	5/ 0	9.2E+00 1.3E+02	-4.5E+01 (0 / 5) (-1.3E+02 - 2.2E+00)	2 miles E (#214)	-7.6E-01 (0 / 3) (-2.4E+00 - 2.2E+00)	no samples
Cs-137	5/ 0	1.9E+01 1.5E+02	5.2E+01 (5 / 5) (3.8E+01 - 7.9E+01)	2 miles E (#214)	6.1E+01 (3 / 3) (4.2E+01 - 7.9E+01)	no samples
Mn-54	5/ 0	7.8E+00 1.3E+02	3.8E+00 (1 / 5) (-8.1E-01 - 1.5E+01)	1 mile SW (#215)	1.5E+01 (1 / 1) (1.5E+01 - 1.5E+01)	no samples
Fe-59	5/ 0	1.6E+01 2.6E+02	-3.8E+00 (0 / 5) (-5.7E+00 --5.7E-01)	2 miles E (#214)	-3.4E+00 (0 / 3) (-5.7E+00 --5.7E-01)	no samples
Co-58	5/ 0	7.6E+00 1.3E+02	2.2E+01 (2 / 5) (3.6E-01 - 7.7E+01)	1 mile SW (#215)	7.7E+01 (1 / 1) (7.7E+01 - 7.7E+01)	no samples
Co-60	5/ 0	6.5E+00 1.3E+02	6.0E+00 (2 / 5) (-9.5E-01 - 1.7E+01)	1 mile SW (#215)	1.7E+01 (1 / 1) (1.7E+01 - 1.7E+01)	no samples
Zn-65	5/ 0	1.7E+01 2.6E+02	-3.0E+01 (0 / 5) (-8.9E+01 - 5.0E+00)	2 miles E (#214)	2.7E+00 (0 / 3) (1.2E+00 - 5.0E+00)	no samples
Zr-95	5/ 0	1.6E+01 ---	4.3E+00 (0 / 5) (-9.7E-01 - 1.3E+01)	1 mile SW (#215)	1.3E+01 (0 / 1) (1.3E+01 - 1.3E+01)	no samples
Ba-140	5/ 0	4.0E+01 ---	1.5E+00 (0 / 5) (-3.1E+01 - 3.5E+01)	2 miles E (#214)	1.5E+01 (0 / 3) (-3.7E+00 - 3.5E+01)	no samples
La-140	5/ 0	1.2E+01 ---	1.2E+00 (0 / 5) (-1.5E+00 - 7.6E+00)	2 miles E (#214)	2.2E+00 (0 / 3) (-1.3E+00 - 7.6E+00)	no samples
Ag-110M	5/ 0	9.3E+00 ---	8.9E+01 (5 / 5) (4.9E+01 - 1.1E+02)	<1 mile S (#241)	1.1E+02 (1 / 1) (1.1E+02 - 1.1E+02)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Crustacean Shrimp

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	2/ 0	5.1E+02 ---	-1.4E+02 (0 / 2) (-2.9E+02 - 8.5E+00)	>10 miles (#222)	8.5E+00 (0 / 1) (8.5E+00 - 8.5E+00)	no samples
Cs-134	2/ 0	5.5E+01 1.3E+02	-7.9E+01 (0 / 2) (-1.5E+02 - -3.3E+00)	>10 miles (#222)	-3.3E+00 (0 / 1) (-3.3E+00 - -3.3E+00)	no samples
Cs-137	2/ 0	5.6E+01 1.5E+02	8.3E-01 (0 / 2) (-1.9E+00 - 3.6E+00)	MCR Region IV (#578)	3.6E+00 (0 / 1) (3.6E+00 - 3.6E+00)	no samples
Mn-54	2/ 0	5.1E+01 1.3E+02	6.8E+00 (0 / 2) (-2.9E-01 - 1.4E+01)	MCR Region IV (#578)	1.4E+01 (0 / 1) (1.4E+01 - 1.4E+01)	no samples
Fe-59	2/ 0	1.2E+02 2.6E+02	-4.0E+01 (0 / 2) (-8.5E+01 - 6.0E+00)	>10 miles (#222)	6.0E+00 (0 / 1) (6.0E+00 - 6.0E+00)	no samples
Co-58	2/ 0	5.5E+01 1.3E+02	-4.0E+01 (0 / 2) (-8.2E+01 - 2.0E+00)	>10 miles (#222)	2.0E+00 (0 / 1) (2.0E+00 - 2.0E+00)	no samples
Co-60	2/ 0	6.0E+01 1.3E+02	-3.8E+00 (0 / 2) (-8.5E+00 - 8.6E-01)	>10 miles (#222)	8.6E-01 (0 / 1) (8.6E-01 - 8.6E-01)	no samples
Zn-65	2/ 0	1.1E+02 2.6E+02	-4.8E+01 (0 / 2) (-9.8E+01 - 2.3E+00)	>10 miles (#222)	2.3E+00 (0 / 1) (2.3E+00 - 2.3E+00)	no samples
Zr-95	2/ 0	9.5E+01 ---	-2.9E+01 (0 / 2) (-5.9E+01 - 5.8E-01)	>10 miles (#222)	5.8E-01 (0 / 1) (5.8E-01 - 5.8E-01)	no samples
Nb-95	2/ 0	8.1E+01 ---	3.2E+01 (0 / 2) (-1.9E+00 - 6.7E+01)	MCR Region IV (#578)	6.7E+01 (0 / 1) (6.7E+01 - 6.7E+01)	no samples
Ba-140	2/ 0	5.5E+02 ---	-3.6E+01 (0 / 2) (-6.9E+01 - -3.1E+00)	>10 miles (#222)	-3.1E+00 (0 / 1) (-3.1E+00 - -3.1E+00)	no samples
La-140	2/ 0	2.2E+02 ---	4.5E+01 (0 / 2) (8.8E+00 - 8.0E+01)	MCR Region IV (#578)	8.0E+01 (0 / 1) (8.0E+01 - 8.0E+01)	no samples
Ce-141	1/ 0	2.4E+02 ---	2.2E+02 (0 / 1) (2.2E+02 - 2.2E+02)	MCR Region IV (#578)	2.2E+02 (0 / 1) (2.2E+02 - 2.2E+02)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Beef Meat

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	1/ 0	3.8E+03 6.0E+01	-1.3E+03 (0 / 1) (-1.3E+03 --1.3E+03)	4-6 miles SE-SS (#263)	-1.3E+03 (0 / 1) (-1.3E+03 --1.3E+03)	no samples
Cs-134	1/ 0	4.2E+00 6.0E+01	-4.4E+00 (0 / 1) (-4.4E+00 --4.4E+00)	4-6 miles SE-SS (#263)	-4.4E+00 (0 / 1) (-4.4E+00 --4.4E+00)	no samples
Cs-137	1/ 0	4.6E+00 8.0E+01	6.8E-01 (0 / 1) (6.8E-01 - 6.8E-01)	4-6 miles SE-SS (#263)	6.8E-01 (0 / 1) (6.8E-01 - 6.8E-01)	no samples
Mn-54	1/ 0	5.5E+00 ---	-1.2E+00 (0 / 1) (-1.2E+00 --1.2E+00)	4-6 miles SE-SS (#263)	-1.2E+00 (0 / 1) (-1.2E+00 --1.2E+00)	no samples
Fe-59	1/ 0	7.6E+01 ---	-2.8E+01 (0 / 1) (-2.8E+01 --2.8E+01)	4-6 miles SE-SS (#263)	-2.8E+01 (0 / 1) (-2.8E+01 --2.8E+01)	no samples
Co-58	1/ 0	1.6E+01 ---	2.3E+00 (0 / 1) (2.3E+00 - 2.3E+00)	4-6 miles SE-SS (#263)	2.3E+00 (0 / 1) (2.3E+00 - 2.3E+00)	no samples
Co-60	1/ 0	4.8E+00 ---	-7.0E-01 (0 / 1) (-7.0E-01 --7.0E-01)	4-6 miles SE-SS (#263)	-7.0E-01 (0 / 1) (-7.0E-01 --7.0E-01)	no samples
Zn-65	1/ 0	1.5E+01 ---	5.0E+00 (0 / 1) (5.0E+00 - 5.0E+00)	4-6 miles SE-SS (#263)	5.0E+00 (0 / 1) (5.0E+00 - 5.0E+00)	no samples
Zr-95	1/ 0	2.7E+01 ---	-2.0E+01 (0 / 1) (-2.0E+01 --2.0E+01)	4-6 miles SE-SS (#263)	-2.0E+01 (0 / 1) (-2.0E+01 --2.0E+01)	no samples
Nb-95	1/ 0	5.8E+01 ---	-4.9E+00 (0 / 1) (-4.9E+00 --4.9E+00)	4-6 miles SE-SS (#263)	-4.9E+00 (0 / 1) (-4.9E+00 --4.9E+00)	no samples
Ba-140	1/ 0	1.5E+04 ---	2.8E+03 (0 / 1) (2.8E+03 - 2.8E+03)	4-6 miles SE-SS (#263)	2.8E+03 (0 / 1) (2.8E+03 - 2.8E+03)	no samples
La-140	1/ 0	4.4E+03 ---	0.0E+00 (0 / 1) (0.0E+00 - 0.0E+00)	4-6 miles SE-SS (#263)	0.0E+00 (0 / 1) (0.0E+00 - 0.0E+00)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Wild Swine

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	2/ 0	6.8E+02 ---	-3.6E+02 (0 / 2) (-4.3E+02 --2.8E+02)	2-4 miles SE-SS (#Z62)	-3.6E+02 (0 / 2) (-4.3E+02 --2.8E+02)	no samples
Cs-134	2/ 0	5.1E+00 1.3E+02	-4.2E+00 (0 / 2) (-4.4E+00 --4.1E+00)	2-4 miles SE-SS (#Z62)	-4.2E+00 (0 / 2) (-4.4E+00 --4.1E+00)	no samples
Cs-137	2/ 0	5.5E+00 1.5E+02	1.6E+00 (0 / 2) (1.1E+00 - 2.0E+00)	2-4 miles SE-SS (#Z62)	1.6E+00 (0 / 2) (1.1E+00 - 2.0E+00)	no samples
Mn-54	2/ 0	5.3E+00 1.3E+02	-1.8E+00 (0 / 2) (-2.2E+00 --1.4E+00)	2-4 miles SE-SS (#Z62)	-1.8E+00 (0 / 2) (-2.2E+00 --1.4E+00)	no samples
Fe-59	2/ 0	3.0E+01 2.6E+02	5.3E+00 (0 / 2) (1.1E+01 - 1.1E+01)	2-4 miles SE-SS (#Z62)	5.3E+00 (0 / 2) (1.1E+01 - 1.1E+01)	no samples
Co-58	2/ 0	8.5E+00 1.3E+02	-4.1E+00 (0 / 2) (-6.6E+00 --1.6E+00)	2-4 miles SE-SS (#Z62)	-4.1E+00 (0 / 2) (-6.6E+00 --1.6E+00)	no samples
Co-60	2/ 0	5.6E+00 1.3E+02	1.0E+00 (0 / 2) (1.2E-01 - 2.0E+00)	2-4 miles SE-SS (#Z62)	1.0E+00 (0 / 2) (1.2E-01 - 2.0E+00)	no samples
Zn-65	2/ 0	1.6E+01 2.6E+02	-2.1E+00 (0 / 2) (-4.2E+00 --4.2E+00)	2-4 miles SE-SS (#Z62)	-2.1E+00 (0 / 2) (-4.2E+00 --4.2E+00)	no samples
Zr-95	2/ 0	1.6E+01 ---	-9.8E-01 (0 / 2) (-2.0E+00 --2.0E+00)	2-4 miles SE-SS (#Z62)	-9.8E-01 (0 / 2) (-2.0E+00 --2.0E+00)	no samples
Nb-95	2/ 0	1.6E+01 ---	8.5E-01 (0 / 2) (-2.3E+00 - 4.0E+00)	2-4 miles SE-SS (#Z62)	8.5E-01 (0 / 2) (-2.3E+00 - 4.0E+00)	no samples
Ba-140	2/ 0	3.0E+02 ---	8.9E+01 (0 / 2) (7.0E+01 - 1.1E+02)	2-4 miles SE-SS (#Z62)	8.9E+01 (0 / 2) (7.0E+01 - 1.1E+02)	no samples
La-140	2/ 0	1.1E+02 ---	-2.6E+01 (0 / 2) (-2.9E+01 --2.2E+01)	2-4 miles SE-SS (#Z62)	-2.6E+01 (0 / 2) (-2.9E+01 --2.2E+01)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Game Deer

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	2/ 0	7.5E+02 ---	-3.6E+02 (0 / 2) (-4.3E+02 --2.8E+02)	2-4 miles SE-SS (#262)	-3.6E+02 (0 / 2) (-4.3E+02 --2.8E+02)	no samples
Cs-134	2/ 0	3.8E+00 1.3E+02	-5.0E+00 (0 / 2) (-6.3E+00 --3.6E+00)	2-4 miles SE-SS (#262)	-5.0E+00 (0 / 2) (-6.3E+00 --3.6E+00)	no samples
Cs-137	2/ 0	4.2E+00 1.5E+02	-4.5E-01 (0 / 2) (-9.6E-01 -- 6.7E-02)	2-4 miles SE-SS (#262)	-4.5E-01 (0 / 2) (-9.6E-01 -- 6.7E-02)	no samples
Mn-54	2/ 0	4.4E+00 1.3E+02	-1.4E+00 (0 / 2) (-1.5E+00 --1.4E+00)	2-4 miles SE-SS (#262)	-1.4E+00 (0 / 2) (-1.5E+00 --1.4E+00)	no samples
Fe-59	2/ 0	2.2E+01 2.6E+02	-1.6E+01 (0 / 2) (-1.8E+01 --1.5E+01)	2-4 miles SE-SS (#262)	-1.6E+01 (0 / 2) (-1.8E+01 --1.5E+01)	no
Co-58	2/ 0	7.0E+00 1.3E+02	-2.4E+00 (0 / 2) (-2.6E+00 --2.1E+00)	2-4 miles SE-SS (#262)	-2.4E+00 (0 / 2) (-2.6E+00 --2.1E+00)	no samples
Co-60	2/ 0	4.5E+00 1.3E+02	-2.2E-01 (0 / 2) (-7.6E-01 -- 3.2E-01)	2-4 miles SE-SS (#262)	-2.2E-01 (0 / 2) (-7.6E-01 -- 3.2E-01)	no samples
Zn-65	2/ 0	1.2E+01 2.6E+02	-8.5E+00 (0 / 2) (-1.1E+01 --5.7E+00)	2-4 miles SE-SS (#262)	-8.5E+00 (0 / 2) (-1.1E+01 --5.7E+00)	no samples
Zr-95	2/ 0	1.3E+01 ---	-6.1E+00 (0 / 2) (-1.4E+01 -- 1.4E+00)	2-4 miles SE-SS (#262)	-6.1E+00 (0 / 2) (-1.4E+01 -- 1.4E+00)	no samples
Nb-95	2/ 0	1.3E+01 ---	-1.7E+00 (0 / 2) (-4.2E+00 -- 8.8E-01)	2-4 miles SE-SS (#262)	-1.7E+00 (0 / 2) (-4.2E+00 -- 8.8E-01)	no samples
Ba-140	2/ 0	3.7E+02 ---	-1.2E+02 (0 / 2) (-2.9E+02 -- 5.0E+01)	2-4 miles SE-SS (#262)	-1.2E+02 (0 / 2) (-2.9E+02 -- 5.0E+01)	no samples
La-140	2/ 0	1.0E+02 ---	-6.0E+01 (0 / 2) (-6.7E+01 --5.2E+01)	2-4 miles SE-SS (#262)	-6.0E+01 (0 / 2) (-6.7E+01 --5.2E+01)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Rabbit

UNITS: pCi/Kg wet wt

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	2/ 0	5.0E+03 ---	-2.1E+02 (0 / 2) (-2.4E+03 - 2.0E+03)	0-2 miles W-WNW (#Z31)	-2.1E+02 (0 / 2) (-2.4E+03 - 2.0E+03)	no samples
Cs-134	2/ 0	1.3E+01 ---	-1.1E+01 (0 / 2) (-1.5E+01 - -6.9E+00)	0-2 miles W-WNW (#Z31)	-1.1E+01 (0 / 2) (-1.5E+01 - -6.9E+00)	no samples
Cs-137	2/ 0	1.2E+01 ---	-9.4E-01 (0 / 2) (-7.4E+00 - 5.5E+00)	0-2 miles W-WNW (#Z31)	-9.4E-01 (0 / 2) (-7.4E+00 - 5.5E+00)	no samples
Mn-54	2/ 0	1.4E+01 ---	1.0E+00 (0 / 2) (-3.2E+00 - 5.3E+00)	0-2 miles W-WNW (#Z31)	1.0E+00 (0 / 2) (-3.2E+00 - 5.3E+00)	no samples
Fe-59	2/ 0	7.1E+01 ---	-2.5E+01 (0 / 2) (-3.7E+01 - -1.2E+01)	0-2 miles W-WNW (#Z31)	-2.5E+01 (0 / 2) (-3.7E+01 - -1.2E+01)	no samples
Co-58	2/ 0	2.1E+01 ---	-1.1E+01 (0 / 2) (-1.2E+01 - -1.0E+01)	0-2 miles W-WNW (#Z31)	-1.1E+01 (0 / 2) (-1.2E+01 - -1.0E+01)	no samples
Co-60	2/ 0	1.3E+01 ---	-1.1E+00 (0 / 2) (-2.2E+00 - 0.0E+00)	0-2 miles W-WNW (#Z31)	-1.1E+00 (0 / 2) (-2.2E+00 - 0.0E+00)	no samples
Zn-65	2/ 0	3.5E+01 ---	-8.9E+00 (0 / 2) (-1.3E+01 - -4.5E+00)	0-2 miles W-WNW (#Z31)	-8.9E+00 (0 / 2) (-1.3E+01 - -4.5E+00)	no samples
Zr-95	2/ 0	4.3E+01 ---	-5.0E+00 (0 / 2) (-1.2E+01 - 2.5E+00)	0-2 miles W-WNW (#Z31)	-5.0E+00 (0 / 2) (-1.2E+01 - 2.5E+00)	no samples
Nb-95	2/ 0	4.5E+01 ---	-7.6E+00 (0 / 2) (-2.2E+01 - 6.6E+00)	0-2 miles W-WNW (#Z31)	-7.6E+00 (0 / 2) (-2.2E+01 - 6.6E+00)	no samples
Ba-140	2/ 0	1.2E+03 ---	-7.1E+02 (0 / 2) (-9.9E+02 - -4.2E+02)	0-2 miles W-WNW (#Z31)	-7.1E+02 (0 / 2) (-9.9E+02 - -4.2E+02)	no samples
La-140	2/ 0	5.4E+02 ---	-1.4E+02 (0 / 2) (-2.8E+02 - -2.8E+02)	0-2 miles W-WNW (#Z31)	-1.4E+02 (0 / 2) (-2.8E+02 - -2.8E+02)	no samples

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Airborne Particulate

UNITS: pCi/M^3

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
Beta	514/ 0	1.0E-03 1.0E-02	1.8E-02 (462 / 462) (5.7E-03 - 3.7E-02)	9 miles NW (#039)	1.8E-02 (52 / 52) (7.7E-03 - 3.5E-02)	1.8E-02 (52 / 52) (6.2E-03 - 3.5E-02)
I-131	40/ 0	1.5E-02 7.0E-02	-9.5E-04 (0 / 36) (-1.1E-02 - 1.0E-02)	3.5 miles ESE (#006)	1.7E-03 (0 / 8) (-4.4E-03 - 8.9E-03)	7.4E-04 (0 / 4) (-1.7E-03 - 3.2E-03)
Cs-134	40/ 0	2.3E-04 5.0E-02	-2.3E-04 (0 / 36) (-5.3E-04 - 1.2E-04)	14 miles NNE (#033)	-1.7E-04 (0 / 4) (-3.0E-04 - 6.4E-05)	-2.5E-04 (0 / 4) (-3.4E-04 - 1.8E-04)
Cs-137	40/ 0	2.4E-04 6.0E-02	2.1E-05 (0 / 36) (-1.5E-04 - 2.9E-04)	14 miles NNE (#033)	5.0E-05 (0 / 4) (-9.7E-05 - 1.5E-04)	1.9E-05 (0 / 4) (-8.5E-06 - 7.0E-05)
Mn-54	40/ 0	2.5E-04 ---	-1.7E-05 (0 / 36) (-1.9E-04 - 1.5E-04)	14 miles NNE (#033)	4.2E-05 (0 / 4) (-2.4E-05 - 1.2E-04)	-3.5E-05 (0 / 4) (-6.3E-05 - 1.9E-05)
Fe-59	39/ 0	1.1E-03 ---	-1.3E-04 (0 / 35) (-1.1E-03 - 7.0E-04)	11 miles W (#037)	1.5E-04 (0 / 4) (-1.6E-04 - 5.2E-04)	1.5E-04 (0 / 4) (-1.6E-04 - 5.2E-04)
Co-58	40/ 0	3.9E-04 ---	-4.5E-06 (0 / 36) (-2.1E-04 - 2.3E-04)	1 mile N (#001)	5.9E-05 (0 / 4) (-1.6E-05 - 2.3E-04)	-4.0E-05 (0 / 4) (-1.8E-04 - 1.1E-04)
Co-60	40/ 0	2.4E-04 ---	-1.0E-05 (0 / 36) (-1.7E-04 - 2.5E-04)	1 mile NNW (#016)	4.4E-05 (0 / 4) (-7.4E-05 - 2.5E-04)	-1.6E-05 (0 / 4) (-4.5E-05 - 4.0E-05)
Zn-65	40/ 0	5.7E-04 ---	-2.2E-04 (0 / 36) (-5.1E-04 - 1.5E-04)	1 mile NNW (#016)	-1.4E-04 (0 / 4) (-3.4E-04 - 1.5E-04)	-3.1E-04 (0 / 4) (-3.8E-04 - 2.5E-04)
Zr-95	40/ 0	7.6E-04 ---	-6.2E-05 (0 / 36) (-5.2E-04 - 7.1E-04)	1 mile N (#001)	[illegible] (0 / 4) (-4.1E-04 - 7.1E-04)	-9.2E-05 (0 / 4) (-2.8E-04 - 1.7E-04)
Nb-95	40/ 0	7.4E-04 ---	-9.2E-05 (0 / 36) (-8.6E-04 - 2.8E-04)	1 mile N (#001)	4.7E-05 (0 / 4) (-1.6E-04 - 1.9E-04)	-6.5E-06 (0 / 4) (-2.9E-04 - 3.2E-04)
Ba-140	40/ 0	1.2E-02 ---	-2.4E-04 (0 / 36) (-8.7E-03 - 9.4E-03)	1 mile NNW (#016)	2.0E-03 (0 / 4) (-3.5E-03 - 9.4E-03)	-5.2E-04 (0 / 4) (-3.1E-03 - 2.5E-03)
La-140	40/ 0	1.0E+00 ---	2.2E-01 (0 / 36) (-3.7E-03 - 2.9E+00)	3.5 miles ESE (#006)	7.3E-01 (0 / [illegible]) (-3.1E-03 - 2.9E+00)	3.1E-04 (0 / 4) (-1.4E-03 - 3.0E-03)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)
** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

1991 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Air Iodine

UNITS: pCi/M^3

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION *	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
I-131	517/ 0	8.9E-03 7.0E-02	-1.3E-03 (0 / 465) (-4.9E-02 ~ 6.2E-03)	11 miles W (#037)	-5.0E-04 (0 / 52) (-1.1E-02 ~ 5.9E-03)	-5.0E-04 (0 / 52) (-1.1E-02 ~ 5.9E-03)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 5

199? ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT SUMMARY

MEDIUM: Immersion Dose by TLD

UNITS: mR/STD Quarter

ANALYSIS TYPE	TOTAL ANALYSES/ NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN (f) ** RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (f) ** RANGE	CONTROL LOCATIONS MEAN (f) ** RANGE
Gamma	177/ 0	* ---	1.5E+01 (169 / 169) (1.2E+01 - 1.9E+01)	1 mile W (#013)	1.9E+01 (8 / 8) (1.8E+01 - 2.1E+01)	1.6E+01 (8 / 8) (1.4E+01 - 1.8E+01)

* AVERAGE MEASURED LLD AND TABLE C-2 VALUES. (--- USED WHEN THERE IS NO REQUIREMENT.)

** FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES. (f)

TABLE 6
PERFORMANCE SUMMARY FOR PROGRAM CONTROLS

Performance Objective	Performance Goal	Performance
±15% accuracy for inter- and intra-laboratory quality control samples	Meet performance objective 95% of the time	95% Goal Met
15% precision for replicate inter- and intralaboratory quality control samples	Meet performance objective 95% of the time	99% Goal Met
Analyze REMP samples in order to meet required LLDs	Meet the LLD requirements 95% of the time	100% Goal Met
Perform the analysis of REMP samples within 30 days of sample receipt	Meet performance objective 100% of the time	98% Goal Not Met
Collect and analyze required samples as scheduled	Meet performance objective 95% of the time	99% Goal Met
Maintain a minimum of 20% quality control sample load which will include field duplicates and splits, reagent blanks, blinds, etc.	Meet performance objective 100% of the time	100% Goal Met