NUREG/CR-4953
DA-TR/8705

Correlation of Radioiodine Resuspension With Temperature at TMI-2

Prepared by J. A. Daniel, E. A. Daniel, E. L. Seth, Jr.

Daniel & Associates, Inc.

Prepared for
U.S. Nuclear Regulatory
Commission

NOTICE

Availability of Reference Materials Cited in NRC Publications

Most documents cited in NRC publications will be available from one of the following sources:

1. The NRC Public Document Room, 1717 H Street, N.W.
   Washington, DC 20555
2. The Superintendent of Documents, U.S. Government Printing Office, Post Office Box 37082, Washington, DC 20013-7082
3. The National Technical Information Service, Springfield, VA 22161

Although the listing that follows represents the majority of documents cited in NRC publications, it is not intended to be exhaustive.

Referenced documents available for inspection and copying for a fee from the NRC Public Document Room include NRC correspondence and internal NRC memoranda; NRC Office of Inspection and Enforcement bulletins, circulars, information notices, inspection and investigation notices; Licensee Event Reports; vendor reports and correspondence; Commission papers; and applicant and licensee documents and correspondence.

The following documents in the NUREG series are available for purchase from the GPO Sales Program: formal NRC staff and contractor reports, NRC-sponsored conference proceedings, and NRC booklets and brochures. Also available are Regulatory Guides, NRC regulations in the *Code of Federal Regulations,* and *Nuclear Regulatory Commission Issuances.*

Documents available from the National Technical Information Service include NUREG series reports and technical reports prepared by other federal agencies and reports prepared by the Atomic Energy Commission, forerunner agency to the Nuclear Regulatory Commission.

Documents available from public and special technical libraries include all open literature items, such as books, journal and periodical articles, and transactions. *Federal Register* notices, federal and state legislation, and congressional reports can usually be obtained from these libraries.

Documents such as theses, dissertations, foreign reports and translations, and non-NRC conference proceedings are available for purchase from the organization sponsoring the publication cited.

Single copies of NRC draft reports are available free, to the extent of supply, upon written request to the Division of Information Support Services, Distribution Section, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

Copies of industry codes and standards used in a substantive manner in the NRC regulatory process are maintained at the NRC Library, 7920 Norfolk Avenue, Bethesda, Maryland, and are available there for reference use by the public. Codes and standards are usually copyrighted and may be purchased from the originating organization or, if they are American National Standards, from the American National Standards Institute, 1430 Broadway, New York, NY 10018.

NUREG/CR-4953
DA-TR/8705

Correlation of Radioiodine Resuspension With Temperature at TMI-2

Manuscript Completed: May 1987
Date Published: July 1987

Prepared by
J. A. Daniel, E. A. Daniel, E. L. Seth, Jr.

Daniel & Associates, Inc.
501 Union Trust Building
850 Sligo Avenue
Silver Spring, MD 20910

Prepared for
Division of Reactor Accident Analysis
Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
Washington, DC 20555
NRC FIN D1647

ABSTRACT

This report addresses the observed long term behavior of radioiodine in specific locations in the TMI-2 Auxiliary and Fuel Handling Buildings, and provides data on the behavior of ^{131}I at relatively low temperatures, (50 - 85 ^{o}F) and non-equilibrium conditions, since the building ventilation systems were in operation. This report also discusses the observed effect of changes in the daily concentration of radioiodine due to diurnal temperature cycles, and establishes a numerical relationship between radioiodine concentration and ambient temperature.

SUMMARY

Radioiodine has been demonstrated to deposit on structural surfaces following release from the fuel of nuclear reactors. This relationship has been studied and shown to be a function of species change between the chemical forms of radioiodine, primarily organic iodide and elemental iodine.

This report investigated the correlation between ^{131}I concentration in the Auxiliary and Fuel Handling Buildings at TMI-2 following the accident in 1979. The results of the investigation showed that there is a linear correlation between radioiodine and temperature, and temperature has a strong influence on the rate of change of radioiodine concentration. The absolute concentration depends on the total amount of radioiodine deposited on the surface. This temperature dependence can result in significant increases in release if the surface area or the amount of radioiodine deposited on the surfaces is large.

CONTENTS

LIST OF FIGURES

LIST OF TABLES

CORRELATION OF RADIOIODINE RESUSPENSION WITH TEMPERATURE AT TMI-2

1. INTRODUCTION

The behavior of radioiodine following a reactor accident is of primary concern due to its potential harmful effects if released to the environment. The accident at TMI Unit 2, while certainly the worst in U.S. commercial reactor history, did not result in significant quantities of radioiodine being released.[1,2] This was due to the fact that the TMI radioactivity containment systems functioned as they were intended by design, and releases of fission products from the plant occurred through the auxiliary and fuel handling building ventilation systems, which were equipped with filtration systems. The primary source of radioactivity in the Auxiliary and Fuel Handling Buildings was from off-gassing of the reactor coolant via the makeup and purification system.

The releases were further mitigated by the phenomenon known as iodine deposition, in which the radioiodine adheres to surfaces either as a condensate or by chemical reaction with materials on the surface, i.e., it may undergo a molecular change of species. Such reactions proceed at their own rate depending on local thermodynamic conditions such as temperature, pressure and concentration of the particular species in the airborne state as well as the concentration on the surface. Iodine chemistry is further complicated by the fact that iodine, besides being a fission product, is also formed as a daughter product from the radioactive decay of tellurium, and therefore a certain fraction of iodine exhibits the transport characteristics of tellurium.

A considerable effort has been expended in the area of radioiodine chemistry in the last few years, primarily focusing on the behavior of radioiodine following its release from the fuel in severe light water reactor accidents and its transport in reactor containment buildings.[3,4,5] The accident sequence itself determines the behavior of radioiodine to a large extent. For example, in reactor accidents in which the core remains covered, the iodine may transport as a soluble ion. In accidents in which the core is uncovered and high core temperature (>1000°C) conditions exist, the iodine will be present as atoms or molecules, and will react with other vapors to form atomic or molecular species. The chemical behavior of ionized iodine in water is quite different from that of iodine molecular or atomic form.

There is relatively little experimental data available on the high temperature vapor phase chemistry of iodine and tellurium to aid in the determination of the predominant species that would be airborne during an accident. Kinetic data on rates of reactions of the various species are also somewhat limited. The typical approach is to determine the composition of the gas phase at equilibrium, i.e., when all reactions have gone to completion. Since reaction rates in a high temperature gas

are typically rapid, this approach does not cause significant errors. However, as the temperature is lowered, reactions become slower, and take longer to reach equilibrium.

This report addresses the observed long term behavior of radioiodine in specific locations in the TMI-2 Auxiliary and Fuel Handling Buildings, and provides data on the behavior of ^{131}I at relatively low temperatures, (50 - 85 ^{o}F) and non-equilibrium conditions, since the building ventilation systems were in operation. This report also discusses the observed effect of changes in the daily concentration of radioiodine due to diurnal temperature cycles, and establishes a numerical relationship between radioiodine concentration and ambient temperature.

2. OBJECTIVES AND METHOD OF APPROACH

2.1 Objectives

The objectives of this effort were to determine:

1. if a direct correlation exists between measured ^{131}I airborne concentrations in the TMI-2 Auxiliary and Fuel Handling Buildings and outside ambient temperature, and

2. if so, determine those correlations, taking into consideration those plant conditions which might effect the radioiodine concentrations.

2.2 Method of Approach

The approach taken to reach the stated objectives was broken down into four major tasks, described below:

Task 1. Collect and plot the diurnal temperature data from the on-site meteorological tower at TMI.

Note: the in-plant recordings of temperature were reviewed for diurnal response, and it was determined that the in-plant recorders were apparently not working properly; all atmospheric recorder pens showed the same constant temperature, which did not vary with elevation, known heat loads in the vicinity, time of day, or time of year.

Task 2. Using the airborne radioiodine measurement data collected at TMI-2 during the period April-July, 1979, plot the data from sampling locations taken from the three floor level elevations as a function of concentration versus time of day, using a cubic spline to interpolate between data points.

Task 3. Identify any plant operations that may have had an adverse effect on the measurement data, i.e., attempt to separate identifiable "bad data".

Task 4. Fit the iodine concentration data to linear or polynomial functions of temperature, using a method of least squares.

2.3 DISCUSSION

It was determined during the review of the data that samples taken before approximately the middle of May from the identified sample locations were sporadic and not clearly identified as to location. Similarly, some sample data from the 305' and 328' elevations from the Fuel Handling Building were too sparse and infrequently counted to provide meaningful data points for purposes of this study. Accordingly, these sample locations were omitted from additional consideration.

3. MEASUREMENT DATA

3.1 Sampling Locations

Radioiodine samples were collected over the period April through July, 1979 from three elevations of the TMI-2 Auxiliary and Fuel Handling Buidlings (AFHB). However, during the month of April and the first part of May, sample locations were not uniformly recorded on the data sheets and are therefore not included in this report.

Beginning about the middle of May, designated sample locations were identified on each of the three elevations of the AFHB, and continuous air samplers were installed within the designated area. The samplers were periodically moved within the area to provide data for particular work evolutions, but were never removed from their designated area. The samplers were placed in access corridors, thereby providing some information about the ventilation flow in the buildings, and particularly the ventilation flow between elevations.

The locations where the samplers were operated are identified in Figures 1, 2, and 3 for the 281 ft, 305 ft, and 328 ft elevations, respectively. A brief description of each of the locations is given below.

3.1.1 Location #1 - 281' el.

Sample location #1 on the 281' elevation of the Auxiliary Building was the area between the access covers to the decay heat vault. The primary source of airborne activity in this location was most likely from liquid leaks from the level indicator on Reactor Coolant Bleed Tank B, located in the cubicle whose door is located near position #1 in Figure 1. While the cubicle is ventilated directly, the potential existed for liquid and gases to migrate into the area covered by this monitor via the doorway. Another potential airborne pathway to this location was down the open stairwell at the south end of the building. Since the ventilation systems at TMI-2 were never balanced according to design, it is difficult to define definite absolute airborne pathways.

3.1.2 Location #2 - 281' el.

Sample location #2 on the 281' elevation was the area along a relatively heavily shielded access corridor across from the reactor coolant makeup pumps, and down the corridor from the seal injection filters. The valve room between the seal injection filters and the Reactor Building was a source of fresh primary coolant leakage during a portion of the period covered by the data in this report.

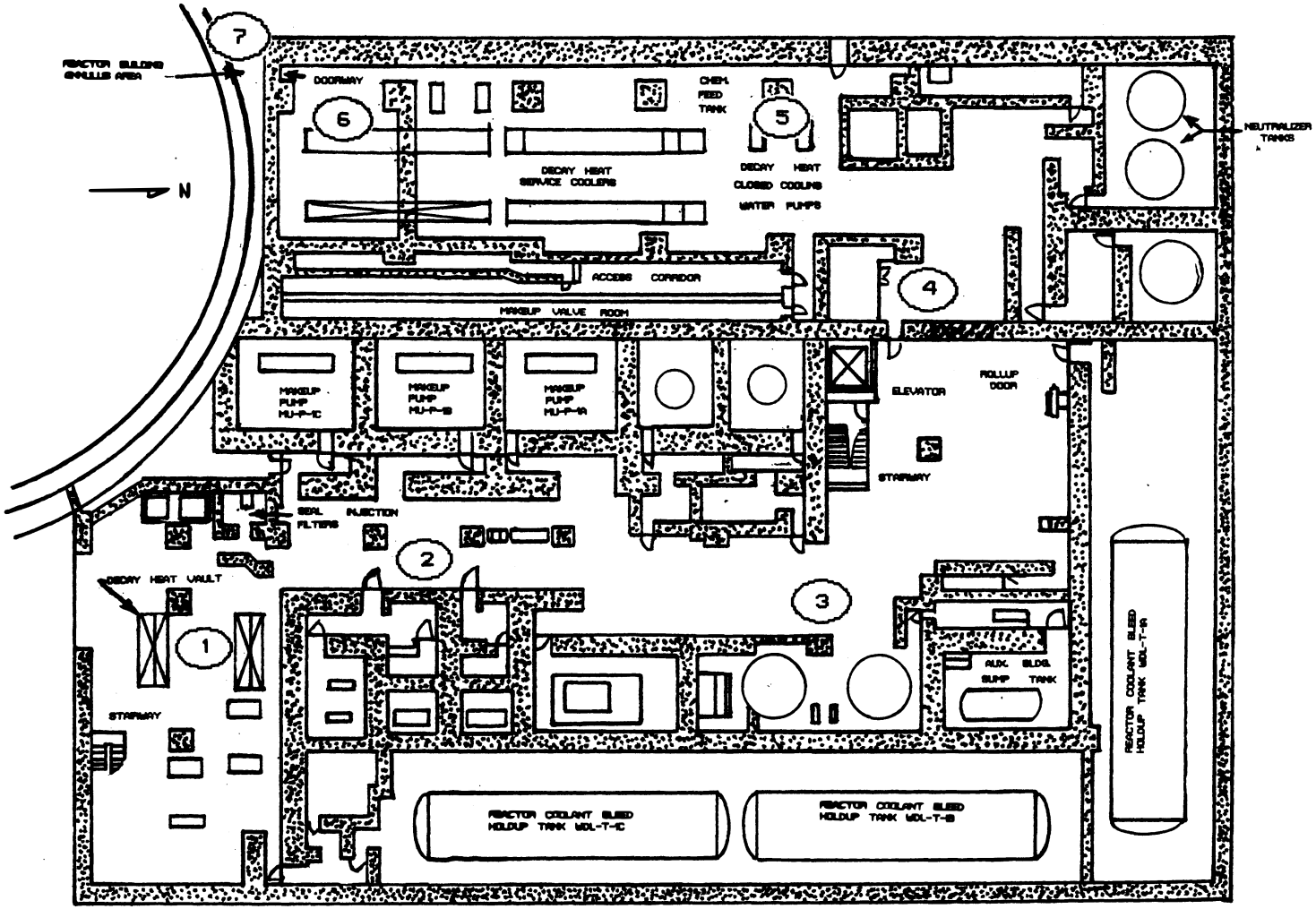

FIGURE 1 LOCATION OF ^{131}I SAMPLERS ON 281' el.

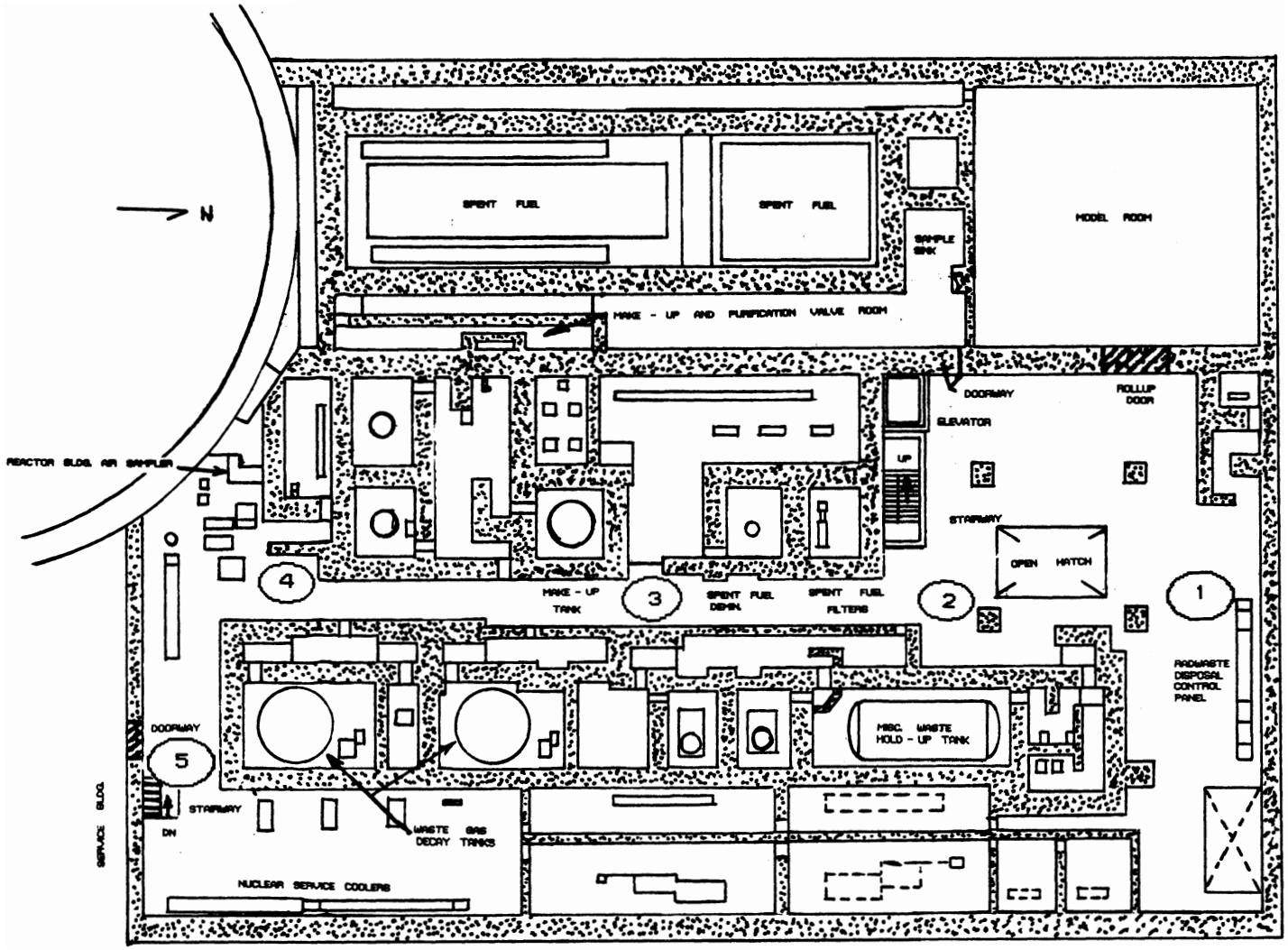

FIGURE 2 LOCATION OF ^{131}I SAMPLERS ON 305' el.

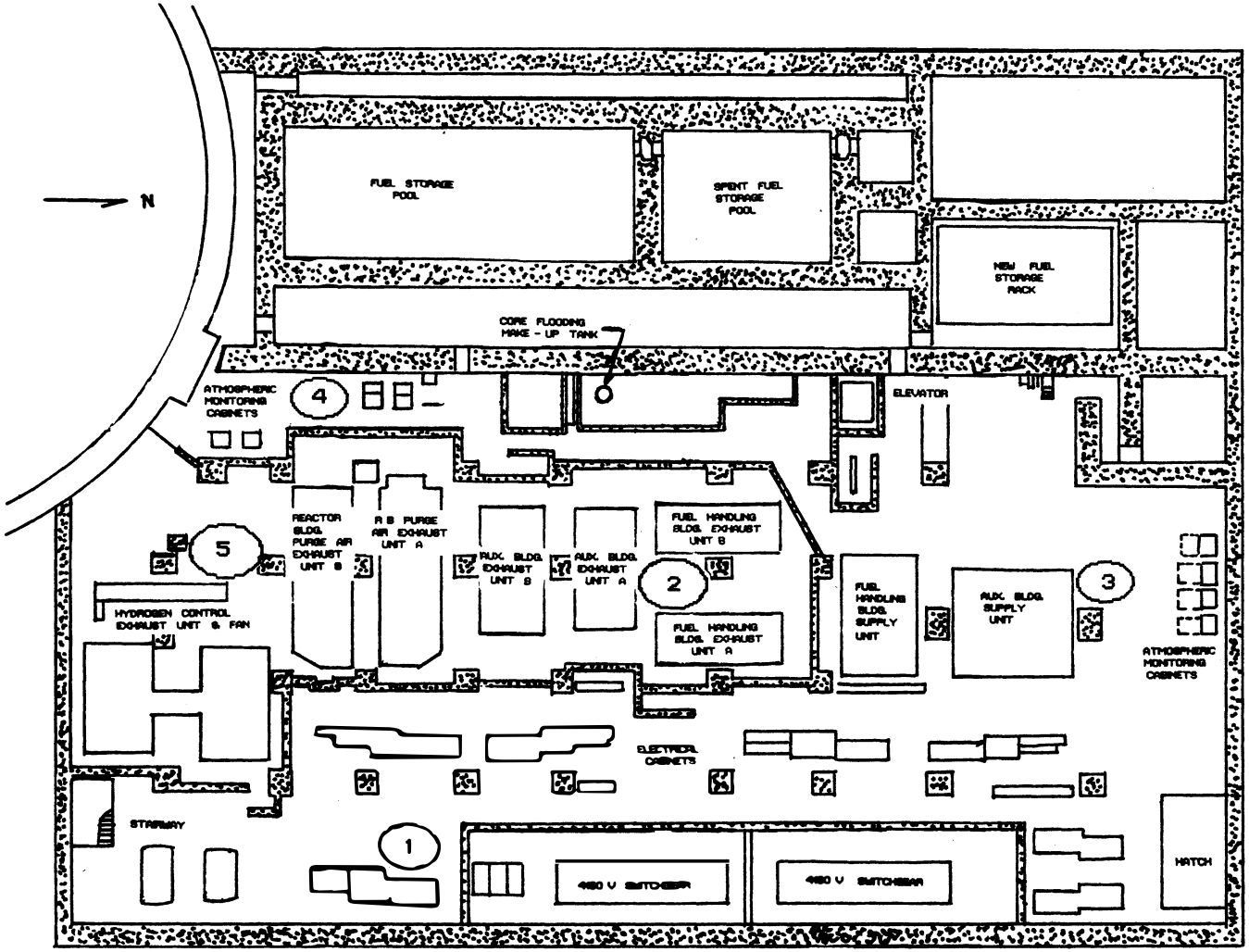

FIGURE 3 LOCATION OF ^{131}I SAMPLERS ON 328' el.

3.1.3 Location #3 281' el.

Sample location #3 on the 281' elevation was the area near a mounted radiation monitoring instrument, in order to compare area radiation levels with quantifiable airborne samples. There is a large opening to the 305' elevation near this location, as shown in Figure 2.

3.1.4 Location #4 281' el.

This location was the area near a roll-up door between the Auxiliary and Fuel Handling Buildings. It is not known whether this door was opened during the period of sample collection or whether it was closed. In any event, it was not an airtight opening.

3.1.5 Location #5 281' el.

The sampler at location #5 was placed between the decay heat closed cooling water pumps, to aid in the detection of any leakage in the area in the event that the decay heat system should be placed in service.

3.1.6 Location #6 281' el.

The sampler at location #6 was put into service approximately May 31st, to monitor airborne levels near a doorway between the Fuel Handling Building and the Reactor Building annulus area. This coincided with decontamination efforts in the annulus area.

3.1.7 Location #7 281' el.

This sampler was placed in service a few days after the sampler in location #6, to monitor airborne levels in the annulus area during decontamination work, and to check for airborne pathways from the Fuel Handling Building.

3.1.8 Location #1 305' el.

Sample location #1 on the 305' elevation of the Auxiliary Building was the area near the radwaste control panel, which was an area requiring frequent access in order to move liquid waste from one tank to another, and to transfer radwaste to post-accident cleanup systems. This is a fairly open area of the building, and is also located near the open hatch between the 281' and the 305' elevations.

3.1.9 Location #2 305' el.

Sample location #2 on the 305' elevation was the area located near radiation area monitor HP-R-232, to provide quantitative airborne data to radiation level readings. Airflow direction is unknown in this area due to the fact that there are numerous penetrations through the walls and floors in this section of the building.

3.1.10 Location #3 305' el.

Location #3 was defined as the area along the center access corridor on the 305' elevation. The walls along this corridor do not extend all the way to the 328' elevation, and is essentially an open area filled with piping and electrical cables. Most of the potentially radioactive piping is shielded, however.

3.1.11 Location #4 305' el.

Location #4 on the 305' elevation was the area placed near the seal return cooler cubicle. The sampler was used to monitor any potential leakage from the seal injection system. It also served to monitor airborne levels during periodic sampling of the Reactor Building atmosphere from HP-R-227, which is located near this sampler, as shown in Figure 2.

3.1.12 Location #5 305' el.

The location of the sampler was near the open stairway at the south end of the building to provide airborne contamination data at the point of entry to the more heavily contaminated 281' elevation. This location was also at the doorway between the Service Building and the Auxiliary Building.

3.1.13 Location #1 328' el.

Sample location #1 on the 328' elevation was defined as the open corridor from the stairway at the south end of the building to the 5th column north. The location circled as "#1" in Figure 3 was the location most frequently sampled.

3.1.14 Location #2 328' el.

Location #2 on the 328' elevation was the area located within the "ventilation room", i.e., the area enclosed by concrete walls shown in the center of Figure 3. This room contains the building ventilation exhaust units, and is the area where the charcoal absorber units are located.

This sampler was used to provide data on airborne levels of contamination in an area not requiring frequent access. The ambient temperature in this room was somewhat higher than that in the rest of the building due to the operation of the electric motors on the exhaust units.

3.1.15 Location #3 328' el.

The area defined as location #3 on the 328' elevation included the entire north end of the building, but the sampler was located the majority of the time in the location shown in Figure 3. This location was in the immediate vicinity of the ventilation system radiation monitoring cabinets, and provided data on background levels of radiation which might have influenced the radiation monitors.

3.1.16 Location #4 328' el.

Sample location #4 on the 328' elevation was the area near the stack vent sampling cabinet, HP-R-219, an area requiring frequent access during the accident. The area is open to the Reactor Building annulus area, and it is possible that ventilation flow existed from the 281' and 305' elevations of the Fuel Handling Building to this sample location.

3.1.17 Location #5 328' el.

The Sampler for location #5 on the 328' elevation was not put into service until June 2, and was physically located near the hydrogen control exhaust unit. The hydrogen control system was designed to provide a low volume Reactor Building purge capability, but was not put into service until July, 1980, during the purge of the krypton gas from the Reactor Building. Data from this location was not of sufficient duration to be meaningful.

3.2 Effect of Plant Operations on Sample Data

The first few days following the accident were characterized by the movement of large volumes of water from the reactor coolant system to the Auxiliary Building via the makeup and letdown systems. This effort was a feed and bleed operation in an attempt to degas the primary system. The gas was released through the gas vent header to the waste gas decay tanks. After March 30, the decay tanks were vented back into the reactor building to prevent additional releases to the environment. The vent header was known to leak, and there were gaseous releases from the plant each time it was used. In any event, the makeup and letdown system was the primary source of radioiodine transport into the Auxiliary Building.

On the morning of March 28, the Auxiliary Building Sump overflowed, and water backed up through the floor drains and onto the floor of the 281' elevation of the Auxiliary Building. However, this event occurred before there was core damage, and the activity of the water was therefore relatively low. As the accident evolved, the Auxiliary Building sump was a source of airborne activity, since it was open to the building ventilation system.

On April 24, the charcoal absorbers were changed in the A train of the Fuel Handling Building exhaust system, and these in the B train of the Auxiliary Building exhaust system were changed on April 25. On May 1, 1979, the supplementary Auxiliary Building filtration system was put into operation, which altered the ventilation flow rates in the building. The supplemental ventilation system exhausted from the roof of the Auxiliary Building instead of the plant stack. It was observed that backflow down the plant stack was occurring, and the plant stack was capped on or about May 20.

Between May 17 and 19, some highly contaminated water was spilled onto the floor in the Auxiliary Building on the 328' elevation near the core flood makeup tanks, identified in Figure 3.

During the entire sampling period, the Auxiliary and Fuel Handling Buildings were being decontaminated and systems were being installed to handle the highly contaminated water. In addition, samples of the Reactor Building atmosphere and primary coolant liquid samples were being taken, which provided the opportunity for fresh airborne contamination. In spite of all of these operations, the airborne level of ^{131}I remained fairly constant, and there is no one particular event that is clearly recognizable as causing an increase in airborne contamination. However, about June 21, 22, and 23, there was a prominent step change in the ^{131}I concentrations measured on the 281' elevation, location 1; 305' elevation, locations 1 and 3, and 328' elevation, locations 1 and 4. A smaller step change was also observed on June 12 and 13, but was shorter in duration. The reasons for these changes are unknown, but are most likely attributable to decontamination efforts.

3.3 Temperature Data

Hourly average temperature recordings were made at the on-site meteorological tower located at the north end of the island. "Hourly average" in this case is actually the average temperature over two readings, taken 7.5 minutes before the hour and 7.5 minutes after the hour. There were a few periods during which the instrument was not working properly, and no temperature recording was made. The longest section of missing data occurred on June 17, and was 20 hours in duration. This period of missing data did not impact the overall objective and conclusions of this report.

The hourly temperatures recorded for the months of May, June and July are given in Tables A.1, A.2, and A.3 of Appendix A, respectively. Monthly plots of the temperature data are shown in Figures 4, 5, and 6, respectively, so that the reader may see the broad trend of temperature variations as well as the diurnal temperature changes. Smaller plots of the temperature are shown within individual sample location data in order to better detail the relationship of changes in ^{131}I concentration with temperature.

It is recognized that outside ambient temperature may differ from specific temperatures inside the plant due to local heat sources such as pumps and motors. However, since the building ventilation systems kept the Auxiliary and Fuel Handling Buildings (AFHB) under negative pressure, the makeup air was supplied from outside air via the air intake tunnel. One would expect to see some lag in the response of inside temperature due to the thermal capacitance of the concrete in the building, and the sample data for ^{131}I does show a lag of 2 to 4 hours, depending on the location.

3.4 REDUCTION OF DATA

The data from the sample locations discussed in Section 3.1 are contained in Appendix B, and summarize the ^{131}I data by location and elevation. The data in Appendix B have not been corrected for decay.

The measurement data was reviewed for consistency with data collected from the atmospheric radiation monitoring systems. Both sets of data demonstrated an airborne concentration that decreased with an approximate 8 day half-life, which suggest that there was either a fresh, constant and continuous leak of radioiodine into the building during the entire measurement period, or that the resuspension rate was much less than the decay rate.

A comparison of the release rate of xenon, the daughter product of iodine, sheds some light in this direction. Almost all of the xenon release occurred within the first few days of the accident[2]. In contrast, the release rate of radioiodine remained nearly uniform (correcting for decay) over the first month. This observation led other investigators of the TMI-2 accident to conclude that most of the ^{131}I released to the ventilation system from May through August had been deposited earlier on interior surfaces[6].

To aid in the identification of potential periods in which a correlation might exist, and to establish the sample data on an identical scale with the recorded temperature data, the raw sample data was fitted to a cubic spline function, and hourly concentrations of ^{131}I were computed by interpolation. The interpolation routines were handled by the Newton-Coates formulas and a cubic spline algorithm as developed by Forsythe[7].

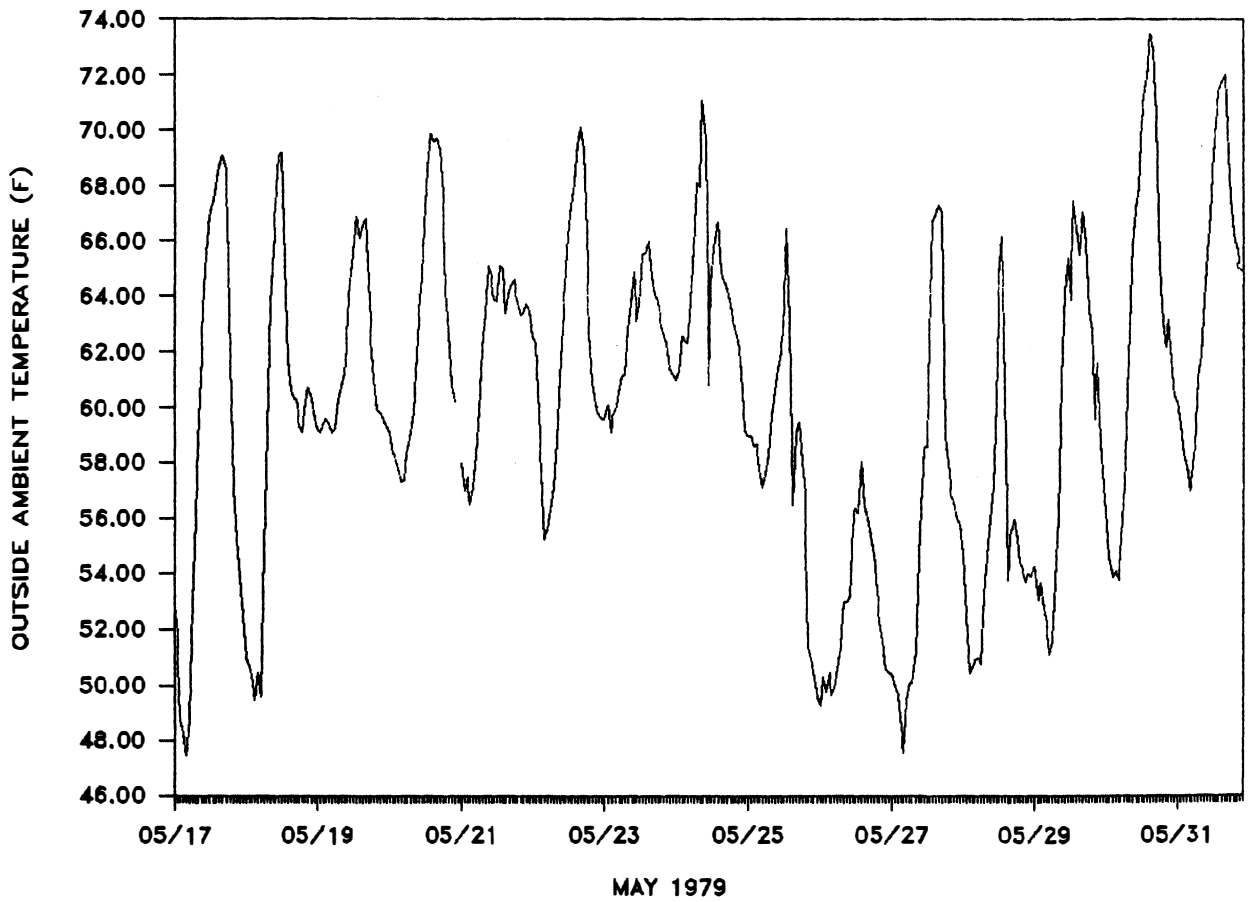

FIGURE 4 AMBIENT TEMPERATURE - MAY

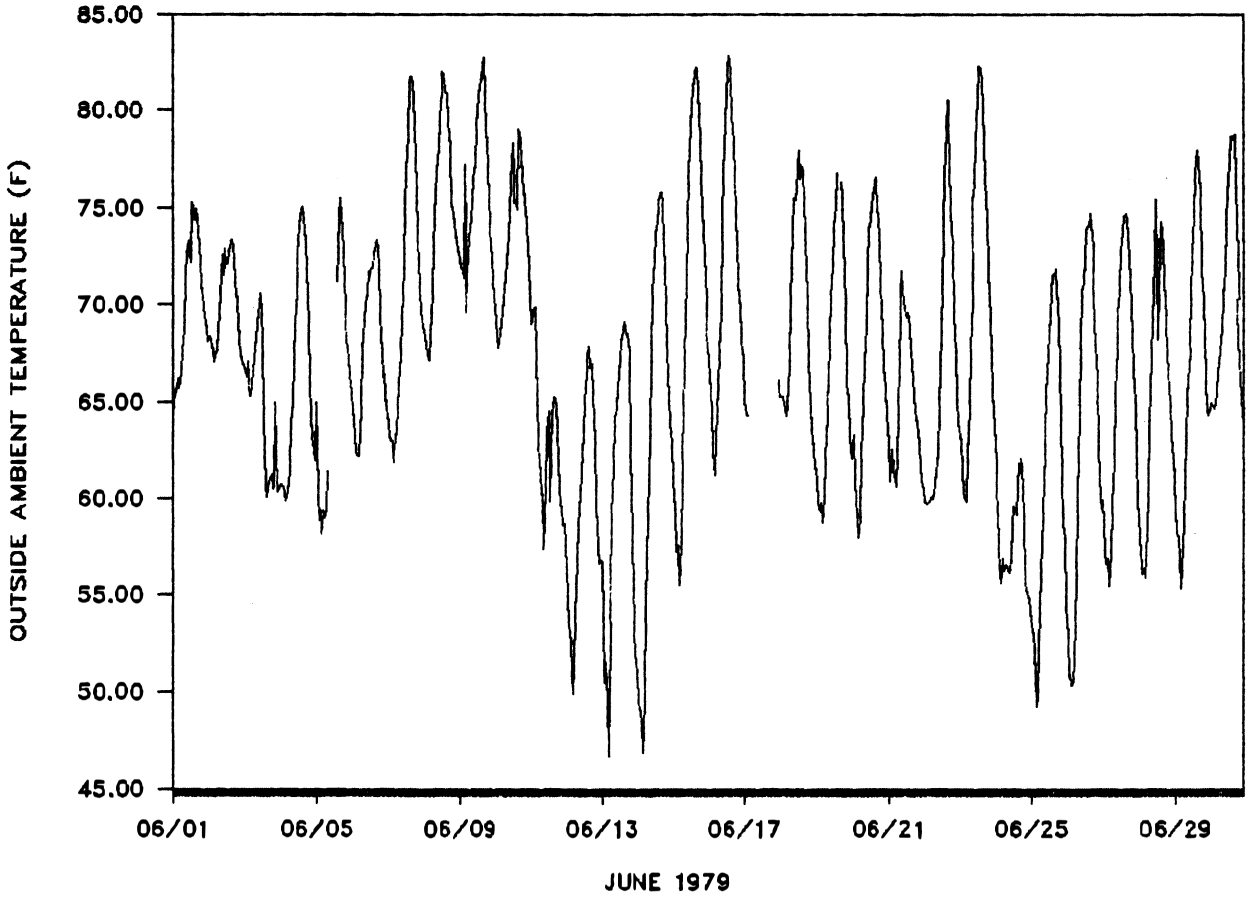

FIGURE 5 AMBIENT TEMPERATURE - JUNE

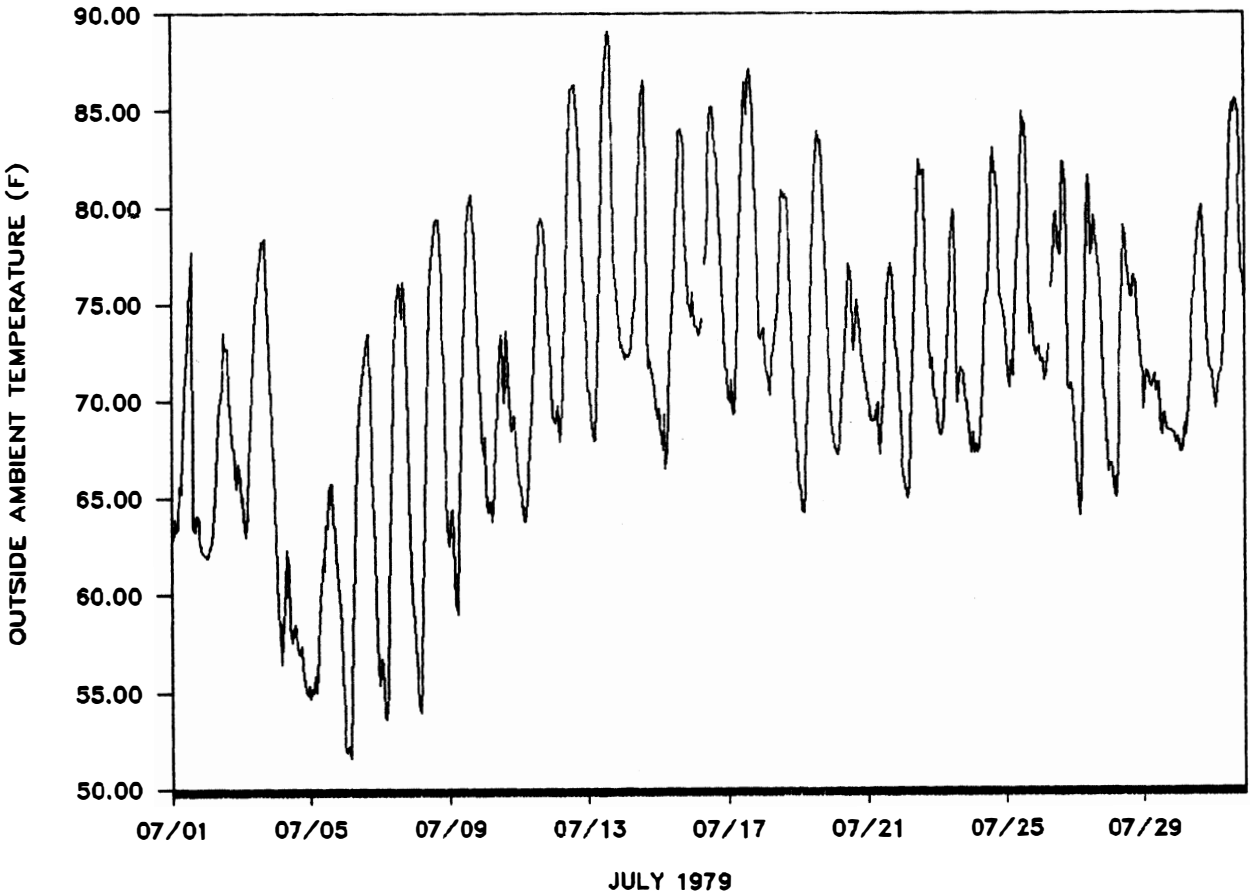

FIGURE 6 AMBIENT TEMPERATURE - JULY

The Newton-Coates formulas are a family of integration formulas based on passing polynomials of various degree through equally spaced data points and evaluating the integral of the interpolating polynomial. The rectangular rule, the trapezoidal rule, and Simpson's Rule are the first three members of the Newton-Coates family, representing interpolating polynomials of degree zero, one, and two, respectively. Spline formulas are typically used to interpolate values between discrete data points. Cubic polynomials are evaluated by restricting the cubic equation to be continuous at each data point, to have continuous first and second derivatives at each data point, and to satisfy an imposed end condition.

A spline fit is an algorithm which is used to estimate a function between data points. A cubic spline fits a cubic polynomial between point with continuous first and second derivatives. The cubic spline is often used in curve fitting and interpolation routines and can also be used as quadrature routine in numerical integration.

The distribution functions as a function of time were used to compute the coefficients B, C, and D in the following equation:

$$S(x) = 1/i + B_i(x - x_i) + C_i(x - x_i)^2 + D_i(x - x_2)^3$$

Following this spline fitting procedure, the data were then plotted as a function of time on the same scale as the temperature. The spline fitting routine has a tendency to overshoot and undershoot the actual data point when the data are widely separated. This feature of the spline function served as an aid to determine periods in which the data points were sufficiently close together to indicate periods of possible correlation.

Figures 7 and 8 demonstrate this technique. These figures are plots of temperature and ^{131}I concentration as a function of time for the months of May and June, respectively, at different locations. The ^{131}I data have been corrected for decay to 3/28/79 and divided through by 10^{-6} to obtain compatible scaling. The actual sample data points are shown on these figures to illustrate the approach used.

The period 5/21 to 5/23 in Figure 7 shows data points closely grouped, indicating the shape of the curve during this period, and the spline provides a reasonably good fit. On the other hand, the data points between 5/23 and 5/25 demonstrate the behavior of the spline in a period where the spline fit is not really appropriate, i.e., the data points show a general linearly increasing trend. Note also that the temperature change during this period was less than 10 ^{o}F.

During the period 5/25 - 5/30, the daily temperature swings increased, and the data points are fairly well represented by the spline curve. Also note that there is a 2 - 3 hour (or greater) difference between peak daily temperature and peak daily iodine concentration. This may be due to the fact that internal temperature in the Auxiliary Building on the 281' elevation was slow to respond to outside temperature due to

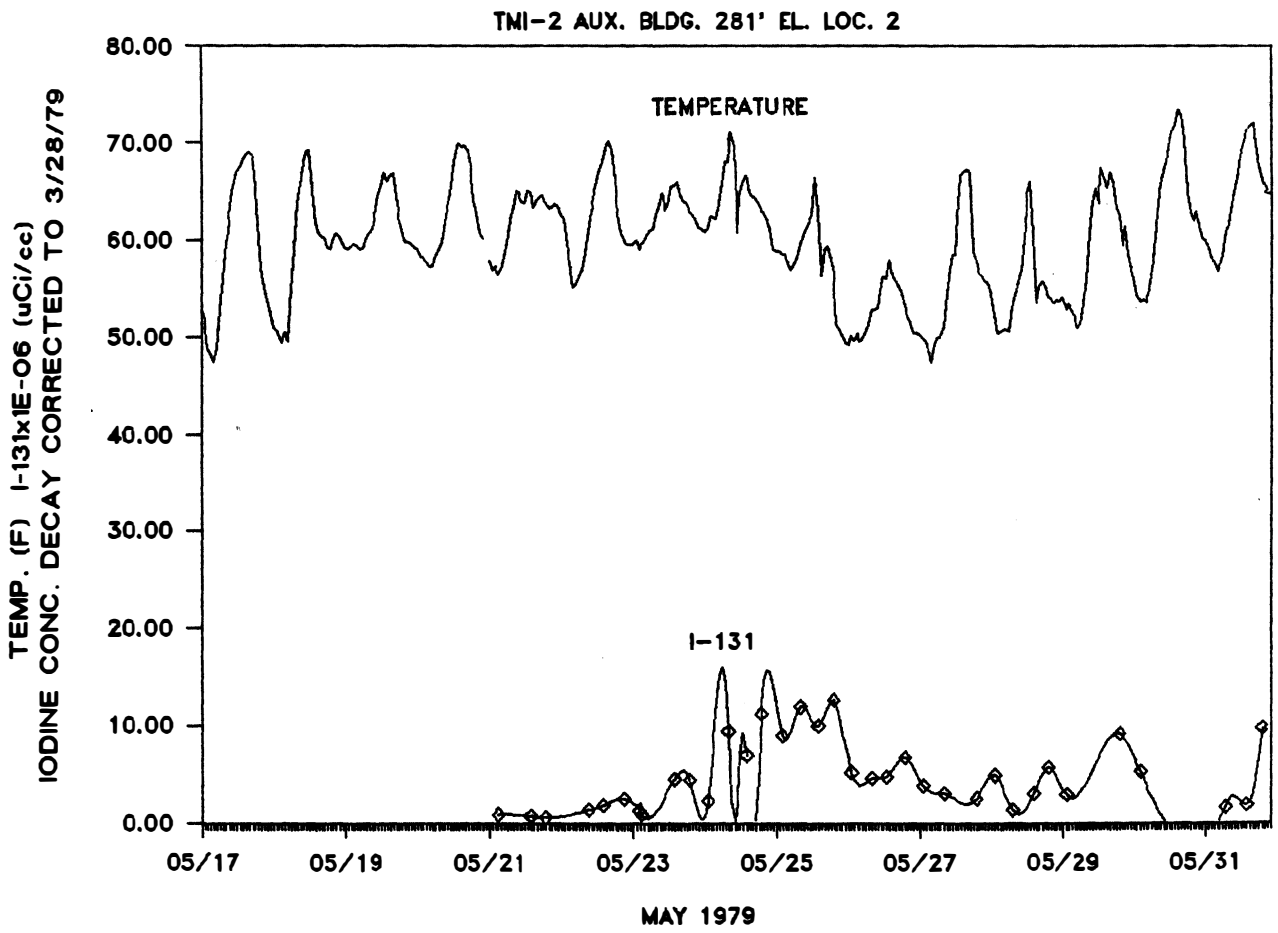

FIGURE 7 EXAMPLE OF SPLINE CURVE FIT TO DATA (Location 2, 281' el., May)

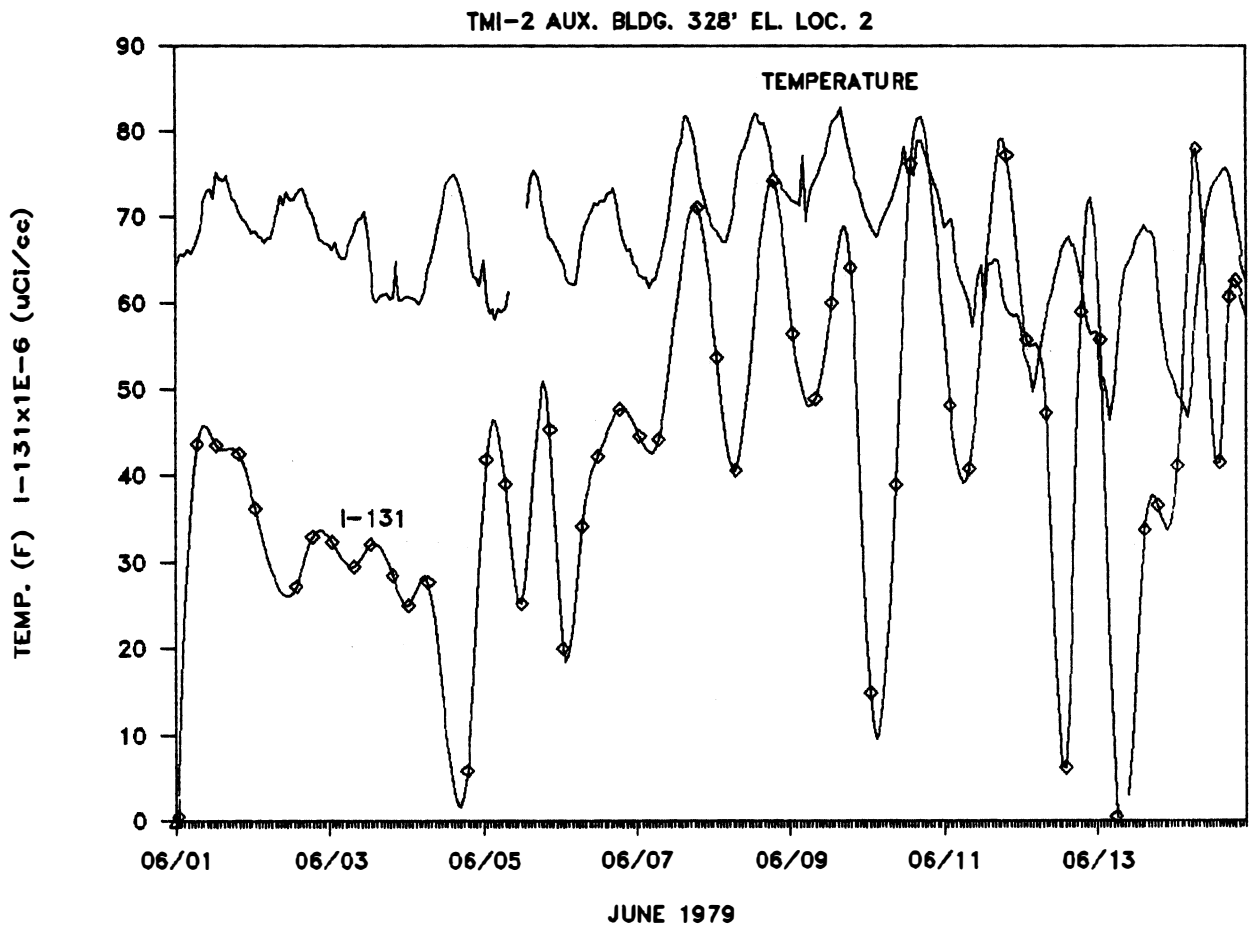

FIGURE 8 EXAMPLE OF SPLINE CURVE FIT TO DATA (Location 2, 328' el., June)

thermal capacitance of the structure, i.e., the walls required a time period to reach a higher temperature due to the heat transfer coefficient between the atmosphere and the concrete surface.

Figure 8 is a plot of ^{131}I concentration and daily temperature as a function of time. Actual sample data is indicated as shown. This particular location has data points relatively close together, and is well represented by the spline curve fit for the period 6/01 to 6/14.

3.5 RESULTS AND CONCLUSIONS

Concentrations of ^{131}I and temperature for all of the sample locations were plotted as a function of time using this spline fitting procedure. These plots are contained in Appendix C, and are shown with a vertical grid to facilitate correlation with temperature.

Figure 9 is an example of such a time period with data points sufficient to define a correlation with temperature, and covers the period 6/07 through 6/10 for location 2 on the 328' elevation.

Figure 10 is a plot of the first derivatives of the curves shown in Figure 9. The sinusoidal curves identified as dTEMP/dTIME and dCONC/dTIME are the rate of change of temperature with time and the rate of change of airborne radioiodine with time, respectively. The shape of this curve clearly identifies the relationship between iodine concentration and temperature as a linear function. The curve identified as dCONC/dTEMP is displaced upward in the figure for clarity, and is simply the rate of change of radioiodine with respect to temperature. The spikes in the curve occur at the points of deflection of the sinusoidal curves.

Nine time periods were selected to plot radioiodine concentration as a function of temperature. This was accomplished by sorting the data in order of increasing temperature to see the general trend in radioiodine behavior. These plots are shown in Figures 11 through 19, and the slope of the line drawn through the points is indicative of the mathematical relationship between radioiodine concentration and temperature. The apparent "scatter" in the data is due to the fact that these plots do not consider the rate of change in concentration, such as in Figure 10.

Figures 11 through 19 identify the equation for the curve fit through the line shown in the figure. It can readily be seen that temperature has a comsiderable influence on iodine concentration; e.g., a temperature change of 18 ^{o}F may result in an iodine change of approximately 65%. Not all of the locations sampled demonstrated this significant a change, however. Figures 11 through 19 show the spread in the observed behavior of iodine as a function of temperature.

In conclusion, this study has shown that a relationship exists between temperature and radioiodine concentration. Specifically, the rate of

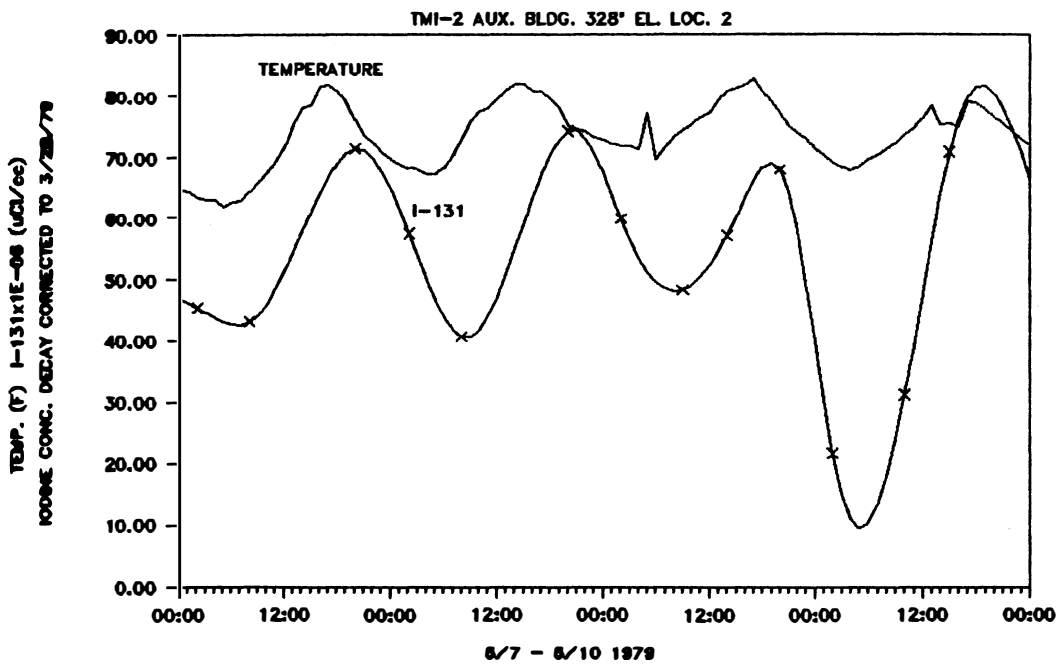

FIGURE 9 ^{131}I AND TEMPERATURE vs TIME

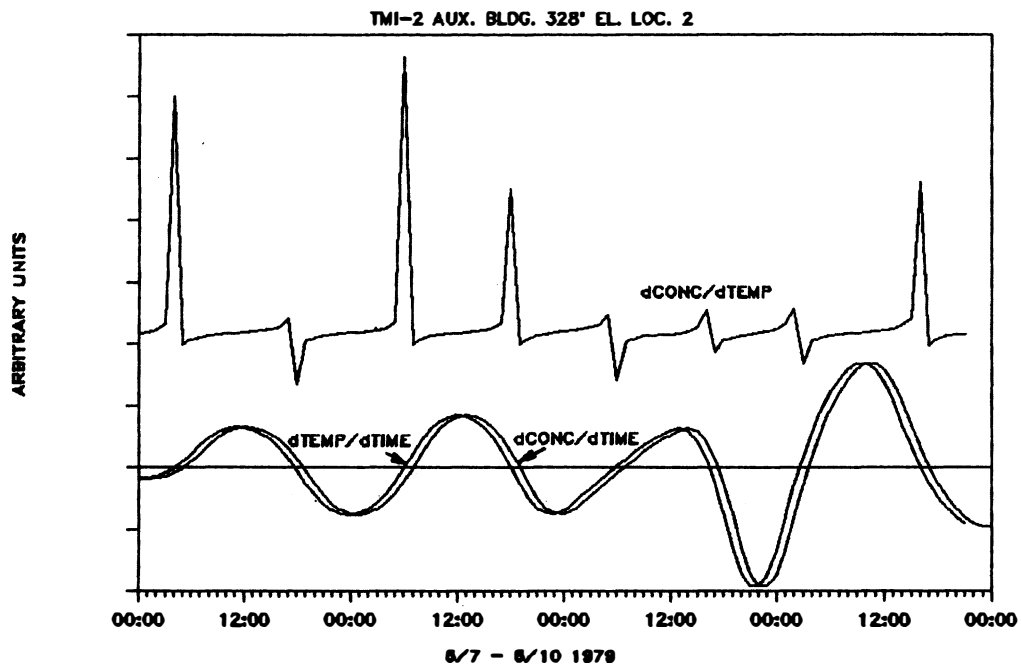

FIGURE 10 COMPARISON OF FIRST DERIVATIVES OF DATA SHOWN IN FIGURE 9

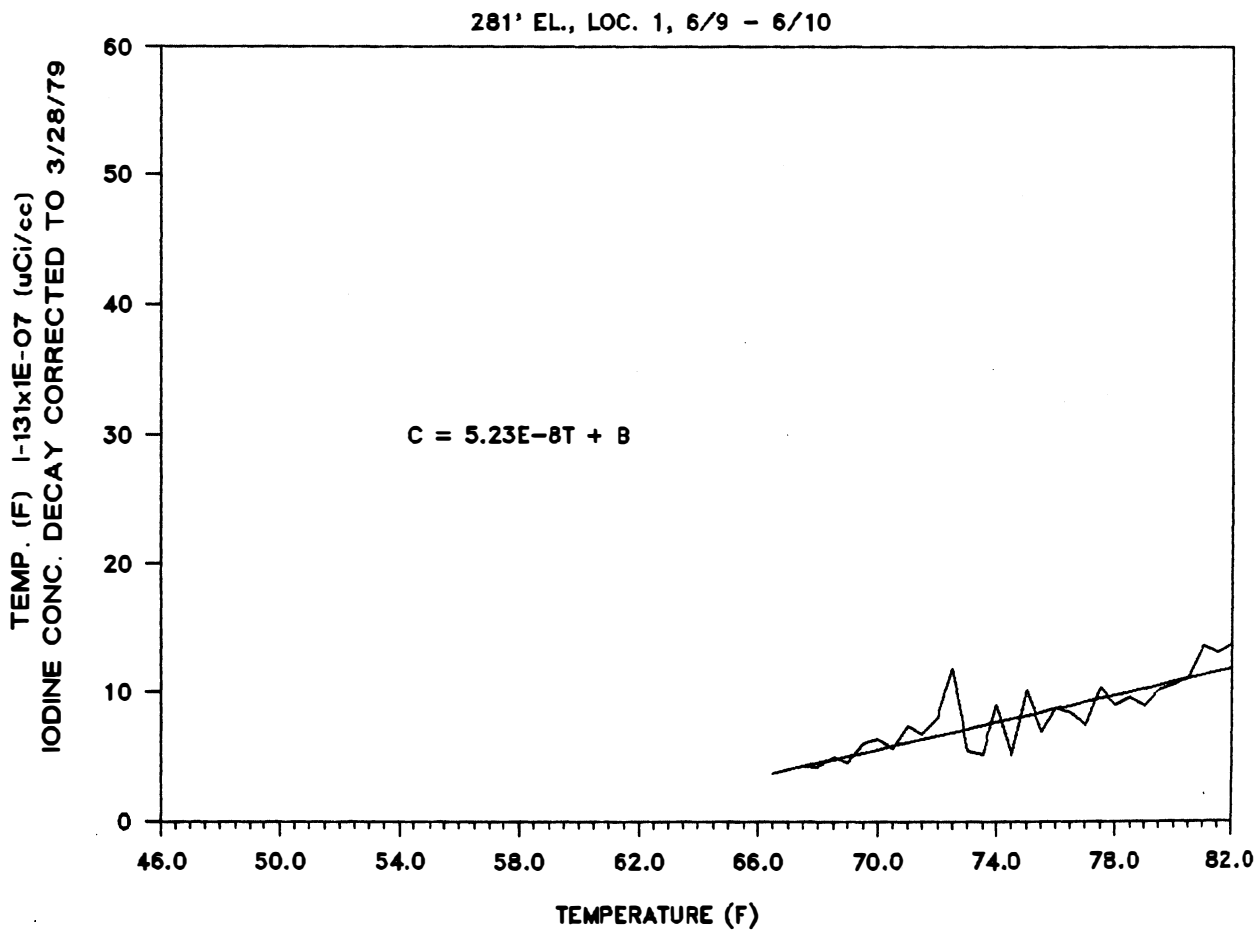

FIGURE 11 ^{131}I CONCENTRATION vs TEMPERATURE (LOCATION 2, 281' el., 6/9-6/10)

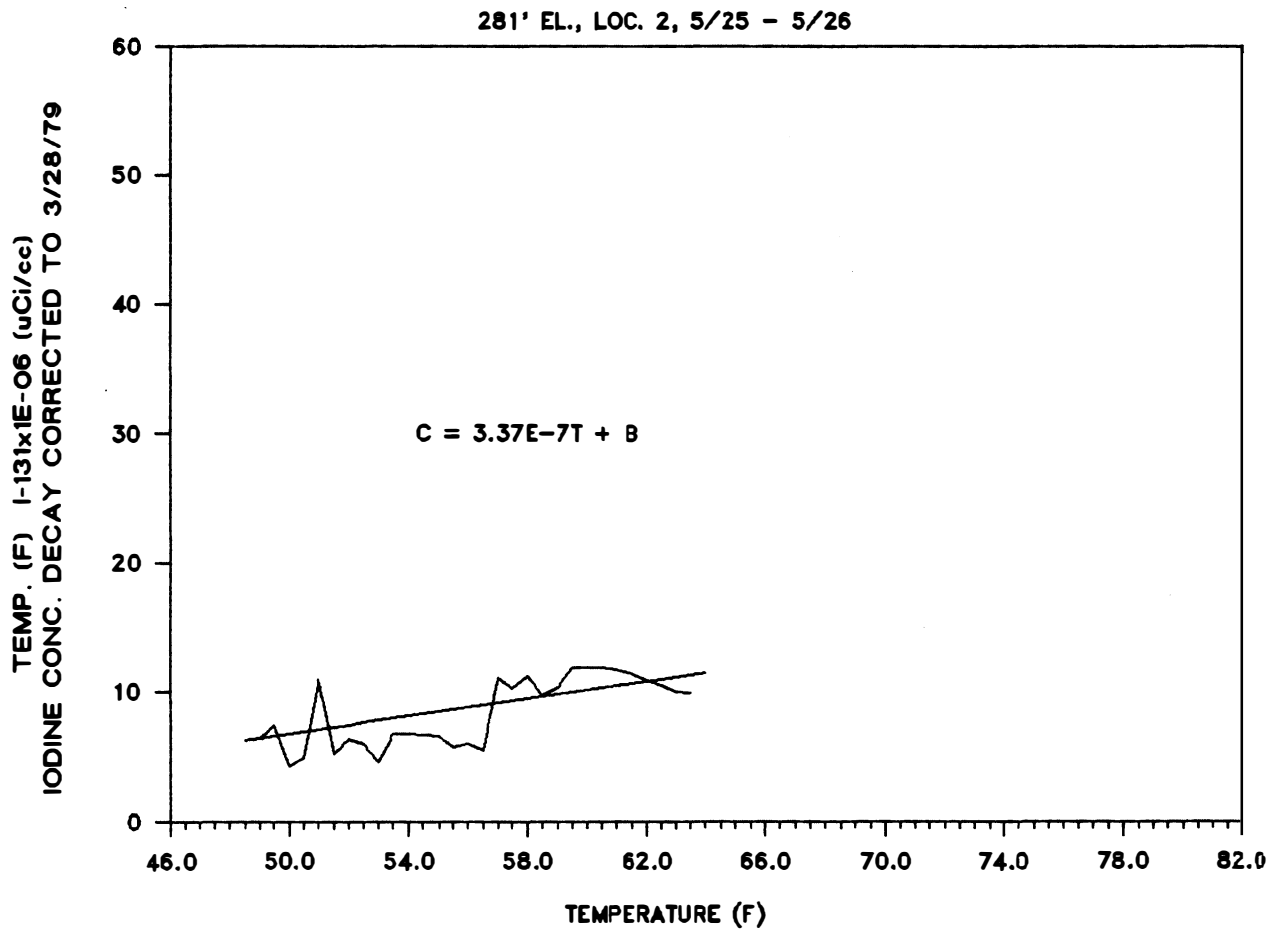

FIGURE 12 ^{131}I CONCENTRATION vs TEMPERATURE (LOCATION 2, 281' el., 5/25-5/26)

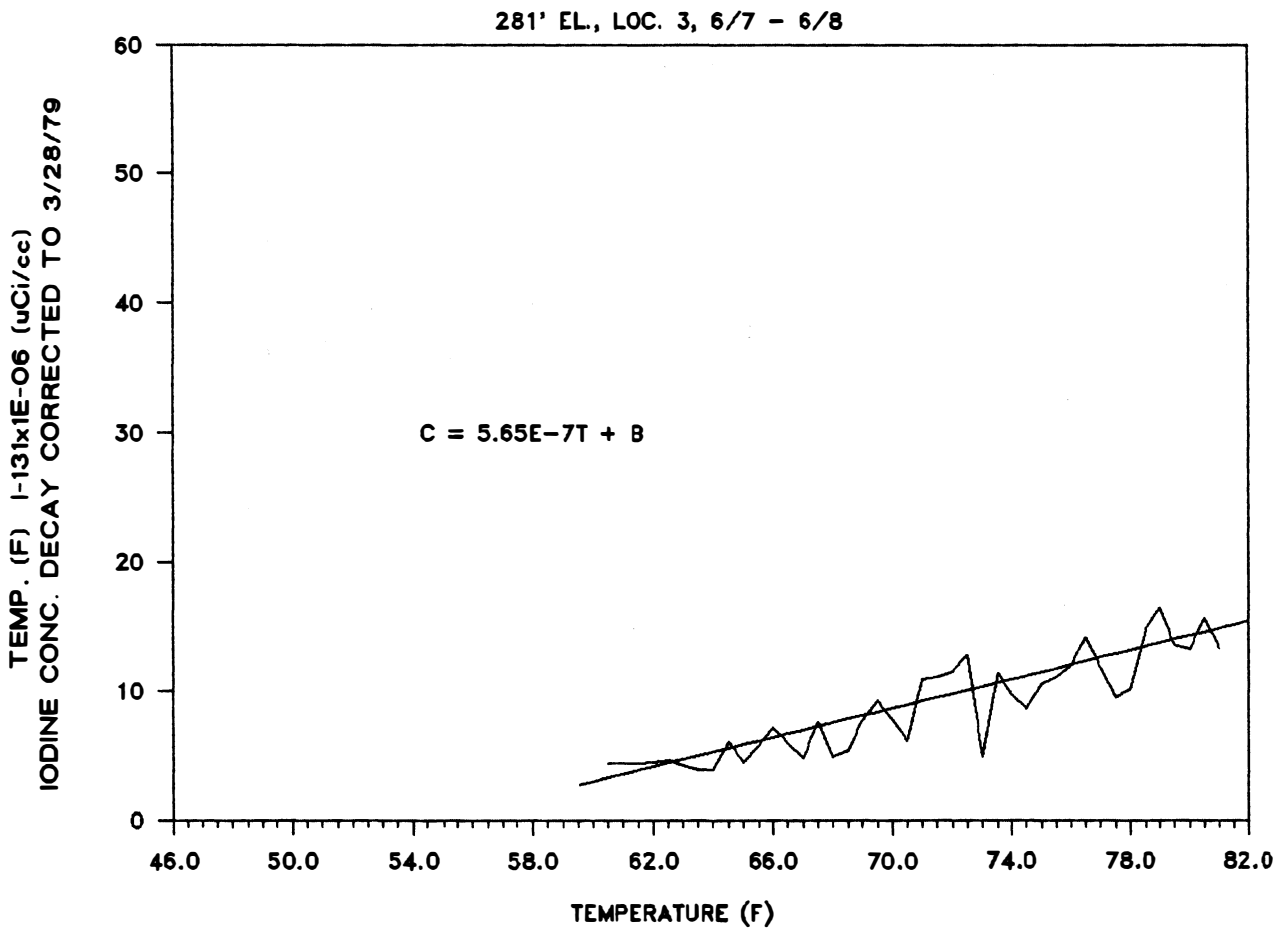

FIGURE 13 ^{131}I CONCENTRATION vs TEMPERATURE (LOCATION 3, 281' el., 6/7-6/8)

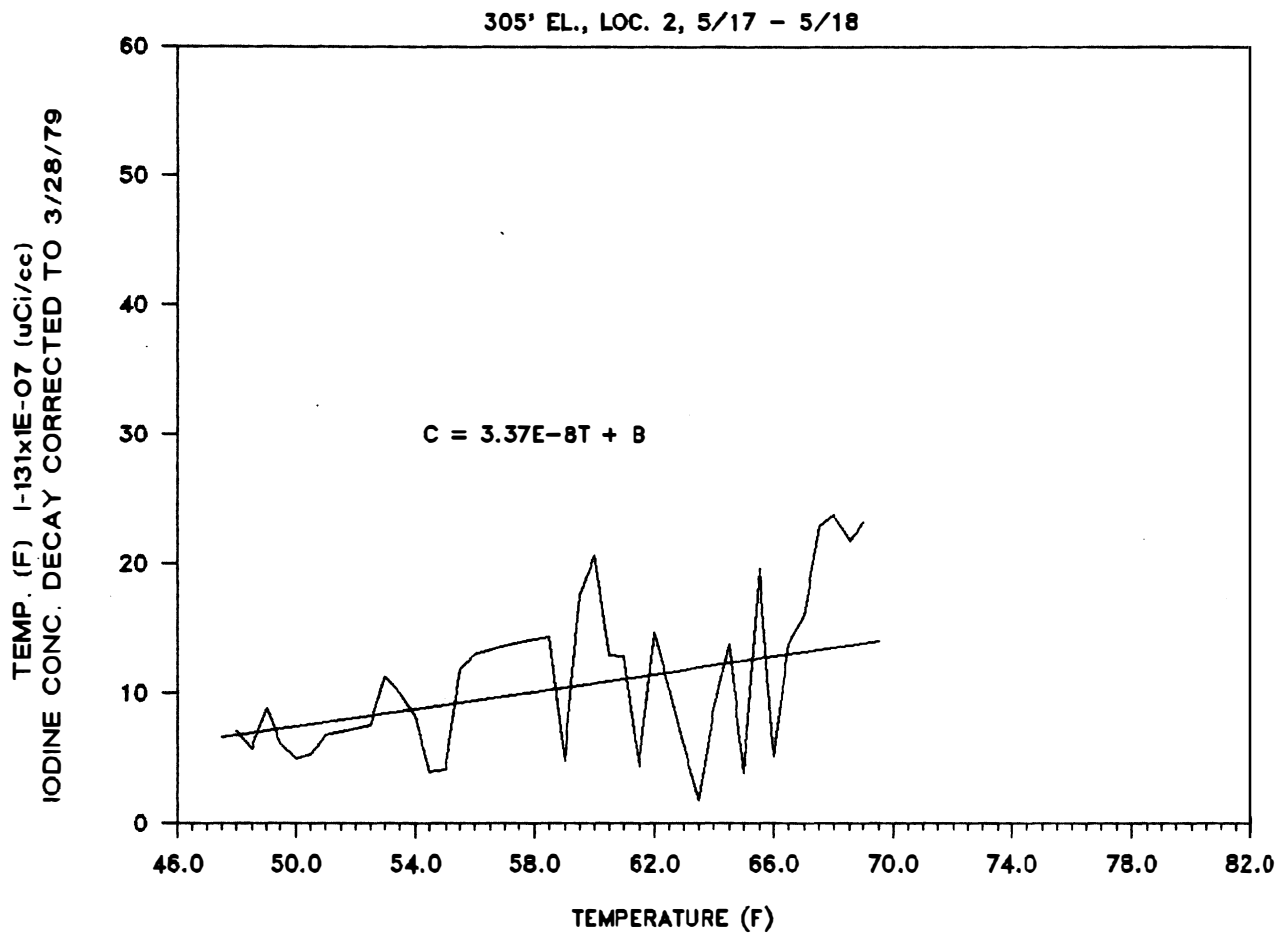

FIGURE 14 ^{131}I CONCENTRATION vs TEMPERATURE (LOCATION 2, 305' el., 5/17-5/18)

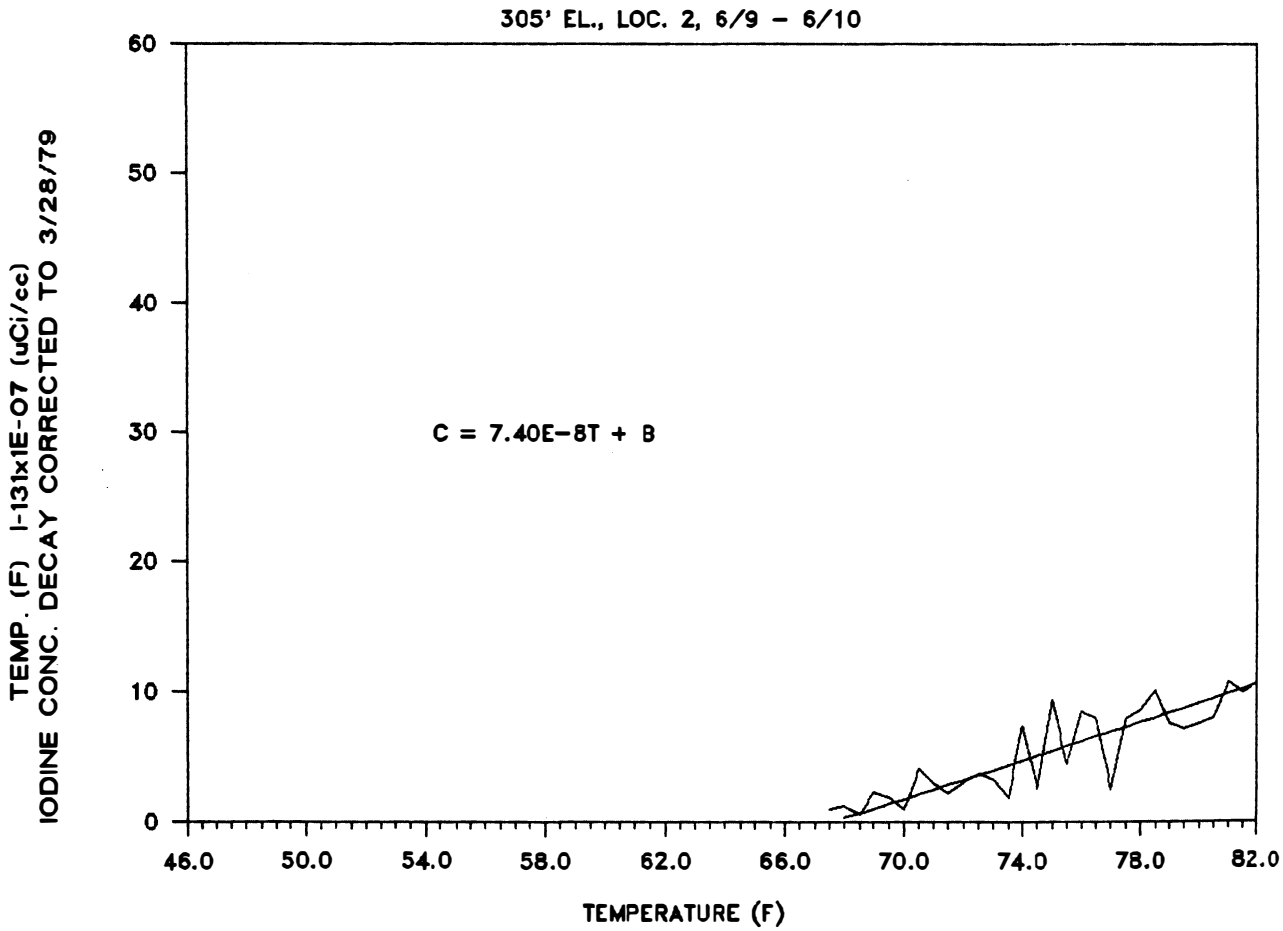

FIGURE 15 ^{131}I CONCENTRATION vs TEMPERATURE (LOCATION 2, 305' el., 6/9-6/10)

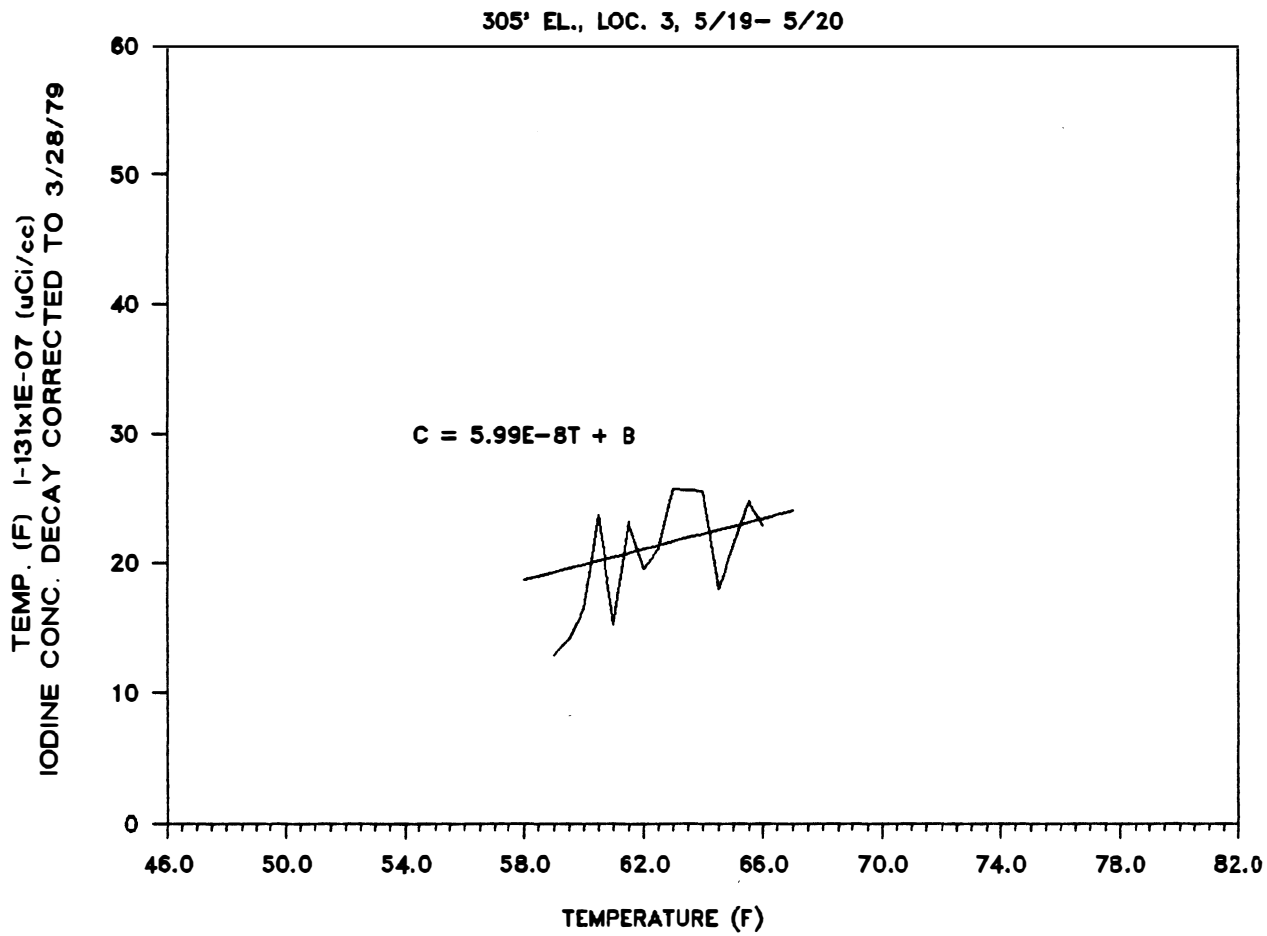

FIGURE 16 ^{131}I CONCENTRATION vs TEMPERATURE (LOCATION 3, 305' el., 5/19-5/20)

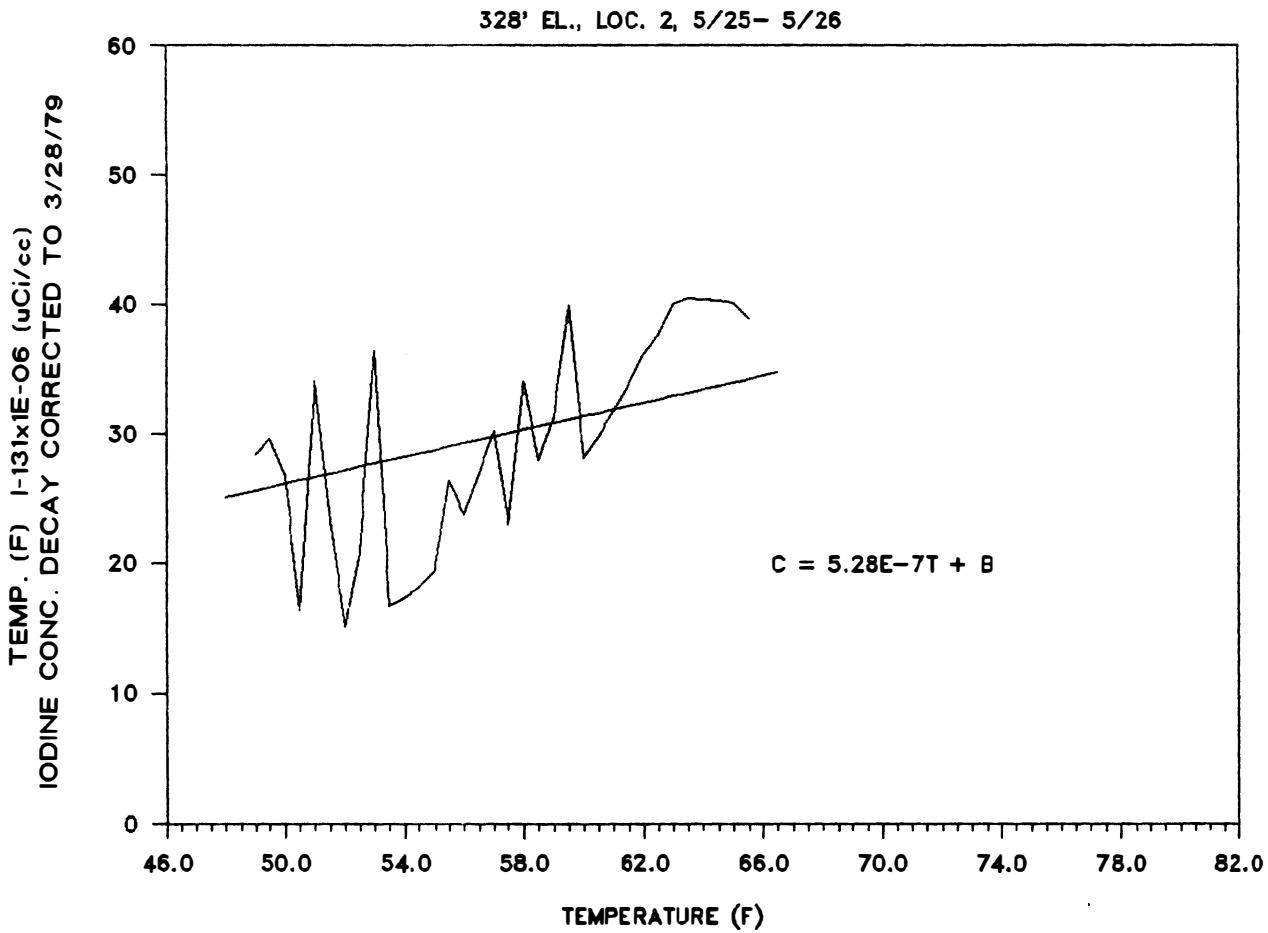

FIGURE 17 ^{131}I CONCENTRATION vs TEMPERATURE (LOCATION 2, 328' el., 5/25-5/26)

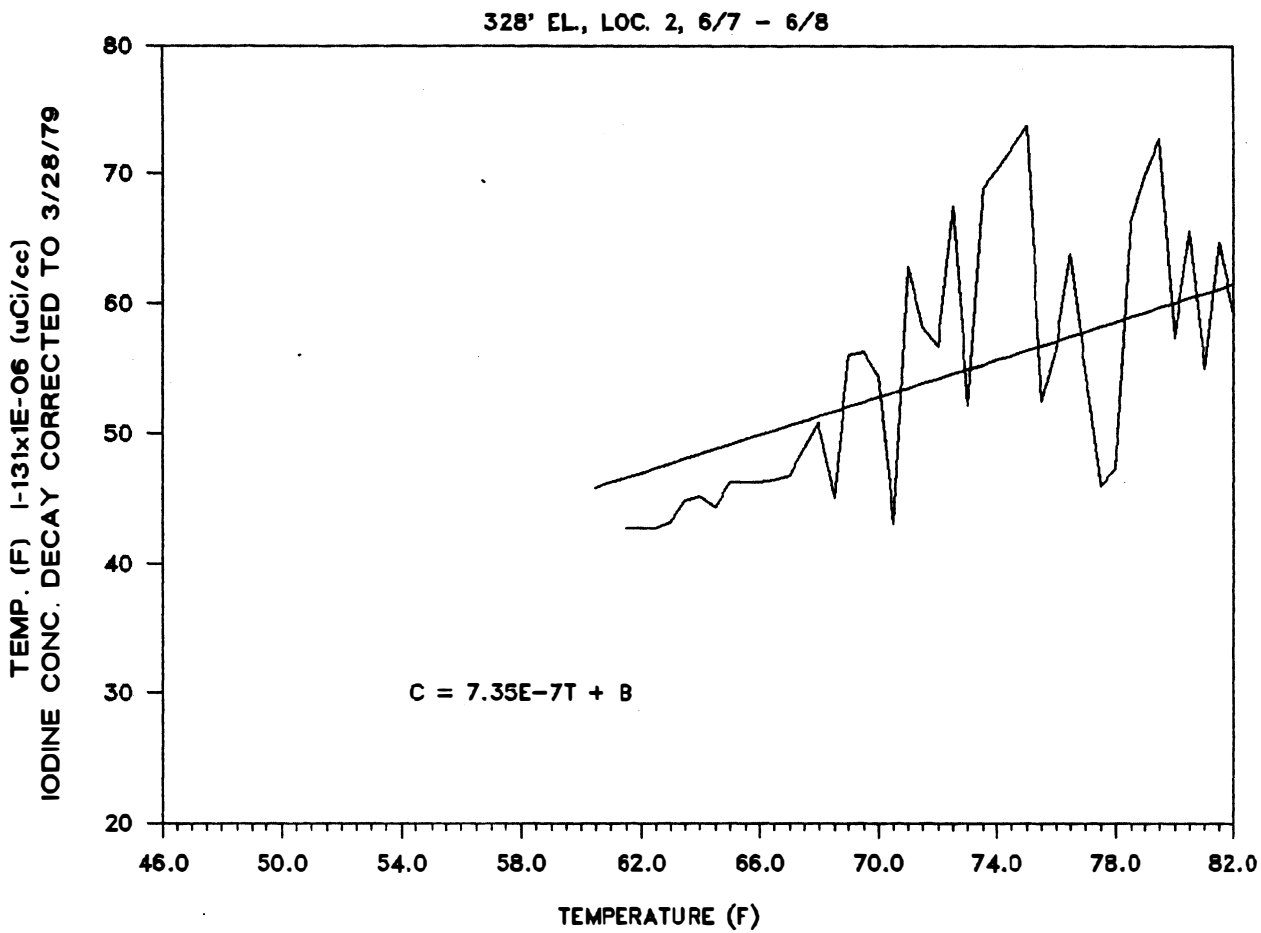

FIGURE 18 ^{131}I CONCENTRATION vs TEMPERATURE (LOCATION 2, 328' el., 6/7-6/8)

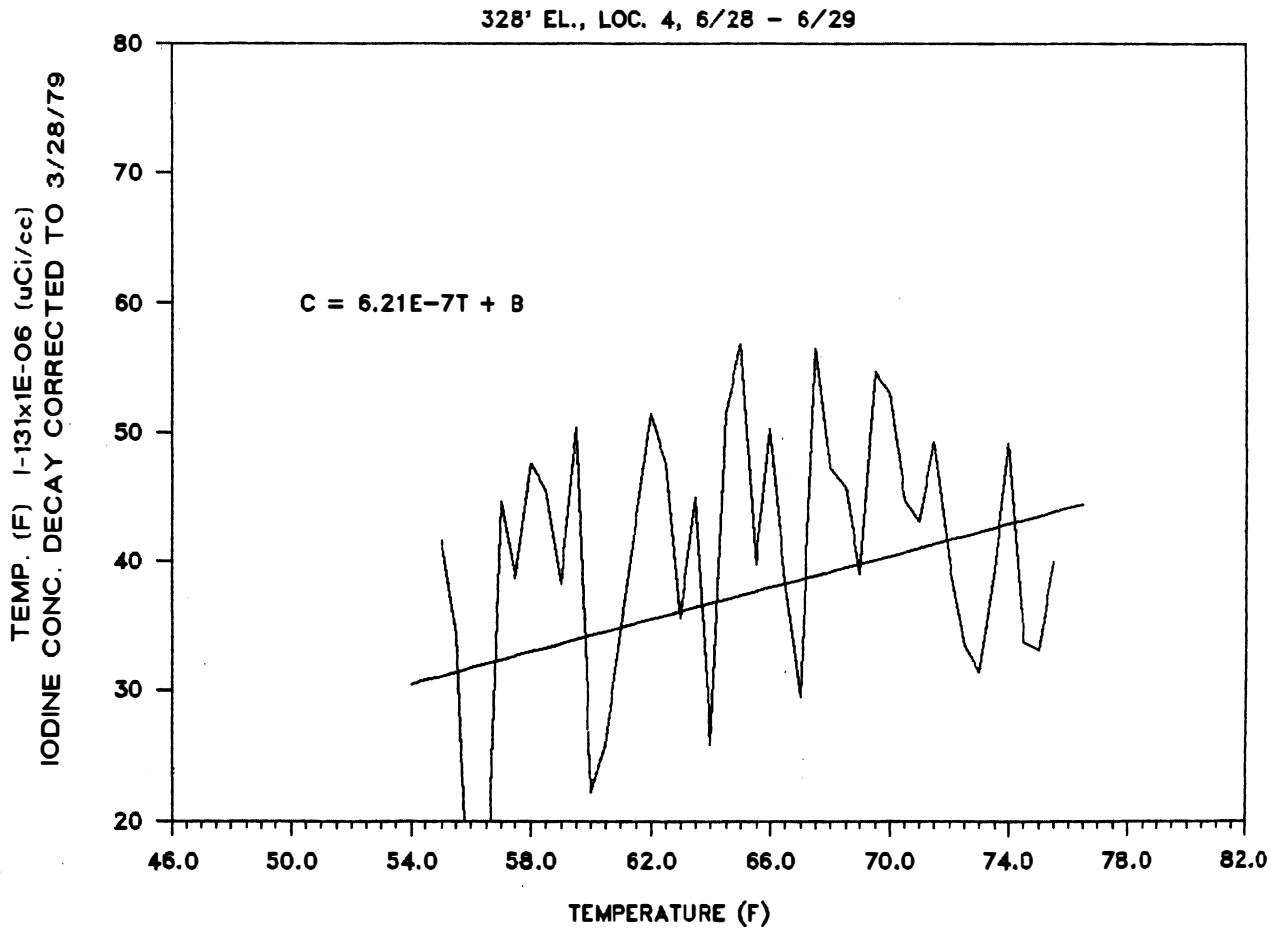

FIGURE 19 ^{131}I CONCENTRATION vs TEMPERATURE (LOCATION 4, 328' el., 6/28-6/29)

change in radioiodine concentration is a function of temperature, although it may also be a function of other variables. The absolute concentration of airborne radioiodine is dependent on the amount of radioiodine available for resuspension on the surface. This temperature dependence can result in significant increases in release if the surface area or the amount of radioiodine deposited on the surfaces is large, given a constant volumetric turnover rate in the ventilation system.

REFERENCES

1. M. Rogovin. Three Mile Island - A Report To The Commissioners And To The Public, NUREG/CR-1250, Jan. 1980

2. Assessment of Offsite Radiation Doses From Three MIle Island Unit 2 Accident, TDR-TMI-116 Rev 0, July, 1979

3. E.C. Beahm, W.E. Shockley, O.L. Culberson, Organic Iodide Formation Following Nuclear Reactor Accidents, Oak Ridge National Laboratory, NUREG/CR-4327, April 1985

4. M.F. Albert, The Absorption of Gaseous Iodine by Water Droplets, Oak Ridge National Laboratory, NUREG/CR-4081, June, 1985

5. E.C. Beahm, W.E. Shockley, C.F. Weber, S.J. Wisbey, Y.M. Wang, Chemistry and Transport of Iodine in Containment, Oak Ridge National Laboratory, NUREG/CR-4697, Feb., 1986

6. J.E. Cline, et al, ^{131}I Studies at TMI Unit 2, EPRI NP-1389, May, 1979

7. G.E. Forsythe, M.A. Malcolm, C.D. Moler, Computer Methods for Mathematical Computations, Prentice Hall, Englewood Cliffs, New Jersey, 1977

RELATED REFERENCES

1. C.A. Pelletier, P.G. Voilleque, C.D. Thomas, J.A. Daniel, E.A. Schlomer, J.R. Noyce, Preliminary Radioiodine Source Term and Inventory Assessment for TMI-2, GEND 028, March, 1983

2. C.A. Pelletier, C.D. Thomas Jr, R.L. Ritzman, F. Tooper, Iodine-131 Behavior During the TMI-2 Accident, Electric Power Research Institute, NSAC-30, September, 1981

3. J.E. Cline, P.A. Roy, et al, Measurements of ^{129}I and Radioactive Particulate Concentrations in the TMI-2 Containment Atmosphere During and After the Venting, GEND 009, April, 1981

4. Workshop on Iodine Releases in Reactor Accidents, Electric Power Research Institute, NSAC-14, November, 1980

5. R.J. Lemire, J. Paquette, D.F. Torgerson, D.J. Wren, J. Fletcher, Assessment of Iodine Behaviour in Reactor Containment Buildings from a Chemical Perspective, Atomic Energy of Canada, Limited, AECL-6812, June, 1981

6. J.T. Bell, D.O. Campbell, L.M. Toth, M.H. Lietzke, D.A. Palmer, Aqueous Iodine Chemistry in LWR Accidents: Review and Assessment, Oak Ridge National Laboratory, NUREG/CR-2493, April, 1982

APPENDIX A

HOURLY TEMPERATURE DATA

TABLE A.1
HOURLY TEMPERATURE RECORDED FOR MAY

DATE	HOUR	(^oF)	DATE	HOUR	(^oF)	DATE	HOUR	(^oF)
5/17/79	100	52.90	5/17/79	200	51.90	5/17/79	300	48.80
5/17/79	400	48.30	5/17/79	500	47.50	5/17/79	600	48.80
5/17/79	700	52.90	5/17/79	800	56.00	5/17/79	900	58.80
5/17/79	1000	61.80	5/17/79	1100	64.30	5/17/79	1200	65.50
5/17/79	1300	66.90	5/17/79	1400	67.50	5/17/79	1500	68.00
5/17/79	1600	68.70	5/17/79	1700	69.10	5/17/79	1800	68.60
5/17/79	1900	66.80	5/17/79	2000	61.80	5/17/79	2100	57.10
5/17/79	2200	55.20	5/17/79	2300	53.90	5/17/79	2400	52.50
5/18/79	100	51.00	5/18/79	200	50.70	5/18/79	300	50.40
5/18/79	400	49.50	5/18/79	500	50.50	5/18/79	600	49.60
5/18/79	700	54.90	5/18/79	800	59.10	5/18/79	900	63.70
5/18/79	1000	65.70	5/18/79	1100	67.30	5/18/79	1200	69.10
5/18/79	1300	69.20	5/18/79	1400	65.20	5/18/79	1500	61.70
5/18/79	1600	60.60	5/18/79	1700	60.30	5/18/79	1800	60.30
5/18/79	1900	59.30	5/18/79	2000	59.10	5/18/79	2100	59.90
5/18/79	2200	60.70	5/18/79	2300	60.30	5/18/79	2400	59.60
5/19/79	100	59.20	5/19/79	200	59.10	5/19/79	300	59.40
5/19/79	400	59.60	5/19/79	500	59.40	5/19/79	600	59.10
5/19/79	700	59.20	5/19/79	800	60.30	5/19/79	900	60.70
5/19/79	1000	61.20	5/19/79	1100	62.60	5/19/79	1200	64.50
5/19/79	1300	65.50	5/19/79	1400	66.90	5/19/79	1500	66.10
5/19/79	1600	66.60	5/19/79	1700	66.80	5/19/79	1800	64.50
5/19/79	1900	62.40	5/19/79	2000	61.00	5/19/79	2100	59.90
5/19/79	2200	59.80	5/19/79	2300	59.60	5/19/79	2400	59.30
5/20/79	100	59.10	5/20/79	200	58.30	5/20/79	300	58.30
5/20/79	400	57.80	5/20/79	500	57.30	5/20/79	600	57.40
5/20/79	700	58.30	5/20/79	800	59.10	5/20/79	900	59.80
5/20/79	1000	61.30	5/20/79	1100	63.10	5/20/79	1200	64.70
5/20/79	1300	66.60	5/20/79	1400	68.60	5/20/79	1500	69.90
5/20/79	1600	69.60	5/20/79	1700	69.70	5/20/79	1800	69.30
5/20/79	1900	67.70	5/20/79	2000	64.20	5/20/79	2100	62.70
5/20/79	2200	60.80	5/20/79	2300	60.20	5/20/79	2400	0.00
5/21/79	100	58.00	5/21/79	200	57.00	5/21/79	300	57.50
5/21/79	400	56.50	5/21/79	500	57.10	5/21/79	600	58.30
5/21/79	700	59.90	5/21/79	800	62.10	5/21/79	900	63.40
5/21/79	1000	65.10	5/21/79	1100	64.80	5/21/79	1200	63.90
5/21/79	1300	63.80	5/21/79	1400	65.10	5/21/79	1500	65.00
5/21/79	1600	63.40	5/21/79	1700	64.20	5/21/79	1800	64.50
5/21/79	1900	64.60	5/21/79	2000	63.90	5/21/79	2100	63.30
5/21/79	2200	63.40	5/21/79	2300	63.70	5/21/79	2400	63.50
5/22/79	100	62.60	5/22/79	200	62.30	5/22/79	300	59.70
5/22/79	400	57.70	5/22/79	500	55.20	5/22/79	600	55.60
5/22/79	700	56.30	5/22/79	800	57.10	5/22/79	900	58.80
5/22/79	1000	61.10	5/22/79	1100	62.90	5/22/79	1200	64.40
5/22/79	1300	66.20	5/22/79	1400	67.30	5/22/79	1500	68.10
5/22/79	1600	69.50	5/22/79	1700	70.10	5/22/79	1800	69.30

TABLE A.1 (Continued)
HOURLY TEMPERATURE RECORDED FOR MAY

DATE	HOUR	(°F)	DATE	HOUR	(°F)	DATE	HOUR	(°F)
5/22/79	1900	66.30	5/22/79	2000	62.70	5/22/79	2100	60.90
5/22/79	2200	60.10	5/22/79	2300	59.70	5/22/79	2400	59.60
5/23/79	100	59.60	5/23/79	200	60.10	5/23/79	300	59.10
5/23/79	400	59.70	5/23/79	500	59.90	5/23/79	600	60.70
5/23/79	700	61.10	5/23/79	800	61.20	5/23/79	900	62.80
5/23/79	1000	64.10	5/23/79	1100	64.90	5/23/79	1200	63.10
5/23/79	1300	63.70	5/23/79	1400	65.50	5/23/79	1500	65.60
5/23/79	1600	66.00	5/23/79	1700	64.70	5/23/79	1800	64.10
5/23/79	1900	63.80	5/23/79	2000	63.10	5/23/79	2100	62.70
5/23/79	2200	62.30	5/23/79	2300	61.40	5/23/79	2400	61.20
5/24/79	100	61.00	5/24/79	200	61.30	5/24/79	300	62.60
5/24/79	400	62.40	5/24/79	500	62.30	5/24/79	600	63.80
5/24/79	700	65.80	5/24/79	800	68.10	5/24/79	900	68.00
5/24/79	1000	71.10	5/24/79	1100	69.70	5/24/79	1200	60.80
5/24/79	1300	64.50	5/24/79	1400	65.80	5/24/79	1500	66.70
5/24/79	1600	64.90	5/24/79	1700	64.60	5/24/79	1800	64.40
5/24/79	1900	63.70	5/24/79	2000	63.20	5/24/79	2100	62.90
5/24/79	2200	62.40	5/24/79	2300	61.30	5/24/79	2400	59.20
5/25/79	100	59.00	5/25/79	200	59.00	5/25/79	300	58.60
5/25/79	400	58.70	5/25/79	500	57.80	5/25/79	600	57.10
5/25/79	700	57.60	5/25/79	800	58.30	5/25/79	900	59.70
5/25/79	1000	60.60	5/25/79	1100	61.40	5/25/79	1200	62.00
5/25/79	1300	62.70	5/25/79	1400	66.50	5/25/79	1500	63.10
5/25/79	1600	56.50	5/25/79	1700	59.10	5/25/79	1800	59.50
5/25/79	1900	58.10	5/25/79	2000	56.90	5/25/79	2100	51.40
5/25/79	2200	51.00	5/25/79	2300	50.50	5/25/79	2400	49.60
5/26/79	100	49.30	5/26/79	200	50.30	5/26/79	300	49.80
5/26/79	400	50.50	5/26/79	500	49.70	5/26/79	600	49.90
5/26/79	700	50.60	5/26/79	800	51.40	5/26/79	900	53.00
5/26/79	1000	53.00	5/26/79	1100	53.20	5/26/79	1200	55.70
5/26/79	1300	56.40	5/26/79	1400	56.20	5/26/79	1500	58.10
5/26/79	1600	56.50	5/26/79	1700	56.00	5/26/79	1800	55.40
5/26/79	1900	54.70	5/26/79	2000	53.40	5/26/79	2100	52.30
5/26/79	2200	51.60	5/26/79	2300	50.60	5/26/79	2400	50.50
5/27/79	100	50.40	5/27/79	200	50.00	5/27/79	300	49.70
5/27/79	400	48.50	5/27/79	500	47.60	5/27/79	600	49.50
5/27/79	700	50.10	5/27/79	800	50.10	5/27/79	900	51.20
5/27/79	1000	54.60	5/27/79	1100	56.40	5/27/79	1200	58.60
5/27/79	1300	58.60	5/27/79	1400	62.60	5/27/79	1500	66.70
5/27/79	1600	67.00	5/27/79	1700	67.30	5/27/79	1800	67.10
5/27/79	1900	59.00	5/27/79	2000	58.00	5/27/79	2100	56.90
5/27/79	2200	56.60	5/27/79	2300	56.00	5/27/79	2400	55.80
5/28/79	100	54.70	5/28/79	200	52.50	5/28/79	300	50.50
5/28/79	400	50.70	5/28/79	500	50.90	5/28/79	600	51.00
5/28/79	700	50.80	5/28/79	800	53.30	5/28/79	900	54.60
5/28/79	1000	56.00	5/28/79	1100	57.10	5/28/79	1200	60.20

TABLE A.1 (Continued)
HOURLY TEMPERATURE RECORDED FOR MAY

DATE	HOUR	(°F)	DATE	HOUR	(°F)	DATE	HOUR	(°F)
5/28/79	1300	64.80	5/28/79	1400	66.20	5/28/79	1500	60.70
5/28/79	1600	53.80	5/28/79	1700	55.40	5/28/79	1800	56.00
5/28/79	1900	55.30	5/28/79	2000	54.40	5/28/79	2100	54.20
5/28/79	2200	53.70	5/28/79	2300	54.00	5/28/79	2400	53.90
5/29/79	100	54.30	5/29/79	200	53.10	5/29/79	300	53.70
5/29/79	400	52.80	5/29/79	500	52.30	5/29/79	600	51.10
5/29/79	700	51.60	5/29/79	800	53.70	5/29/79	900	56.10
5/29/79	1000	61.00	5/29/79	1100	64.20	5/29/79	1200	65.40
5/29/79	1300	63.90	5/29/79	1400	67.50	5/29/79	1500	66.50
5/29/79	1600	65.50	5/29/79	1700	67.10	5/29/79	1800	66.00
5/29/79	1900	63.50	5/29/79	2000	62.80	5/29/79	2100	59.60
5/29/79	2200	61.60	5/29/79	2300	58.80	5/29/79	2400	57.20
5/30/79	100	55.80	5/30/79	200	54.60	5/30/79	300	53.90
5/30/79	400	54.10	5/30/79	500	53.80	5/30/79	600	54.70
5/30/79	700	57.20	5/30/79	800	60.40	5/30/79	900	62.90
5/30/79	1000	66.00	5/30/79	1100	67.50	5/30/79	1200	68.00
5/30/79	1300	70.40	5/30/79	1400	71.20	5/30/79	1500	71.90
5/30/79	1600	73.50	5/30/79	1700	72.90	5/30/79	1800	70.50
5/30/79	1900	65.10	5/30/79	2000	63.10	5/30/79	2100	62.20
5/30/79	2200	63.20	5/30/79	2300	61.70	5/30/79	2400	60.40
5/31/79	100	60.20	5/31/79	200	59.40	5/31/79	300	58.30
5/31/79	400	57.90	5/31/79	500	57.00	5/31/79	600	57.60
5/31/79	700	58.60	5/31/79	800	61.10	5/31/79	900	61.90
5/31/79	1000	63.90	5/31/79	1100	65.60	5/31/79	1200	67.00
5/31/79	1300	69.20	5/31/79	1400	70.20	5/31/79	1500	71.40
5/31/79	1600	71.80	5/31/79	1700	72.00	5/31/79	1800	70.00
5/31/79	1900	67.60	5/31/79	2000	66.00	5/31/79	2100	65.90
5/31/79	2200	65.10	5/31/79	2300	65.00	5/31/79	2400	64.90

TABLE A.2
HOURLY TEMPERATURE RECORDED FOR JUNE

DATE	HOUR	(°F)	DATE	HOUR	(°F)	DATE	HOUR	(°F)
6/ 1/79	100	64.40	6/ 1/79	200	65.00	6/ 1/79	300	65.70
6/ 1/79	400	65.50	6/ 1/79	500	66.20	6/ 1/79	600	65.70
6/ 1/79	700	66.50	6/ 1/79	800	67.60	6/ 1/79	900	68.70
6/ 1/79	1000	71.70	6/ 1/79	1100	73.10	6/ 1/79	1200	73.30
6/ 1/79	1300	72.20	6/ 1/79	1400	75.30	6/ 1/79	1500	74.50
6/ 1/79	1600	74.40	6/ 1/79	1700	75.00	6/ 1/79	1800	73.80
6/ 1/79	1900	72.20	6/ 1/79	2000	72.00	6/ 1/79	2100	70.50
6/ 1/79	2200	69.90	6/ 1/79	2300	69.40	6/ 1/79	2400	68.80
6/ 2/79	100	68.10	6/ 2/79	200	68.40	6/ 2/79	300	67.90
6/ 2/79	400	67.60	6/ 2/79	500	67.10	6/ 2/79	600	67.60
6/ 2/79	700	67.60	6/ 2/79	800	69.70	6/ 2/79	900	70.50
6/ 2/79	1000	72.60	6/ 2/79	1100	71.50	6/ 2/79	1200	72.90
6/ 2/79	1300	72.10	6/ 2/79	1400	72.10	6/ 2/79	1500	72.80
6/ 2/79	1600	73.20	6/ 2/79	1700	73.40	6/ 2/79	1800	72.50
6/ 2/79	1900	71.10	6/ 2/79	2000	70.20	6/ 2/79	2100	69.00
6/ 2/79	2200	67.50	6/ 2/79	2300	67.20	6/ 2/79	2400	67.00
6/ 3/79	100	66.80	6/ 3/79	200	66.30	6/ 3/79	300	67.10
6/ 3/79	400	65.70	6/ 3/79	500	65.30	6/ 3/79	600	65.30
6/ 3/79	700	66.60	6/ 3/79	800	67.30	6/ 3/79	900	68.30
6/ 3/79	1000	69.60	6/ 3/79	1100	70.00	6/ 3/79	1200	70.60
6/ 3/79	1300	68.30	6/ 3/79	1400	64.20	6/ 3/79	1500	60.60
6/ 3/79	1600	60.10	6/ 3/79	1700	60.90	6/ 3/79	1800	61.00
6/ 3/79	1900	61.20	6/ 3/79	2000	60.50	6/ 3/79	2100	60.60
6/ 3/79	2200	65.00	6/ 3/79	2300	60.30	6/ 3/79	2400	60.40
6/ 4/79	100	60.70	6/ 4/79	200	60.70	6/ 4/79	300	60.60
6/ 4/79	400	60.30	6/ 4/79	500	59.90	6/ 4/79	600	60.40
6/ 4/79	700	61.40	6/ 4/79	800	64.00	6/ 4/79	900	65.00
6/ 4/79	1000	67.10	6/ 4/79	1100	69.10	6/ 4/79	1200	70.60
6/ 4/79	1300	72.70	6/ 4/79	1400	74.00	6/ 4/79	1500	74.70
6/ 4/79	1600	75.10	6/ 4/79	1700	74.50	6/ 4/79	1800	73.30
6/ 4/79	1900	71.80	6/ 4/79	2000	69.00	6/ 4/79	2100	65.90
6/ 4/79	2200	63.10	6/ 4/79	2300	63.00	6/ 4/79	2400	62.00
6/ 5/79	100	65.00	6/ 5/79	200	60.30	6/ 5/79	300	58.90
6/ 5/79	400	59.40	6/ 5/79	500	58.20	6/ 5/79	600	59.40
6/ 5/79	700	59.00	6/ 5/79	800	59.40	6/ 5/79	900	61.40
6/ 5/79	1000	NA	6/ 5/79	1100	NA	6/ 5/79	1200	NA
6/ 5/79	1300	NA	6/ 5/79	1400	NA	6/ 5/79	1500	71.20
6/ 5/79	1600	74.60	6/ 5/79	1700	75.50	6/ 5/79	1800	74.70
6/ 5/79	1900	72.90	6/ 5/79	2000	71.10	6/ 5/79	2100	69.00
6/ 5/79	2200	67.60	6/ 5/79	2300	67.40	6/ 5/79	2400	66.40
6/ 6/79	100	65.50	6/ 6/79	200	64.70	6/ 6/79	300	63.30
6/ 6/79	400	62.40	6/ 6/79	500	62.20	6/ 6/79	600	62.20
6/ 6/79	700	64.70	6/ 6/79	800	67.70	6/ 6/79	900	69.20
6/ 6/79	1000	70.10	6/ 6/79	1100	70.60	6/ 6/79	1200	71.70
6/ 6/79	1300	71.40	6/ 6/79	1400	71.90	6/ 6/79	1500	71.90
6/ 6/79	1600	72.70	6/ 6/79	1700	72.90	6/ 6/79	1800	73.40

TABLE A.2 (Continued)
HOURLY TEMPERATURE RECORDED FOR JUNE

DATE	HOUR	(°F)	DATE	HOUR	(°F)	DATE	HOUR	(°F)
6/ 6/79	1900	72.10	6/ 6/79	2000	69.40	6/ 6/79	2100	67.60
6/ 6/79	2200	66.30	6/ 6/79	2300	66.40	6/ 6/79	2400	64.70
6/ 7/79	100	64.40	6/ 7/79	200	63.30	6/ 7/79	300	63.00
6/ 7/79	400	63.00	6/ 7/79	500	61.90	6/ 7/79	600	62.70
6/ 7/79	700	62.90	6/ 7/79	800	64.50	6/ 7/79	900	66.00
6/ 7/79	1000	67.40	6/ 7/79	1100	69.30	6/ 7/79	1200	71.90
6/ 7/79	1300	75.30	6/ 7/79	1400	78.00	6/ 7/79	1500	78.60
6/ 7/79	1600	81.60	6/ 7/79	1700	81.80	6/ 7/79	1800	80.80
6/ 7/79	1900	79.10	6/ 7/79	2000	76.10	6/ 7/79	2100	73.60
6/ 7/79	2200	72.50	6/ 7/79	2300	70.80	6/ 7/79	2400	69.70
6/ 8/79	100	68.90	6/ 8/79	200	68.40	6/ 8/79	300	67.90
6/ 8/79	400	67.20	6/ 8/79	500	67.20	6/ 8/79	600	68.40
6/ 8/79	700	70.60	6/ 8/79	800	73.10	6/ 8/79	900	75.90
6/ 8/79	1000	77.60	6/ 8/79	1100	78.00	6/ 8/79	1200	79.60
6/ 8/79	1300	81.00	6/ 8/79	1400	82.00	6/ 8/79	1500	81.90
6/ 8/79	1600	80.90	6/ 8/79	1700	80.90	6/ 8/79	1800	79.50
6/ 8/79	1900	78.10	6/ 8/79	2000	75.20	6/ 8/79	2100	74.70
6/ 8/79	2200	74.20	6/ 8/79	2300	73.30	6/ 8/79	2400	72.90
6/ 9/79	100	72.40	6/ 9/79	200	71.90	6/ 9/79	300	71.80
6/ 9/79	400	71.40	6/ 9/79	500	77.20	6/ 9/79	600	69.60
6/ 9/79	700	71.60	6/ 9/79	800	73.50	6/ 9/79	900	74.50
6/ 9/79	1000	75.30	6/ 9/79	1100	76.60	6/ 9/79	1200	77.20
6/ 9/79	1300	79.20	6/ 9/79	1400	80.80	6/ 9/79	1500	81.30
6/ 9/79	1600	81.80	6/ 9/79	1700	82.80	6/ 9/79	1800	80.80
6/ 9/79	1900	79.00	6/ 9/79	2000	77.30	6/ 9/79	2100	75.20
6/ 9/79	2200	73.90	6/ 9/79	2300	73.20	6/ 9/79	2400	71.40
6/10/79	100	70.40	6/10/79	200	69.20	6/10/79	300	68.40
6/10/79	400	67.80	6/10/79	500	68.50	6/10/79	600	69.70
6/10/79	700	70.30	6/10/79	800	71.40	6/10/79	900	72.30
6/10/79	1000	73.60	6/10/79	1100	74.80	6/10/79	1200	76.40
6/10/79	1300	78.30	6/10/79	1400	75.30	6/10/79	1500	75.40
6/10/79	1600	74.90	6/10/79	1700	79.00	6/10/79	1800	78.90
6/10/79	1900	77.70	6/10/79	2000	76.60	6/10/79	2100	75.40
6/10/79	2200	74.30	6/10/79	2300	73.00	6/10/79	2400	72.10
6/11/79	100	69.00	6/11/79	200	69.30	6/11/79	300	69.90
6/11/79	400	69.90	6/11/79	500	65.10	6/11/79	600	63.00
6/11/79	700	62.20	6/11/79	800	61.10	6/11/79	900	60.00
6/11/79	1000	57.40	6/11/79	1100	60.60	6/11/79	1200	63.40
6/11/79	1300	64.50	6/11/79	1400	59.90	6/11/79	1500	64.60
6/11/79	1600	64.70	6/11/79	1700	65.30	6/11/79	1800	65.00
6/11/79	1900	63.50	6/11/79	2000	60.50	6/11/79	2100	59.40
6/11/79	2200	58.80	6/11/79	2300	58.60	6/11/79	2400	58.70
6/12/79	100	57.70	6/12/79	200	55.00	6/12/79	300	53.50
6/12/79	400	52.50	6/12/79	500	49.90	6/12/79	600	51.50
6/12/79	700	54.00	6/12/79	800	56.80	6/12/79	900	58.70
6/12/79	1000	60.20	6/12/79	1100	61.40	6/12/79	1200	63.40

TABLE A.2 (Continued)
HOURLY TEMPERATURE RECORDED FOR JUNE

DATE	HOUR	(^{o}F)	DATE	HOUR	(^{o}F)	DATE	HOUR	(^{o}F)
6/12/79	1300	65.10	6/12/79	1400	66.50	6/12/79	1500	67.40
6/12/79	1600	67.90	6/12/79	1700	66.80	6/12/79	1800	67.00
6/12/79	1900	65.30	6/12/79	2000	63.00	6/12/79	2100	59.60
6/12/79	2200	57.60	6/12/79	2300	56.60	6/12/79	2400	56.80
6/13/79	100	56.80	6/13/79	200	50.50	6/13/79	300	51.50
6/13/79	400	49.70	6/13/79	500	46.70	6/13/79	600	49.80
6/13/79	700	54.90	6/13/79	800	59.20	6/13/79	900	61.60
6/13/79	1000	64.20	6/13/79	1100	64.70	6/13/79	1200	65.70
6/13/79	1300	67.30	6/13/79	1400	68.10	6/13/79	1500	68.70
6/13/79	1600	69.20	6/13/79	1700	68.50	6/13/79	1800	68.50
6/13/79	1900	67.70	6/13/79	2000	62.30	6/13/79	2100	58.30
6/13/79	2200	55.10	6/13/79	2300	53.00	6/13/79	2400	52.00
6/14/79	100	51.00	6/14/79	200	49.40	6/14/79	300	48.90
6/14/79	400	48.50	6/14/79	500	46.90	6/14/79	600	49.50
6/14/79	700	54.70	6/14/79	800	59.10	6/14/79	900	63.10
6/14/79	1000	67.40	6/14/79	1100	70.70	6/14/79	1200	72.30
6/14/79	1300	73.70	6/14/79	1400	74.30	6/14/79	1500	75.00
6/14/79	1600	75.60	6/14/79	1700	75.80	6/14/79	1800	75.20
6/14/79	1900	73.30	6/14/79	2000	70.30	6/14/79	2100	67.70
6/14/79	2200	65.20	6/14/79	2300	63.90	6/14/79	2400	62.90
6/15/79	100	60.90	6/15/79	200	59.50	6/15/79	300	57.30
6/15/79	400	57.60	6/15/79	500	55.50	6/15/79	600	57.70
6/15/79	700	61.30	6/15/79	800	64.10	6/15/79	900	67.30
6/15/79	1000	71.40	6/15/79	1100	74.00	6/15/79	1200	76.80
6/15/79	1300	79.20	6/15/79	1400	81.20	6/15/79	1500	81.50
6/15/79	1600	82.30	6/15/79	1700	82.20	6/15/79	1800	81.00
6/15/79	1900	78.60	6/15/79	2000	76.20	6/15/79	2100	73.80
6/15/79	2200	72.60	6/15/79	2300	70.40	6/15/79	2400	68.50
6/16/79	100	67.20	6/16/79	200	66.40	6/16/79	300	64.70
6/16/79	400	62.40	6/16/79	500	61.20	6/16/79	600	63.20
6/16/79	700	65.80	6/16/79	800	67.60	6/16/79	900	69.70
6/16/79	1000	74.40	6/16/79	1100	76.80	6/16/79	1200	79.40
6/16/79	1300	82.20	6/16/79	1400	82.90	6/16/79	1500	82.10
6/16/79	1600	81.80	6/16/79	1700	79.70	6/16/79	1800	78.40
6/16/79	1900	76.50	6/16/79	2000	73.00	6/16/79	2100	70.10
6/16/79	2200	70.20	6/16/79	2300	68.10	6/16/79	2400	67.30
6/17/79	100	65.10	6/17/79	200	64.40	6/17/79	300	64.30
6/17/79	400	NA	6/17/79	500	NA	6/17/79	600	NA
6/17/79	700	NA	6/17/79	800	NA	6/17/79	900	NA
6/17/79	1000	NA	6/17/79	1100	NA	6/17/79	1200	NA
6/17/79	1300	NA	6/17/79	1400	NA	6/17/79	1500	NA
6/17/79	1600	NA	6/17/79	1700	NA	6/17/79	1800	NA
6/17/79	1900	NA	6/17/79	2000	NA	6/17/79	2100	NA
6/17/79	2200	NA	6/17/79	2300	NA	6/17/79	2400	66.20
6/18/79	100	65.30	6/18/79	200	65.30	6/18/79	300	65.30
6/18/79	400	64.60	6/18/79	500	64.30	6/18/79	600	64.80

TABLE A.2 (Continued)
HOURLY TEMPERATURE RECORDED FOR JUNE

DATE	HOUR	(°F)	DATE	HOUR	(°F)	DATE	HOUR	(°F)
6/18/79	700	66.90	6/18/79	800	70.30	6/18/79	900	73.90
6/18/79	1000	75.50	6/18/79	1100	75.40	6/18/79	1200	76.00
6/18/79	1300	78.00	6/18/79	1400	76.50	6/18/79	1500	77.10
6/18/79	1600	76.90	6/18/79	1700	75.90	6/18/79	1800	73.30
6/18/79	1900	70.60	6/18/79	2000	67.10	6/18/79	2100	65.10
6/18/79	2200	63.40	6/18/79	2300	63.30	6/18/79	2400	61.70
6/19/79	100	61.10	6/19/79	200	59.70	6/19/79	300	59.40
6/19/79	400	59.80	6/19/79	500	58.80	6/19/79	600	60.00
6/19/79	700	62.10	6/19/79	800	64.40	6/19/79	900	66.00
6/19/79	1000	68.30	6/19/79	1100	70.50	6/19/79	1200	72.00
6/19/79	1300	74.10	6/19/79	1400	75.10	6/19/79	1500	76.80
6/19/79	1600	NA	6/19/79	1700	76.40	6/19/79	1800	75.60
6/19/79	1900	73.30	6/19/79	2000	70.20	6/19/79	2100	65.90
6/19/79	2200	65.30	6/19/79	2300	63.20	6/19/79	2400	62.10
6/20/79	100	62.60	6/20/79	200	63.30	6/20/79	300	60.90
6/20/79	400	59.10	6/20/79	500	58.00	6/20/79	600	59.00
6/20/79	700	62.40	6/20/79	800	64.90	6/20/79	900	67.20
6/20/79	1000	68.90	6/20/79	1100	72.10	6/20/79	1200	74.00
6/20/79	1300	74.40	6/20/79	1400	75.20	6/20/79	1500	76.00
6/20/79	1600	76.60	6/20/79	1700	76.20	6/20/79	1800	75.20
6/20/79	1900	73.60	6/20/79	2000	70.90	6/20/79	2100	68.80
6/20/79	2200	66.80	6/20/79	2300	65.90	6/20/79	2400	64.40
6/21/79	100	62.90	6/21/79	200	60.90	6/21/79	300	62.60
6/21/79	400	61.50	6/21/79	500	61.00	6/21/79	600	60.70
6/21/79	700	64.10	6/21/79	800	67.50	6/21/79	900	70.40
6/21/79	1000	71.80	6/21/79	1100	70.80	6/21/79	1200	69.80
6/21/79	1300	69.40	6/21/79	1400	69.70	6/21/79	1500	69.00
6/21/79	1600	67.70	6/21/79	1700	67.00	6/21/79	1800	65.40
6/21/79	1900	64.60	6/21/79	2000	63.90	6/21/79	2100	62.90
6/21/79	2200	61.70	6/21/79	2300	61.00	6/21/79	2400	60.50
6/22/79	100	59.90	6/22/79	200	59.90	6/22/79	300	59.70
6/22/79	400	59.80	6/22/79	500	59.90	6/22/79	600	60.10
6/22/79	700	60.00	6/22/79	800	60.80	6/22/79	900	61.50
6/22/79	1000	62.30	6/22/79	1100	64.80	6/22/79	1200	68.70
6/22/79	1300	71.10	6/22/79	1400	76.80	6/22/79	1500	77.60
6/22/79	1600	80.50	6/22/79	1700	80.50	6/22/79	1800	77.60
6/22/79	1900	74.80	6/22/79	2000	73.30	6/22/79	2100	69.50
6/22/79	2200	67.70	6/22/79	2300	65.20	6/22/79	2400	64.00
6/23/79	100	63.30	6/23/79	200	63.00	6/23/79	300	60.30
6/23/79	400	60.00	6/23/79	500	59.90	6/23/79	600	62.30
6/23/79	700	64.70	6/23/79	800	67.80	6/23/79	900	70.30
6/23/79	1000	75.30	6/23/79	1100	76.20	6/23/79	1200	78.40
6/23/79	1300	80.60	6/23/79	1400	82.30	6/23/79	1500	82.20
6/23/79	1600	81.60	6/23/79	1700	78.50	6/23/79	1800	76.40
6/23/79	1900	74.50	6/23/79	2000	71.80	6/23/79	2100	69.40
6/23/79	2200	67.60	6/23/79	2300	65.60	6/23/79	2400	63.80

TABLE A.2 (Continued)
HOURLY TEMPERATURE RECORDED FOR JUNE

DATE	HOUR	(°F)	DATE	HOUR	(°F)	DATE	HOUR	(°F)
6/24/79	100	62.00	6/24/79	200	60.70	6/24/79	300	57.80
6/24/79	400	56.10	6/24/79	500	55.60	6/24/79	600	56.90
6/24/79	700	56.30	6/24/79	800	56.60	6/24/79	900	56.40
6/24/79	1000	56.20	6/24/79	1100	56.80	6/24/79	1200	58.80
6/24/79	1300	59.60	6/24/79	1400	59.50	6/24/79	1500	59.20
6/24/79	1600	61.90	6/24/79	1700	61.40	6/24/79	1800	62.10
6/24/79	1900	61.70	6/24/79	2000	59.20	6/24/79	2100	55.60
6/24/79	2200	55.10	6/24/79	2300	55.00	6/24/79	2400	54.40
6/25/79	100	53.50	6/25/79	200	52.90	6/25/79	300	52.20
6/25/79	400	49.30	6/25/79	500	49.70	6/25/79	600	52.30
6/25/79	700	56.20	6/25/79	800	59.10	6/25/79	900	61.10
6/25/79	1000	63.50	6/25/79	1100	65.40	6/25/79	1200	66.50
6/25/79	1300	68.50	6/25/79	1400	69.60	6/25/79	1500	71.60
6/25/79	1600	71.60	6/25/79	1700	71.90	6/25/79	1800	70.90
6/25/79	1900	69.00	6/25/79	2000	66.90	6/25/79	2100	61.40
6/25/79	2200	58.70	6/25/79	2300	58.00	6/25/79	2400	54.40
6/26/79	100	52.90	6/26/79	200	50.70	6/26/79	300	50.90
6/26/79	400	50.30	6/26/79	500	50.50	6/26/79	600	51.60
6/26/79	700	55.80	6/26/79	800	60.10	6/26/79	900	64.30
6/26/79	1000	68.10	6/26/79	1100	70.70	6/26/79	1200	71.20
6/26/79	1300	73.80	6/26/79	1400	74.10	6/26/79	1500	74.10
6/26/79	1600	74.70	6/26/79	1700	74.20	6/26/79	1800	73.10
6/26/79	1900	70.50	6/26/79	2000	68.00	6/26/79	2100	66.30
6/26/79	2200	62.50	6/26/79	2300	60.10	6/26/79	2400	59.50
6/27/79	100	60.00	6/27/79	200	57.40	6/27/79	300	56.60
6/27/79	400	56.90	6/27/79	500	55.50	6/27/79	600	57.20
6/27/79	700	59.70	6/27/79	800	62.00	6/27/79	900	65.60
6/27/79	1000	67.80	6/27/79	1100	69.60	6/27/79	1200	70.80
6/27/79	1300	72.90	6/27/79	1400	73.80	6/27/79	1500	74.60
6/27/79	1600	74.70	6/27/79	1700	74.60	6/27/79	1800	73.50
6/27/79	1900	71.40	6/27/79	2000	68.60	6/27/79	2100	66.70
6/27/79	2200	65.10	6/27/79	2300	62.20	6/27/79	2400	60.00
6/28/79	100	58.10	6/28/79	200	57.20	6/28/79	300	56.10
6/28/79	400	56.40	6/28/79	500	55.90	6/28/79	600	57.10
6/28/79	700	60.10	6/28/79	800	64.00	6/28/79	900	67.30
6/28/79	1000	69.30	6/28/79	1100	72.30	6/28/79	1200	75.50
6/28/79	1300	68.30	6/28/79	1400	71.10	6/28/79	1500	74.30
6/28/79	1600	74.00	6/28/79	1700	71.60	6/28/79	1800	70.00
6/28/79	1900	69.40	6/28/79	2000	67.50	6/28/79	2100	65.70
6/28/79	2200	65.10	6/28/79	2300	63.20	6/28/79	2400	62.20
6/29/79	100	59.60	6/29/79	200	58.30	6/29/79	300	58.00
6/29/79	400	57.00	6/29/79	500	55.40	6/29/79	600	57.50
6/29/79	700	58.90	6/29/79	800	63.10	6/29/79	900	65.40
6/29/79	1000	66.90	6/29/79	1100	68.30	6/29/79	1200	70.40
6/29/79	1300	72.80	6/29/79	1400	74.60	6/29/79	1500	76.80
6/29/79	1600	78.00	6/29/79	1700	77.30	6/29/79	1800	76.00

TABLE A.2 (Continued)
HOURLY TEMPERATURE RECORDED FOR JUNE

DATE	HOUR	(^{o}F)	DATE	HOUR	(^{o}F)	DATE	HOUR	(^{o}F)
6/29/79	1900	71.80	6/29/79	2000	70.40	6/29/79	2100	68.30
6/29/79	2200	64.50	6/29/79	2300	64.40	6/29/79	2400	64.70
6/30/79	100	65.00	6/30/79	200	64.80	6/30/79	300	64.70
6/30/79	400	64.90	6/30/79	500	65.60	6/30/79	600	66.60
6/30/79	700	67.70	6/30/79	800	68.80	6/30/79	900	70.50
6/30/79	1000	71.90	6/30/79	1100	74.30	6/30/79	1200	75.70
6/30/79	1300	77.30	6/30/79	1400	78.70	6/30/79	1500	78.50
6/30/79	1600	78.80	6/30/79	1700	76.30	6/30/79	1800	74.20
6/30/79	1900	71.00	6/30/79	2000	69.80	6/30/79	2100	67.10
6/30/79	2200	66.30	6/30/79	2300	64.40	6/30/79	2400	64.10

NA : NOT AVAILABLE

TABLE A.3
HOURLY TEMPERATURE RECORDED FOR JULY

DATE	HOUR	(°F)	DATE	HOUR	(°F)	DATE	HOUR	(°F)
7/ 1/79	100	63.70	7/ 1/79	200	62.90	7/ 1/79	300	63.40
7/ 1/79	400	63.90	7/ 1/79	500	63.30	7/ 1/79	600	63.40
7/ 1/79	700	65.60	7/ 1/79	800	65.20	7/ 1/79	900	67.40
7/ 1/79	1000	70.20	7/ 1/79	1100	71.40	7/ 1/79	1200	72.90
7/ 1/79	1300	75.00	7/ 1/79	1400	76.30	7/ 1/79	1500	77.70
7/ 1/79	1600	63.50	7/ 1/79	1700	63.30	7/ 1/79	1800	63.90
7/ 1/79	1900	64.10	7/ 1/79	2000	63.90	7/ 1/79	2100	62.90
7/ 1/79	2200	62.40	7/ 1/79	2300	62.20	7/ 1/79	2400	62.10
7/ 2/79	100	62.00	7/ 2/79	200	61.90	7/ 2/79	300	62.20
7/ 2/79	400	62.50	7/ 2/79	500	62.70	7/ 2/79	600	63.40
7/ 2/79	700	65.00	7/ 2/79	800	66.20	7/ 2/79	900	68.80
7/ 2/79	1000	69.80	7/ 2/79	1100	69.90	7/ 2/79	1200	70.70
7/ 2/79	1300	73.60	7/ 2/79	1400	72.90	7/ 2/79	1500	72.60
7/ 2/79	1600	72.70	7/ 2/79	1700	70.10	7/ 2/79	1800	68.90
7/ 2/79	1900	67.70	7/ 2/79	2000	67.50	7/ 2/79	2100	66.60
7/ 2/79	2200	65.50	7/ 2/79	2300	66.70	7/ 2/79	2400	66.50
7/ 3/79	100	64.90	7/ 3/79	200	65.00	7/ 3/79	300	64.10
7/ 3/79	400	63.00	7/ 3/79	500	63.60	7/ 3/79	600	64.50
7/ 3/79	700	66.90	7/ 3/79	800	69.00	7/ 3/79	900	70.70
7/ 3/79	1000	73.10	7/ 3/79	1100	74.90	7/ 3/79	1200	75.60
7/ 3/79	1300	76.90	7/ 3/79	1400	76.90	7/ 3/79	1500	78.30
7/ 3/79	1600	78.20	7/ 3/79	1700	78.40	7/ 3/79	1800	76.50
7/ 3/79	1900	75.30	7/ 3/79	2000	72.30	7/ 3/79	2100	71.00
7/ 3/79	2200	68.70	7/ 3/79	2300	68.00	7/ 3/79	2400	66.70
7/ 4/79	100	64.50	7/ 4/79	200	61.30	7/ 4/79	300	58.90
7/ 4/79	400	58.50	7/ 4/79	500	56.50	7/ 4/79	600	57.70
7/ 4/79	700	59.40	7/ 4/79	800	60.30	7/ 4/79	900	62.30
7/ 4/79	1000	61.40	7/ 4/79	1100	58.50	7/ 4/79	1200	57.60
7/ 4/79	1300	58.00	7/ 4/79	1400	58.50	7/ 4/79	1500	58.30
7/ 4/79	1600	57.50	7/ 4/79	1700	57.00	7/ 4/79	1800	57.00
7/ 4/79	1900	57.40	7/ 4/79	2000	56.30	7/ 4/79	2100	55.50
7/ 4/79	2200	55.10	7/ 4/79	2300	54.90	7/ 4/79	2400	55.30
7/ 5/79	100	54.70	7/ 5/79	200	55.20	7/ 5/79	300	55.00
7/ 5/79	400	55.80	7/ 5/79	500	55.10	7/ 5/79	600	56.90
7/ 5/79	700	59.10	7/ 5/79	800	59.70	7/ 5/79	900	60.30
7/ 5/79	1000	61.90	7/ 5/79	1100	61.20	7/ 5/79	1200	63.60
7/ 5/79	1300	63.50	7/ 5/79	1400	65.30	7/ 5/79	1500	65.70
7/ 5/79	1600	65.70	7/ 5/79	1700	63.70	7/ 5/79	1800	63.40
7/ 5/79	1900	62.00	7/ 5/79	2000	60.50	7/ 5/79	2100	60.00
7/ 5/79	2200	58.40	7/ 5/79	2300	55.90	7/ 5/79	2400	53.90
7/ 6/79	100	52.30	7/ 6/79	200	51.90	7/ 6/79	300	52.10
7/ 6/79	400	52.20	7/ 6/79	500	51.60	7/ 6/79	600	55.20
7/ 6/79	700	60.00	7/ 6/79	800	61.10	7/ 6/79	900	65.00
7/ 6/79	1000	67.90	7/ 6/79	1100	69.60	7/ 6/79	1200	70.50
7/ 6/79	1300	71.20	7/ 6/79	1400	72.10	7/ 6/79	1500	72.60
7/ 6/79	1600	73.40	7/ 6/79	1700	73.50	7/ 6/79	1800	71.30

TABLE A.3 (Continued)
HOURLY TEMPERATURE RECORDED FOR JULY

DATE	HOUR	(°F)	DATE	HOUR	(°F)	DATE	HOUR	(°F)
7/ 6/79	1900	71.30	7/ 6/79	2000	66.20	7/ 6/79	2100	63.90
7/ 6/79	2200	62.20	7/ 6/79	2300	57.70	7/ 6/79	2400	56.40
7/ 7/79	100	55.40	7/ 7/79	200	56.70	7/ 7/79	300	56.40
7/ 7/79	400	53.90	7/ 7/79	500	53.60	7/ 7/79	600	55.00
7/ 7/79	700	59.70	7/ 7/79	800	65.00	7/ 7/79	900	67.60
7/ 7/79	1000	69.90	7/ 7/79	1100	72.50	7/ 7/79	1200	74.00
7/ 7/79	1300	75.70	7/ 7/79	1400	76.10	7/ 7/79	1500	75.80
7/ 7/79	1600	74.30	7/ 7/79	1700	76.20	7/ 7/79	1800	74.90
7/ 7/79	1900	73.00	7/ 7/79	2000	68.60	7/ 7/79	2100	65.10
7/ 7/79	2200	61.40	7/ 7/79	2300	59.80	7/ 7/79	2400	58.70
7/ 8/79	100	57.40	7/ 8/79	200	56.70	7/ 8/79	300	55.50
7/ 8/79	400	54.40	7/ 8/79	500	53.90	7/ 8/79	600	55.70
7/ 8/79	700	60.00	7/ 8/79	800	63.70	7/ 8/79	900	67.70
7/ 8/79	1000	71.80	7/ 8/79	1100	75.60	7/ 8/79	1200	77.30
7/ 8/79	1300	77.80	7/ 8/79	1400	78.90	7/ 8/79	1500	79.30
7/ 8/79	1600	79.40	7/ 8/79	1700	79.40	7/ 8/79	1800	78.10
7/ 8/79	1900	76.20	7/ 8/79	2000	73.60	7/ 8/79	2100	72.10
7/ 8/79	2200	69.90	7/ 8/79	2300	65.00	7/ 8/79	2400	62.80
7/ 9/79	100	62.60	7/ 9/79	200	64.30	7/ 9/79	300	64.40
7/ 9/79	400	61.20	7/ 9/79	500	59.60	7/ 9/79	600	59.10
7/ 9/79	700	63.20	7/ 9/79	800	67.40	7/ 9/79	900	69.90
7/ 9/79	1000	72.60	7/ 9/79	1100	75.50	7/ 9/79	1200	78.40
7/ 9/79	1300	78.80	7/ 9/79	1400	80.00	7/ 9/79	1500	80.20
7/ 9/79	1600	80.70	7/ 9/79	1700	79.60	7/ 9/79	1800	78.50
7/ 9/79	1900	76.20	7/ 9/79	2000	73.90	7/ 9/79	2100	71.90
7/ 9/79	2200	70.00	7/ 9/79	2300	68.10	7/ 9/79	2400	67.20
7/10/79	100	68.10	7/10/79	200	65.40	7/10/79	300	64.30
7/10/79	400	64.30	7/10/79	500	64.80	7/10/79	600	64.60
7/10/79	700	63.80	7/10/79	800	65.30	7/10/79	900	68.30
7/10/79	1000	69.30	7/10/79	1100	71.50	7/10/79	1200	73.40
7/10/79	1300	73.10	7/10/79	1400	69.90	7/10/79	1500	70.80
7/10/79	1600	73.70	7/10/79	1700	71.50	7/10/79	1800	70.00
7/10/79	1900	68.40	7/10/79	2000	68.60	7/10/79	2100	69.20
7/10/79	2200	69.10	7/10/79	2300	68.00	7/10/79	2400	66.50
7/11/79	100	65.80	7/11/79	200	65.50	7/11/79	300	64.80
7/11/79	400	63.90	7/11/79	500	63.80	7/11/79	600	64.80
7/11/79	700	66.10	7/11/79	800	67.70	7/11/79	900	69.10
7/11/79	1000	70.70	7/11/79	1100	73.50	7/11/79	1200	75.40
7/11/79	1300	77.40	7/11/79	1400	78.30	7/11/79	1500	79.00
7/11/79	1600	79.50	7/11/79	1700	79.40	7/11/79	1800	78.80
7/11/79	1900	77.50	7/11/79	2000	75.40	7/11/79	2100	73.70
7/11/79	2200	72.60	7/11/79	2300	71.10	7/11/79	2400	69.20
7/12/79	100	69.00	7/12/79	200	68.80	7/12/79	300	69.70
7/12/79	400	68.90	7/12/79	500	67.90	7/12/79	600	69.50
7/12/79	700	70.60	7/12/79	800	72.90	7/12/79	900	74.40
7/12/79	1000	79.10	7/12/79	1100	82.20	7/12/79	1200	84.60

TABLE A.3 (Continued)
HOURLY TEMPERATURE RECORDED FOR JULY

DATE	HOUR	(°F)	DATE	HOUR	(°F)	DATE	HOUR	(°F)
7/12/79	1300	86.10	7/12/79	1400	86.20	7/12/79	1500	86.30
7/12/79	1600	86.30	7/12/79	1700	84.70	7/12/79	1800	83.80
7/12/79	1900	82.40	7/12/79	2000	78.40	7/12/79	2100	76.70
7/12/79	2200	74.60	7/12/79	2300	73.70	7/12/79	2400	71.80
7/13/79	100	70.60	7/13/79	200	70.40	7/13/79	300	69.20
7/13/79	400	68.30	7/13/79	500	67.90	7/13/79	600	68.00
7/13/79	700	71.50	7/13/79	800	74.70	7/13/79	900	78.40
7/13/79	1000	82.00	7/13/79	1100	84.90	7/13/79	1200	86.60
7/13/79	1300	87.40	7/13/79	1400	88.70	7/13/79	1500	89.10
7/13/79	1600	88.20	7/13/79	1700	86.90	7/13/79	1800	77.70
7/13/79	1900	76.60	7/13/79	2000	75.60	7/13/79	2100	74.80
7/13/79	2200	74.20	7/13/79	2300	72.80	7/13/79	2400	72.90
7/14/79	100	72.40	7/14/79	200	72.20	7/14/79	300	72.40
7/14/79	400	72.30	7/14/79	500	72.40	7/14/79	600	72.80
7/14/79	700	74.20	7/14/79	800	74.80	7/14/79	900	75.70
7/14/79	1000	78.40	7/14/79	1100	80.70	7/14/79	1200	82.70
7/14/79	1300	84.70	7/14/79	1400	85.70	7/14/79	1500	86.50
7/14/79	1600	86.20	7/14/79	1700	74.20	7/14/79	1800	71.70
7/14/79	1900	72.20	7/14/79	2000	71.60	7/14/79	2100	71.30
7/14/79	2200	70.70	7/14/79	2300	69.70	7/14/79	2400	69.10
7/15/79	100	69.60	7/15/79	200	68.50	7/15/79	300	68.50
7/15/79	400	67.50	7/15/79	500	69.30	7/15/79	600	66.50
7/15/79	700	67.50	7/15/79	800	69.30	7/15/79	900	72.20
7/15/79	1000	74.00	7/15/79	1100	75.00	7/15/79	1200	77.50
7/15/79	1300	79.60	7/15/79	1400	81.20	7/15/79	1500	83.90
7/15/79	1600	84.00	7/15/79	1700	83.90	7/15/79	1800	83.20
7/15/79	1900	81.40	7/15/79	2000	78.50	7/15/79	2100	76.80
7/15/79	2200	75.10	7/15/79	2300	74.90	7/15/79	2400	74.40
7/16/79	100	75.60	7/16/79	200	74.00	7/16/79	300	73.90
7/16/79	400	73.80	7/16/79	500	73.40	7/16/79	600	73.90
7/16/79	700	74.30	7/16/79	800	0.00	7/16/79	900	77.10
7/16/79	1000	78.40	7/16/79	1100	80.40	7/16/79	1200	82.30
7/16/79	1300	84.50	7/16/79	1400	85.20	7/16/79	1500	85.20
7/16/79	1600	84.00	7/16/79	1700	83.00	7/16/79	1800	82.50
7/16/79	1900	80.00	7/16/79	2000	78.20	7/16/79	2100	75.90
7/16/79	2200	74.20	7/16/79	2300	71.80	7/16/79	2400	71.50
7/17/79	100	70.20	7/17/79	200	69.90	7/17/79	300	71.10
7/17/79	400	69.90	7/17/79	500	69.30	7/17/79	600	69.40
7/17/79	700	72.40	7/17/79	800	74.90	7/17/79	900	77.90
7/17/79	1000	80.40	7/17/79	1100	82.90	7/17/79	1200	84.60
7/17/79	1300	86.40	7/17/79	1400	84.80	7/17/79	1500	86.50
7/17/79	1600	87.10	7/17/79	1700	86.40	7/17/79	1800	85.00
7/17/79	1900	81.50	7/17/79	2000	80.50	7/17/79	2100	78.30
7/17/79	2200	77.00	7/17/79	2300	73.40	7/17/79	2400	73.20
7/18/79	100	73.70	7/18/79	200	73.80	7/18/79	300	72.00
7/18/79	400	71.30	7/18/79	500	71.30	7/18/79	600	70.30

TABLE A.3 (Continued)
HOURLY TEMPERATURE RECORDED FOR JULY

DATE	HOUR	(°F)	DATE	HOUR	(°F)	DATE	HOUR	(°F)
7/18/79	700	72.20	7/18/79	800	72.60	7/18/79	900	73.20
7/18/79	1000	74.00	7/18/79	1100	74.70	7/18/79	1200	76.40
7/18/79	1300	79.50	7/18/79	1400	80.10	7/18/79	1500	81.00
7/18/79	1600	80.50	7/18/79	1700	80.70	7/18/79	1800	80.50
7/18/79	1900	79.40	7/18/79	2000	75.30	7/18/79	2100	73.80
7/18/79	2200	71.00	7/18/79	2300	69.20	7/18/79	2400	67.70
7/19/79	100	67.00	7/19/79	200	65.70	7/19/79	300	65.30
7/19/79	400	64.40	7/19/79	500	64.20	7/19/79	600	65.50
7/19/79	700	66.40	7/19/79	800	69.60	7/19/79	900	70.20
7/19/79	1000	74.40	7/19/79	1100	77.50	7/19/79	1200	79.70
7/19/79	1300	81.90	7/19/79	1400	83.30	7/19/79	1500	83.90
7/19/79	1600	83.30	7/19/79	1700	83.50	7/19/79	1800	82.00
7/19/79	1900	79.10	7/19/79	2000	77.50	7/19/79	2100	74.80
7/19/79	2200	72.80	7/19/79	2300	71.70	7/19/79	2400	69.90
7/20/79	100	68.90	7/20/79	200	68.00	7/20/79	300	67.60
7/20/79	400	67.40	7/20/79	500	67.20	7/20/79	600	67.90
7/20/79	700	69.70	7/20/79	800	71.30	7/20/79	900	71.80
7/20/79	1000	73.20	7/20/79	1100	75.40	7/20/79	1200	77.10
7/20/79	1300	77.00	7/20/79	1400	76.10	7/20/79	1500	73.10
7/20/79	1600	72.60	7/20/79	1700	73.50	7/20/79	1800	75.30
7/20/79	1900	74.60	7/20/79	2000	73.50	7/20/79	2100	72.50
7/20/79	2200	71.80	7/20/79	2300	71.20	7/20/79	2400	71.20
7/21/79	100	70.20	7/21/79	200	70.00	7/21/79	300	69.00
7/21/79	400	69.00	7/21/79	500	68.90	7/21/79	600	69.00
7/21/79	700	69.40	7/21/79	800	69.90	7/21/79	900	69.10
7/21/79	1000	67.20	7/21/79	1100	68.30	7/21/79	1200	70.10
7/21/79	1300	71.00	7/21/79	1400	74.90	7/21/79	1500	75.70
7/21/79	1600	76.50	7/21/79	1700	77.10	7/21/79	1800	76.90
7/21/79	1900	75.40	7/21/79	2000	73.30	7/21/79	2100	73.00
7/21/79	2200	72.00	7/21/79	2300	71.00	7/21/79	2400	69.00
7/22/79	100	67.40	7/22/79	200	66.20	7/22/79	300	65.90
7/22/79	400	65.20	7/22/79	500	65.00	7/22/79	600	65.60
7/22/79	700	68.30	7/22/79	800	70.20	7/22/79	900	73.40
7/22/79	1000	75.70	7/22/79	1100	78.70	7/22/79	1200	80.80
7/22/79	1300	82.50	7/22/79	1400	81.70	7/22/79	1500	81.80
7/22/79	1600	82.00	7/22/79	1700	76.80	7/22/79	1800	76.60
7/22/79	1900	75.50	7/22/79	2000	73.30	7/22/79	2100	71.70
7/22/79	2200	72.20	7/22/79	2300	70.90	7/22/79	2400	70.20
7/23/79	100	70.10	7/23/79	200	69.10	7/23/79	300	68.60
7/23/79	400	68.20	7/23/79	500	68.30	7/23/79	600	69.10
7/23/79	700	71.10	7/23/79	800	72.50	7/23/79	900	74.20
7/23/79	1000	76.80	7/23/79	1100	78.20	7/23/79	1200	79.00
7/23/79	1300	79.90	7/23/79	1400	79.60	7/23/79	1500	72.90
7/23/79	1600	69.90	7/23/79	1700	71.30	7/23/79	1800	71.70
7/23/79	1900	71.60	7/23/79	2000	71.40	7/23/79	2100	70.30
7/23/79	2200	69.80	7/23/79	2300	69.10	7/23/79	2400	68.10

TABLE A.3 (Continued)
HOURLY TEMPERATURE RECORDED FOR JULY

DATE	HOUR	(°F)	DATE	HOUR	(°F)	DATE	HOUR	(°F)
7/24/79	100	67.30	7/24/79	200	68.30	7/24/79	300	67.30
7/24/79	400	67.70	7/24/79	500	67.70	7/24/79	600	67.30
7/24/79	700	67.60	7/24/79	800	68.60	7/24/79	900	70.70
7/24/79	1000	72.90	7/24/79	1100	74.90	7/24/79	1200	75.50
7/24/79	1300	75.90	7/24/79	1400	79.00	7/24/79	1500	81.30
7/24/79	1600	83.10	7/24/79	1700	81.80	7/24/79	1800	81.80
7/24/79	1900	80.50	7/24/79	2000	78.10	7/24/79	2100	75.50
7/24/79	2200	75.50	7/24/79	2300	74.80	7/24/79	2400	74.60
7/25/79	100	73.50	7/25/79	200	72.30	7/25/79	300	71.40
7/25/79	400	70.70	7/25/79	500	72.00	7/25/79	600	71.30
7/25/79	700	73.90	7/25/79	800	76.40	7/25/79	900	79.00
7/25/79	1300	84.90	7/25/79	1400	84.50	7/25/79	1500	84.30
7/25/79	1600	82.90	7/25/79	1700	79.60	7/25/79	1800	73.50
7/25/79	1900	74.80	7/25/79	2000	73.80	7/25/79	2100	73.00
7/25/79	2200	72.40	7/25/79	2300	72.70	7/25/79	2400	72.80
7/26/79	100	72.10	7/26/79	200	72.20	7/26/79	300	71.80
7/26/79	400	71.10	7/26/79	500	71.50	7/26/79	600	71.70
7/26/79	700	72.90	7/26/79	800	0.00	7/26/79	900	75.90
7/26/79	1000	76.90	7/26/79	1100	79.00	7/26/79	1200	79.80
7/26/79	1300	78.20	7/26/79	1400	77.70	7/26/79	1500	77.60
7/26/79	1600	82.40	7/26/79	1700	82.30	7/26/79	1800	81.20
7/26/79	1900	77.10	7/26/79	2000	70.80	7/26/79	2100	70.60
7/26/79	2200	70.80	7/26/79	2300	70.90	7/26/79	2400	70.20
7/27/79	100	69.30	7/27/79	200	67.40	7/27/79	300	66.10
7/27/79	400	64.70	7/27/79	500	64.10	7/27/79	600	66.70
7/27/79	700	71.90	7/27/79	800	76.30	7/27/79	900	79.70
7/27/79	1000	81.70	7/27/79	1100	80.70	7/27/79	1200	77.60
7/27/79	1300	78.30	7/27/79	1400	79.60	7/27/79	1500	78.70
7/27/79	1600	78.50	7/27/79	1700	77.80	7/27/79	1800	76.90
7/27/79	1900	76.00	7/27/79	2000	73.50	7/27/79	2100	70.80
7/27/79	2200	69.80	7/27/79	2300	68.40	7/27/79	2400	66.40
7/28/79	100	66.70	7/28/79	200	66.70	7/28/79	300	66.50
7/28/79	400	65.60	7/28/79	500	65.00	7/28/79	600	65.30
7/28/79	700	68.40	7/28/79	800	71.30	7/28/79	900	73.90
7/28/79	1000	76.60	7/28/79	1100	79.10	7/28/79	1200	78.50
7/28/79	1300	77.20	7/28/79	1400	76.50	7/28/79	1500	75.50
7/28/79	1600	75.40	7/28/79	1700	76.40	7/28/79	1800	76.50
7/28/79	1900	76.00	7/28/79	2000	74.70	7/28/79	2100	73.30
7/28/79	2200	72.90	7/28/79	2300	71.80	7/28/79	2400	71.40
7/29/79	100	69.50	7/29/79	200	70.80	7/29/79	300	71.60
7/29/79	400	71.40	7/29/79	500	71.00	7/29/79	600	70.70
7/29/79	700	70.90	7/29/79	800	71.40	7/29/79	900	70.50
7/29/79	1000	70.60	7/29/79	1100	71.00	7/29/79	1200	69.10
7/29/79	1300	68.20	7/29/79	1400	69.20	7/29/79	1500	69.30
7/29/79	1600	68.60	7/29/79	1700	68.50	7/29/79	1800	68.50
7/29/79	1900	68.40	7/29/79	2000	68.40	7/29/79	2100	68.30

TABLE A.3 (Continued)
HOURLY TEMPERATURE RECORDED FOR JULY

DATE	HOUR	(^{o}F)	DATE	HOUR	(^{o}F)	DATE	HOUR	(^{o}F)
7/29/79	2200	68.30	7/29/79	2300	67.80	7/29/79	2400	68.10
7/30/79	100	68.00	7/30/79	200	67.40	7/30/79	300	67.40
7/30/79	400	67.70	7/30/79	500	68.80	7/30/79	600	68.20
7/30/79	700	69.00	7/30/79	800	70.50	7/30/79	900	71.40
7/30/79	1000	73.70	7/30/79	1100	75.10	7/30/79	1200	75.80
7/30/79	1300	77.10	7/30/79	1400	78.70	7/30/79	1500	79.10
7/30/79	1600	79.90	7/30/79	1700	80.10	7/30/79	1800	79.10
7/30/79	1900	76.90	7/30/79	2000	74.40	7/30/79	2100	72.70
7/30/79	2200	71.80	7/30/79	2300	71.70	7/30/79	2400	71.40
7/31/79	100	70.80	7/31/79	200	69.90	7/31/79	300	69.60
7/31/79	400	70.60	7/31/79	500	71.30	7/31/79	600	71.50
7/31/79	700	71.90	7/31/79	800	73.90	7/31/79	900	75.30
7/31/79	1000	77.80	7/31/79	1100	80.40	7/31/79	1200	82.40
7/31/79	1300	84.10	7/31/79	1400	85.30	7/31/79	1500	84.90
7/31/79	1600	85.60	7/31/79	1700	85.40	7/31/79	1800	84.80
7/31/79	1900	82.40	7/31/79	2000	79.40	7/31/79	2100	76.90
7/31/79	2200	76.50	7/31/79	2300	75.70	7/31/79	2400	75.20

APPENDIX B

^{131}I CONCENTRATION DATA

TABLE B.1
IODINE DATA FOR SAMPLE LOCATION #1 (281'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/28/79	1954	2.600E-09	5/29/79	2030	3.170E-09
5/30/79	045	1.339E-09	5/31/79	200	2.770E-09
6/ 2/79	145	3.580E-09	6/ 2/79	2010	2.320E-09
6/ 3/79	155	1.850E-09	6/ 3/79	825	1.890E-09
6/ 3/79	1425	9.610E-10	6/ 4/79	150	1.117E-09
6/ 4/79	1410	8.900E-10	6/ 4/79	2015	2.700E-09
6/ 5/79	210	2.190E-09	6/ 5/79	1210	1.000E-09
6/ 5/79	2105	1.800E-09	6/ 6/79	207	4.800E-10
6/ 6/79	820	8.320E-10	6/ 6/79	1357	8.180E-10
6/ 7/79	330	8.300E-10	6/ 7/79	820	8.500E-10
6/ 7/79	2000	4.110E-09	6/ 8/79	205	1.490E-09
6/ 8/79	837	1.500E-09	6/ 8/79	843	8.570E-10
6/ 8/79	2005	1.610E-09	6/ 8/79	2005	1.960E-09
6/ 9/79	936	1.010E-09	6/ 9/79	1426	2.020E-09
6/ 9/79	2000	2.240E-09	6/10/79	210	7.460E-10
6/10/79	923	1.460E-09	6/11/79	001	7.900E-10
6/11/79	851	6.440E-10	6/11/79	1440	5.810E-10
6/11/79	2010	3.390E-10	6/11/79	2010	3.600E-10
6/12/79	927	3.740E-10	6/12/79	955	1.000E-09
6/13/79	1429	4.010E-10	6/13/79	2005	3.130E-10
6/13/79	2005	6.100E-10	6/14/79	840	1.130E-09
6/14/79	1501	3.050E-09	6/14/79	2000	1.450E-09
6/15/79	200	5.170E-10	6/15/79	1425	7.700E-09
6/15/79	2000	1.460E-09	6/15/79	2339	1.880E-10
6/16/79	1107	5.340E-10	6/16/79	1533	1.160E-09
6/16/79	2000	3.330E-09	6/17/79	210	2.120E-10
6/17/79	1459	1.180E-09	6/17/79	2005	5.780E-10
6/18/79	205	6.050E-10	6/18/79	844	2.500E-10
6/18/79	1428	1.000E-09	6/18/79	2005	2.460E-09
6/19/79	200	2.350E-09	6/19/79	835	2.870E-10
6/19/79	1450	7.880E-10	6/19/79	2200	1.490E-09
6/20/79	225	2.770E-10	6/20/79	225	4.600E-10
6/20/79	846	2.190E-09	6/21/79	145	1.290E-09
6/21/79	145	7.540E-10	6/21/79	1405	1.310E-09
6/21/79	2010	9.260E-10	6/21/79	2015	8.800E-10
6/22/79	841	1.220E-09	6/22/79	1424	5.800E-09
6/22/79	2300	5.710E-09	6/23/79	330	4.450E-09
6/23/79	756	2.420E-09	6/23/79	1502	7.800E-09
6/23/79	2015	1.100E-08	6/24/79	205	3.730E-09
6/25/79	2000	5.220E-09	6/25/79	2005	3.880E-09
6/26/79	915	3.020E-09	6/26/79	1456	4.180E-09
6/26/79	2025	5.750E-09	6/27/79	842	2.100E-09
6/27/79	1443	7.200E-09	6/27/79	2015	4.760E-09
6/28/79	220	3.620E-09	6/28/79	934	1.770E-09

TABLE B.1 (Continued)
IODINE DATA FOR SAMPLE LOCATION #1 (281'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/28/79	1428	5.400E-09	6/28/79	2000	5.420E-09
6/29/79	205	2.480E-09	6/29/79	844	3.290E-09
6/29/79	1457	3.950E-09	6/29/79	2125	4.440E-09
6/29/79	2125	2.230E-09	6/30/79	912	1.540E-09
6/30/79	2015	3.200E-09			
7/ 1/79	808	1.560E-09	7/ 1/79	1432	3.490E-09
7/ 1/79	2000	4.960E-11	7/ 2/79	220	1.310E-09
7/ 2/79	220	1.000E-09	7/ 2/79	1443	2.400E-10
7/ 2/79	1955	1.900E-09	7/ 4/79	150	1.330E-09
7/ 4/79	1517	1.160E-09	7/ 5/79	2020	9.660E-09
7/ 6/79	2010	4.140E-10	7/ 7/79	2050	2.440E-09
7/ 8/79	2020	1.460E-09	7/10/79	1955	2.000E-09
7/12/79	055	5.180E-10	7/12/79	1210	6.920E-10
7/12/79	2005	1.030E-09	7/13/79	330	7.190E-10
7/13/79	1459	1.010E-09	7/13/79	2030	1.250E-09
7/14/79	1440	2.200E-09	7/14/79	2030	1.870E-09
7/15/79	2000	3.080E-10	7/16/79	240	1.130E-09
7/16/79	1503	8.950E-10	7/17/79	200	1.120E-09
7/17/79	1422	1.330E-09	7/17/79	2035	2.760E-09
7/18/79	210	2.240E-09	7/18/79	858	1.150E-09
7/18/79	1400	8.660E-10	7/18/79	2015	1.310E-09
7/19/79	330	1.130E-09	7/19/79	1406	1.650E-10
7/19/79	2045	1.070E-09	7/20/79	220	1.960E-09
7/20/79	1500	8.150E-10	7/20/79	2020	8.690E-10
7/21/79	215	2.370E-10	7/21/79	925	1.190E-10
7/21/79	1435	4.600E-12	7/22/79	1455	3.610E-10
7/23/79	814	6.620E-11	7/23/79	1425	4.300E-10
7/24/79	2030	1.200E-09	7/25/79	1456	5.730E-10
7/26/79	230	5.690E-10	7/26/79	752	3.280E-10
7/26/79	1400	4.490E-10	7/27/79	740	2.470E-10
7/27/79	1534	9.830E-10	7/28/79	223	3.000E-11
7/31/79	1245	1.050E-10			

TABLE B.2
IODINE DATA FOR SAMPLE LOCATION #2 (281'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/21/79	340	8.850E-09	5/21/79	1440	6.860E-09
5/21/79	2022	5.400E-09	5/22/79	930	1.140E-08
5/22/79	1435	1.580E-08	5/22/79	2145	2.070E-08
5/23/79	315	1.090E-08	5/23/79	337	7.300E-09
5/23/79	1451	3.500E-08	5/23/79	2022	3.290E-08
5/24/79	229	1.700E-08	5/24/79	908	6.720E-08
5/24/79	912	1.650E-08	5/24/79	1437	4.900E-08
5/24/79	1630	0.000E+00	5/24/79	2007	7.700E-08
5/25/79	258	6.020E-08	5/25/79	853	7.800E-08
5/25/79	1449	6.360E-08	5/25/79	2015	7.970E-08
5/26/79	148	3.240E-08	5/26/79	842	2.780E-08
5/26/79	1349	2.820E-08	5/26/79	1950	3.920E-08
5/27/79	151	2.170E-08	5/27/79	859	1.700E-08
5/27/79	1958	1.380E-08	5/28/79	202	2.550E-08
5/28/79	759	7.230E-09	5/28/79	1449	1.550E-08
5/28/79	1950	2.800E-08	5/29/79	152	1.400E-08
5/29/79	2030	4.100E-08	5/30/79	240	2.300E-08
5/31/79	819	6.640E-09	5/31/79	824	9.370E-09
5/31/79	1450	7.210E-09	5/31/79	2020	3.660E-08
6/ 1/79	152	1.700E-08	6/ 1/79	2000	1.800E-08
6/ 2/79	115	1.400E-08	6/ 2/79	145	2.390E-08
6/ 2/79	1430	9.220E-09	6/ 2/79	2005	1.740E-08
6/ 3/79	150	1.390E-08	6/ 3/79	830	1.090E-08
6/ 3/79	1434	7.500E-09	6/ 3/79	1435	2.900E-09
6/ 4/79	150	1.400E-09	6/ 4/79	150	1.200E-09
6/ 4/79	826	2.100E-09	6/ 5/79	210	6.170E-09
6/ 5/79	830	1.500E-09	6/ 5/79	1315	2.850E-09
6/ 5/79	2105	9.300E-09	6/ 5/79	2205	3.500E-09
6/ 6/79	212	3.900E-09	6/ 6/79	818	2.590E-09
6/ 6/79	1357	4.240E-09	6/ 6/79	1955	9.460E-09
6/ 7/79	205	5.800E-09	6/ 7/79	811	4.900E-09
6/ 7/79	2000	3.400E-08	6/ 8/79	200	1.450E-08
6/ 8/79	841	1.450E-08	6/ 8/79	841	6.090E-09
6/ 8/79	2000	3.810E-08	6/ 9/79	933	1.780E-08
6/ 9/79	1425	2.290E-08	6/ 9/79	1955	2.460E-08
6/10/79	210	2.710E-08	6/10/79	918	4.380E-09
6/10/79	2300	7.000E-09	6/11/79	001	7.100E-09
6/11/79	838	2.770E-09	6/11/79	1437	9.410E-10
6/11/79	2005	6.600E-10	6/12/79	924	3.760E-10
6/12/79	1500	6.910E-10	6/12/79	2000	1.750E-09
6/13/79	155	1.930E-09	6/13/79	733	4.170E-10
6/13/79	740	3.420E-09	6/13/79	1445	9.260E-10
6/13/79	2000	3.530E-09	6/14/79	145	6.700E-10
6/14/79	838	1.350E-09	6/14/79	1459	3.800E-09

TABLE B.2 (Continued)
IODINE DATA FOR SAMPLE LOCATION #2 (281'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/14/79	2000	7.360E-09	6/15/79	155	1.900E-09
6/15/79	200	1.210E-08	6/15/79	1415	6.640E-09
6/15/79	1955	7.690E-09	6/15/79	2000	6.230E-10
6/16/79	2000	1.050E-08	6/17/79	210	1.430E-08
6/17/79	823	1.940E-09	6/17/79	1455	1.770E-08
6/17/79	2000	2.000E-08	6/18/79	200	1.560E-08
6/18/79	839	4.380E-09	6/18/79	1431	1.100E-08
6/19/79	200	1.660E-09	6/19/79	840	1.180E-09
6/19/79	1435	3.230E-09	6/19/79	2020	7.920E-09
6/20/79	225	5.600E-09	6/20/79	225	2.200E-09
6/20/79	1412	7.640E-09	6/20/79	2015	3.800E-09
6/21/79	200	3.920E-09	6/21/79	200	2.110E-09
6/21/79	1420	3.770E-09	6/21/79	2010	2.490E-09
6/21/79	2010	2.250E-09	6/22/79	834	2.760E-09
6/22/79	1420	6.000E-09	6/22/79	2000	7.420E-09
6/23/79	001	6.140E-09	6/23/79	759	3.980E-09
6/23/79	1645	5.740E-09	6/23/79	2020	1.200E-08
6/24/79	210	3.830E-09	6/24/79	935	1.940E-09
6/24/79	1520	1.630E-09	6/24/79	2010	3.080E-09
6/25/79	245	2.500E-09	6/25/79	829	1.580E-09
6/25/79	1430	2.800E-09	6/25/79	2010	2.700E-10
6/25/79	2010	1.730E-10	6/26/79	912	2.400E-10
6/26/79	1500	1.030E-09	6/26/79	2030	1.480E-09
6/27/79	205	2.490E-10	6/27/79	838	1.970E-10
6/27/79	1430	7.220E-10	6/27/79	2020	9.280E-10
6/28/79	220	2.030E-10	6/28/79	927	2.660E-10
6/28/79	1432	1.930E-09	6/28/79	2010	2.160E-09
6/29/79	205	2.470E-10	6/29/79	849	4.840E-10
6/29/79	1455	1.180E-09	6/29/79	2125	1.840E-09
6/30/79	315	2.640E-10	6/30/79	1456	1.060E-09
6/30/79	2015	1.430E-09			
7/ 1/79	435	8.890E-11	7/ 1/79	812	1.300E-10
7/ 1/79	2005	2.280E-09	7/ 2/79	220	2.070E-12
7/ 2/79	220	2.900E-11	7/ 3/79	2010	1.030E-10
7/ 6/79	250	2.700E-10	7/ 6/79	834	1.000E-10
7/ 6/79	1546	2.860E-11	7/ 6/79	2010	6.620E-11
7/ 7/79	230	2.000E-11	7/ 7/79	1335	3.500E-11
7/10/79	1407	6.670E-10	7/10/79	1955	3.220E-10
7/12/79	055	2.630E-10	7/12/79	1212	1.870E-10
7/14/79	240	2.810E-10	7/17/79	205	1.202E-10

TABLE B.3
IODINE DATA FOR SAMPLE LOCATION #3 (281'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/17/79	2337	1.430E-07	5/18/79	547	1.560E-07
5/18/79	1525	9.080E-08	5/19/79	922	5.070E-08
5/19/79	1442	4.730E-08	5/19/79	2102	6.000E-08
5/20/79	242	5.030E-08	5/20/79	1048	5.570E-08
5/20/79	1500	5.750E-08	5/20/79	2145	1.620E-08
5/21/79	850	5.380E-08	5/21/79	1445	5.060E-08
5/21/79	2020	5.910E-08	5/22/79	225	9.000E-08
5/22/79	930	8.150E-08	5/22/79	1430	6.530E-08
5/22/79	2140	7.580E-08	5/23/79	331	5.640E-08
5/23/79	955	8.560E-08	5/23/79	1448	8.000E-08
5/23/79	2020	3.520E-08	5/24/79	227	8.200E-08
5/24/79	910	6.110E-08	5/24/79	1434	6.860E-08
5/24/79	2003	8.890E-08	5/24/79	2005	1.120E-07
5/25/79	254	4.830E-08	5/25/79	900	3.490E-08
5/25/79	1450	7.810E-08	5/25/79	2013	5.650E-08
5/26/79	146	5.810E-08	5/26/79	844	4.550E-08
5/26/79	1351	1.750E-08	5/26/79	1948	2.620E-08
5/27/79	150	2.770E-08	5/27/79	902	2.270E-08
5/27/79	1610	4.620E-09	5/27/79	1956	8.800E-09
5/28/79	158	1.620E-08	5/28/79	802	2.050E-08
5/28/79	1454	3.050E-08	5/28/79	1955	1.620E-08
5/29/79	151	1.550E-08	5/29/79	2030	1.500E-08
5/31/79	827	1.800E-08	5/31/79	2015	1.600E-08
6/ 1/79	150	1.640E-08	6/ 1/79	755	1.140E-08
6/ 1/79	1455	1.080E-08	6/ 1/79	2055	1.160E-08
6/ 2/79	140	9.990E-09	6/ 2/79	925	9.770E-09
6/ 2/79	1431	5.790E-09	6/ 2/79	1645	4.370E-10
6/ 2/79	2005	8.420E-09	6/ 3/79	832	1.200E-08
6/ 3/79	2005	1.400E-08	6/ 4/79	145	8.680E-09
6/ 4/79	150	8.800E-09	6/ 4/79	830	1.400E-08
6/ 4/79	2000	1.520E-08	6/ 5/79	205	8.780E-09
6/ 5/79	932	2.400E-08	6/ 5/79	1313	1.370E-08
6/ 5/79	2105	1.130E-08	6/ 6/79	204	8.020E-09
6/ 6/79	823	1.600E-08	6/ 6/79	1355	1.200E-08
6/ 6/79	1950	7.720E-09	6/ 7/79	205	8.710E-09
6/ 7/79	815	1.300E-08	6/ 7/79	2006	3.300E-08
6/ 8/79	200	1.120E-08	6/ 8/79	838	1.550E-08
6/ 8/79	2000	2.140E-08	6/ 9/79	150	1.010E-09
6/ 9/79	931	2.140E-08	6/ 9/79	1955	1.400E-08
6/10/79	913	3.080E-08	6/11/79	230	3.610E-08
6/11/79	300	1.560E-09	6/11/79	835	1.770E-08
6/11/79	2006	1.600E-08	6/12/79	205	1.700E-08
6/12/79	922	8.820E-09	6/12/79	1458	6.610E-08
6/12/79	2000	2.200E-08	6/13/79	155	1.680E-08

TABLE B.3 (Continued)
IODINE DATA FOR SAMPLE LOCATION #3 (281'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/13/79	730	1.160E-08	6/13/79	1445	2.170E-08
6/13/79	2000	2.100E-08	6/14/79	145	1.150E-08
6/14/79	200	1.550E-08	6/16/79	410	5.080E-10
6/16/79	1121	1.020E-10	6/16/79	1537	1.480E-09
6/16/79	2000	2.530E-09	6/17/79	210	4.160E-10
6/17/79	827	1.430E-09	6/17/79	1452	9.410E-09
6/17/79	2030	1.070E-08	6/17/79	2100	2.100E-08
6/18/79	200	3.290E-09	6/18/79	837	6.520E-09
6/18/79	1433	7.700E-09	6/18/79	2000	1.180E-08
6/18/79	2030	6.760E-09	6/19/79	200	9.320E-10
6/19/79	838	4.680E-09	6/19/79	1455	6.110E-09
6/19/79	2015	1.820E-08	6/20/79	200	7.360E-09
6/20/79	837	5.430E-09	6/20/79	1415	6.800E-09
6/20/79	2010	6.280E-09	6/21/79	200	6.410E-09
6/21/79	815	4.760E-09	6/21/79	1423	4.050E-09
6/21/79	2005	4.340E-09	6/21/79	2030	3.000E-10
6/22/79	825	1.210E-10	6/22/79	1416	2.130E-09
6/22/79	2005	6.770E-09	6/23/79	325	5.690E-09
6/23/79	802	1.810E-09	6/23/79	1511	7.200E-09
6/23/79	2025	7.180E-09	6/24/79	210	3.220E-09
6/24/79	828	8.590E-10	6/24/79	939	1.800E-09
6/24/79	2015	1.050E-09	6/25/79	827	7.790E-10
6/25/79	2010	7.820E-11			
7/ 1/79	210	2.580E-09	7/ 1/79	816	1.620E-10
7/ 1/79	1437	2.990E-10	7/ 2/79	1450	1.900E-09
7/ 7/79	230	4.400E-11			

TABLE B.4
IODINE DATA FOR SAMPLE LOCATION #4 (281'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/20/79	1040	7.600E-08	5/20/79	1455	6.900E-08
5/20/79	2215	5.100E-08	5/21/79	345	5.270E-08
5/21/79	852	8.900E-08	5/21/79	1442	4.730E-08
5/21/79	2018	5.140E-08	5/22/79	223	9.130E-08
5/22/79	930	8.400E-08	5/22/79	1430	1.110E-07
5/22/79	2156	8.160E-08	5/23/79	327	2.500E-08
5/23/79	1000	7.160E-08	5/23/79	2018	4.710E-08
5/24/79	225	6.800E-08	5/24/79	1432	9.400E-08
5/24/79	1958	5.500E-08	5/25/79	249	4.380E-08
5/25/79	1454	4.250E-08	5/25/79	2010	4.090E-08
5/26/79	846	4.410E-08	5/26/79	1354	3.230E-08
5/26/79	1945	3.160E-08	5/27/79	147	2.730E-08
5/27/79	903	2.700E-08	5/28/79	1451	1.370E-08
5/28/79	1952	2.760E-08	5/30/79	235	1.240E-08
5/31/79	827	1.390E-08	5/31/79	1441	1.340E-08
5/31/79	2015	1.170E-08			
6/ 1/79	505	8.000E-09	6/ 1/79	1500	1.560E-08
6/ 1/79	1500	1.560E-08	6/ 1/79	1600	5.530E-09
6/ 1/79	2000	5.630E-09	6/ 2/79	140	8.860E-09
6/ 2/79	921	8.560E-09	6/ 2/79	1432	2.850E-09
6/ 2/79	1650	2.260E-10	6/ 2/79	2000	7.560E-09
6/ 2/79	2100	3.800E-09	6/ 3/79	200	2.140E-09
6/ 3/79	831	1.210E-08	6/ 3/79	1429	4.300E-09
6/ 3/79	2000	1.100E-08	6/ 4/79	145	7.900E-09
6/ 4/79	300	1.100E-08	6/ 4/79	831	8.000E-09
6/ 4/79	2010	9.550E-09	6/ 5/79	200	9.700E-09
6/ 5/79	300	3.360E-09	6/ 5/79	1311	6.670E-09
6/ 5/79	2100	4.020E-09	6/ 6/79	206	8.430E-09
6/ 6/79	300	6.700E-09	6/ 6/79	1353	4.860E-09
6/ 6/79	1950	4.200E-09	6/ 7/79	812	5.100E-09
6/ 7/79	1155	4.440E-09	6/ 8/79	200	3.610E-09
6/ 8/79	836	5.400E-09	6/ 8/79	2000	3.880E-09
6/ 9/79	150	8.850E-09	6/ 9/79	928	7.640E-09
6/ 9/79	1420	6.810E-09	6/ 9/79	1955	4.830E-09
6/10/79	200	6.970E-09	6/11/79	1433	1.380E-08
6/11/79	2100	8.660E-09	6/12/79	920	9.480E-09
6/12/79	1950	1.980E-08	6/13/79	730	9.230E-09
6/13/79	1450	1.160E-08	6/13/79	2000	1.400E-08
6/14/79	835	6.300E-09	6/14/79	1459	4.020E-09
6/14/79	2000	5.980E-09	6/15/79	150	7.700E-09
6/15/79	1420	1.610E-09	6/15/79	2000	6.980E-09
6/15/79	2100	1.620E-08	6/16/79	400	1.150E-08
6/16/79	1525	8.540E-09	6/17/79	210	1.620E-10
6/17/79	835	8.140E-09	6/17/79	1448	1.620E-08

TABLE B.4 (Continued)
IODINE DATA FOR SAMPLE LOCATION #4 (281'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/17/79	2000	1.810E-08	6/18/79	200	1.260E-08
6/18/79	833	6.460E-09	6/18/79	1436	9.990E-09
6/18/79	2000	1.110E-08	6/19/79	200	8.480E-09
6/19/79	1015	3.680E-09	6/19/79	1500	4.230E-09
6/19/79	2015	1.020E-08	6/20/79	220	5.980E-09
6/20/79	320	5.000E-09	6/20/79	1531	6.020E-09
6/20/79	2005	5.240E-09	6/21/79	205	6.330E-09
6/21/79	810	5.250E-09	6/21/79	810	4.170E-09
6/21/79	1900	3.720E-09	6/21/79	2005	3.300E-09
6/22/79	820	2.820E-09	6/22/79	900	2.460E-10
6/22/79	2005	6.140E-10	6/23/79	310	5.380E-10
6/23/79	806	3.960E-10	6/23/79	807	6.400E-10
6/23/79	2025	1.190E-09	6/24/79	215	2.720E-10
6/24/79	840	1.140E-10	6/24/79	943	2.260E-10
6/24/79	2015	2.230E-10	6/25/79	255	1.480E-10
6/25/79	823	1.840E-10	6/25/79	1458	1.750E-10
6/25/79	2010	2.140E-11	6/25/79	2100	4.160E-10
6/26/79	230	8.490E-10	6/26/79	1507	2.800E-09
6/26/79	2035	1.870E-09	6/27/79	210	1.050E-09
6/27/79	828	1.040E-09	6/27/79	1020	2.230E-09
6/27/79	2030	1.690E-09	6/28/79	225	1.660E-09
6/28/79	922	7.800E-10	6/28/79	2010	4.260E-10
6/29/79	210	1.500E-09	6/29/79	858	2.950E-09
6/29/79	1507	1.990E-09	6/29/79	2135	3.540E-10
6/30/79	320	1.570E-09	6/30/79	904	1.350E-09
6/30/79	1445	1.470E-09	6/30/79	2020	1.580E-09

TABLE B.5
IODINE DATA FOR SAMPLE LOCATION #5 (281'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/31/79	809	2.000E-10	5/31/79	1433	4.320E-10
5/31/79	2025	7.200E-10			
6/ 1/79	155	1.240E-10	6/ 1/79	300	3.400E-10
6/ 1/79	1445	3.670E-10	6/ 5/79	215	6.900E-10
6/ 5/79	1316	9.440E-10	6/ 5/79	2110	3.920E-09
6/ 5/79	2200	5.060E-09	6/ 6/79	210	6.900E-10
6/ 6/79	300	4.770E-10	6/ 6/79	1400	2.400E-09
6/ 6/79	2000	1.700E-09	6/ 7/79	210	1.100E-09
6/ 7/79	822	3.440E-10	6/ 7/79	2005	3.570E-10
6/ 8/79	205	2.040E-09	6/ 8/79	845	2.460E-10
6/ 8/79	945	1.100E-09	6/ 8/79	2005	3.020E-09
6/ 8/79	2100	4.000E-08	6/ 9/79	940	8.910E-10
6/ 9/79	1430	3.090E-10	6/ 9/79	2000	2.440E-09
6/10/79	215	4.730E-10	6/10/79	926	8.550E-10
6/10/79	1455	6.900E-07	6/10/79	2005	3.030E-09
6/11/79	855	6.670E-10	6/11/79	1445	4.650E-10
6/11/79	2010	5.900E-10	6/12/79	930	2.120E-10
6/12/79	2000	3.220E-10	6/13/79	737	1.740E-10
6/13/79	1422	2.710E-10	6/13/79	2005	1.150E-10
6/14/79	843	3.690E-10	6/14/79	1506	4.240E-09
6/14/79	2005	1.400E-09	6/15/79	210	1.910E-10
6/15/79	1412	1.880E-08	6/15/79	2000	6.120E-08
6/15/79	2100	5.040E-10	6/16/79	1111	1.750E-08
6/17/79	215	4.680E-10	6/17/79	838	1.130E-10
6/17/79	1501	7.040E-10	6/17/79	2005	1.930E-10
6/18/79	205	2.340E-10	6/18/79	846	7.990E-11
6/18/79	1441	7.370E-10	6/18/79	2005	2.020E-09
6/19/79	205	2.070E-09	6/19/79	1015	8.160E-11
6/19/79	1505	9.590E-11	6/19/79	2020	8.390E-10
6/20/79	230	1.410E-10	6/20/79	330	8.200E-11
6/20/79	1539	9.790E-11	6/20/79	2015	1.670E-09
6/21/79	150	4.070E-11	6/21/79	830	3.820E-11
6/21/79	2015	4.000E-11	6/22/79	220	2.630E-11
6/22/79	847	2.070E-11	6/23/79	809	6.950E-11
6/24/79	220	4.460E-11	6/24/79	947	3.600E-11
6/24/79	1539	1.700E-11	6/24/79	2015	3.250E-10
6/25/79	255	1.070E-11			

TABLE B.6
IODINE DATA FOR SAMPLE LOCATION #6 (281'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/ 1/79	159	1.900E-08	6/ 1/79	1500	9.030E-09
6/ 1/79	2010	9.900E-09	6/ 2/79	943	2.270E-10
6/ 2/79	2010	7.760E-10	6/ 2/79	2100	8.800E-09
6/ 3/79	155	5.300E-09	6/ 3/79	1450	8.200E-09
6/ 3/79	1550	6.600E-09	6/ 3/79	2015	9.400E-09
6/ 4/79	200	1.600E-08	6/ 4/79	825	1.800E-08
6/ 4/79	2020	1.330E-08	6/ 5/79	215	1.690E-08
6/ 5/79	300	1.300E-08	6/ 5/79	1317	2.412E-09
6/ 5/79	2110	1.300E-08	6/ 6/79	217	1.450E-08
6/ 6/79	1403	8.422E-09	6/ 6/79	2005	1.800E-08
6/ 7/79	210	8.400E-09	6/ 7/79	1429	7.730E-09
6/ 7/79	2005	1.304E-09	6/ 8/79	205	1.073E-08
6/ 8/79	847	1.623E-09	6/ 8/79	935	5.500E-09
6/ 8/79	2010	6.510E-09	6/ 9/79	1436	1.200E-08
6/ 9/79	2005	8.760E-09	6/11/79	2000	1.670E-08
6/11/79	2100	2.700E-08	6/12/79	932	1.950E-08
6/12/79	2000	1.290E-09	6/13/79	205	6.520E-09
6/13/79	1429	1.670E-09	6/13/79	2005	1.670E-09
6/13/79	2100	3.500E-10	6/14/79	845	2.500E-09
6/15/79	210	7.330E-09	6/15/79	1408	1.230E-09
6/15/79	2000	2.780E-09	6/15/79	2100	1.030E-09
6/16/79	1126	1.320E-09	6/16/79	1200	2.740E-09
6/16/79	2000	1.901E-09	6/17/79	215	9.040E-09
6/17/79	845	1.250E-10	6/17/79	1504	4.580E-09
6/18/79	829	7.750E-09	6/18/79	935	4.480E-09
6/19/79	848	5.520E-09	6/20/79	230	3.600E-10
6/20/79	330	3.600E-10	6/20/79	1400	2.165E-09
6/20/79	2025	1.298E-09	6/21/79	155	2.120E-09
6/21/79	1415	1.520E-09	6/21/79	2020	6.620E-10
6/21/79	2100	7.890E-10	6/22/79	220	1.110E-09
6/22/79	1412	1.450E-09	6/22/79	2010	8.300E-10
6/23/79	320	8.250E-10	6/23/79	400	1.040E-10
6/23/79	1521	6.900E-10	6/23/79	2030	1.080E-09
6/24/79	1444	1.600E-09	6/24/79	2030	8.880E-10
6/25/79	300	7.100E-10	6/25/79	400	3.310E-10
6/25/79	1444	8.070E-10			

TABLE B.7
IODINE DATA FOR SAMPLE LOCATION #7 (281'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/ 4/79	210	8.700E-09	6/ 4/79	820	1.900E-08
6/ 4/79	2025	1.430E-08	6/ 5/79	220	3.100E-08
6/ 5/79	1317	1.790E-09	6/ 5/79	2117	1.010E-08
6/ 6/79	826	9.170E-09	6/ 7/79	215	4.000E-10
6/ 7/79	827	5.400E-09	6/ 7/79	2010	5.780E-09
6/ 8/79	210	4.860E-09	6/ 8/79	850	5.120E-10
6/ 8/79	950	1.100E-09	6/ 8/79	2010	1.610E-10

TABLE B.8
IODINE DATA FOR SAMPLE LOCATION #1 (305'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/17/79	1110	1.670E-08	5/17/79	1245	2.070E-08
5/17/79	1635	1.100E-08	5/18/79	600	4.500E-09
5/18/79	1450	1.090E-09	5/18/79	2145	4.860E-08
5/18/79	2358	5.400E-09	5/19/79	300	2.900E-09
5/19/79	1431	1.960E-09	5/19/79	2138	6.360E-09
5/20/79	310	2.580E-09	5/20/79	1022	7.200E-09
5/20/79	1437	4.900E-09	5/20/79	2145	3.070E-09
5/21/79	1510	3.640E-09	5/21/79	1810	4.900E-09
5/21/79	1905	3.600E-09	5/21/79	2032	1.100E-09
5/22/79	237	2.130E-09	5/22/79	1440	2.530E-09
5/22/79	2109	1.950E-09	5/23/79	320	1.700E-09
5/23/79	1023	5.320E-09	5/23/79	2032	2.790E-09
5/24/79	239	3.800E-09	5/24/79	900	2.030E-09
5/24/79	1400	1.800E-09	5/24/79	2039	1.600E-09
5/25/79	345	1.470E-09	5/25/79	842	1.530E-09
5/25/79	1510	2.790E-09	5/26/79	212	3.860E-09
5/26/79	900	2.590E-09	5/26/79	1407	2.340E-09
5/26/79	2013	2.350E-09	5/27/79	214	1.780E-09
5/27/79	910	3.100E-09	5/27/79	1517	1.600E-09
5/27/79	2002	1.540E-09	5/28/79	223	1.050E-09
5/28/79	830	1.230E-09	5/28/79	1506	1.040E-09
5/29/79	826	7.610E-10	5/29/79	2110	2.690E-09
6/ 1/79	817	4.450E-10	6/ 1/79	1345	5.490E-10
6/ 1/79	2045	1.120E-09	6/ 1/79	2150	5.740E-10
6/ 2/79	210	1.060E-09	6/ 2/79	832	9.200E-10
6/ 2/79	1515	7.030E-10	6/ 2/79	2040	1.900E-10
6/ 3/79	215	1.700E-10	6/ 3/79	1445	1.500E-11
6/ 3/79	2045	5.690E-10	6/ 4/79	245	4.500E-10
6/ 4/79	345	3.900E-10	6/ 4/79	2045	6.730E-10
6/ 5/79	1330	1.310E-10	6/ 5/79	2100	1.020E-09
6/ 6/79	215	1.060E-10	6/ 6/79	800	1.290E-10
6/ 6/79	1412	1.420E-10	6/ 6/79	2025	5.080E-10
6/ 7/79	245	1.470E-10	6/ 7/79	2045	2.920E-09
6/ 8/79	858	8.650E-11	6/ 8/79	958	8.000E-10
6/ 8/79	2040	3.980E-09	6/ 9/79	230	4.990E-10
6/ 9/79	956	1.280E-10	6/ 9/79	1353	1.220E-09
6/ 9/79	2015	2.040E-09	6/10/79	245	7.200E-10
6/10/79	936	4.670E-11	6/10/79	2030	8.210E-10
6/10/79	2130	9.100E-11	6/11/79	2045	2.300E-10
6/12/79	637	1.700E-10	6/12/79	957	2.170E-10
6/12/79	2020	2.800E-10	6/13/79	744	1.860E-10
6/13/79	1346	2.510E-10	6/13/79	2030	2.270E-10
6/14/79	854	6.540E-10	6/14/79	1424	6.760E-10
6/14/79	2035	4.440E-10	6/15/79	005	3.200E-10

TABLE B.8 (Continued)
IODINE DATA FOR SAMPLE LOCATION #1 (305'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/15/79	330	2.700E-10	6/15/79	1400	1.490E-10
6/15/79	2015	7.170E-10	6/16/79	445	7.100E-11
6/16/79	1136	4.460E-10	6/17/79	245	3.140E-10
6/17/79	825	1.970E-10	6/17/79	1430	5.660E-11
6/17/79	2030	6.280E-10	6/18/79	230	6.900E-11
6/18/79	1415	2.190E-09	6/18/79	2025	2.430E-09
6/19/79	235	1.700E-09	6/19/79	830	1.110E-10
6/19/79	1400	3.360E-10	6/19/79	2100	1.310E-09
6/20/79	300	2.500E-10	6/20/79	1432	8.550E-10
6/21/79	145	5.840E-10	6/21/79	1446	4.590E-10
6/21/79	1845	1.520E-09	6/21/79	2045	2.140E-09
6/22/79	250	5.740E-10	6/22/79	1451	5.420E-10
6/22/79	2035	9.390E-10	6/23/79	335	4.520E-09
6/23/79	820	3.400E-09	6/23/79	1552	1.300E-08
6/23/79	2017	4.100E-09	6/24/79	440	8.200E-09
6/24/79	905	6.350E-09	6/24/79	2040	3.390E-09
6/25/79	315	5.700E-09	6/25/79	834	6.260E-09
6/25/79	1530	7.280E-09	6/25/79	2020	3.960E-09
6/25/79	2120	5.030E-09	6/26/79	822	1.380E-09
6/26/79	1423	2.180E-09	6/26/79	2110	2.230E-09
6/27/79	220	5.440E-09	6/27/79	849	6.000E-09
6/27/79	1512	5.650E-10	6/27/79	2100	1.120E-09
6/28/79	300	4.000E-09	6/28/79	1402	3.130E-10
6/28/79	2025	4.890E-09	6/29/79	225	4.460E-09
6/29/79	808	4.210E-10	6/29/79	1421	8.760E-09
6/29/79	2020	3.470E-09	6/30/79	230	3.050E-09
6/30/79	825	1.690E-09	6/30/79	1402	1.500E-09
6/30/79	2025	6.760E-10			
7/ 1/79	240	2.420E-10	7/ 1/79	840	2.110E-09
7/ 1/79	1423	8.090E-10	7/ 1/79	2020	8.780E-10
7/ 2/79	235	1.420E-09	7/ 2/79	335	9.200E-10
7/ 4/79	1425	3.400E-09	7/ 4/79	2040	2.460E-09
7/ 4/79	2145	1.060E-09	7/ 5/79	240	2.700E-09
7/ 5/79	345	6.950E-10	7/ 5/79	806	5.000E-10
7/ 5/79	2130	3.330E-10	7/ 7/79	310	1.690E-09
7/ 7/79	2050	4.140E-10	7/ 9/79	300	1.420E-09
7/10/79	1455	1.950E-09	7/10/79	1955	2.370E-09
7/12/79	115	9.220E-10	7/12/79	200	6.070E-10
7/12/79	1218	3.500E-10	7/12/79	2025	1.520E-10
7/13/79	250	2.430E-10	7/13/79	2020	8.340E-11

TABLE B.9
IODINE DATA FOR SAMPLE LOCATION #2 (305'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/17/79	325	6.060E-09	5/17/79	500	1.100E-08
5/17/79	1110	2.300E-08	5/17/79	1630	3.030E-08
5/17/79	2355	9.380E-09	5/18/79	559	4.220E-09
5/18/79	1510	1.170E-09	5/18/79	1600	1.360E-08
5/18/79	1700	2.400E-08	5/18/79	2105	2.370E-08
5/19/79	1430	1.400E-08	5/19/79	2130	1.700E-08
5/20/79	305	1.390E-08	5/20/79	1435	3.890E-08
5/20/79	2150	2.970E-08	5/20/79	2250	1.970E-08
5/21/79	325	1.390E-08	5/21/79	840	2.080E-08
5/21/79	1507	1.110E-08	5/21/79	2109	5.140E-09
5/22/79	235	4.010E-09	5/22/79	920	3.940E-09
5/22/79	1440	2.780E-09	5/23/79	315	4.060E-09
5/23/79	1020	9.170E-09	5/23/79	1446	9.130E-09
5/23/79	2030	8.310E-09	5/24/79	236	5.100E-09
5/24/79	905	3.340E-08	5/24/79	1405	1.100E-08
5/24/79	2036	9.760E-09	5/25/79	341	7.690E-09
5/25/79	824	4.080E-09	5/25/79	1507	5.350E-09
5/25/79	2239	3.880E-09	5/26/79	213	6.470E-09
5/26/79	852	6.640E-09	5/26/79	1403	5.880E-09
5/26/79	2012	4.390E-09	5/27/79	214	4.370E-09
5/27/79	914	4.520E-09	5/27/79	1525	3.490E-09
5/27/79	2020	3.530E-09	5/28/79	221	2.590E-09
5/28/79	829	2.890E-09	5/28/79	929	3.350E-09
5/28/79	1504	3.760E-09	5/28/79	2005	2.550E-09
6/ 1/79	215	1.200E-09	6/ 1/79	813	1.260E-09
6/ 1/79	1350	1.160E-09	6/ 1/79	2040	1.860E-09
6/ 2/79	205	1.110E-09	6/ 2/79	836	1.010E-09
6/ 2/79	1510	1.140E-09	6/ 2/79	2035	9.220E-10
6/ 3/79	846	5.200E-10	6/ 3/79	1430	8.200E-10
6/ 3/79	2045	1.570E-09	6/ 4/79	240	7.940E-10
6/ 4/79	340	1.010E-09	6/ 4/79	802	1.200E-09
6/ 4/79	2040	1.730E-09	6/ 5/79	235	1.070E-09
6/ 5/79	804	1.710E-09	6/ 5/79	1322	1.400E-09
6/ 5/79	2140	1.480E-09	6/ 6/79	831	6.130E-10
6/ 6/79	1410	3.100E-10	6/ 6/79	2020	5.940E-10
6/ 7/79	240	2.800E-10	6/ 7/79	1437	6.940E-10
6/ 7/79	2040	5.900E-09	6/ 8/79	230	8.000E-10
6/ 8/79	841	8.300E-10	6/ 9/79	225	8.020E-10
6/ 9/79	951	3.510E-10	6/ 9/79	1355	9.920E-10
6/ 9/79	2010	2.030E-09	6/10/79	240	7.480E-10
6/10/79	931	4.700E-10	6/10/79	1430	1.900E-09
6/10/79	2020	9.690E-10	6/11/79	305	4.920E-10
6/11/79	822	3.700E-10	6/11/79	2040	4.300E-10
6/12/79	240	4.480E-10	6/12/79	2020	2.830E-10

TABLE B.9 (Continued)
IODINE DATA FOR SAMPLE LOCATION #2 (305'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/13/79	220	1.540E-09	6/13/79	742	8.500E-10
6/13/79	1421	4.170E-10	6/13/79	2020	3.100E-10
6/14/79	215	9.260E-10	6/14/79	848	1.250E-09
6/14/79	1427	1.090E-09	6/14/79	2025	8.280E-10
6/15/79	230	1.160E-09	6/15/79	840	1.100E-09
6/15/79	1404	2.520E-10	6/15/79	2015	9.840E-10
6/15/79	2349	6.040E-10	6/16/79	050	1.000E-09
6/16/79	1113	8.470E-10	6/16/79	1517	4.200E-09
6/16/79	2030	2.500E-09	6/17/79	400	4.320E-10
6/17/79	829	5.620E-10	6/17/79	929	2.160E-09
6/17/79	1434	1.220E-09	6/17/79	2030	2.030E-09
6/18/79	230	1.220E-09	6/18/79	833	3.940E-10
6/18/79	1417	1.370E-09	6/18/79	2025	3.050E-09
6/19/79	225	1.220E-10	6/19/79	832	4.130E-10
6/19/79	1404	6.240E-10	6/19/79	2055	2.180E-09
6/20/79	225	3.220E-10	6/20/79	825	8.840E-10
6/21/79	140	3.450E-09	6/21/79	856	3.820E-09
6/21/79	1441	3.540E-09	6/21/79	2040	3.380E-09
6/21/79	2145	2.600E-09	6/22/79	856	1.780E-09
6/22/79	1505	1.540E-09	6/22/79	2035	6.130E-09
6/23/79	821	2.410E-09	6/23/79	1450	9.610E-10
6/24/79	440	1.490E-09	6/24/79	759	1.720E-09
6/24/79	901	1.540E-09	6/24/79	2040	8.950E-10
6/25/79	315	7.510E-10	6/25/79	838	1.350E-09
6/25/79	1414	1.780E-09	6/25/79	2040	3.170E-09
6/26/79	235	3.330E-09	6/26/79	858	4.120E-09
6/26/79	1425	3.630E-09	6/26/79	2125	1.450E-09
6/27/79	225	2.580E-09	6/27/79	917	1.840E-09
6/27/79	1522	2.960E-09	6/28/79	305	1.670E-09
6/28/79	1042	3.120E-09	6/28/79	1407	1.090E-10
6/29/79	946	1.010E-09	6/29/79	1443	2.940E-09
6/29/79	2037	1.210E-09	6/30/79	230	1.440E-09
6/30/79	830	1.020E-09	6/30/79	1415	1.100E-09
6/30/79	2030	3.260E-10			
7/ 1/79	245	1.560E-09	7/ 1/79	1420	6.380E-10
7/ 1/79	2025	3.840E-10	7/ 2/79	235	3.180E-10
7/ 2/79	900	5.540E-10	7/ 2/79	1408	4.710E-10
7/ 3/79	200	1.090E-09	7/ 4/79	905	1.600E-09
7/ 4/79	1448	1.630E-09	7/ 5/79	300	3.270E-10
7/ 5/79	809	2.600E-10	7/ 5/79	2005	5.670E-10
7/ 6/79	240	9.170E-10	7/ 6/79	2055	1.330E-11
7/ 7/79	847	4.700E-11	7/ 7/79	1415	7.000E-11
7/ 7/79	2035	7.420E-11	7/ 9/79	2030	5.400E-11
7/10/79	2005	1.930E-09	7/12/79	110	3.410E-10

TABLE B.9 (Continued)
IODINE DATA FOR SAMPLE LOCATION #2 (305'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
7/12/79	1212	5.630E-10	7/14/79	1420	6.210E-10
7/15/79	225	6.810E-10	7/22/79	2025	2.280E-10
7/23/79	200	1.490E-10	7/23/79	2100	7.540E-11
7/24/79	847	1.470E-10	7/24/79	2015	2.100E-10
7/25/79	215	1.550E-10	7/25/79	1414	1.440E-10
7/27/79	305	9.670E-11	7/28/79	234	5.860E-11
7/29/79	719	4.300E-11	7/29/79	1312	6.430E-11
7/29/79	2015	3.860E-11	7/30/79	2030	4.730E-11

TABLE B.10
IODINE DATA FOR SAMPLE LOCATION #3 (305'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/16/79	1505	7.110E-09	5/17/79	1620	6.400E-09
5/17/79	2350	2.830E-08	5/18/79	556	3.200E-08
5/18/79	1605	7.100E-08	5/18/79	2110	2.720E-08
5/19/79	930	2.700E-08	5/19/79	2112	1.500E-08
5/20/79	1450	2.500E-08	5/21/79	837	1.400E-08
5/21/79	1502	1.440E-08	5/21/79	2028	1.270E-08
5/22/79	233	2.110E-08	5/22/79	922	2.400E-08
5/22/79	1428	2.720E-08	5/22/79	2057	1.620E-08
5/23/79	310	1.400E-08	5/23/79	1016	3.930E-08
5/23/79	1443	9.750E-09	5/23/79	2028	1.320E-08
5/24/79	235	1.600E-08	5/24/79	905	1.630E-08
5/24/79	1408	2.400E-08	5/24/79	2034	1.100E-08
5/24/79	2134	6.200E-09	5/25/79	337	9.550E-09
5/25/79	829	6.570E-09	5/25/79	1502	1.440E-08
5/26/79	213	1.160E-08	5/26/79	855	1.090E-08
5/26/79	1400	9.700E-09	5/27/79	211	7.850E-09
5/27/79	909	1.400E-08	5/27/79	1527	7.700E-09
5/27/79	2018	3.800E-09	5/28/79	219	3.100E-09
5/28/79	824	5.180E-09	5/28/79	1500	4.070E-09
5/28/79	2000	8.460E-09	5/29/79	209	2.430E-09
5/29/79	307	6.470E-09	5/29/79	815	4.900E-09
5/29/79	1435	4.900E-09			
6/ 1/79	210	2.170E-09	6/ 1/79	810	2.280E-09
6/ 1/79	1355	3.280E-10	6/ 1/79	2035	1.220E-09
6/ 2/79	205	1.390E-09	6/ 2/79	849	1.900E-09
6/ 2/79	1520	8.020E-10	6/ 2/79	2030	2.150E-09
6/ 2/79	2135	1.300E-09	6/ 3/79	210	1.700E-09
6/ 3/79	1452	1.860E-09	6/ 3/79	2040	3.000E-09
6/ 4/79	240	4.400E-09	6/ 4/79	822	3.600E-09
6/ 4/79	2040	3.800E-09	6/ 5/79	235	2.800E-09
6/ 5/79	1308	2.770E-09	6/ 5/79	2140	4.080E-09
6/ 7/79	240	3.970E-09	6/ 7/79	809	2.270E-09
6/ 7/79	1413	2.500E-09	6/ 7/79	2045	1.320E-10
6/ 8/79	230	1.610E-09	6/ 8/79	826	2.390E-09
6/ 8/79	926	8.000E-10	6/ 8/79	2030	2.310E-09
6/ 9/79	225	4.690E-10	6/ 9/79	922	5.380E-10
6/ 9/79	1415	1.300E-09	6/10/79	957	2.030E-11
6/10/79	1440	3.340E-09	6/10/79	2000	2.290E-09
6/11/79	300	1.560E-09	6/11/79	824	1.500E-09
6/11/79	1429	1.660E-10	6/11/79	2030	9.800E-09
6/11/79	2130	3.090E-09	6/12/79	916	9.190E-09
6/12/79	1016	4.700E-09	6/12/79	2020	4.450E-09
6/12/79	2120	3.100E-09	6/13/79	726	4.690E-09
6/13/79	1419	4.400E-11	6/13/79	2120	6.600E-09

TABLE B.10 (Continued)
IODINE DATA FOR SAMPLE LOCATION #3 (305'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/14/79	830	2.690E-09	6/14/79	1424	8.490E-09
6/14/79	2025	8.860E-09	6/15/79	230	2.700E-09
6/17/79	829	5.620E-10	6/17/79	1435	3.810E-09
6/17/79	2025	2.390E-09	6/18/79	225	2.990E-09
6/18/79	837	3.750E-09	6/18/79	1423	1.570E-09
6/18/79	2020	2.540E-09	6/19/79	225	2.900E-09
6/19/79	835	1.700E-09	6/19/79	1407	2.160E-09
6/20/79	255	1.910E-09	6/20/79	2050	2.980E-09
6/21/79	135	1.270E-09	6/22/79	900	5.980E-10
6/22/79	2035	1.380E-09	6/23/79	345	7.490E-10
6/23/79	818	7.360E-10	6/23/79	1600	3.500E-09
6/24/79	1448	1.750E-10	6/24/79	2045	3.480E-10
6/25/79	310	3.110E-10	6/25/79	841	4.400E-10
6/25/79	2030	3.500E-10	6/25/79	2130	2.780E-10
6/26/79	826	1.180E-10	6/26/79	1442	1.250E-10
6/26/79	2115	2.030E-10	6/27/79	215	1.810E-10
6/27/79	954	1.360E-09	6/27/79	1543	2.570E-09
6/27/79	2100	1.740E-09	6/28/79	303	1.590E-10
6/28/79	1417	2.950E-10	6/28/79	2005	4.330E-11
6/29/79	235	1.370E-10	6/29/79	821	2.510E-10
6/29/79	1432	4.070E-10	6/29/79	2030	2.680E-10
6/30/79	250	1.270E-10	6/30/79	845	9.720E-11
6/30/79	1425	7.800E-11	6/30/79	2040	5.710E-11
7/ 1/79	300	1.060E-10	7/ 1/79	1410	4.380E-11
7/ 1/79	2015	1.790E-11	7/ 2/79	245	1.600E-11
7/ 6/79	2045	3.270E-11	7/ 7/79	2050	4.140E-10
7/10/79	2000	5.880E-10	7/12/79	110	1.740E-10
7/12/79	1214	8.830E-10			

TABLE B.11
IODINE DATA FOR SAMPLE LOCATION #4 (305'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/17/79	1116	4.800E-08	5/17/79	2340	1.100E-07
5/18/79	553	9.200E-08	5/18/79	2120	8.000E-08
5/19/79	255	3.540E-08	5/19/79	2120	4.400E-08
5/20/79	255	8.100E-08	5/20/79	1013	4.220E-08
5/20/79	1450	5.000E-08	5/21/79	1505	3.600E-08
5/21/79	2026	2.480E-08	5/22/79	231	5.120E-08
5/22/79	330	2.690E-08	5/22/79	1425	2.900E-08
5/23/79	302	2.660E-08	5/23/79	1439	5.460E-09
5/23/79	2026	7.800E-09	5/24/79	233	3.000E-08
5/24/79	902	5.210E-09	5/24/79	1411	2.700E-08
5/24/79	2031	1.100E-08	5/25/79	334	1.460E-08
5/25/79	831	1.050E-08	5/25/79	1504	1.680E-08
5/25/79	2034	1.200E-08	5/26/79	206	1.900E-08
5/26/79	856	8.500E-09	5/26/79	1402	1.690E-08
5/26/79	2009	1.410E-10	5/27/79	210	1.000E-08
5/27/79	310	9.400E-09	5/27/79	1530	6.610E-09
5/27/79	2014	3.470E-09	5/28/79	217	1.690E-09
5/28/79	1501	1.710E-09	5/28/79	2002	2.260E-09
5/29/79	013	5.700E-09	5/29/79	2100	3.310E-09
5/31/79	844	2.020E-09	5/31/79	1410	2.160E-09
5/31/79	2040	1.050E-09			
6/ 1/79	210	1.150E-08	6/ 1/79	800	1.200E-09
6/ 1/79	1400	7.200E-10	6/ 1/79	2030	8.820E-10
6/ 2/79	205	1.200E-09	6/ 2/79	854	1.300E-09
6/ 2/79	1515	6.480E-10	6/ 2/79	2030	1.070E-09
6/ 2/79	2130	5.400E-10	6/ 3/79	1440	6.030E-10
6/ 3/79	2040	1.900E-09	6/ 4/79	240	2.000E-09
6/ 4/79	340	4.900E-09	6/ 4/79	800	5.900E-10
6/ 4/79	2040	1.700E-09	6/ 5/79	235	3.900E-10
6/ 5/79	335	8.900E-10	6/ 5/79	435	5.600E-09
6/ 5/79	1310	2.320E-09	6/ 5/79	2140	4.900E-10
6/ 6/79	300	5.530E-10	6/ 6/79	400	9.300E-10
6/ 6/79	2020	2.180E-10	6/ 7/79	235	1.760E-10
6/ 7/79	810	7.100E-10	6/ 7/79	2030	5.160E-10
6/ 8/79	230	3.200E-10	6/ 8/79	834	4.660E-10
6/ 8/79	940	3.200E-10	6/ 8/79	2030	7.400E-10
6/ 9/79	923	4.620E-10	6/ 9/79	1417	4.400E-10
6/ 9/79	2005	4.290E-10	6/10/79	235	6.240E-10
6/11/79	2130	4.870E-09	6/12/79	915	6.810E-09
6/12/79	1455	2.310E-09	6/12/79	2015	9.800E-09
6/13/79	727	5.670E-09	6/13/79	1416	5.600E-09
6/13/79	2015	6.300E-09	6/14/79	831	4.330E-09
6/14/79	1426	3.200E-09	6/14/79	2025	8.960E-09
6/15/79	220	8.000E-09	6/15/79	330	4.900E-09

TABLE B.11 (Continued)
IODINE DATA FOR SAMPLE LOCATION #4 (305'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/15/79	1356	6.300E-09	6/15/79	2015	1.720E-09
6/15/79	2115	5.400E-09	6/16/79	523	3.990E-09
6/16/79	1117	4.520E-09	6/19/79	1015	5.130E-09
6/19/79	1410	1.690E-09	6/20/79	250	1.660E-09
6/20/79	350	3.400E-09	6/20/79	1425	1.810E-09
6/20/79	2045	4.420E-09	6/21/79	135	2.570E-09
6/21/79	235	1.990E-09	6/21/79	840	3.220E-09
6/21/79	2035	3.490E-09	6/21/79	2145	3.830E-09
6/22/79	245	2.690E-09	6/22/79	905	1.610E-10
6/22/79	2035	1.100E-09	6/23/79	350	1.560E-09
6/23/79	811	1.360E-10	6/23/79	1440	3.200E-09
6/23/79	2040	3.070E-09	6/24/79	450	4.530E-11
6/24/79	924	1.250E-10	6/24/79	1458	7.900E-10
6/24/79	2045	1.210E-10	6/25/79	305	8.830E-11
6/25/79	405	1.400E-10	6/25/79	842	5.590E-10
6/25/79	2030	1.400E-09	6/25/79	2130	1.900E-09
6/26/79	832	1.170E-09	6/26/79	1447	9.880E-09
6/26/79	2110	1.020E-09	6/27/79	220	1.860E-09
6/27/79	916	1.950E-10	6/27/79	1537	2.810E-10
6/27/79	2100	1.950E-10	6/28/79	300	3.030E-09
6/28/79	903	1.890E-09	6/28/79	1042	3.120E-09
6/28/79	2030	2.690E-09	6/29/79	330	1.390E-10
6/29/79	828	3.240E-09	6/29/79	1427	3.890E-09
6/29/79	2035	1.810E-09	6/30/79	025	1.220E-10
6/30/79	850	1.360E-09	6/30/79	1428	9.000E-10
6/30/79	2045	8.940E-10			
7/ 1/79	305	1.050E-09	7/ 1/79	905	2.650E-09
7/ 1/79	1408	5.300E-10	7/ 1/79	2020	2.710E-10
7/ 2/79	915	2.410E-10	7/ 3/79	2005	3.540E-10
7/ 4/79	902	1.300E-10			

TABLE B.12
IODINE DATA FOR SAMPLE LOCATION #5 (305'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/31/79	831	1.060E-09	5/31/79	1402	1.460E-09
5/31/79	2050	2.300E-09			
6/ 1/79	815	1.300E-09	6/ 1/79	2010	2.690E-09
6/ 2/79	210	3.560E-09	6/ 2/79	844	3.100E-09
6/ 2/79	1516	1.450E-09	6/ 2/79	2035	3.610E-10
6/ 3/79	210	4.000E-09	6/ 3/79	1435	1.900E-09
6/ 3/79	2045	2.250E-09	6/ 4/79	240	3.750E-09
6/ 4/79	830	3.400E-09	6/ 4/79	2045	1.890E-09
6/ 5/79	240	1.100E-09	6/ 5/79	1327	5.220E-09
6/ 5/79	2145	5.060E-09	6/ 6/79	245	2.700E-09
6/ 6/79	408	2.200E-09	6/ 6/79	836	1.710E-09
6/ 6/79	1410	3.420E-09	6/ 6/79	1510	1.400E-08
6/ 7/79	240	1.500E-08	6/ 7/79	2040	4.960E-08
6/ 8/79	230	2.330E-08	6/ 8/79	850	8.800E-09
6/ 8/79	950	1.600E-09	6/ 8/79	2035	3.360E-08
6/ 8/79	2135	1.800E-08	6/ 9/79	954	2.170E-08
6/ 9/79	1352	6.370E-08	6/ 9/79	2010	7.090E-09
6/10/79	934	6.890E-10	6/10/79	1430	5.550E-08
6/10/79	2020	3.620E-08	6/10/79	2120	2.700E-09
6/11/79	818	1.170E-08	6/11/79	2040	6.120E-09
6/12/79	2020	1.440E-09	6/13/79	1420	9.230E-09
6/13/79	2020	2.630E-09	6/13/79	2120	3.200E-10
6/14/79	2030	4.400E-10	6/15/79	230	4.460E-09
6/17/79	240	4.110E-10	6/17/79	832	1.500E-08
6/25/79	1505	3.570E-10	6/25/79	2030	1.200E-10
6/26/79	841	1.670E-10	6/26/79	1431	8.550E-11
6/27/79	215	1.110E-10	6/27/79	906	1.950E-10
6/27/79	1326	1.570E-10	6/27/79	2100	3.640E-11
6/28/79	310	1.160E-08	6/28/79	844	1.920E-10
6/28/79	1409	8.360E-11	6/29/79	220	1.910E-09
6/29/79	816	3.470E-10	6/29/79	1437	1.330E-10
6/29/79	2045	7.630E-10	6/30/79	235	4.880E-11
6/30/79	840	5.600E-11	6/30/79	1418	4.490E-11
7/ 1/79	250	3.700E-11	7/ 1/79	855	4.790E-11
7/ 1/79	1413	1.670E-08	7/ 1/79	2020	2.510E-11
7/ 2/79	245	1.690E-11	7/ 2/79	908	1.860E-11
7/ 7/79	1427	4.500E-11	7/ 7/79	2040	4.190E-11
7/10/79	2000	1.310E-10	7/12/79	110	8.910E-11
7/12/79	1210	1.410E-10	7/12/79	2033	1.870E-09
7/24/79	2020	2.620E-10	7/25/79	220	1.520E-10
7/25/79	250	1.270E-10	7/25/79	2010	1.800E-10
7/26/79	2030	3.380E-11	7/27/79	2036	8.550E-11
7/29/79	1312	6.430E-11	7/30/79	220	5.450E-11

TABLE B.13
IODINE DATA FOR SAMPLE LOCATION #6 (305'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/25/79	2030	1.570E-08	6/25/79	2135	1.300E-08
6/26/79	244	1.160E-08	6/26/79	1436	1.200E-08
6/26/79	2120	6.380E-09	6/27/79	215	1.850E-08
6/27/79	904	1.070E-08	6/27/79	1532	1.680E-08
6/27/79	2100	9.700E-09	6/28/79	310	8.690E-10
6/28/79	856	2.740E-09	6/28/79	1412	5.300E-09
6/28/79	2015	2.020E-08	6/29/79	215	1.090E-08
6/29/79	833	1.060E-08	6/29/79	1442	1.770E-08
6/29/79	2045	1.250E-08	6/30/79	240	1.210E-08
6/30/79	835	1.010E-08	6/30/79	1424	1.100E-08
6/30/79	2035	1.070E-08			

TABLE B.14
IODINE DATA FOR SAMPLE LOCATION #1 (328'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/12/79	1945	2.800E-08	5/16/79	1445	4.130E-09
5/17/79	252	4.000E-09	5/17/79	1055	8.800E-08
5/17/79	2329	5.620E-09	5/19/79	235	2.240E-08
5/19/79	940	6.600E-08	5/19/79	1408	3.030E-08
5/19/79	2050	2.480E-08	5/20/79	235	8.340E-08
5/20/79	1307	7.900E-07	5/20/79	2130	6.270E-09
5/21/79	823	1.390E-07	5/21/79	1845	2.600E-08
5/21/79	2016	1.910E-07	5/22/79	221	1.600E-07
5/22/79	1450	1.360E-08	5/22/79	1845	8.200E-09
5/22/79	2115	6.000E-09	5/23/79	242	1.100E-08
5/23/79	1008	1.600E-08	5/23/79	2016	2.200E-08
5/24/79	223	1.200E-08	5/24/79	917	1.010E-08
5/24/79	1421	6.840E-09	5/24/79	2022	6.800E-09
5/25/79	835	1.050E-08	5/25/79	1434	8.000E-09
5/25/79	2027	9.000E-09	5/26/79	159	1.600E-08
5/26/79	829	1.650E-08	5/26/79	1346	1.210E-08
5/26/79	2003	8.580E-09	5/27/79	204	1.060E-08
5/27/79	856	1.700E-08	5/27/79	1542	8.660E-09
5/27/79	2008	9.900E-09	5/28/79	209	5.400E-09
5/28/79	750	8.790E-09	5/28/79	1444	1.370E-09
5/28/79	1945	1.880E-08	5/29/79	759	7.400E-09
5/29/79	1455	7.350E-09	5/29/79	2045	1.230E-08
5/30/79	250	4.180E-09	5/31/79	805	3.130E-09
5/31/79	1455	3.280E-09	5/31/79	2035	4.840E-09
6/ 1/79	741	1.700E-09	6/ 1/79	1435	1.690E-09
6/ 1/79	2035	1.970E-09	6/ 2/79	200	1.780E-09
6/ 2/79	2025	2.650E-09	6/ 2/79	2125	1.300E-09
6/ 3/79	200	8.800E-10	6/ 3/79	1425	7.180E-10
6/ 3/79	2035	3.300E-09	6/ 4/79	225	8.000E-10
6/ 4/79	804	2.070E-09	6/ 4/79	1305	1.600E-09
6/ 4/79	2030	1.440E-09	6/ 5/79	225	1.800E-09
6/ 5/79	1306	1.230E-09	6/ 5/79	2130	8.300E-10
6/ 6/79	230	1.000E-10	6/ 6/79	330	4.800E-10
6/ 6/79	755	9.000E-08	6/ 6/79	1348	5.800E-10
6/ 6/79	2015	5.950E-10	6/ 7/79	225	4.230E-10
6/ 7/79	806	5.000E-10	6/ 7/79	2030	7.360E-10
6/ 8/79	330	6.850E-10	6/ 8/79	824	3.460E-10
6/ 8/79	2030	3.510E-12	6/ 9/79	220	3.220E-10
6/ 9/79	923	2.580E-10	6/ 9/79	1410	4.630E-10
6/ 9/79	2020	7.420E-10	6/10/79	230	5.090E-10
6/10/79	900	3.270E-10	6/10/79	1502	5.130E-10
6/10/79	2015	2.500E-10	6/11/79	911	2.600E-10
6/11/79	1413	5.930E-10	6/11/79	2027	7.000E-10
6/12/79	913	9.080E-10	6/12/79	2010	6.390E-10

TABLE B.14 (Continued)
IODINE DATA FOR SAMPLE LOCATION #1 (328'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/12/79	2135	4.340E-10	6/13/79	724	5.060E-10
6/13/79	1430	5.790E-10	6/13/79	2010	8.600E-10
6/14/79	822	8.400E-10	6/14/79	1345	1.620E-09
6/14/79	2020	6.800E-10	6/15/79	215	2.330E-09
6/15/79	2015	2.920E-10	6/16/79	100	8.900E-10
6/16/79	1125	1.050E-09	6/16/79	1558	1.090E-09
6/16/79	2015	9.650E-10	6/17/79	225	5.830E-10
6/17/79	856	1.240E-09	6/17/79	1530	3.840E-10
6/17/79	2015	2.710E-10	6/18/79	215	6.200E-11
6/18/79	823	5.270E-10	6/18/79	1449	4.750E-10
6/18/79	2015	8.660E-10	6/19/79	215	3.730E-10
6/19/79	815	6.840E-10	6/19/79	1430	1.530E-09
6/19/79	2040	3.350E-10	6/20/79	240	2.000E-09
6/20/79	1500	1.600E-09	6/20/79	2035	2.200E-09
6/21/79	125	4.020E-08	6/21/79	915	6.740E-08
6/21/79	1015	4.360E-08	6/21/79	2030	3.610E-09
6/22/79	100	1.600E-09	6/22/79	956	4.570E-08
6/22/79	1137	2.130E-10	6/22/79	2015	7.350E-10
6/23/79	754	7.800E-11	6/23/79	1130	1.140E-10
6/23/79	2155	6.280E-10	6/24/79	230	2.250E-10
6/24/79	821	1.180E-10	6/24/79	1515	1.700E-10
6/24/79	2025	6.990E-11	6/25/79	210	7.150E-11
6/25/79	740	7.570E-10	6/25/79	1345	8.120E-11
6/25/79	2040	7.810E-11	6/25/79	2045	5.670E-10
6/26/79	1330	7.100E-10	6/26/79	2040	3.830E-10
6/27/79	755	1.020E-09	6/27/79	1353	5.910E-10
6/27/79	2050	3.900E-10	6/28/79	250	7.580E-10
6/28/79	740	7.600E-10	6/28/79	1327	1.030E-09
6/28/79	2030	4.050E-10	6/29/79	235	6.570E-10
6/29/79	740	8.130E-09	6/29/79	1333	4.430E-10
6/29/79	2100	6.000E-10	6/30/79	731	6.530E-10
6/30/79	1428	3.550E-10	6/30/79	2050	3.300E-10
7/ 1/79	225	4.210E-10	7/ 1/79	830	5.700E-10
7/ 1/79	1452	2.700E-10	7/ 1/79	2000	1.160E-10
7/ 2/79	250	1.590E-10	7/ 2/79	740	1.820E-10
7/ 6/79	2025	6.070E-11	7/10/79	2010	7.150E-10
7/12/79	200	2.980E-10	7/12/79	1207	2.090E-10

TABLE B.15
IODINE DATA FOR SAMPLE LOCATION #2 (328'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/12/79	1947	6.600E-08	5/17/79	252	2.010E-08
5/17/79	1100	4.100E-07	5/17/79	1630	2.750E-07
5/18/79	536	3.750E-07	5/18/79	1610	5.400E-07
5/18/79	2040	1.900E-07	5/19/79	645	2.130E-07
5/19/79	1040	1.990E-08	5/19/79	1410	1.900E-07
5/19/79	2052	3.600E-07	5/20/79	230	3.310E-08
5/20/79	1320	1.930E-08	5/20/79	2135	2.860E-07
5/21/79	325	1.280E-08	5/21/79	540	2.260E-07
5/21/79	1450	1.310E-07	5/21/79	2014	3.400E-08
5/22/79	219	2.770E-07	5/22/79	945	1.520E-07
5/22/79	1420	1.440E-07	5/23/79	246	1.210E-07
5/23/79	1552	2.700E-07	5/23/79	2014	2.770E-07
5/24/79	221	2.200E-07	5/24/79	919	2.130E-07
5/24/79	1426	3.100E-07	5/24/79	2025	3.600E-07
5/24/79	2125	2.040E-07	5/25/79	325	1.900E-07
5/25/79	839	1.500E-07	5/25/79	1437	2.320E-07
5/26/79	202	1.980E-07	5/26/79	831	1.600E-07
5/26/79	1339	2.220E-07	5/26/79	2005	1.370E-07
5/27/79	206	8.620E-08	5/27/79	849	1.330E-07
5/27/79	1550	9.680E-08	5/27/79	2010	2.140E-07
5/28/79	210	1.830E-07	5/28/79	745	1.180E-07
5/28/79	1451	2.080E-07	5/28/79	2050	1.940E-07
5/30/79	250	2.820E-09	5/31/79	755	1.500E-07
6/ 1/79	205	2.090E-09	6/ 1/79	737	1.570E-07
6/ 1/79	1400	1.530E-07	6/ 1/79	2035	1.460E-07
6/ 2/79	200	1.220E-07	6/ 2/79	1516	8.760E-08
6/ 2/79	2025	1.040E-07	6/ 3/79	205	1.000E-07
6/ 3/79	900	8.900E-08	6/ 3/79	1416	9.500E-08
6/ 3/79	2040	8.220E-08	6/ 4/79	225	7.100E-08
6/ 4/79	753	7.700E-08	6/ 4/79	2030	1.550E-08
6/ 5/79	230	1.090E-07	6/ 5/79	822	9.960E-08
6/ 5/79	1300	6.300E-08	6/ 5/79	2130	1.210E-07
6/ 6/79	230	4.790E-08	6/ 6/79	810	8.000E-08
6/ 6/79	1320	9.700E-08	6/ 6/79	2015	1.070E-07
6/ 7/79	230	9.770E-08	6/ 7/79	755	9.500E-08
6/ 7/79	2030	1.460E-07	6/ 8/79	230	1.080E-07
6/ 8/79	812	8.000E-08	6/ 8/79	2020	1.400E-07
6/ 9/79	210	1.040E-07	6/ 9/79	903	8.810E-08
6/ 9/79	1400	1.060E-07	6/ 9/79	2020	1.110E-07
6/10/79	230	2.530E-08	6/10/79	950	6.430E-08
6/10/79	1510	1.230E-07	6/11/79	300	7.470E-08
6/11/79	914	6.200E-08	6/11/79	2028	1.150E-07
6/12/79	315	7.920E-08	6/12/79	906	6.570E-08
6/12/79	1445	8.410E-09	6/12/79	2010	7.890E-08

TABLE B.15 (Continued)
IODINE DATA FOR SAMPLE LOCATION #2 (328'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/13/79	210	7.290E-08	6/13/79	720	5.600E-10
6/13/79	1615	4.210E-08	6/13/79	2015	4.490E-08
6/14/79	200	4.950E-08	6/14/79	815	9.150E-08
6/14/79	1445	4.770E-08	6/14/79	1830	6.890E-08
6/14/79	2020	7.050E-08	6/15/79	220	6.150E-08
6/15/79	907	5.940E-08	6/15/79	1348	8.120E-08
6/15/79	2010	9.490E-08	6/16/79	1555	6.070E-08
6/16/79	2015	7.870E-08	6/17/79	230	1.030E-07
6/17/79	512	5.230E-08	6/17/79	2015	1.040E-08
6/18/79	215	4.510E-08	6/18/79	818	4.190E-08
6/18/79	1452	4.020E-08	6/18/79	2015	3.320E-08
6/19/79	215	9.300E-09	6/19/79	315	4.250E-08
6/19/79	820	3.640E-08	6/19/79	1420	4.390E-08
6/19/79	2035	1.010E-07	6/20/79	240	3.150E-08
6/20/79	837	6.990E-08	6/20/79	1515	6.870E-08
6/20/79	2035	9.010E-08	6/21/79	125	3.060E-09
6/21/79	910	1.110E-09	6/21/79	1456	2.400E-09
6/21/79	2030	3.720E-08	6/21/79	2135	3.500E-08
6/22/79	948	3.060E-09	6/22/79	1502	1.890E-09
6/22/79	2020	8.560E-10	6/23/79	400	9.850E-10
6/23/79	807	1.080E-09	6/23/79	1422	9.240E-10
6/23/79	2100	1.100E-09	6/24/79	435	1.580E-09
6/24/79	838	1.760E-09	6/24/79	2025	1.290E-09
6/25/79	215	1.210E-09	6/25/79	736	1.700E-09
6/25/79	1351	2.340E-09	6/25/79	2050	1.730E-09
6/26/79	255	1.940E-09	6/26/79	1339	2.640E-09
6/26/79	2045	1.640E-09	6/27/79	230	1.930E-09
6/27/79	858	2.200E-09	6/27/79	1349	1.070E-09
6/27/79	2050	1.330E-09	6/28/79	245	2.690E-09
6/28/79	744	1.860E-09	6/28/79	1332	1.950E-09
6/28/79	2030	2.440E-09	6/29/79	240	1.650E-09
6/29/79	1339	1.890E-09	6/29/79	2115	2.210E-09
6/30/79	305	1.580E-09	6/30/79	1425	1.060E-09
6/30/79	2100	8.090E-10			
7/ 1/79	225	1.460E-10	7/ 1/79	840	1.150E-09
7/ 1/79	1455	5.400E-10	7/ 1/79	2000	2.630E-10
7/ 2/79	250	3.600E-10	7/ 2/79	743	5.300E-10
7/ 4/79	836	2.000E-10	7/ 5/79	743	1.500E-10
7/ 7/79	1448	4.100E-11	7/ 8/79	225	2.370E-09
7/10/79	2010	7.630E-10	7/12/79	200	3.120E-10
7/12/79	1212	2.020E-10			

TABLE B.16
IODINE DATA FOR SAMPLE LOCATION #3 (328'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/17/79	232	6.700E-09	5/17/79	1105	2.950E-08
5/17/79	1624	1.760E-08	5/17/79	2320	1.150E-08
5/18/79	533	5.900E-09	5/18/79	1610	1.050E-08
5/18/79	2135	1.120E-08	5/19/79	240	1.450E-09
5/19/79	1418	1.520E-08	5/19/79	2045	9.270E-09
5/20/79	225	4.780E-09	5/20/79	1120	1.780E-08
5/20/79	2140	1.900E-08	5/21/79	800	1.800E-08
5/21/79	1457	1.050E-08	5/21/79	2012	1.250E-08
5/22/79	2122	1.000E-08	5/23/79	253	1.220E-08
5/23/79	1012	1.440E-08	5/23/79	1441	9.500E-09
5/23/79	2012	1.300E-08	5/24/79	219	1.100E-08
5/24/79	920	1.300E-08	5/24/79	1408	8.340E-09
5/24/79	2018	1.000E-08	5/25/79	320	9.880E-09
5/25/79	844	1.080E-08	5/25/79	1444	8.880E-09
5/25/79	2025	1.080E-08	5/26/79	837	1.050E-08
5/26/79	1343	8.360E-09	5/26/79	1959	9.650E-09
5/27/79	201	8.230E-09	5/27/79	854	1.200E-08
5/27/79	1545	6.800E-09	5/27/79	2020	8.370E-09
5/28/79	207	3.600E-09	5/28/79	748	4.840E-09
5/28/79	1443	4.550E-09	5/28/79	2044	5.210E-09
5/29/79	2050	6.780E-09	5/31/79	802	3.190E-09
5/31/79	1459	1.050E-09	5/31/79	2030	2.630E-09
6/ 1/79	205	3.800E-09	6/ 1/79	738	1.800E-09
6/ 1/79	1425	1.150E-09	6/ 1/79	2025	1.290E-09
6/ 2/79	155	1.380E-09	6/ 2/79	902	2.270E-09
6/ 2/79	1505	9.720E-10	6/ 2/79	2020	3.210E-11
6/ 3/79	200	1.400E-09	6/ 3/79	1424	8.600E-10
6/ 3/79	2035	2.200E-09	6/ 4/79	1303	9.230E-09
6/ 4/79	2025	1.701E-09	6/ 5/79	225	2.400E-09
6/ 5/79	1305	1.720E-09	6/ 5/79	2125	8.100E-10
6/ 6/79	230	7.200E-10	6/ 6/79	804	9.520E-10
6/ 6/79	1346	8.700E-10	6/ 6/79	2010	4.390E-10
6/ 7/79	225	5.100E-10	6/ 7/79	804	6.200E-10
6/ 7/79	2025	4.170E-10	6/ 8/79	220	4.850E-10
6/ 8/79	822	3.550E-10	6/ 8/79	930	2.800E-10
6/ 8/79	1430	8.600E-10	6/ 8/79	2020	3.200E-10
6/ 9/79	914	2.650E-10	6/ 9/79	1406	2.750E-10
6/ 9/79	2025	3.410E-10	6/10/79	235	3.990E-10
6/10/79	1400	3.860E-10	6/10/79	2015	2.290E-10
6/10/79	2115	2.400E-10	6/11/79	917	4.420E-10
6/11/79	1418	1.380E-09	6/11/79	2027	1.200E-09
6/11/79	2145	8.450E-10	6/12/79	911	1.260E-09
6/12/79	2015	2.080E-09	6/13/79	722	1.270E-09
6/13/79	2015	1.800E-09	6/14/79	820	2.330E-09

TABLE B.16 (Continued)
IODINE DATA FOR SAMPLE LOCATION #3 (328'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/14/79	1441	2.290E-09	6/14/79	2000	3.530E-09
6/15/79	220	2.620E-09	6/15/79	1350	2.240E-09
6/15/79	2000	5.740E-10	6/15/79	2100	1.520E-09
6/16/79	1123	2.350E-09	6/16/79	1602	5.340E-09
6/16/79	2015	1.590E-09	6/17/79	853	3.180E-09
6/17/79	1522	1.280E-09	6/17/79	2020	8.700E-10
6/18/79	220	1.140E-09	6/18/79	824	1.330E-09
6/18/79	1456	1.000E-09	6/18/79	2015	1.650E-09
6/19/79	220	5.820E-10	6/19/79	827	1.870E-09
6/19/79	1432	2.250E-09	6/19/79	2045	9.180E-10
6/20/79	245	1.160E-09	6/20/79	800	2.500E-09
6/20/79	1504	1.410E-09	6/20/79	2040	1.440E-09
6/21/79	907	3.330E-09	6/21/79	1500	2.870E-09
6/21/79	2025	2.570E-09	6/22/79	941	3.950E-09
6/22/79	1459	3.500E-09	6/22/79	2020	1.310E-09
6/23/79	215	2.420E-09	6/23/79	814	4.500E-09
6/23/79	915	3.600E-10	6/24/79	230	2.450E-10
6/24/79	826	6.400E-10	6/24/79	941	4.210E-10
6/24/79	2030	2.680E-10	6/25/79	220	1.360E-10
6/25/79	245	4.930E-10	6/25/79	733	2.660E-09
6/25/79	2050	3.250E-09	6/26/79	251	5.860E-10
6/26/79	1332	1.340E-10	6/26/79	2050	3.690E-10
6/27/79	230	3.160E-10	6/27/79	743	8.600E-10
6/27/79	1342	2.300E-09	6/28/79	245	1.240E-09
6/28/79	749	4.630E-11	6/28/79	1339	3.930E-09
6/28/79	2000	4.570E-10	6/29/79	737	9.890E-11
6/29/79	1344	1.890E-09	6/29/79	2105	6.610E-10
6/30/79	300	1.640E-09	6/30/79	1419	1.050E-10
6/30/79	2055	3.970E-11			
7/ 1/79	230	9.500E-11	7/ 1/79	1448	3.310E-11
7/ 1/79	2010	1.000E-10	7/ 2/79	250	7.650E-11
7/ 2/79	747	9.400E-11	7/ 4/79	833	9.800E-10
7/ 5/79	752	4.100E-11	7/ 6/79	2030	1.860E-09
7/ 7/79	245	4.300E-11	7/ 9/79	2045	9.082E-07
7/10/79	230	8.170E-10	7/10/79	330	5.400E-11
7/10/79	2010	5.200E-10	7/12/79	1214	3.820E-10
7/16/79	745	6.100E-10			

TABLE B.17
IODINE DATA FOR SAMPLE LOCATION #4 (328'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
5/17/79	252	5.700E-09	5/17/79	1620	1.070E-08
5/17/79	2326	1.500E-08	5/18/79	530	1.300E-08
5/18/79	1617	6.900E-09	5/18/79	2135	4.200E-08
5/19/79	950	3.800E-08	5/19/79	1416	2.170E-08
5/19/79	2045	1.750E-09	5/20/79	1315	4.000E-08
5/20/79	2145	7.600E-09	5/21/79	1455	1.130E-08
5/22/79	940	1.210E-08	5/22/79	1425	1.100E-08
5/22/79	2125	7.180E-09	5/23/79	1015	1.070E-08
5/23/79	1447	2.640E-09	5/23/79	2010	2.360E-09
5/24/79	217	5.500E-09	5/24/79	922	7.910E-09
5/24/79	1415	5.890E-09	5/25/79	316	7.030E-09
5/25/79	842	5.880E-09	5/25/79	1441	3.710E-09
5/25/79	2023	5.100E-09	5/26/79	155	2.220E-09
5/26/79	836	1.570E-09	5/26/79	1341	4.240E-09
5/26/79	1957	6.900E-10	5/27/79	159	3.480E-09
5/27/79	852	1.400E-09	5/27/79	1535	2.660E-09
5/27/79	2005	1.000E-09	5/28/79	200	1.080E-09
5/28/79	847	6.370E-10	5/28/79	1441	2.250E-09
5/28/79	1942	2.700E-09	5/29/79	330	2.300E-09
5/29/79	2047	3.400E-09	5/31/79	213	1.410E-09
5/31/79	1458	2.860E-09	5/31/79	2030	1.590E-09
5/31/79	2030	1.100E-09			
6/ 1/79	736	1.110E-09	6/ 1/79	1430	5.200E-10
6/ 1/79	2030	1.190E-09	6/ 1/79	2030	1.190E-09
6/ 2/79	155	1.090E-09	6/ 2/79	858	1.900E-09
6/ 2/79	1500	4.960E-10	6/ 2/79	2020	8.660E-10
6/ 3/79	200	1.400E-09	6/ 3/79	2035	1.700E-09
6/ 4/79	1302	1.870E-09	6/ 4/79	2025	6.690E-10
6/ 5/79	225	3.540E-09	6/ 5/79	225	8.900E-10
6/ 5/79	235	7.500E-10	6/ 5/79	1303	8.400E-10
6/ 5/79	2125	2.730E-10	6/ 6/79	230	3.300E-10
6/ 6/79	259	5.400E-10	6/ 6/79	803	5.390E-10
6/ 7/79	210	5.700E-10	6/ 7/79	803	3.000E-10
6/ 7/79	2025	4.270E-10	6/ 8/79	220	2.740E-10
6/ 8/79	819	4.430E-10	6/ 8/79	819	2.800E-10
6/ 8/79	2020	3.100E-10	6/ 8/79	2020	4.300E-10
6/ 9/79	1406	3.680E-10	6/ 9/79	2025	1.330E-10
6/10/79	235	2.960E-10	6/10/79	954	3.860E-10
6/10/79	1506	4.630E-10	6/10/79	2010	1.400E-1Q
6/10/79	2010	3.540E-10	6/11/79	918	2.830E-10
6/11/79	1421	7.740E-10	6/11/79	2030	7.200E-10
6/11/79	2145	2.390E-10	6/12/79	909	9.840E-10
6/12/79	2015	1.960E-09	6/13/79	721	1.130E-09
6/13/79	1728	2.210E-10	6/13/79	2015	5.100E-10

TABLE B.17 (Continued)
IODINE DATA FOR SAMPLE LOCATION #4 (328'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/13/79	2015	4.600E-10	6/13/79	2210	5.840E-10
6/14/79	817	1.340E-09	6/14/79	1435	4.480E-10
6/14/79	2025	2.050E-10	6/15/79	220	6.920E-10
6/15/79	225	1.580E-09	6/15/79	2015	1.560E-09
6/16/79	1120	1.710E-09	6/17/79	848	9.860E-11
6/17/79	2025	1.300E-09	6/18/79	225	3.860E-10
6/18/79	830	1.690E-09	6/18/79	1458	1.640E-09
6/18/79	1515	1.550E-10	6/18/79	2020	1.830E-09
6/19/79	220	2.170E-10	6/19/79	830	1.520E-09
6/19/79	2045	7.210E-10	6/20/79	245	1.250E-09
6/20/79	245	2.400E-09	6/20/79	1507	1.200E-09
6/20/79	2040	3.060E-10	6/21/79	115	3.180E-10
6/21/79	115	5.320E-10	6/21/79	1503	2.300E-09
6/21/79	2025	1.730E-09	6/21/79	2025	3.030E-10
6/22/79	935	1.030E-09	6/22/79	1512	2.400E-08
6/22/79	2025	2.720E-08	6/23/79	1030	1.800E-08
6/23/79	1100	3.190E-08	6/23/79	2105	4.100E-08
6/24/79	230	2.270E-08	6/24/79	837	2.560E-08
6/24/79	1434	4.100E-08	6/24/79	2030	2.370E-08
6/25/79	220	1.930E-08	6/25/79	752	1.620E-08
6/25/79	1335	1.600E-08	6/25/79	2050	2.000E-08
6/25/79	2050	1.680E-08	6/26/79	730	1.350E-08
6/26/79	2045	2.720E-08	6/27/79	235	2.140E-08
6/27/79	805	1.500E-08	6/27/79	1240	7.590E-09
6/27/79	2030	2.420E-08	6/28/79	230	7.150E-10
6/28/79	756	9.090E-09	6/28/79	1343	1.500E-08
6/28/79	2040	1.920E-08	6/29/79	235	1.560E-08
6/29/79	750	1.070E-08	6/29/79	1347	8.730E-09
6/30/79	305	1.670E-08	6/30/79	745	1.200E-08
6/30/79	1415	1.390E-08	6/30/79	2055	1.360E-08
7/ 1/79	235	7.500E-09	7/ 1/79	841	1.170E-08
7/ 1/79	1500	1.410E-08	7/ 1/79	1520	1.410E-08
7/ 2/79	752	1.030E-08	7/ 3/79	2025	1.680E-08
7/ 4/79	1500	9.500E-09	7/ 4/79	2035	1.190E-08
7/ 5/79	745	1.280E-10	7/ 6/79	755	1.200E-09
7/ 6/79	1352	8.790E-09	7/ 6/79	2030	6.920E-09
7/ 7/79	245	5.790E-09	7/ 7/79	1454	6.000E-09
7/ 7/79	2025	7.490E-09	7/ 8/79	225	7.900E-10
7/ 8/79	842	3.400E-09	7/ 8/79	1454	4.350E-09
7/ 8/79	2015	2.180E-09	7/ 9/79	250	7.590E-09
7/ 9/79	847	4.000E-10	7/ 9/79	2045	1.860E-08
7/10/79	235	8.550E-09	7/10/79	2010	7.890E-09
7/12/79	2005	5.270E-09	7/13/79	2005	9.040E-09
7/14/79	2135	3.650E-09	7/15/79	2030	9.040E-09

TABLE B.17 (Continued)
IODINE DATA FOR SAMPLE LOCATION #4 (328'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
7/22/79	826	2.120E-10	7/24/79	215	2.580E-09
7/24/79	2030	3.600E-09	7/25/79	230	1.230E-09
7/26/79	743	8.390E-11	7/28/79	735	1.770E-09
7/28/79	1345	2.830E-09	7/31/79	1325	2.370E-09

TABLE B.18
IODINE DATA FOR SAMPLE LOCATION #5 (328'el)

DATE	HOUR	CONCENTRATION (uCi/cc)	DATE	HOUR	CONCENTRATION (uCi/cc)
6/ 2/79	1130	1.900E-07	6/ 2/79	1515	1.300E-09
6/ 3/79	1421	2.200E-08	6/ 3/79	2130	2.270E-08
6/ 4/79	755	2.440E-08	6/ 4/79	1300	3.070E-08
6/ 4/79	2032	4.420E-08	6/ 5/79	225	2.030E-07
6/ 5/79	1301	2.600E-08	6/ 5/79	2135	2.200E-08
6/ 6/79	300	2.900E-08	6/ 6/79	350	3.000E-08
6/ 6/79	1322	4.480E-09	6/ 6/79	2015	2.720E-08
6/ 7/79	225	7.300E-09	6/ 7/79	225	7.300E-09
6/ 7/79	800	6.800E-09	6/ 7/79	2030	6.530E-09
6/ 8/79	225	2.420E-09	6/ 8/79	815	7.330E-09
6/ 8/79	2000	3.590E-09	6/21/79	2310	8.700E-11
6/22/79	1016	1.380E-09	6/23/79	255	5.100E-10
6/23/79	1538	2.600E-10	6/23/79	2115	7.570E-10
6/24/79	245	1.060E-10	6/24/79	844	2.190E-10
6/24/79	2035	4.100E-11	6/25/79	225	6.320E-10
6/25/79	800	4.970E-10	6/25/79	2100	4.740E-10

APPENDIX C

^{131}I CONCENTRATION AND TEMPERATURE DATA AS FUNCTIONS OF TIME

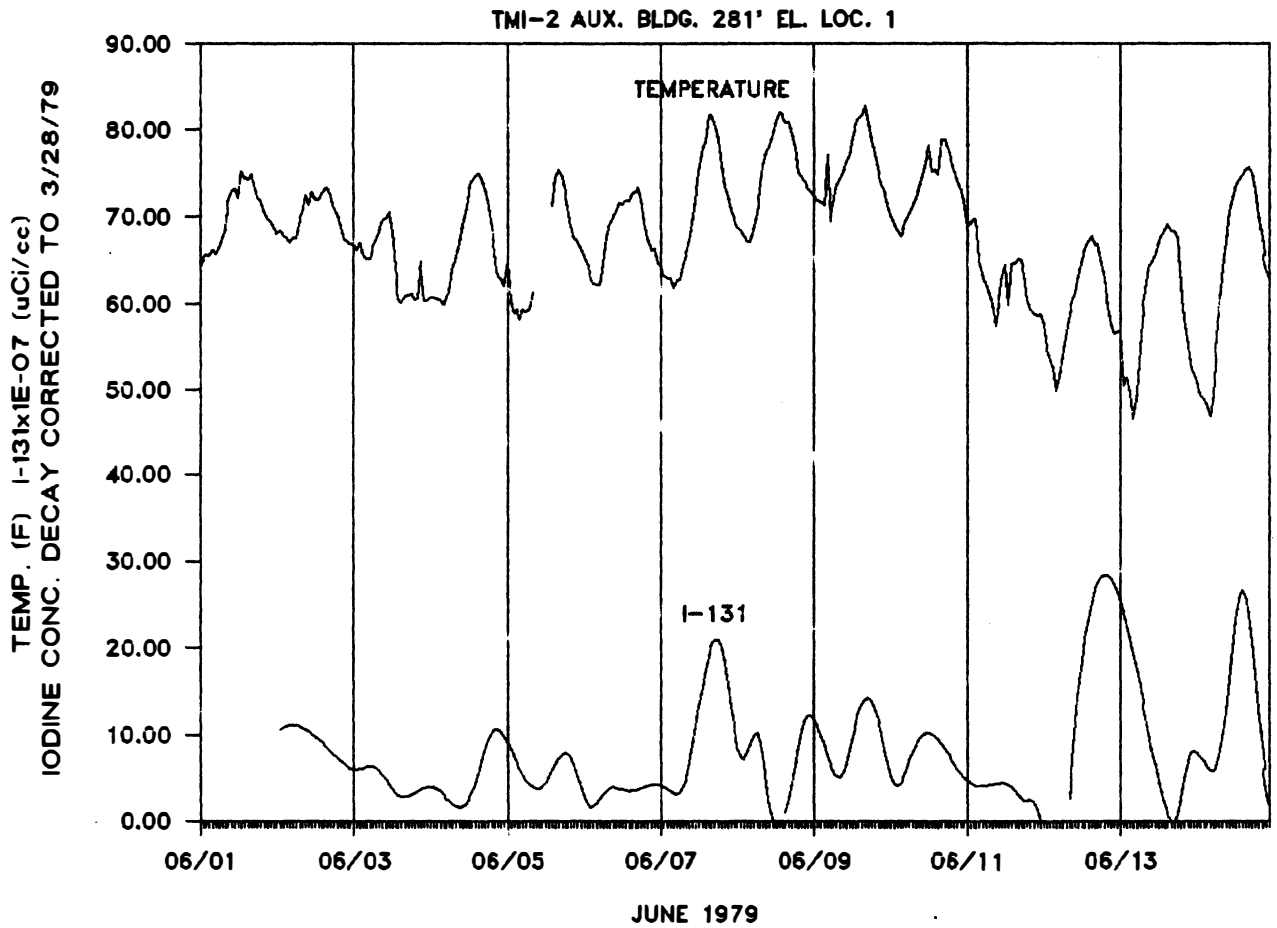

FIGURE C.1 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 1 - 281' el. (6/01-6/14)

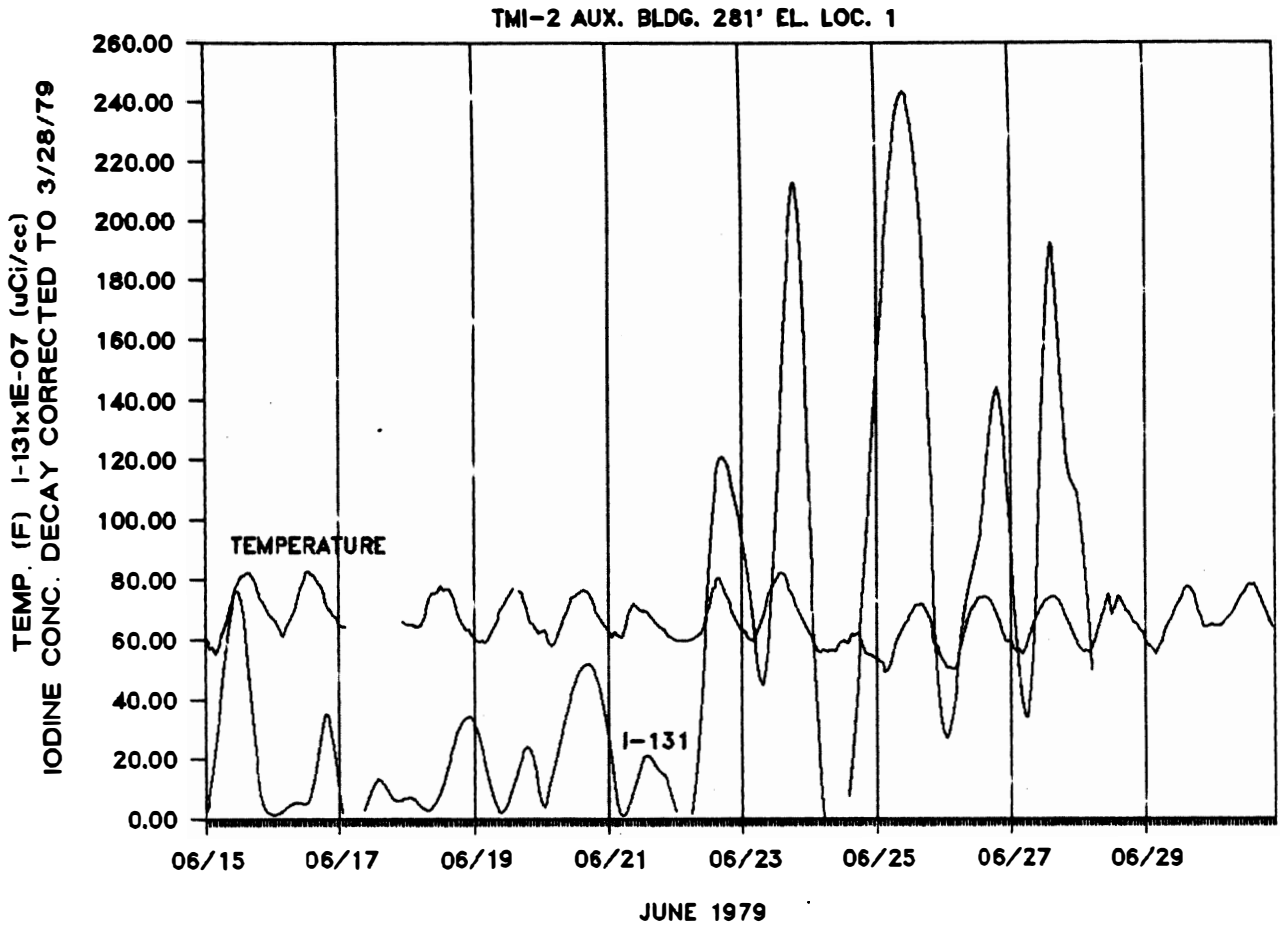

FIGURE C.2 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 1 - 281' el. (6/15-6/30)

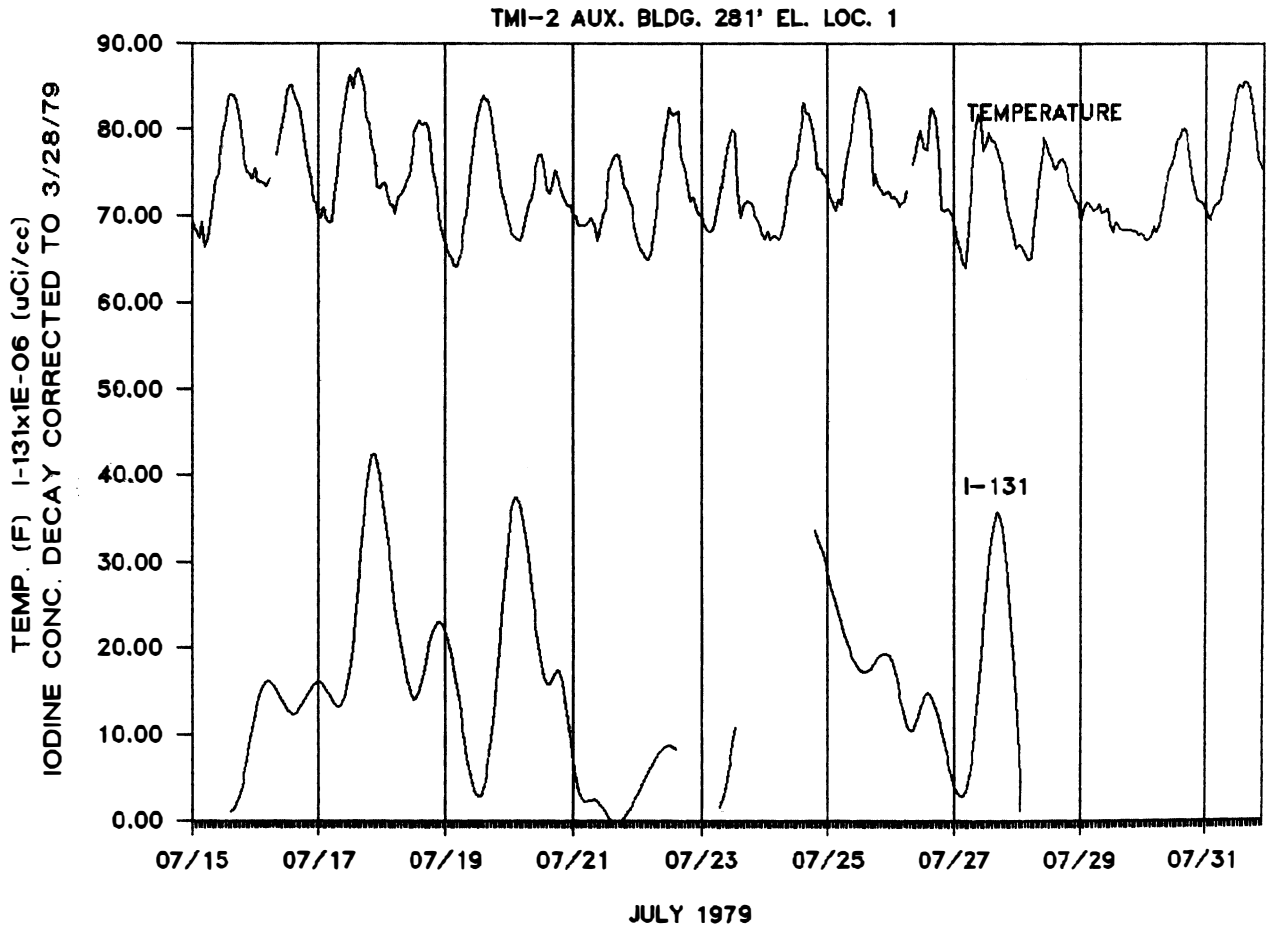

FIGURE C.3 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 1 - 281' el. (7/15-7/31)

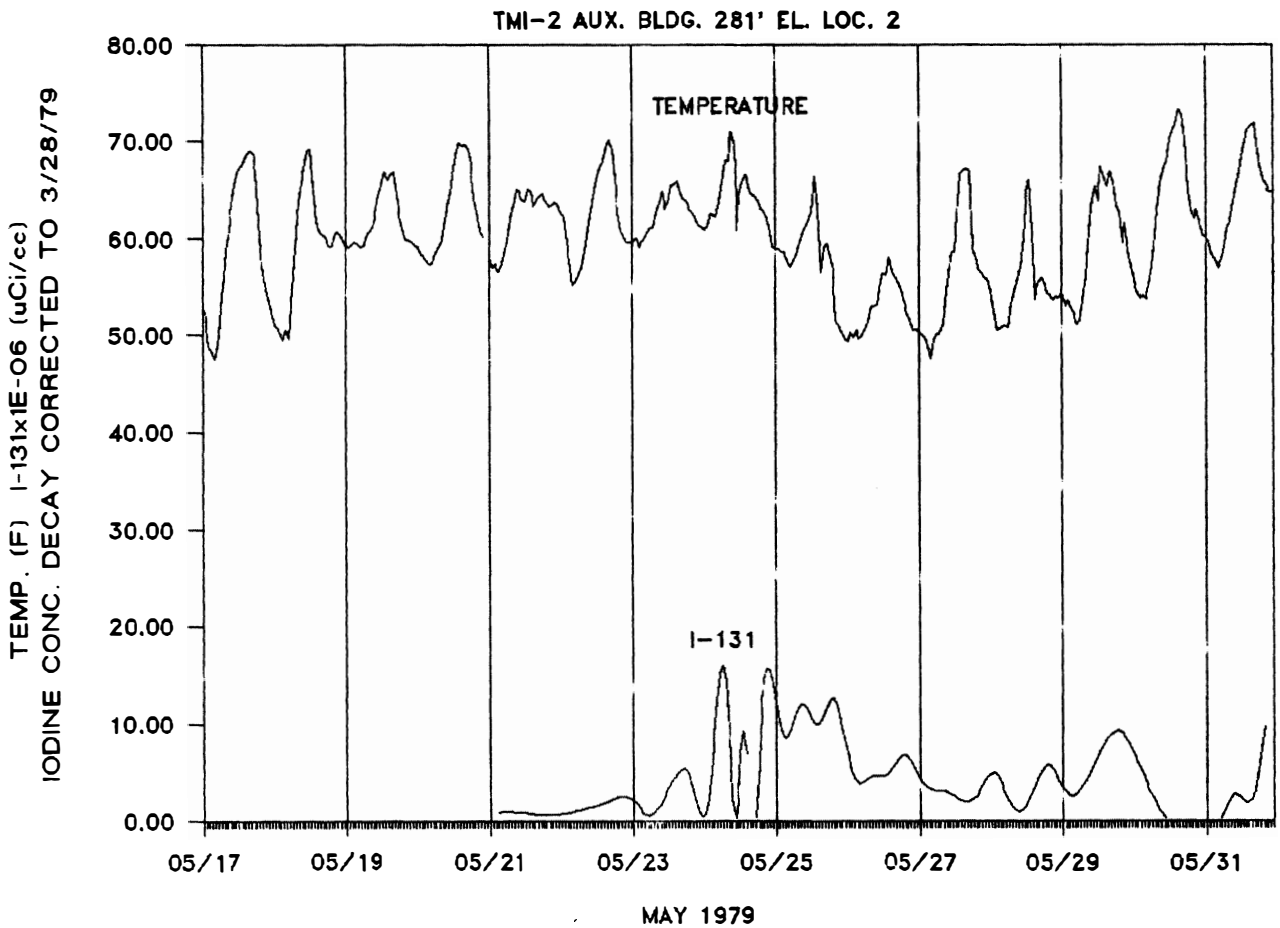

FIGURE C.4 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 2 - 281' el. (5/17-5/31)

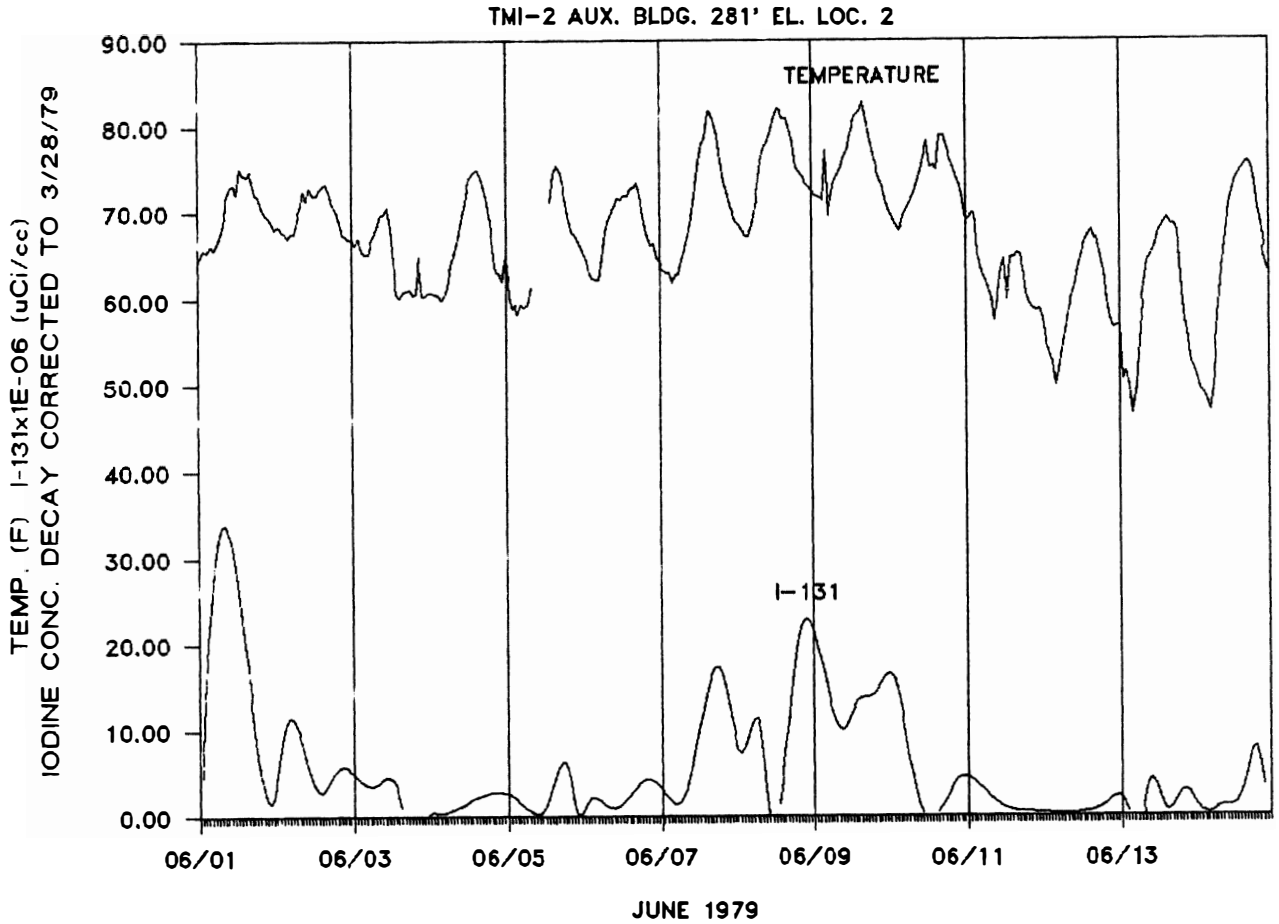

FIGURE C.5 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 2 - 281' el. (6/01-6/14)

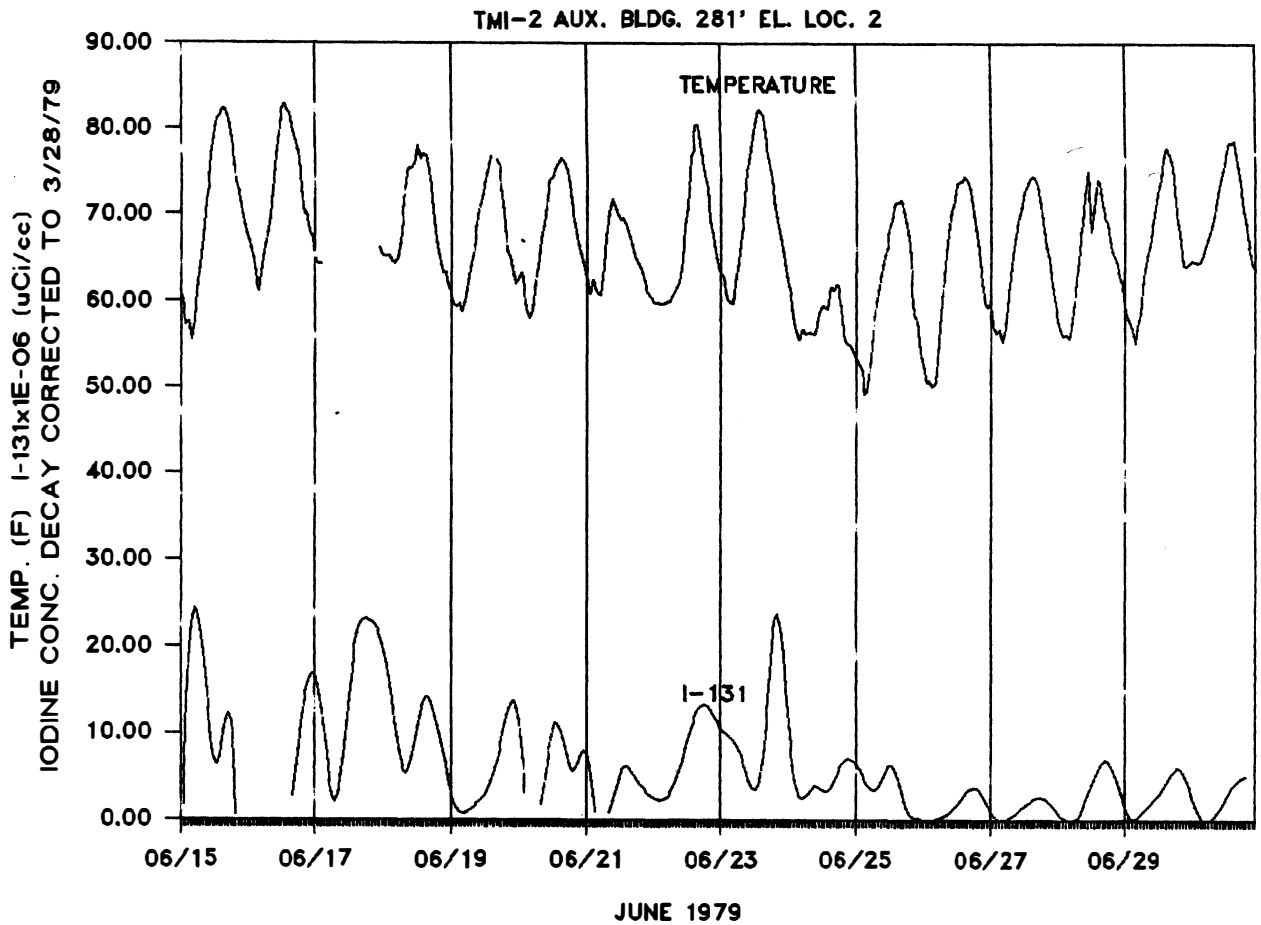

FIGURE C.6 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 2 - 281' el. (6/15-6/30)

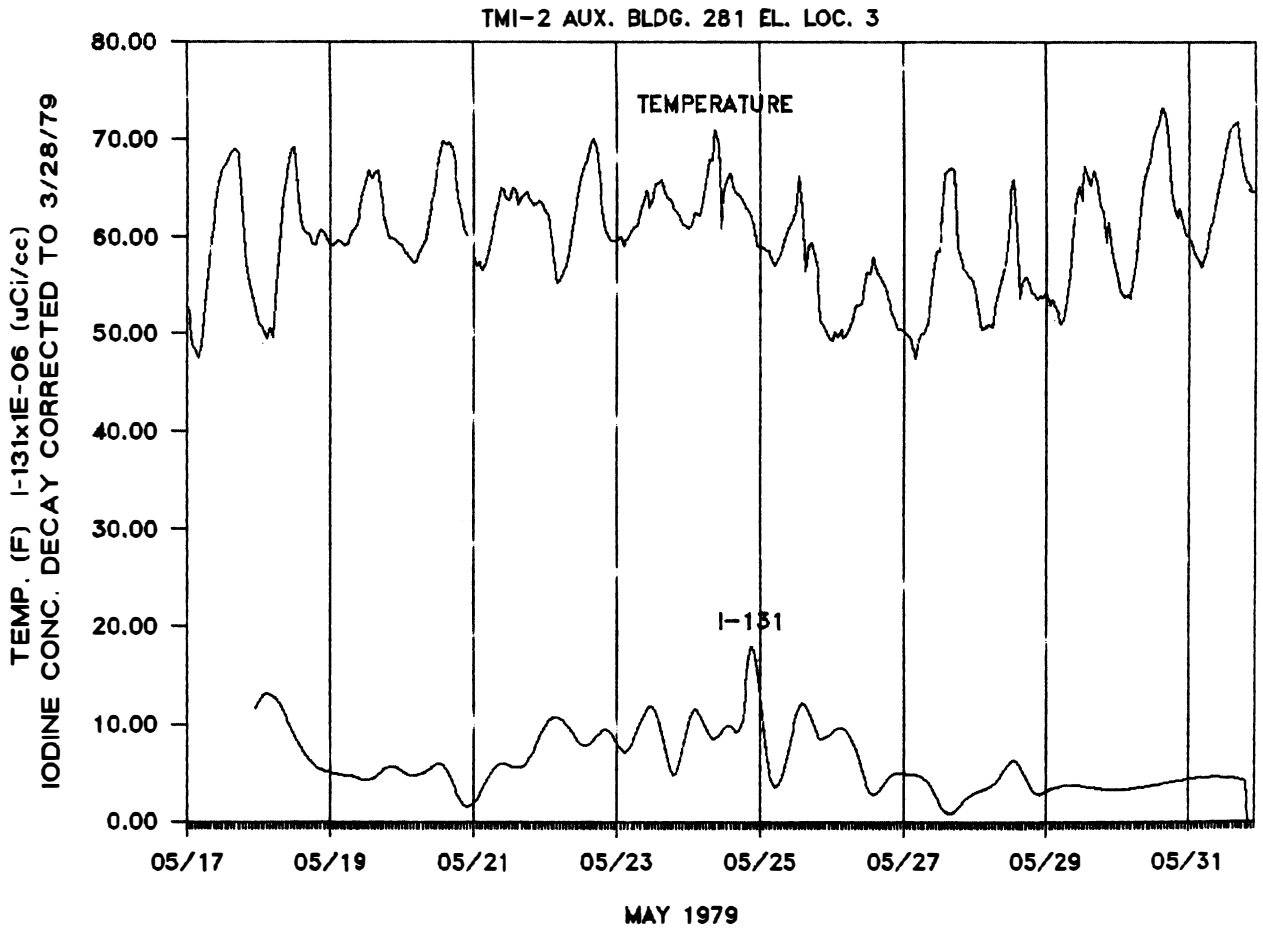

FIGURE C.7 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 3 - 281' el. (5/17-5/31)

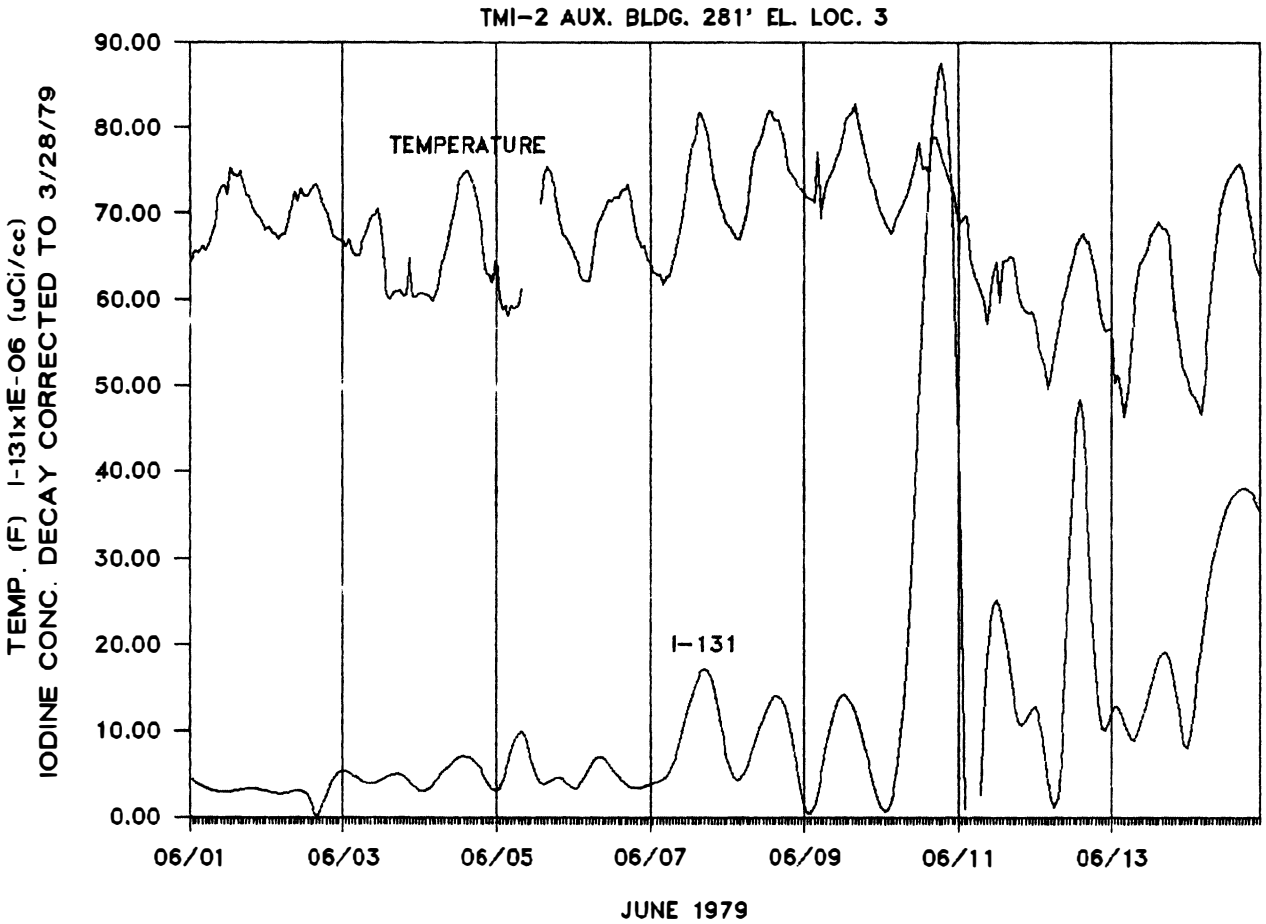

FIGURE C.8 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 3 - 281' el. (6/01-6/14)

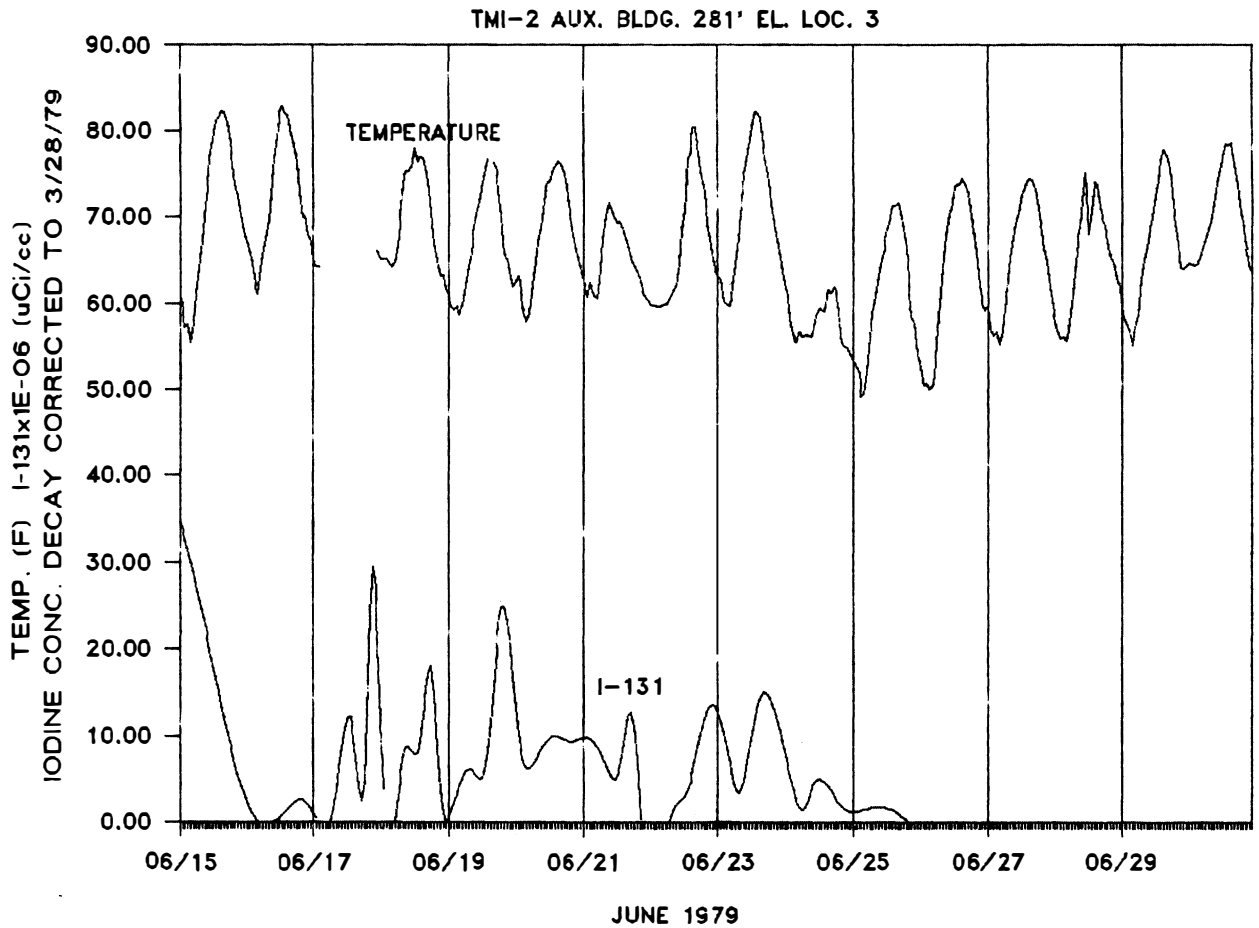

FIGURE C.9 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 3 - 281' el. (6/15-6/30)

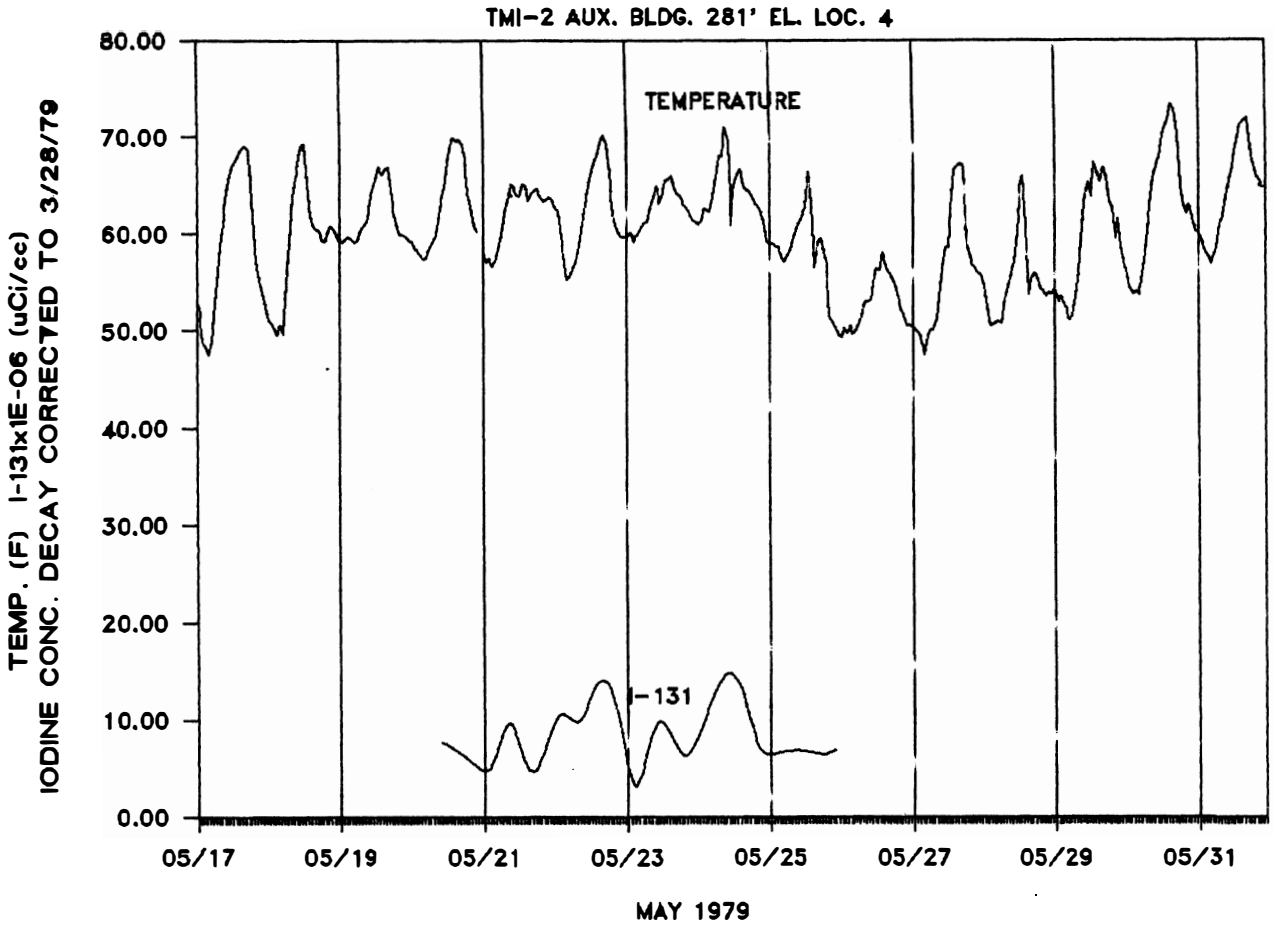

FIGURE C.10 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 4 - 281' el. (5/17-5/31)

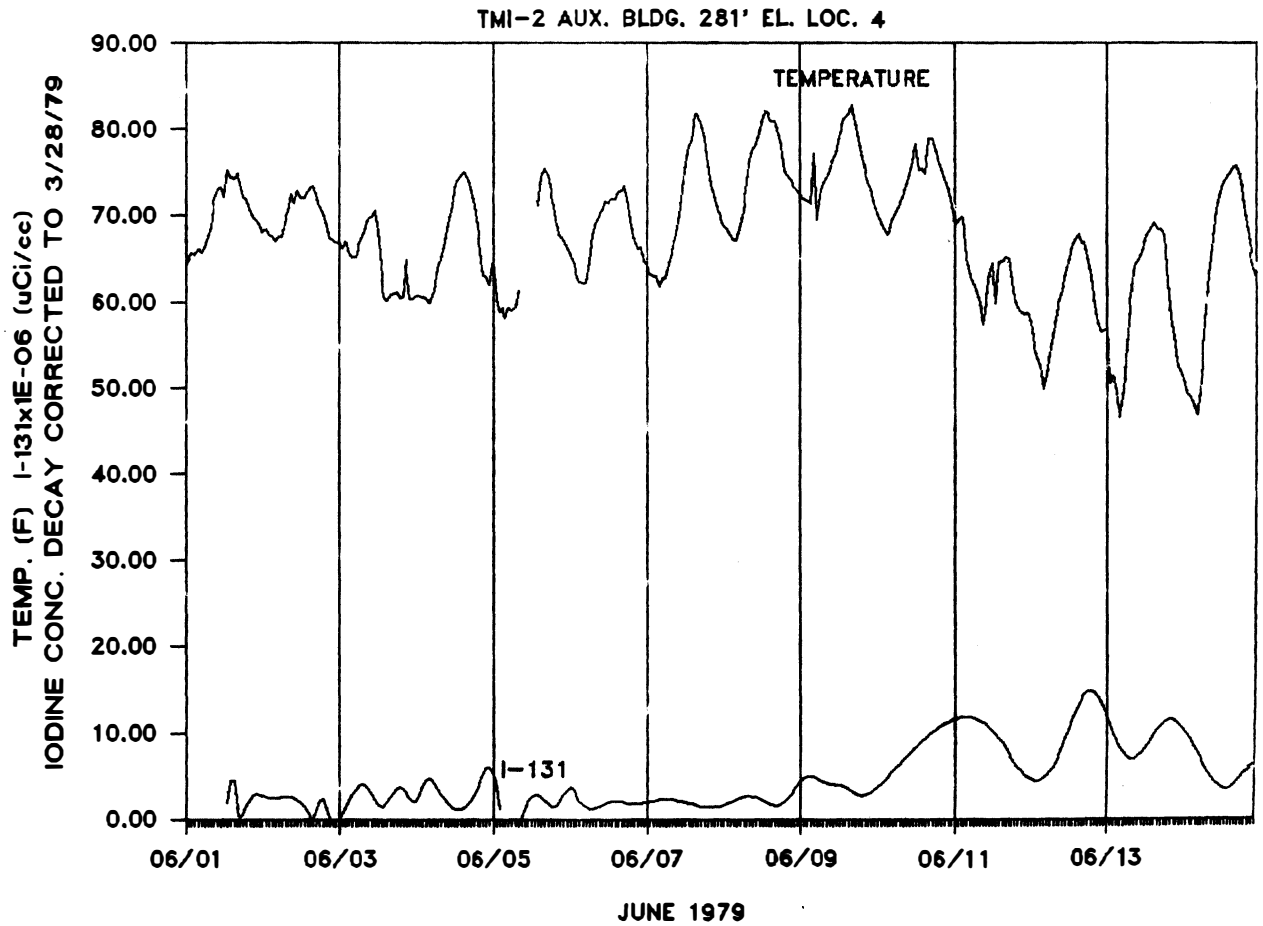

FIGURE C.11 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 4 - 281' el. (6/01-6/14)

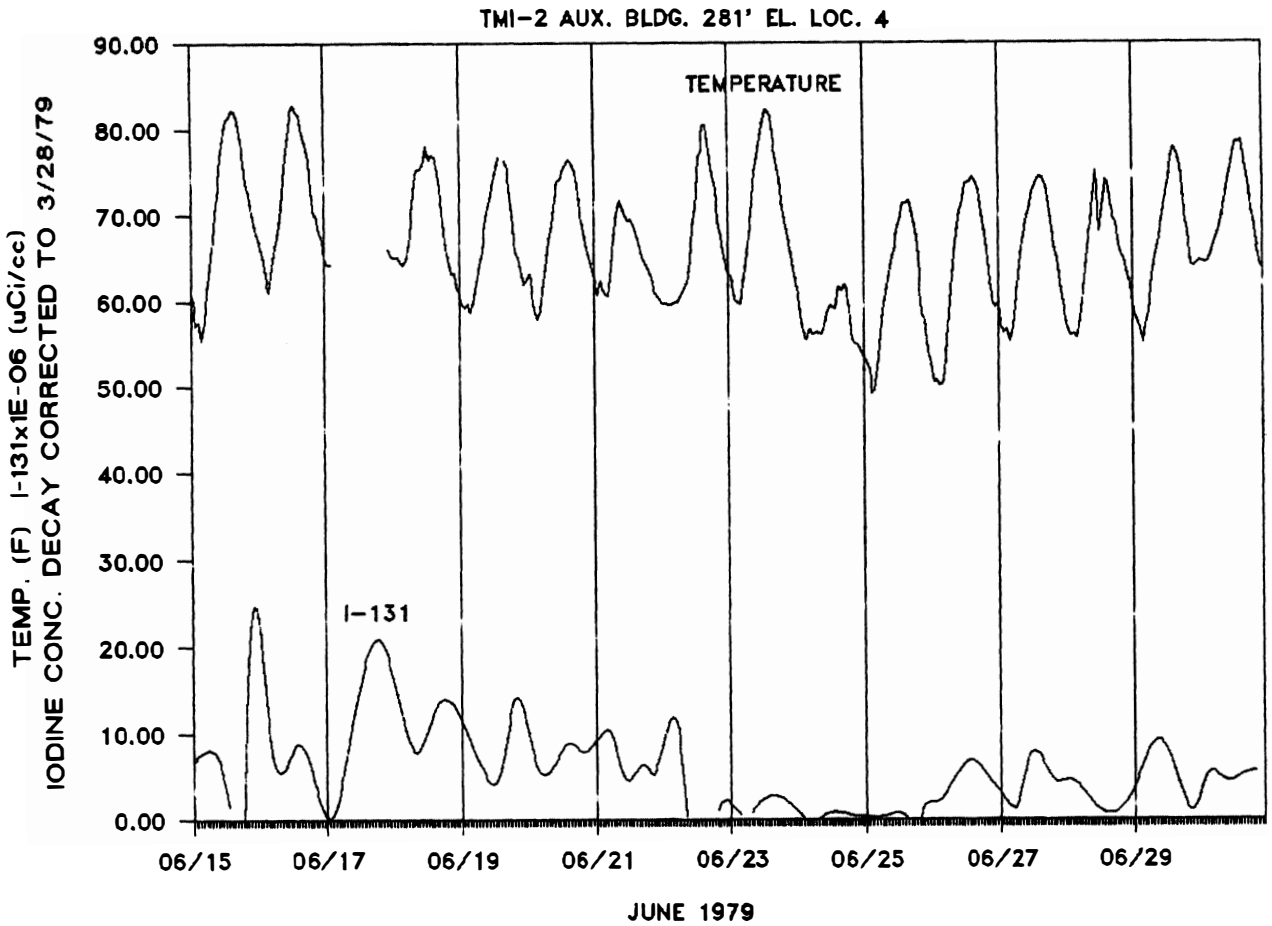

FIGURE C.12 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 4 - 281' el. (6/15-6/30)

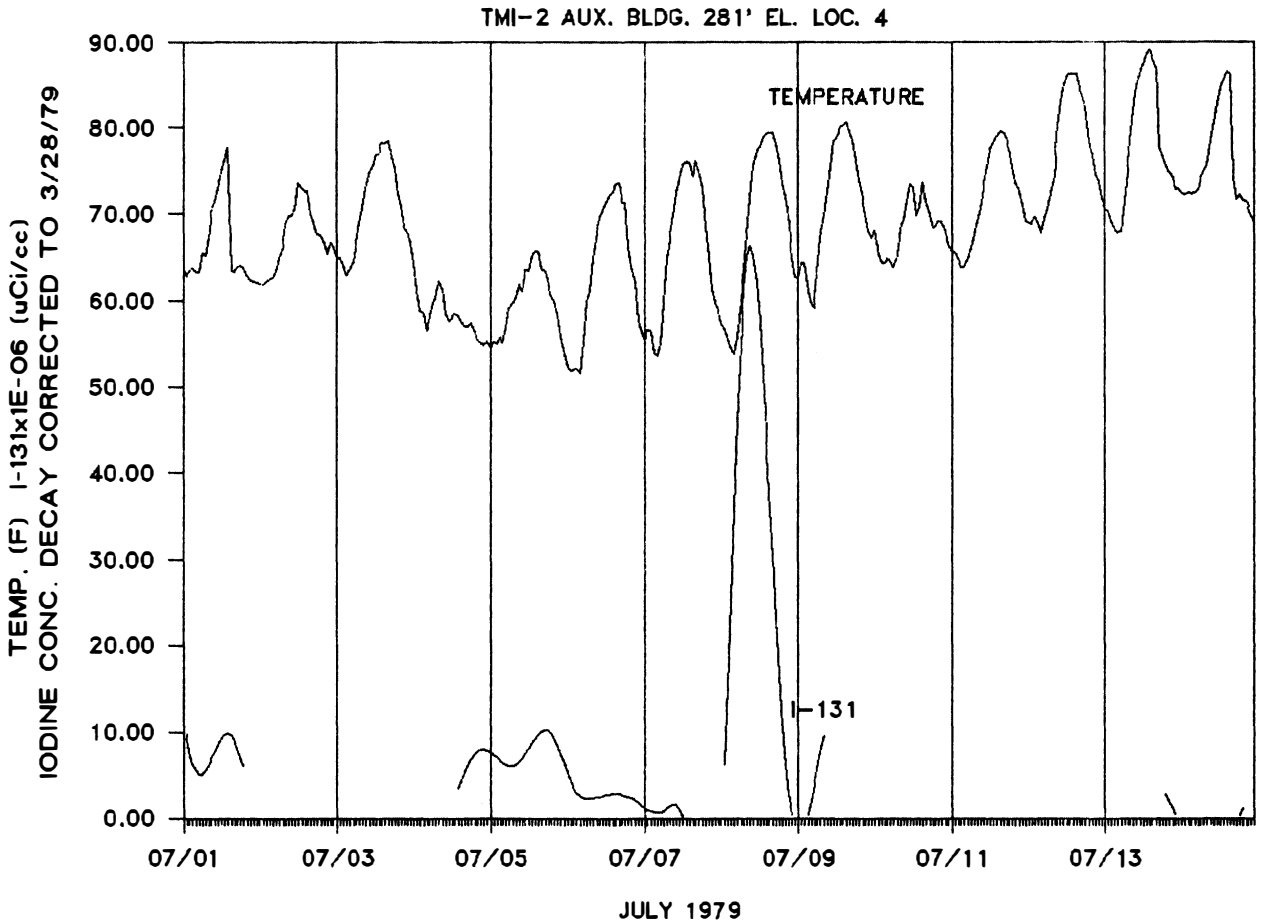

FIGURE C.13 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 4 - 281' el. (7/01-7/14)

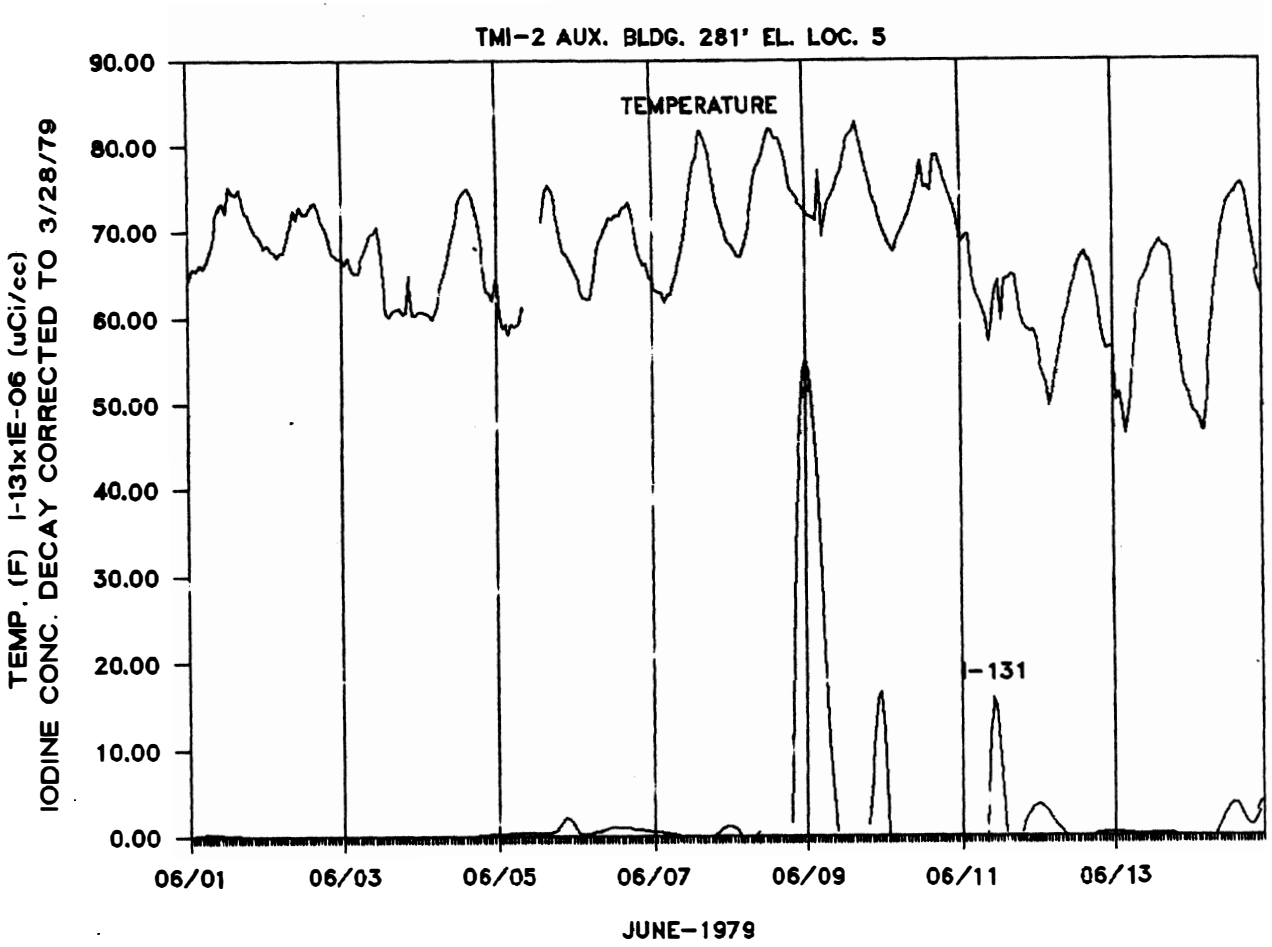

FIGURE C.14 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 5 - 281' el. (6/01-6/14)

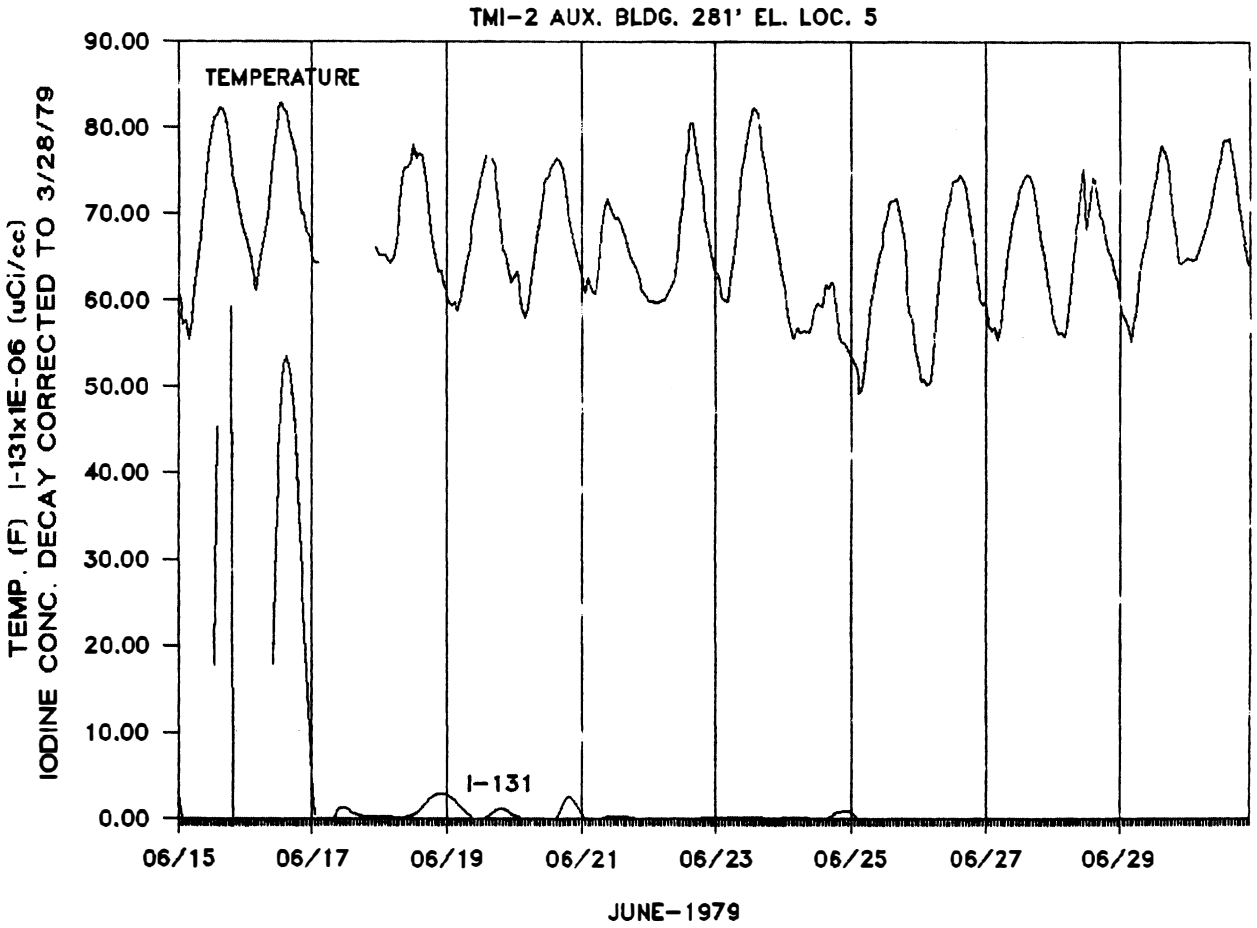

FIGURE C.15 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 5 - 281' el. (6/15-6/30)

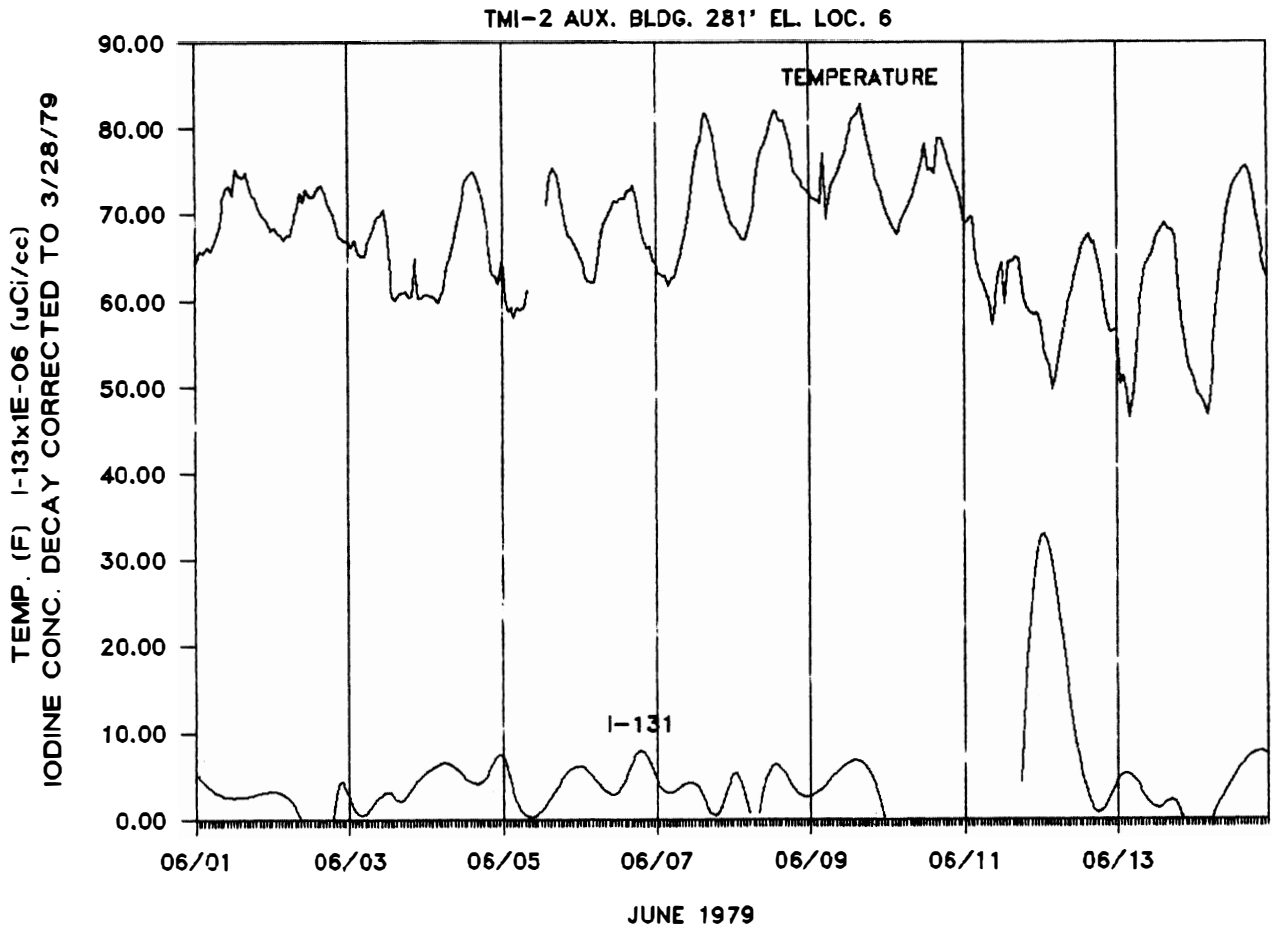

FIGURE C.16 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 6 - 281' el. (6/01-6/14)

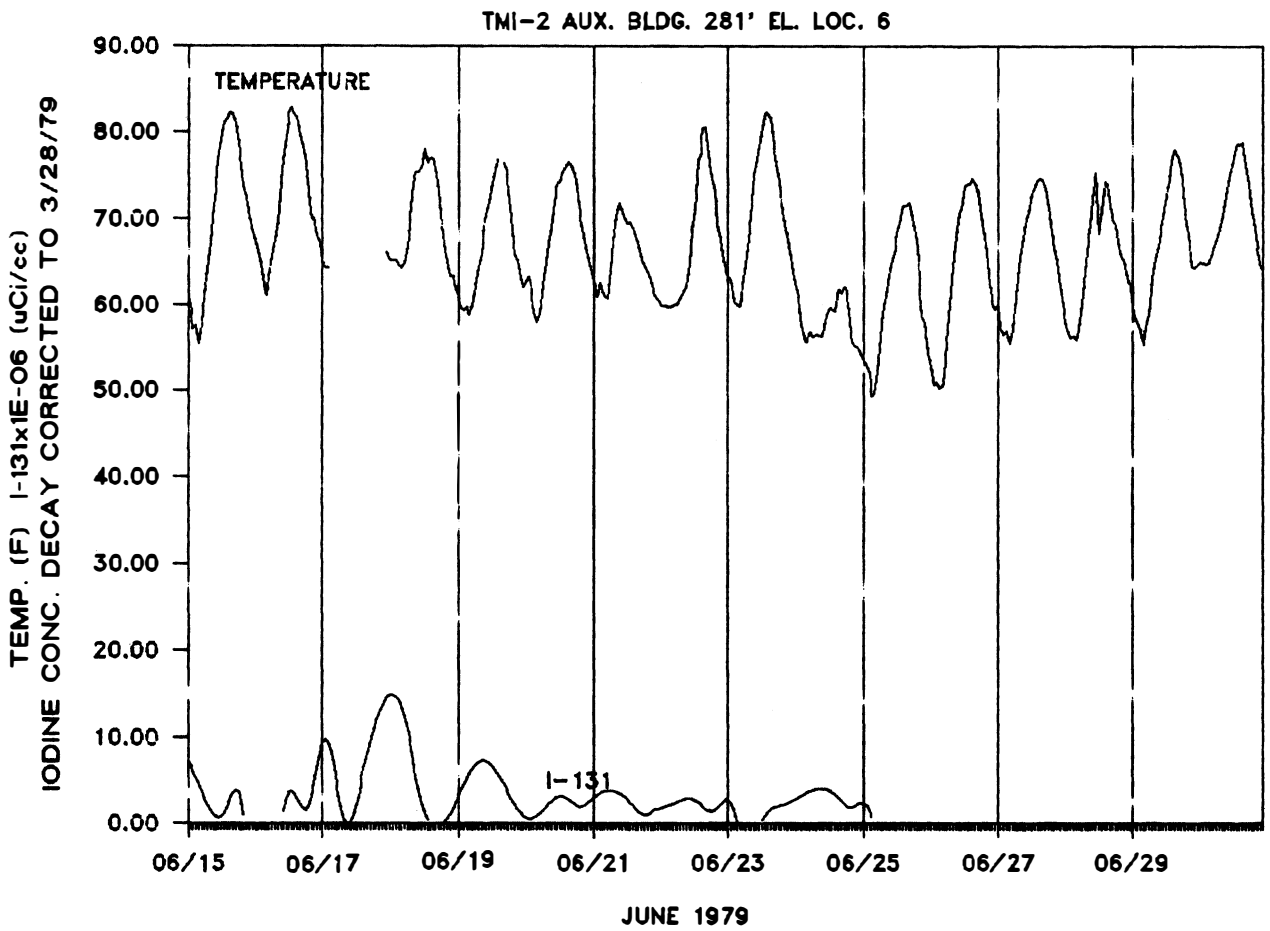

FIGURE C.17 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 6 - 281' el. (6/15-6/30)

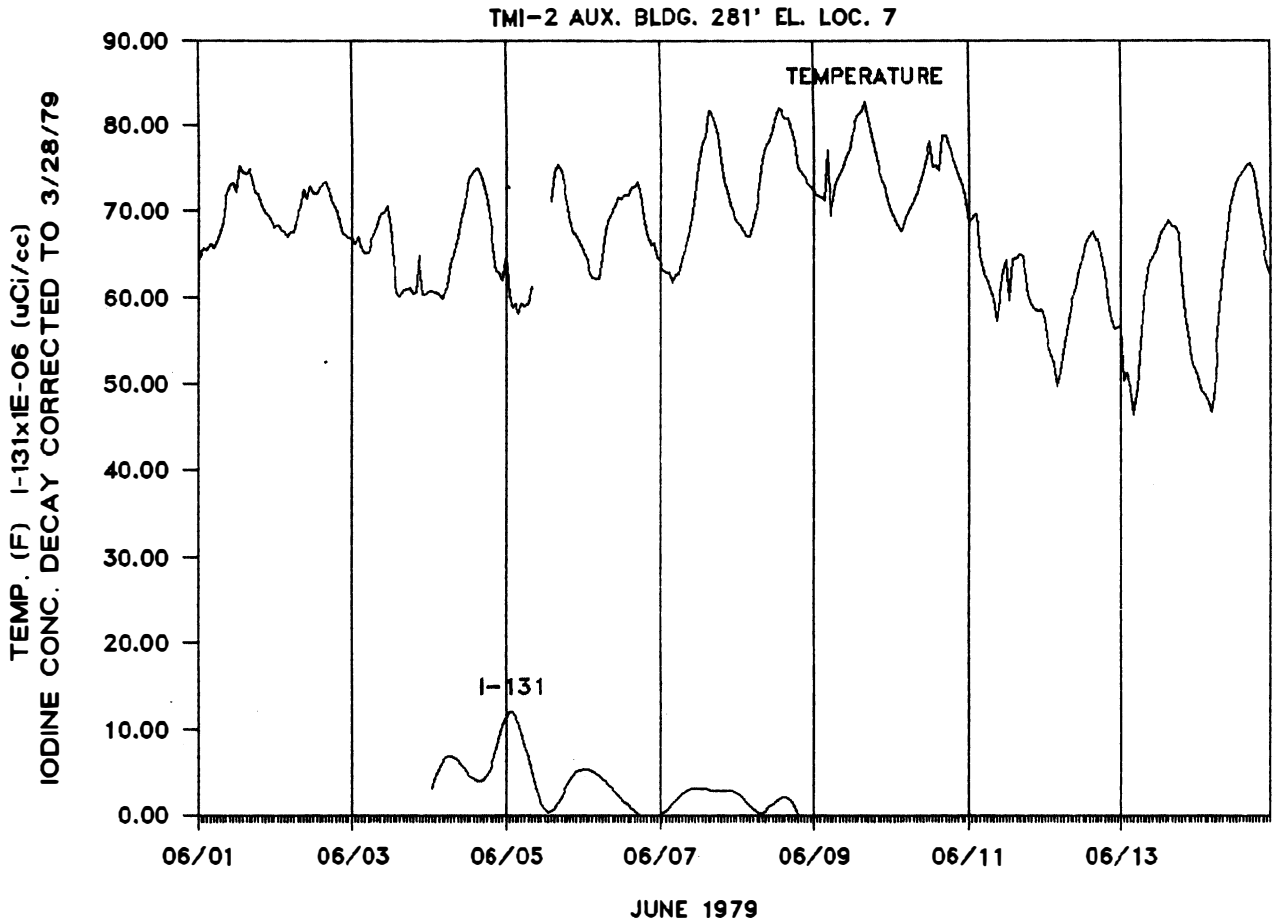

FIGURE C.18 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 7 - 281' el. (6/01-6/14)

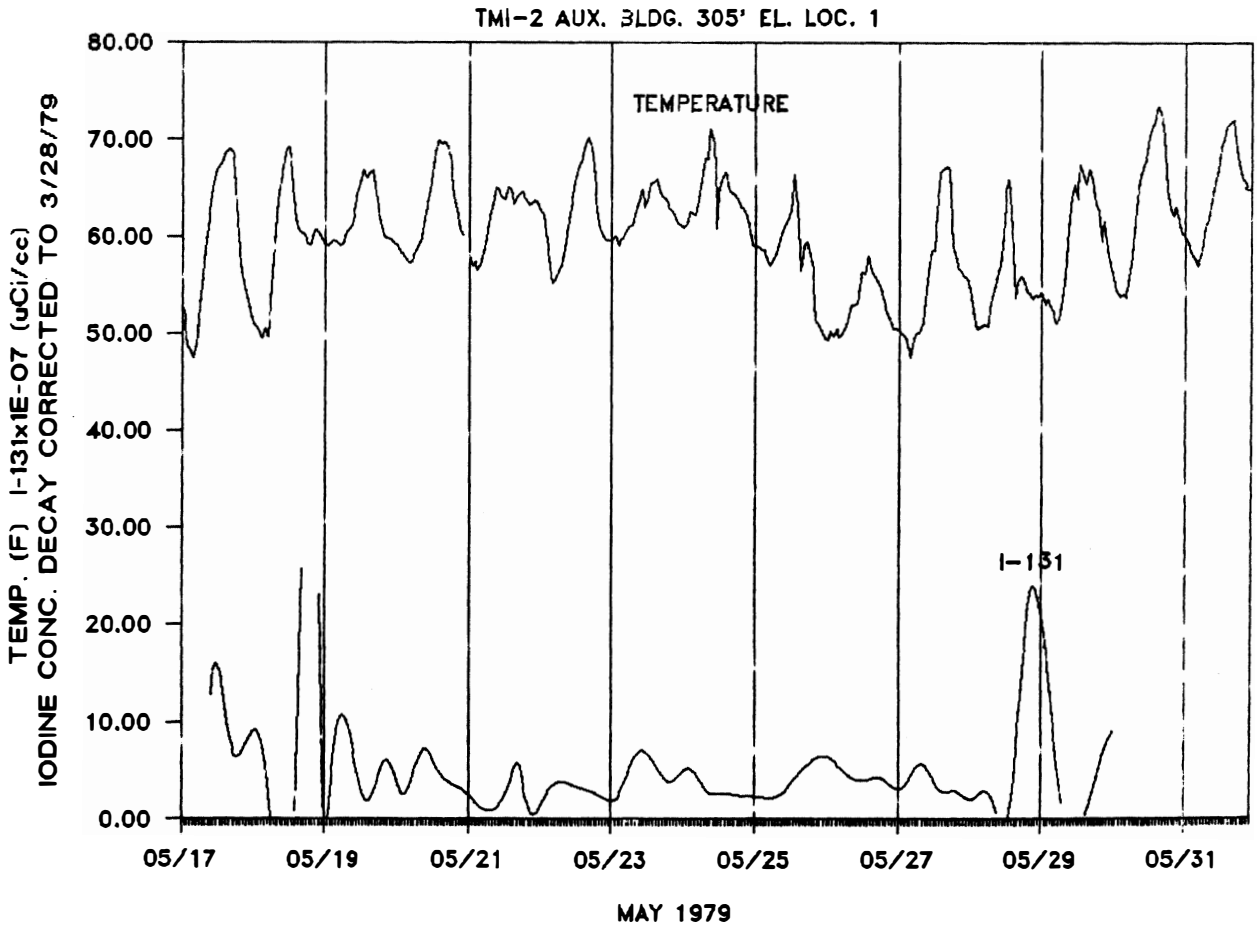

FIGURE C.19 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 1 - 305' el. (5/17-5/31)

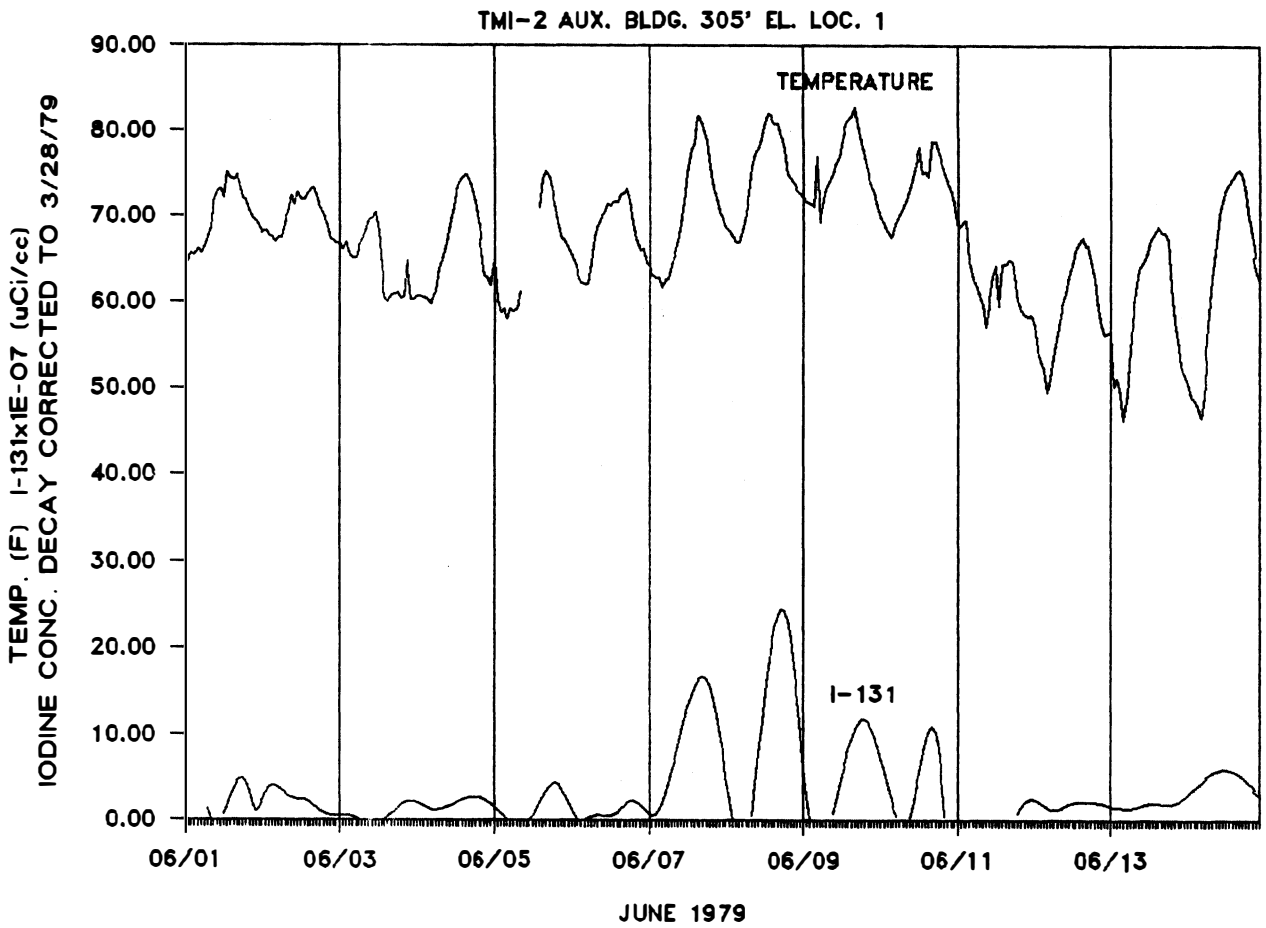

FIGURE C.20 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 1 - 305' el. (6/01-6/14)

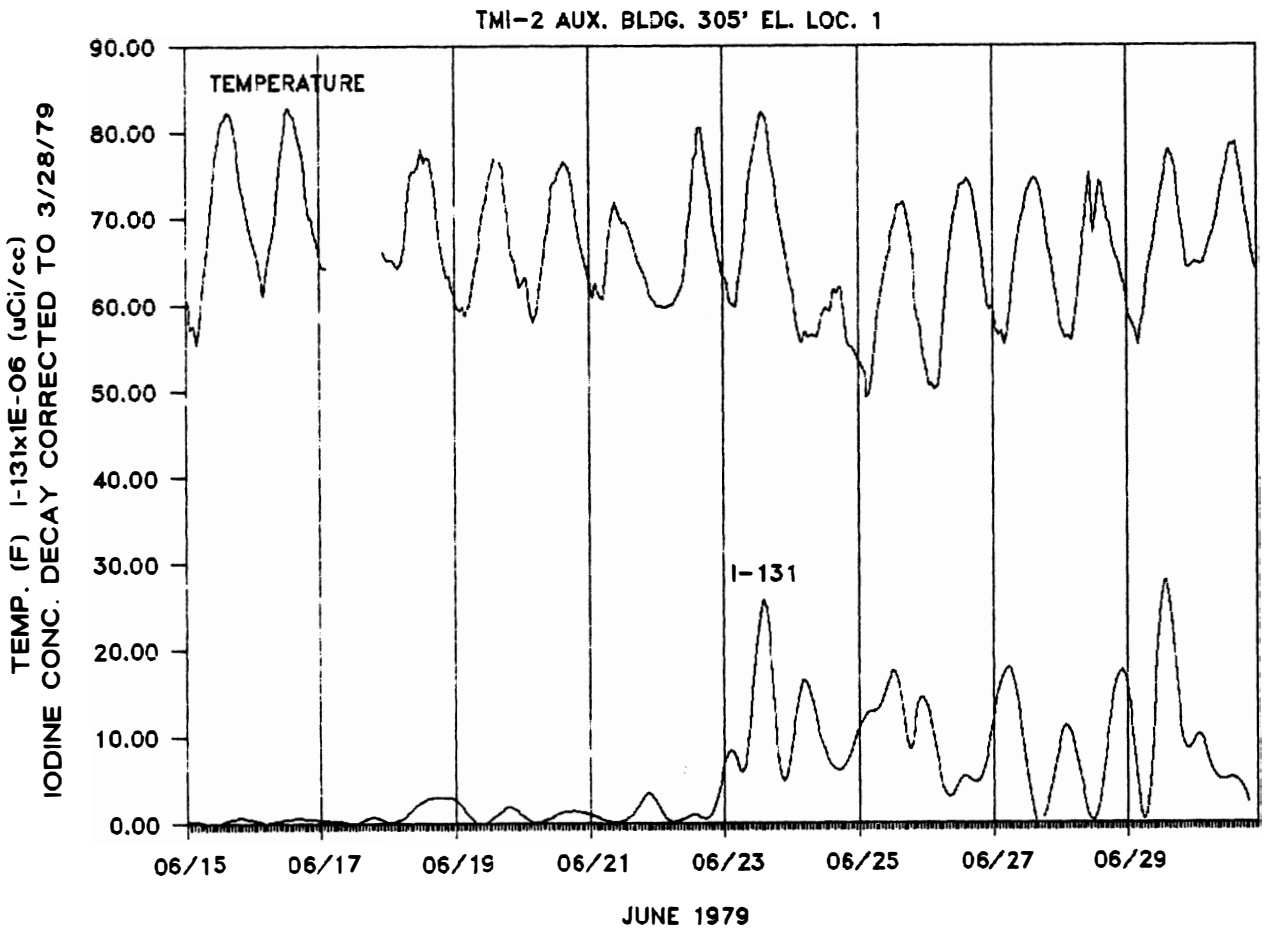

FIGURE C.21 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 1 - 305' el. (6/15-6/30)

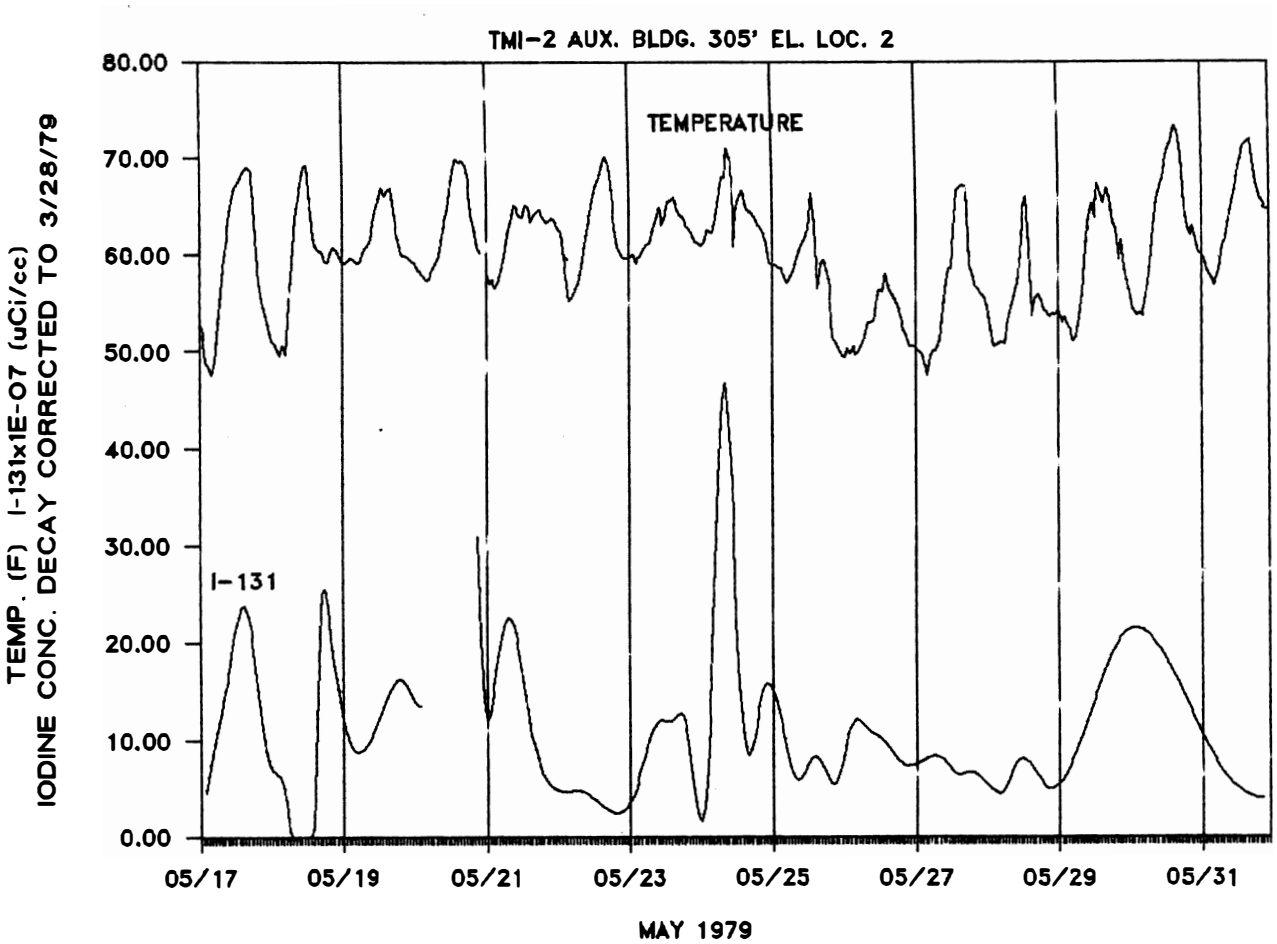

FIGURE C.22 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 2 - 305' el. (5/17-5/31)

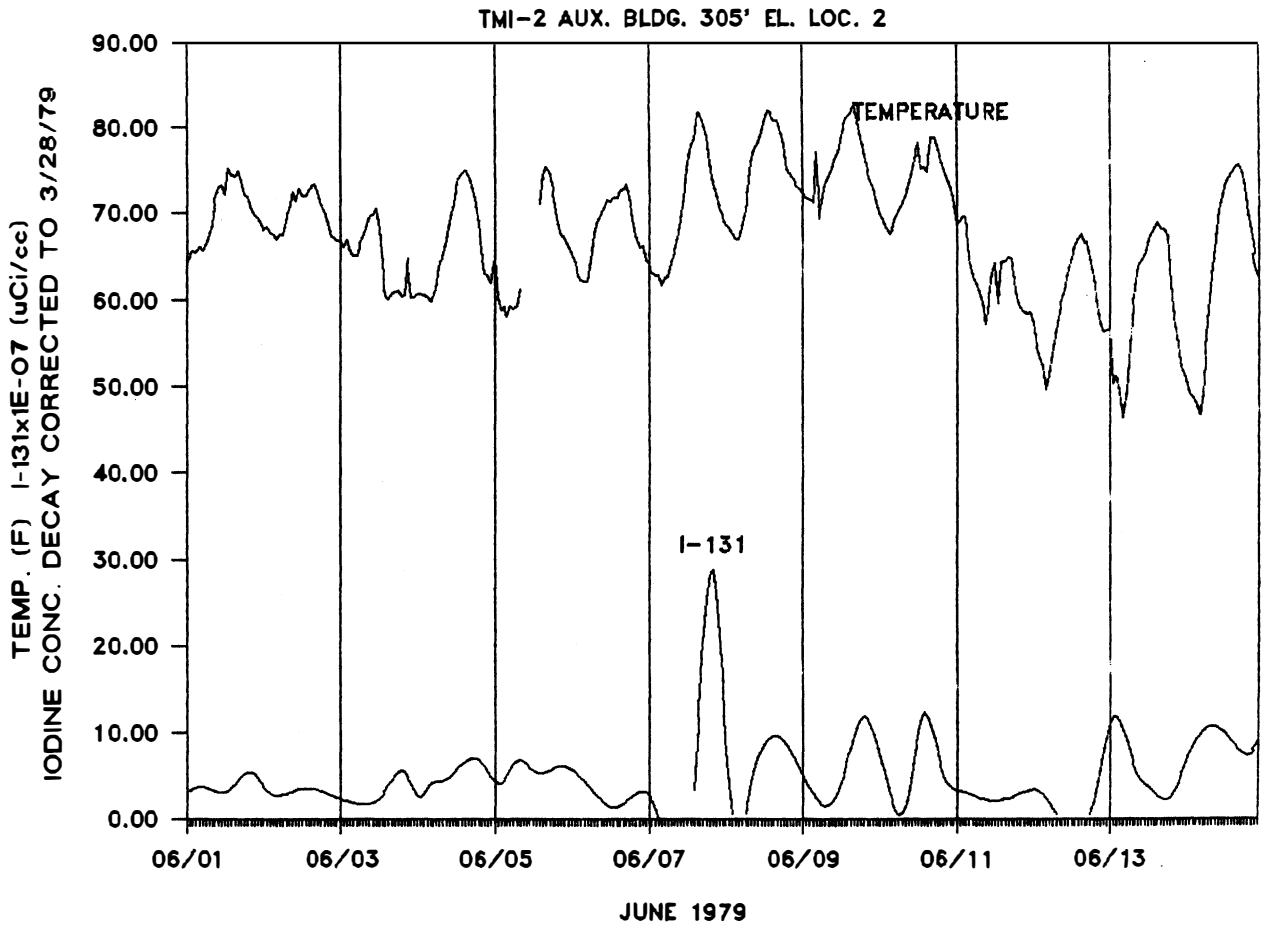

FIGURE C.23 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 2 - 305' el. (6/01-6/14)

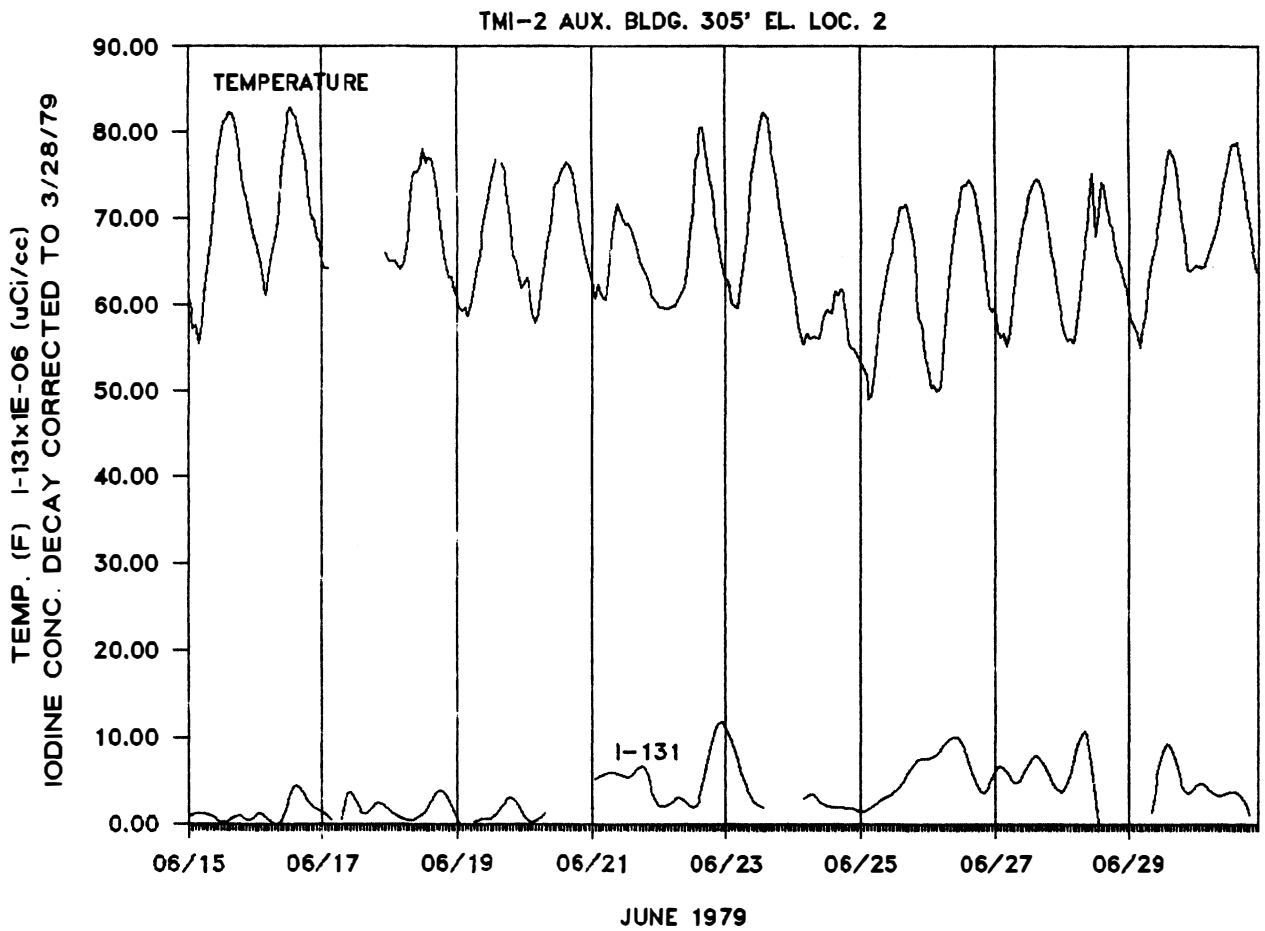

FIGURE C.24 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 2 - 305' el. (6/15-6/30)

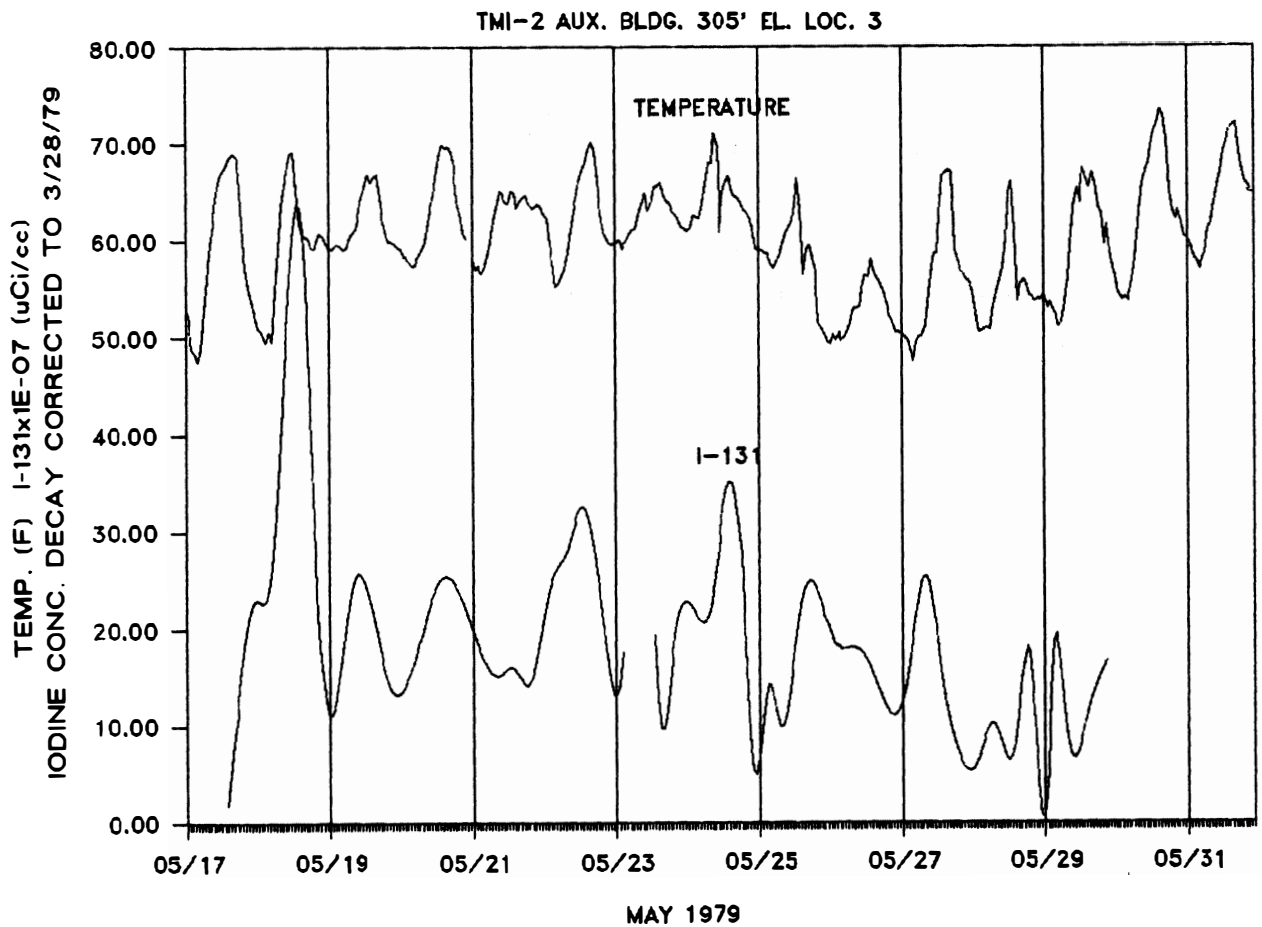

FIGURE C.25 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 3 - 305' el. (5/17-5/31)

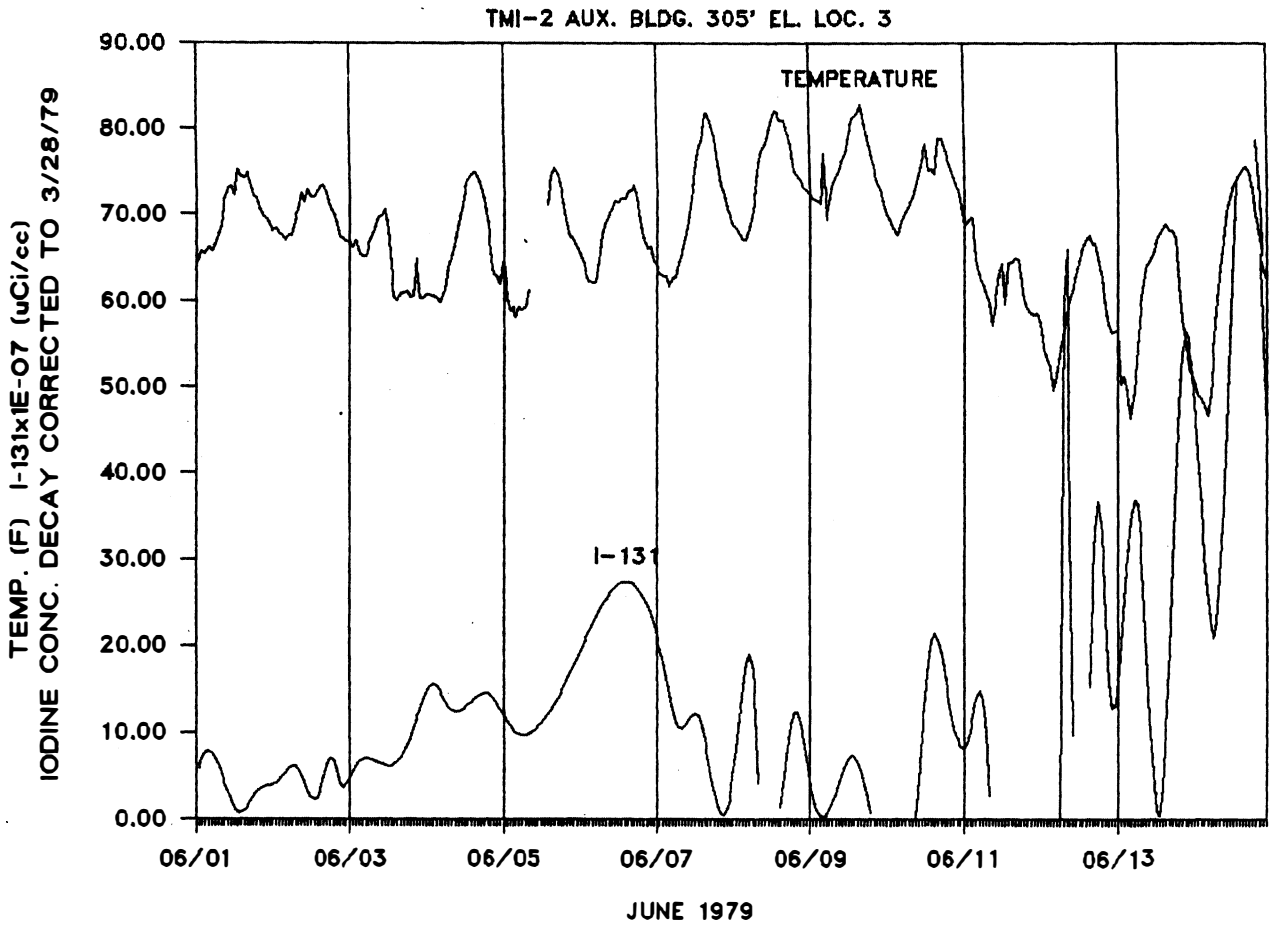

FIGURE C.26 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 3 - 305' el. (6/01-6/14)

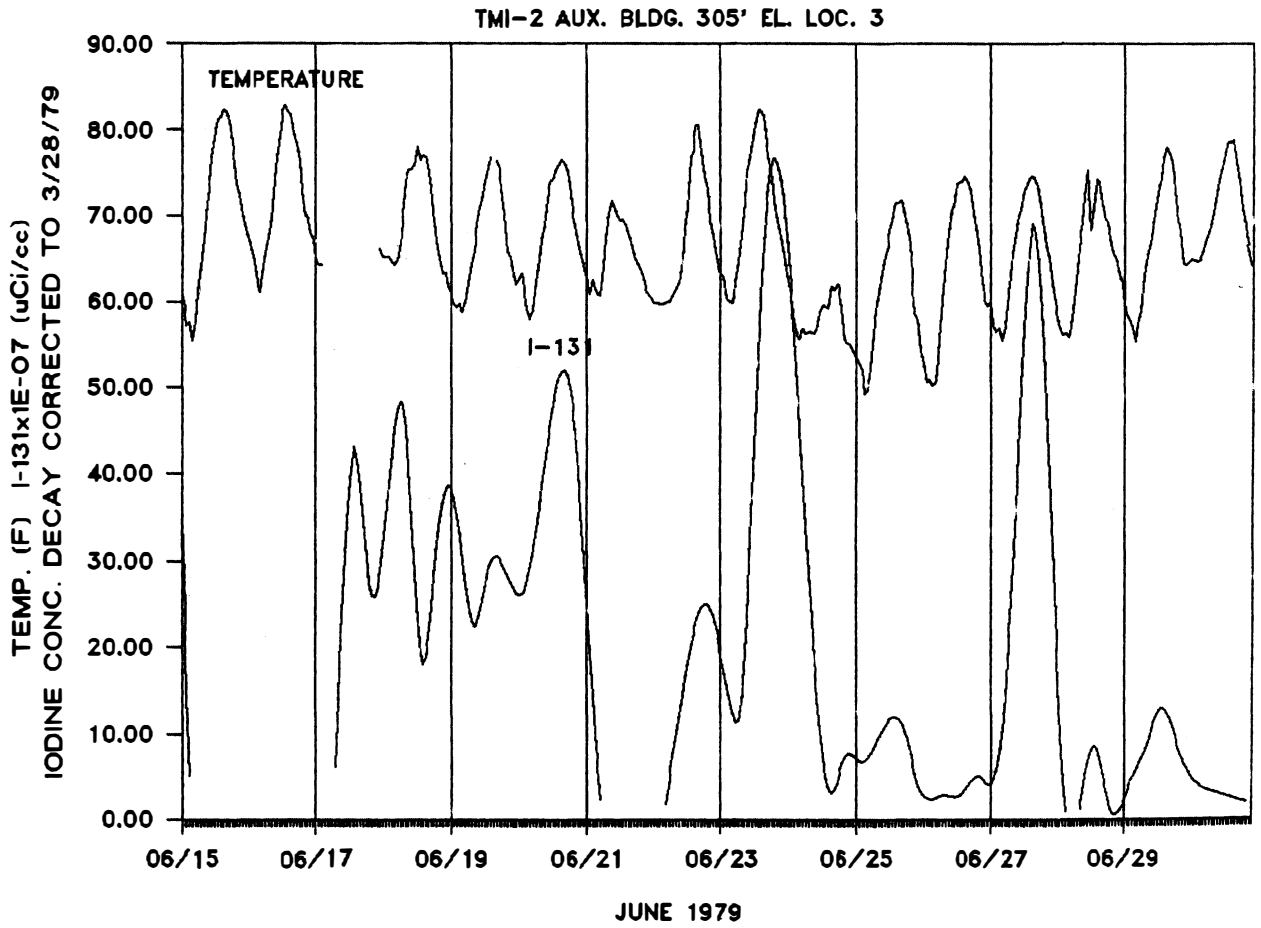

FIGURE C.27 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 3 - 305' el. (6/15-6/30)

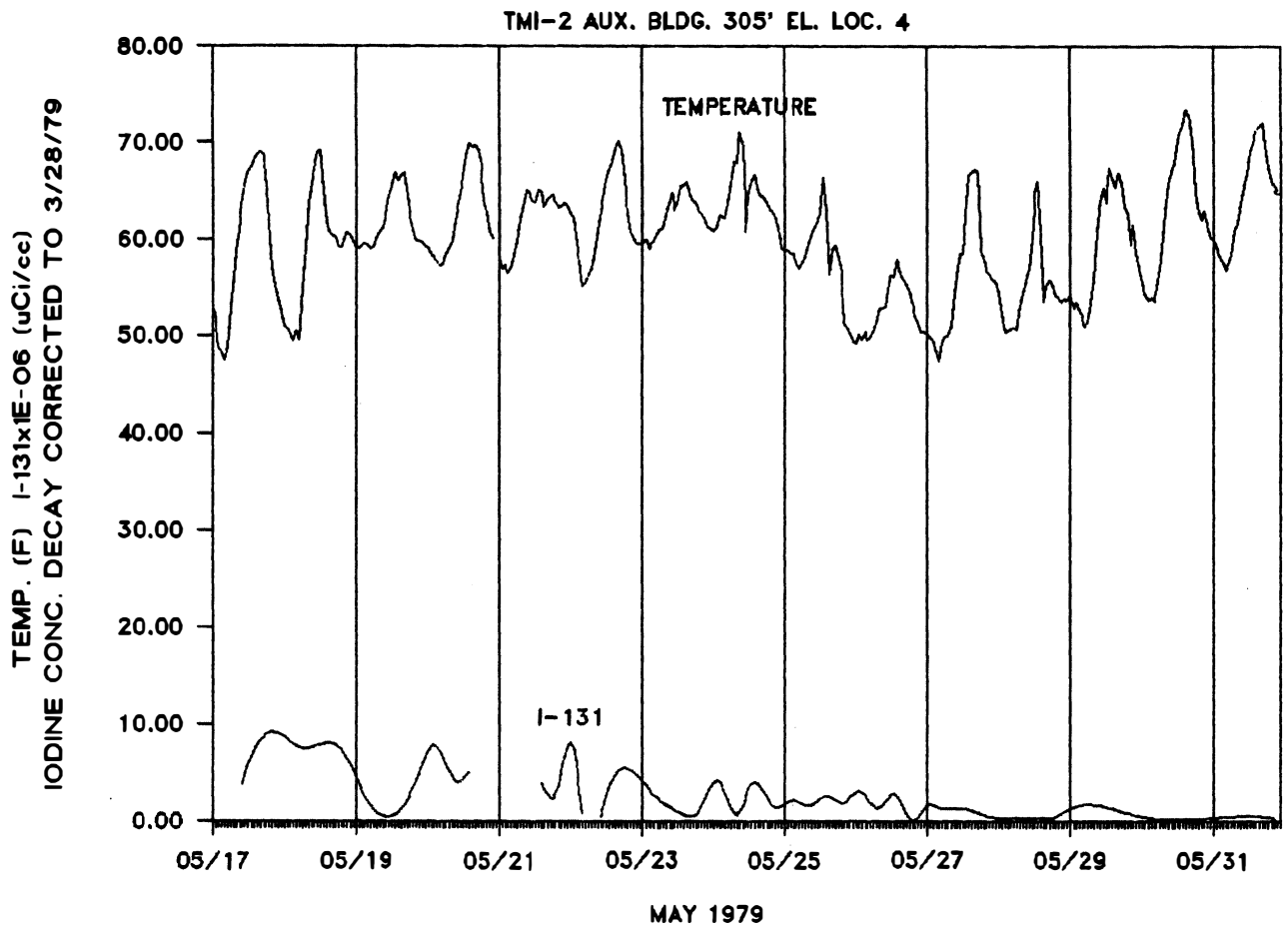

FIGURE C.28 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 4 - 305' el. (5/17-5/31)

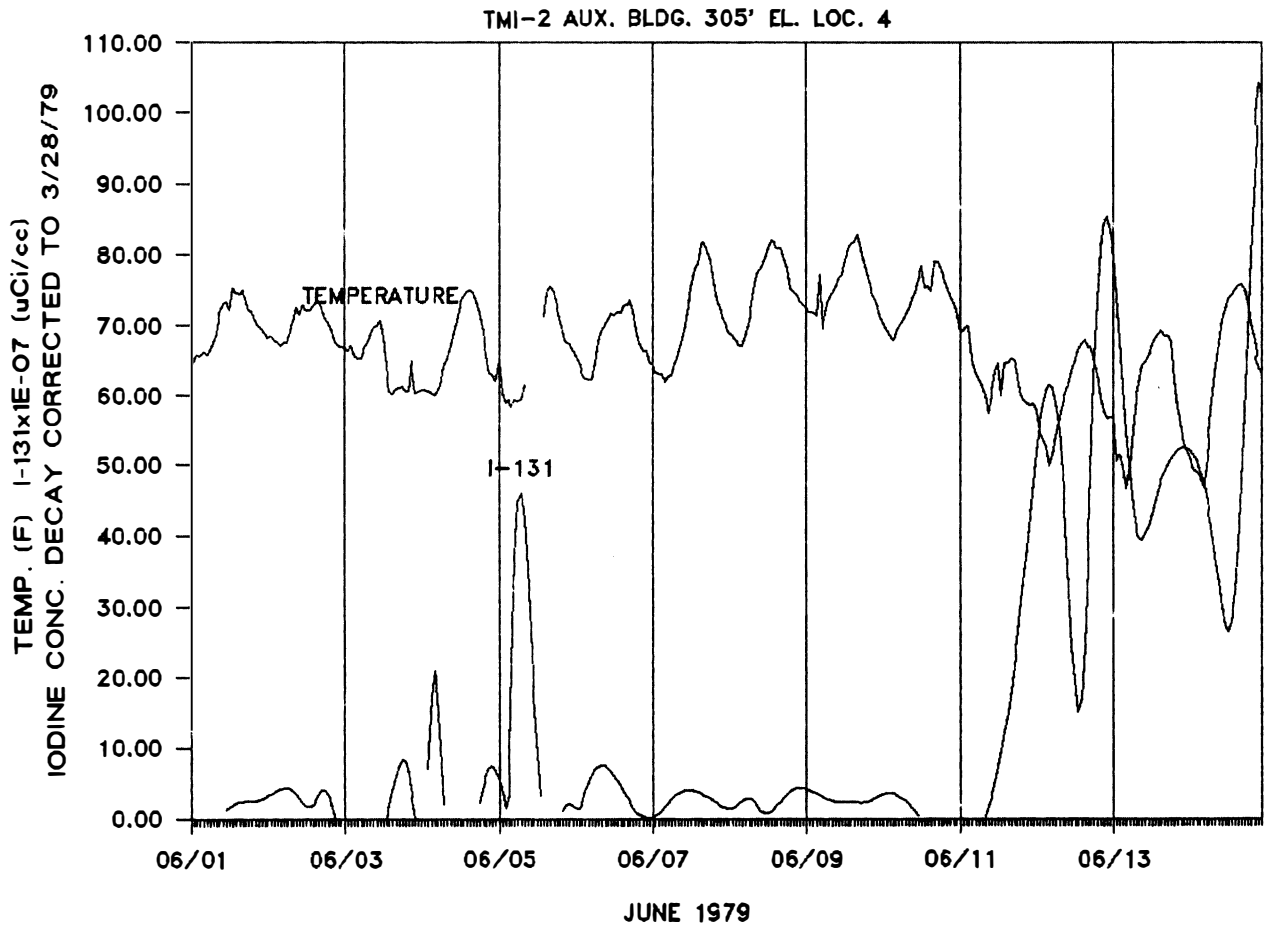

FIGURE C.29 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 4 - 305' el. (6/01-6/14)

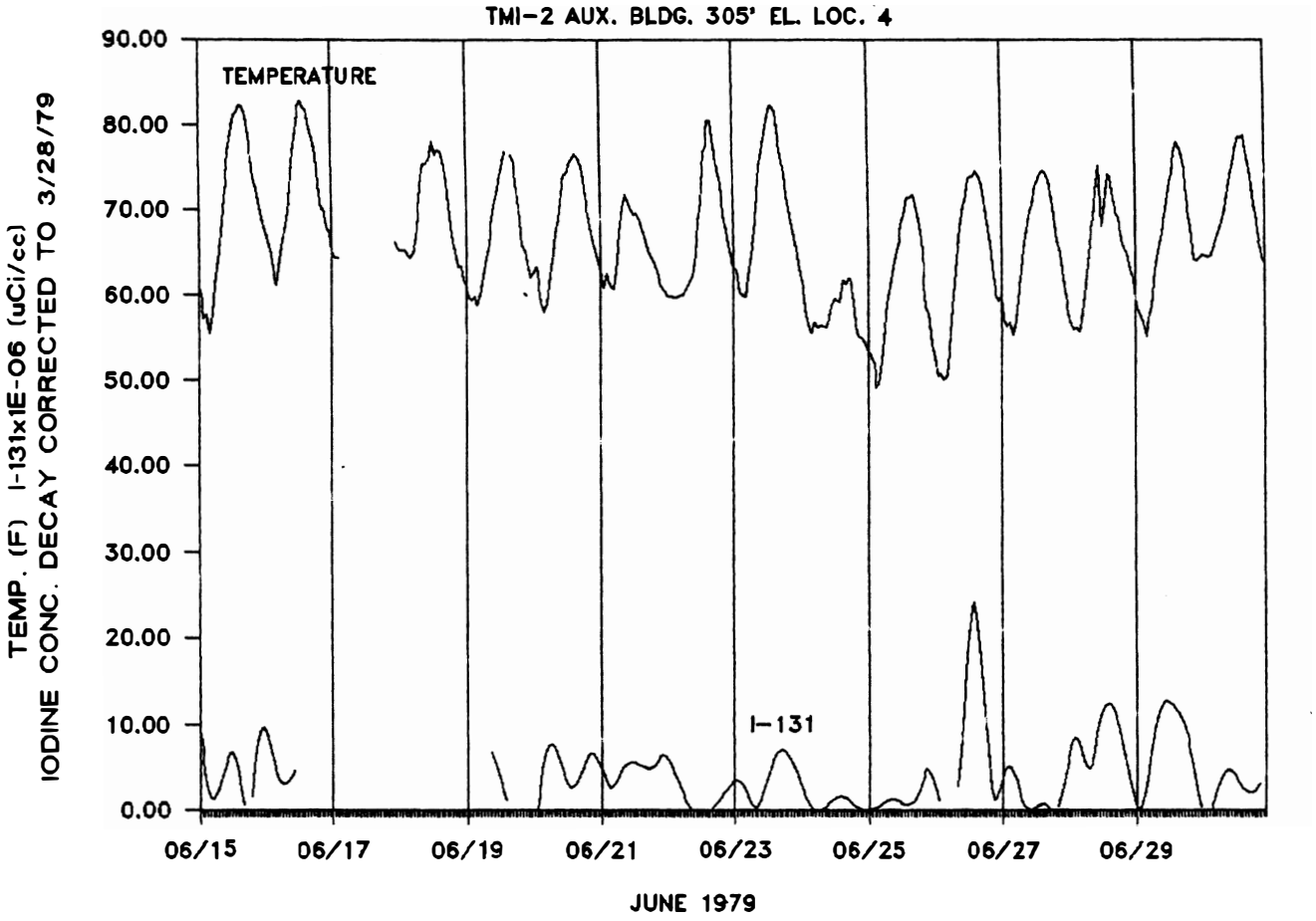

FIGURE C.30 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 4 - 305' el. (6/15-6/30)

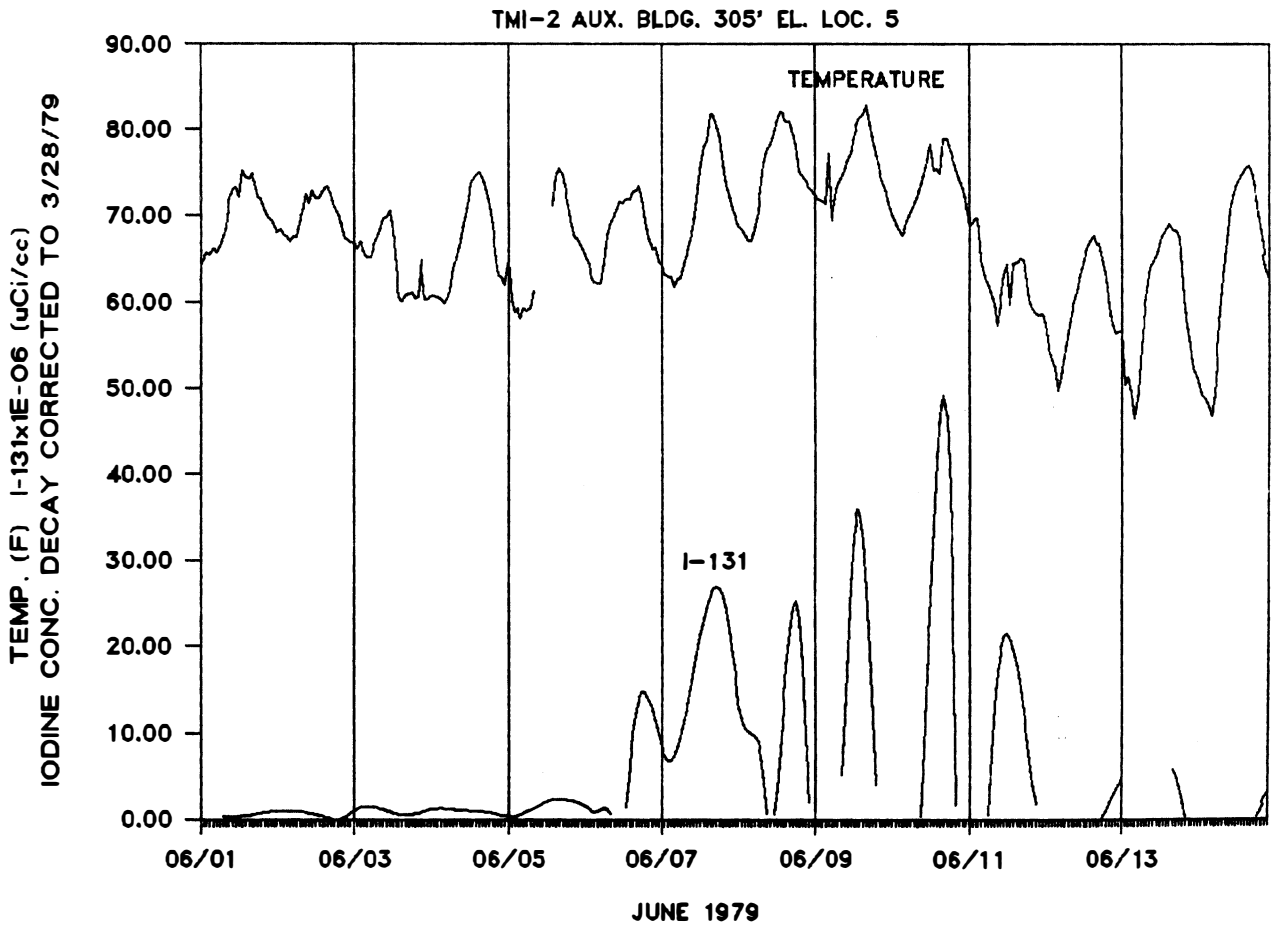

FIGURE C.31 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 5 - 305' el. (6/01-6/14)

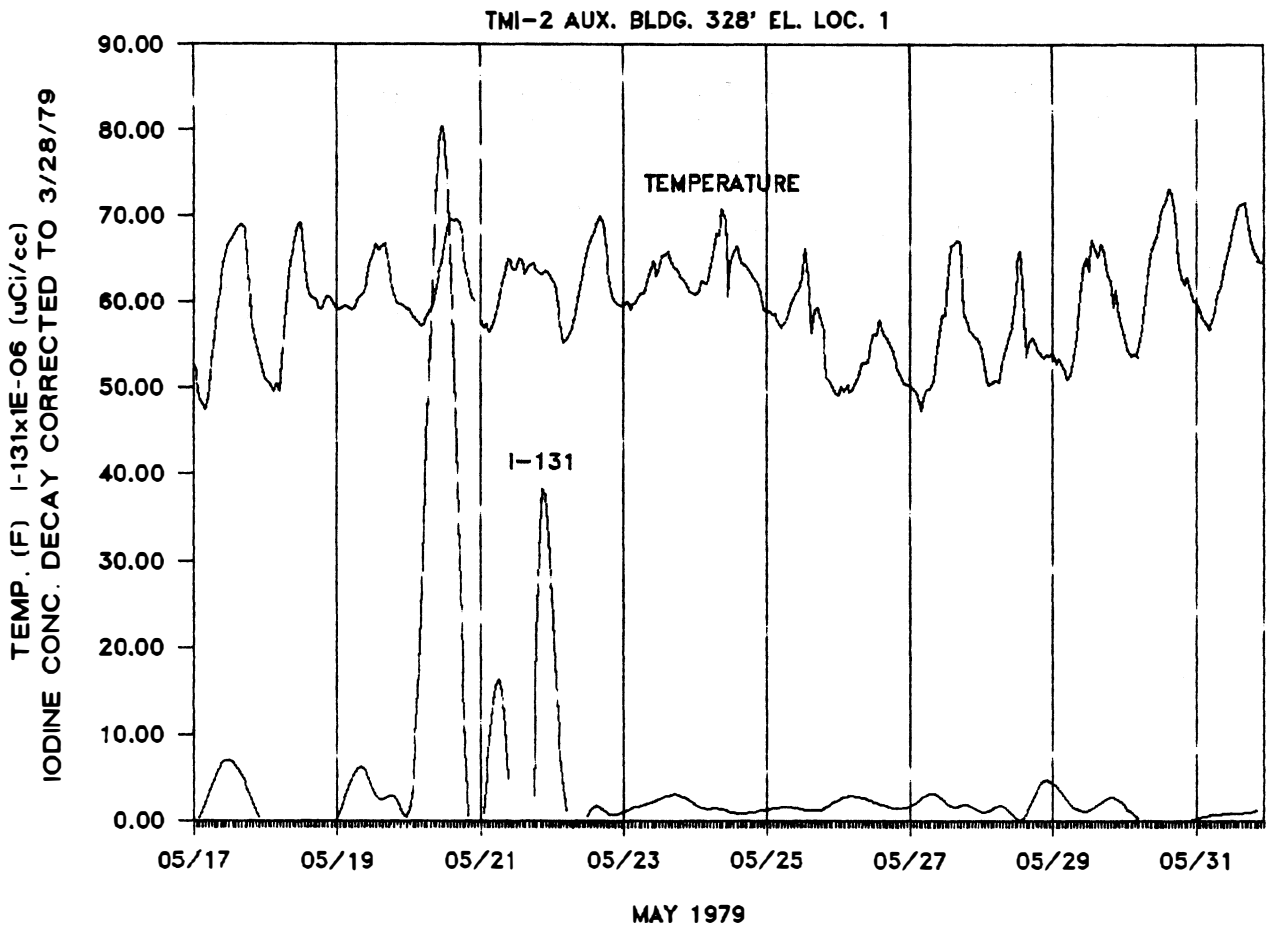

FIGURE C.32 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 1 - 328' el. (5/17-5/31)

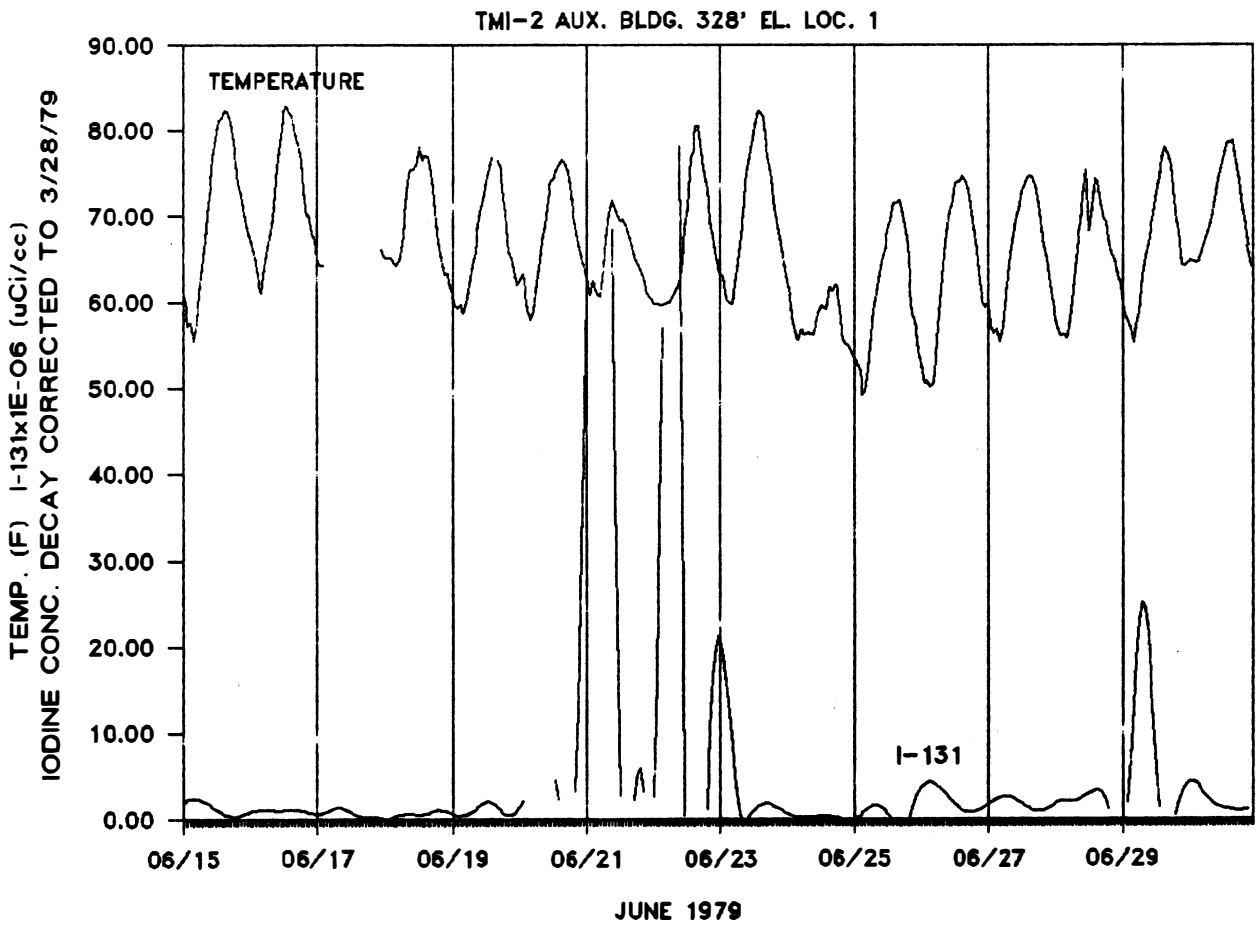

FIGURE C.33 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 1 - 328' el. (6/15-6/30)

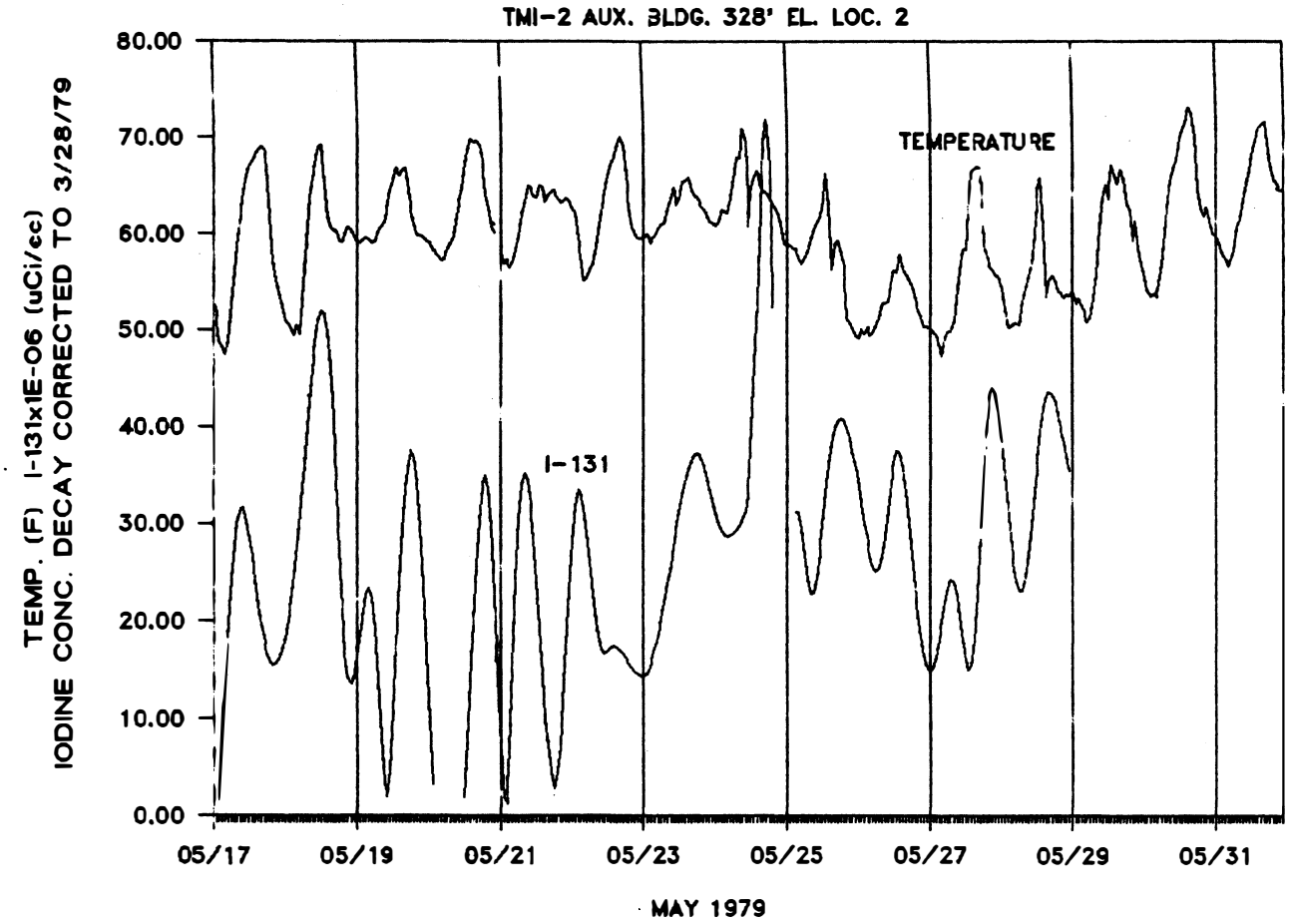

FIGURE C.34 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 2 - 328' el. (5/17-5/31)

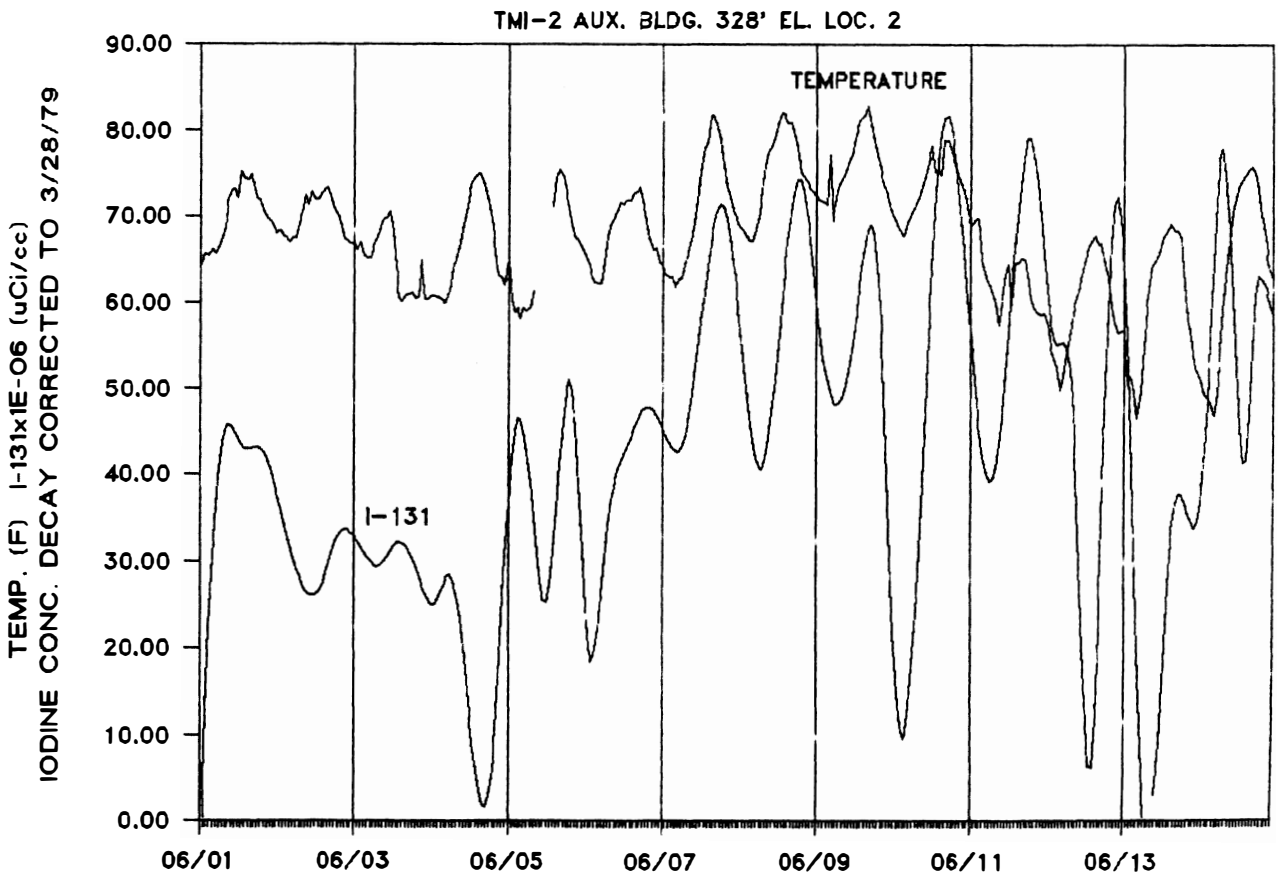

FIGURE C.35 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 2 - 328' el. (6/01-6/14)

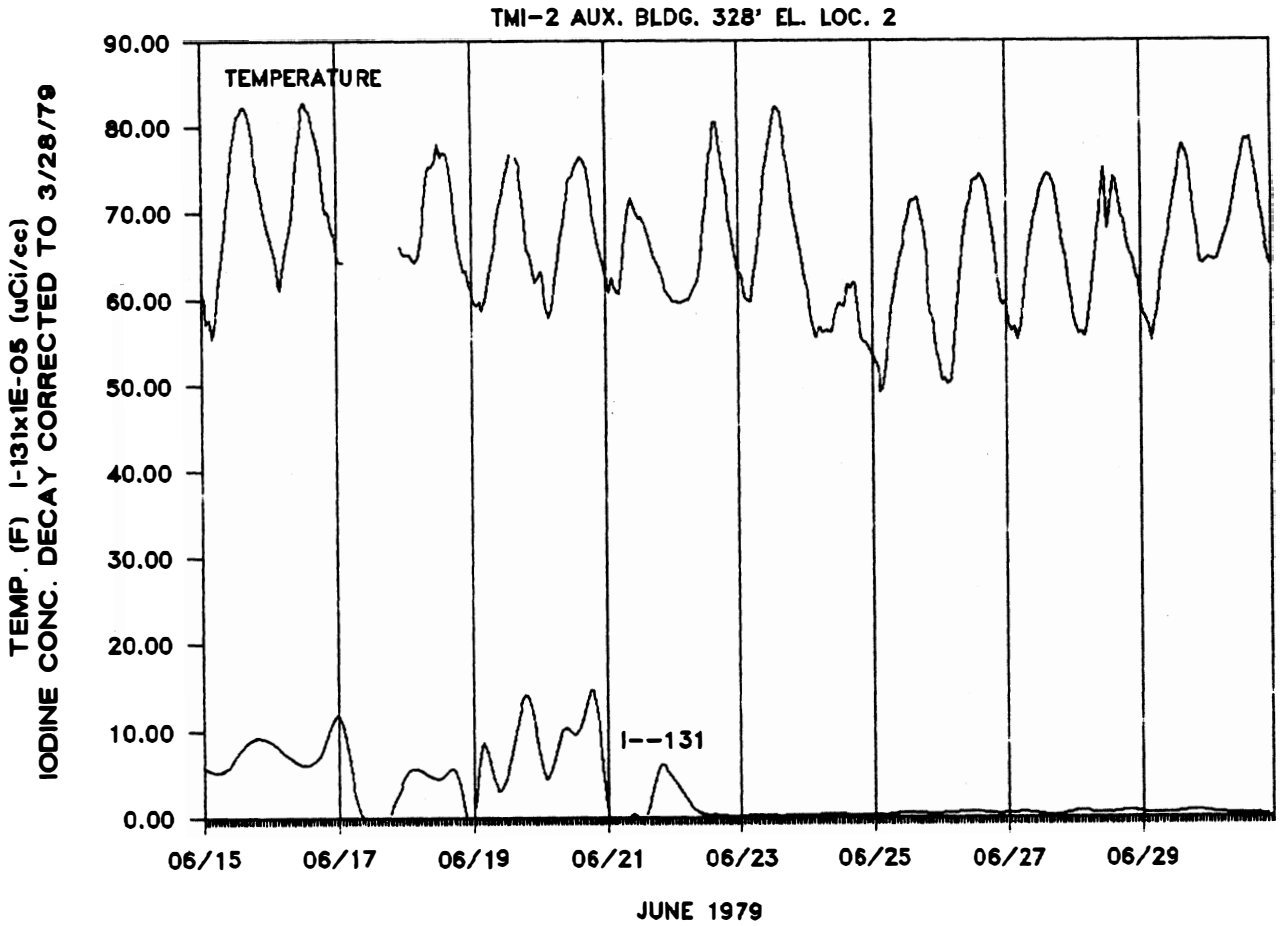

FIGURE C.36 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 2 - 328' el. (6/15-6/30)

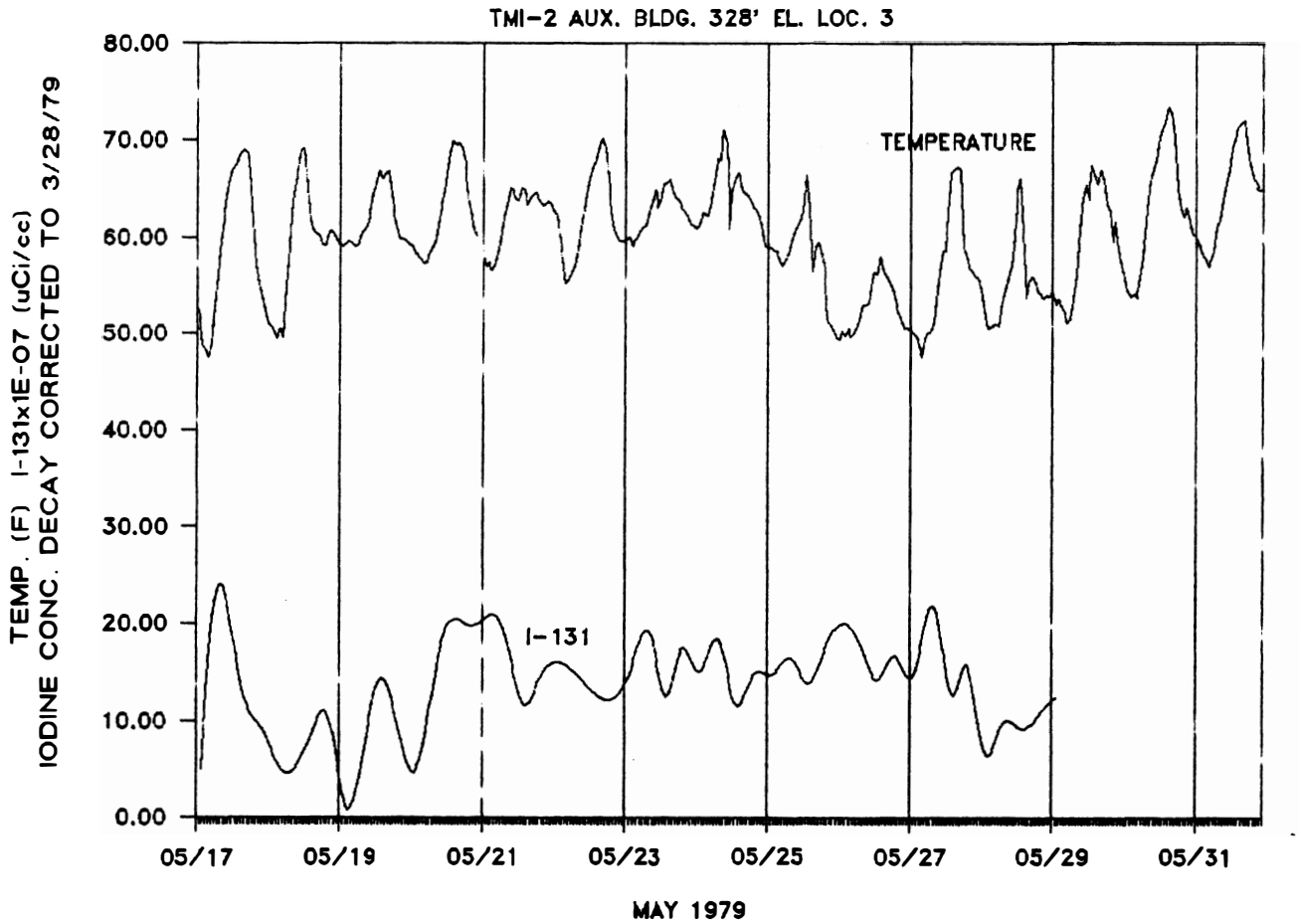

FIGURE C.37 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 3 - 328' el. (5/17-5/31)

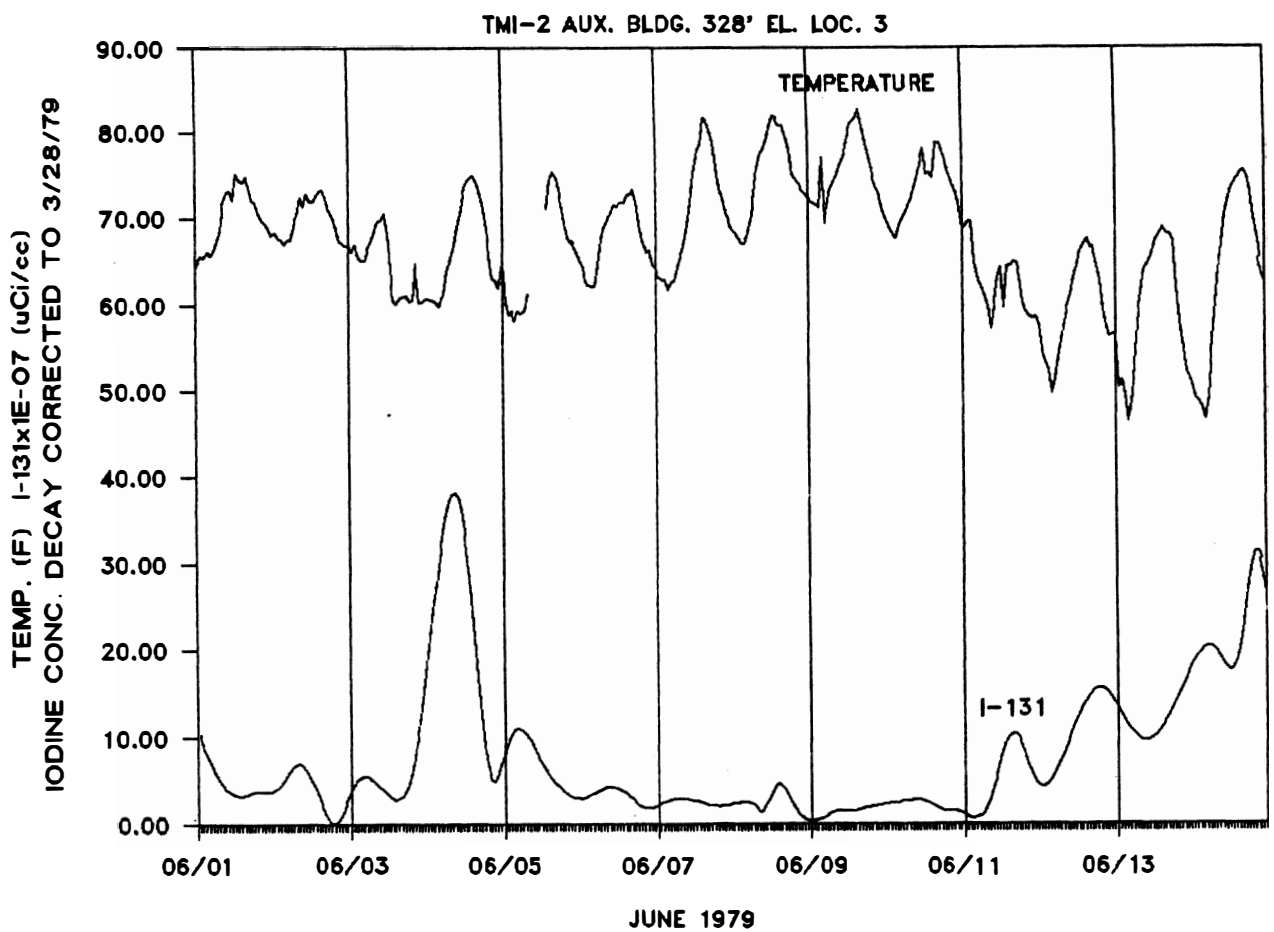

FIGURE C.38 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 3 - 328' el. (6/01-6/14)

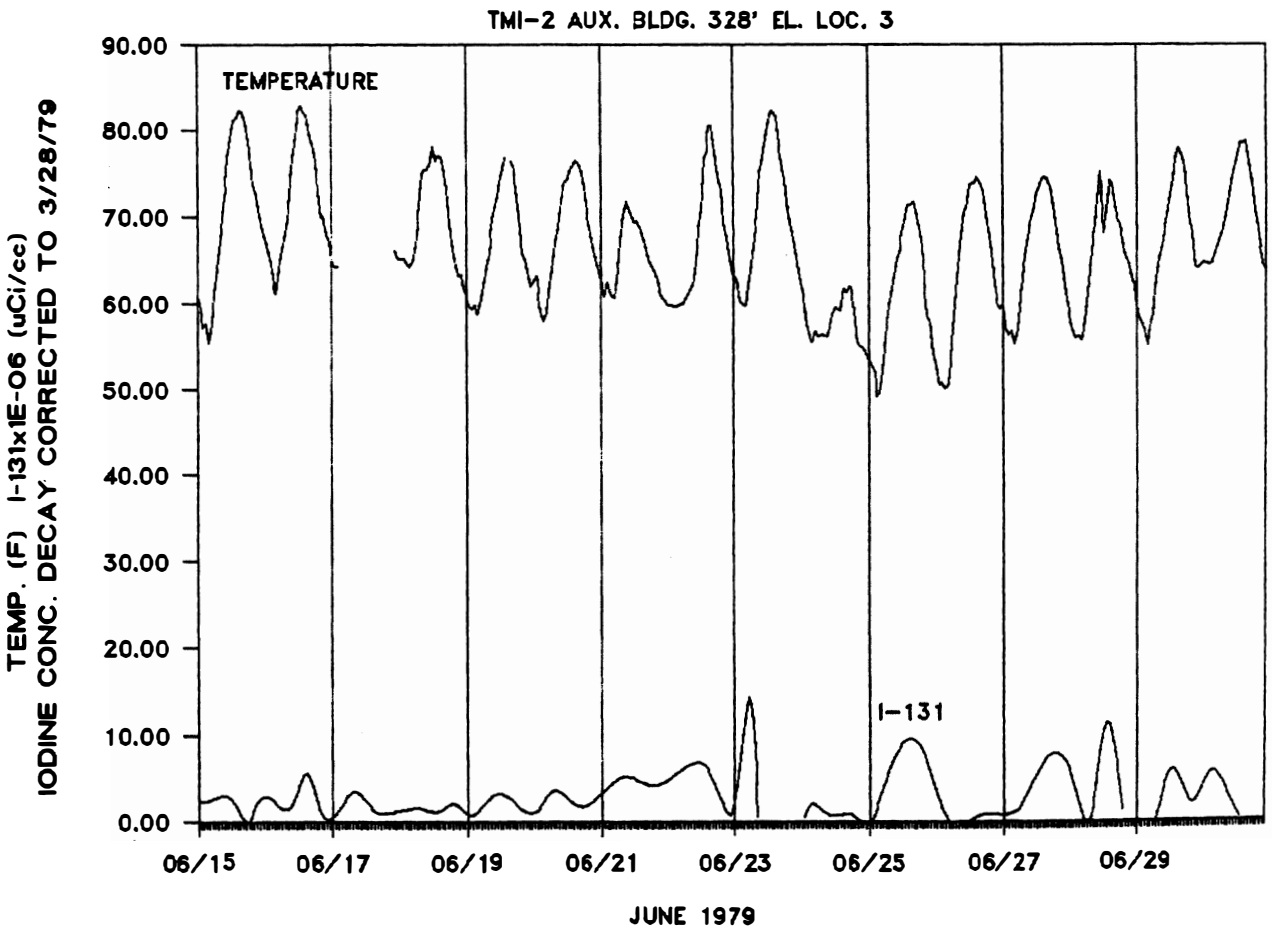

FIGURE C.39 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 3 - 328' el. (6/15-6/30)

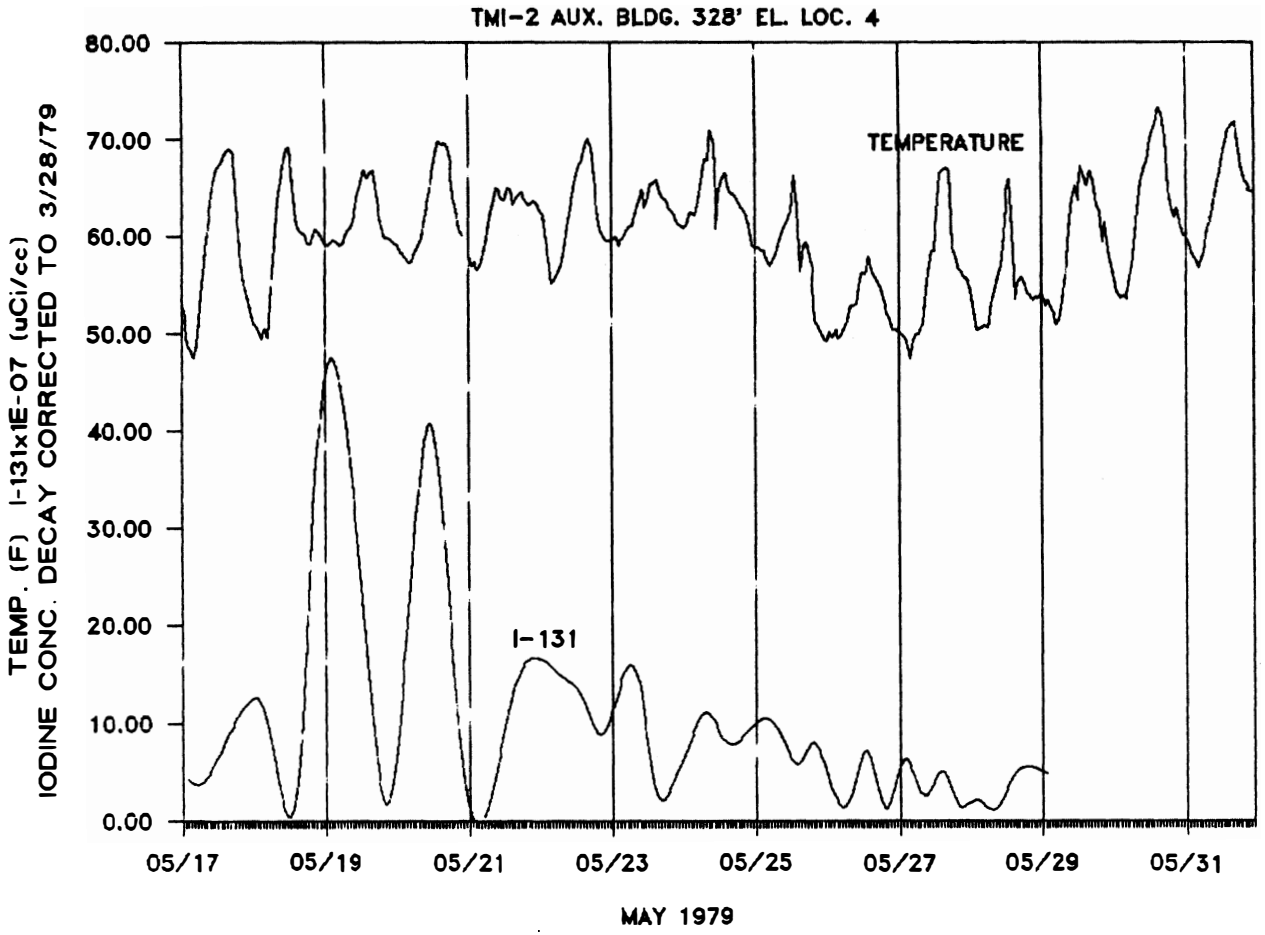

FIGURE C.40 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 4 - 328' el. (5/17-5/31)

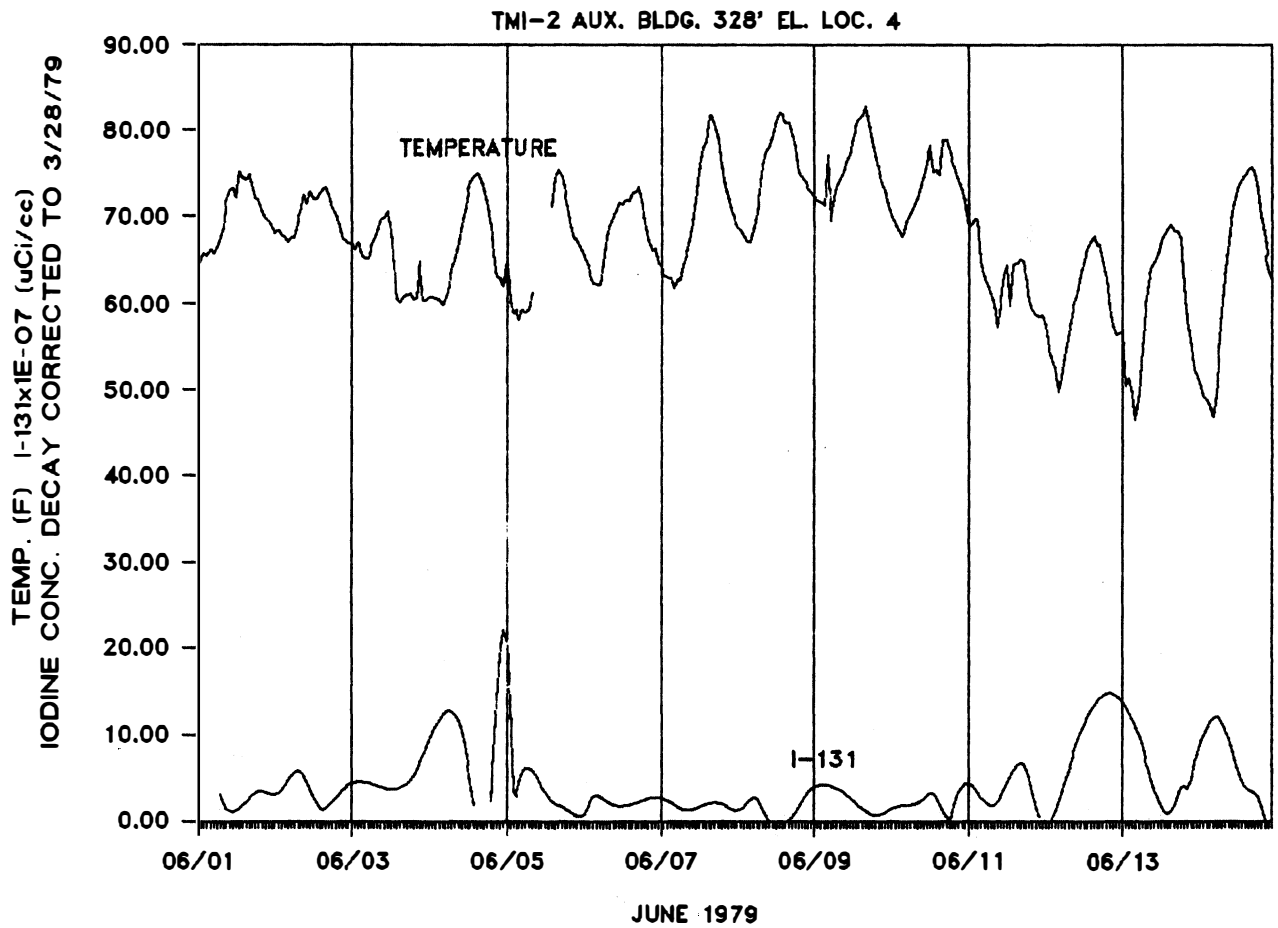

FIGURE C.41 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 4 - 328' el. (6/01-6/14)

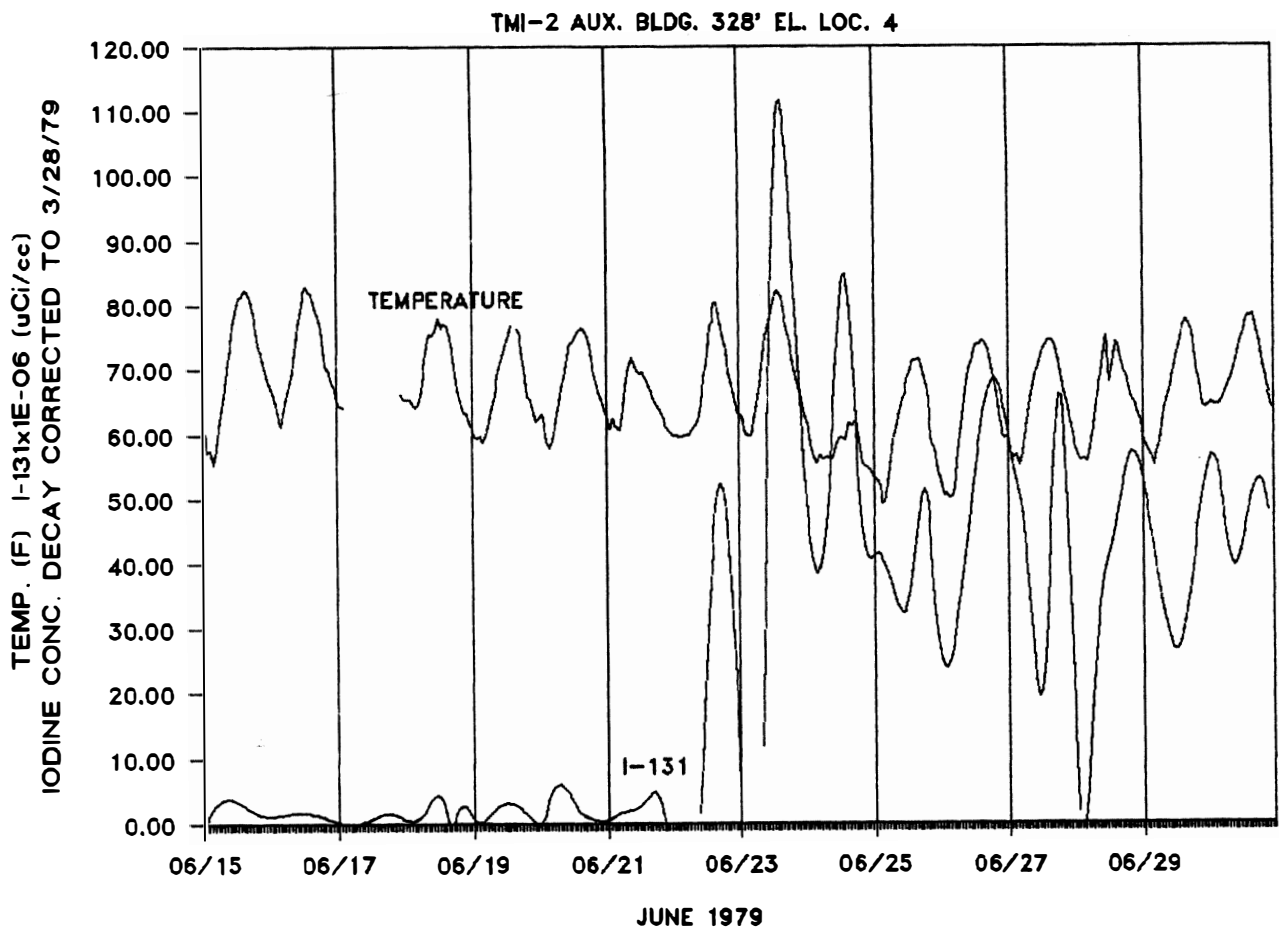

FIGURE C.42 COMPARISON OF AMBIENT TEMPERATURE TO ^{131}I CONCENTRATION TMI-2 AUX. BLDG. LOCATION 4 - 328' el. (6/15-6/30)

NRC FORM 335 (2-84) NRCM 1102, 3201, 3202

U.S. NUCLEAR REGULATORY COMMISSION

BIBLIOGRAPHIC DATA SHEET

SEE INSTRUCTIONS ON THE REVERSE.

1. REPORT NUMBER (Assigned by TIDC, add Vol. No., if any)

NUREG/CR-4953
DA-TR/8705

2. TITLE AND SUBTITLE

Correlation of Radioiodine Resuspension With Temperature at TMI-2

3. LEAVE BLANK

4. DATE REPORT COMPLETED

MONTH	YEAR
May	1987

5. AUTHOR(S)

J. A. Daniel, E. A. Daniel, E. L. Seth, Jr.

6. DATE REPORT ISSUED

MONTH	YEAR
July	1987

7. PERFORMING ORGANIZATION NAME AND MAILING ADDRESS (Include Zip Code)

Daniel & Associates, Inc.
501 Union Trust Building
850 Sligo Avenue
Silver Spring, MD 20910

8. PROJECT/TASK/WORK UNIT NUMBER

9. FIN OR GRANT NUMBER

D1647

10. SPONSORING ORGANIZATION NAME AND MAILING ADDRESS (Include Zip Code)

Division of Reactor Accident Analysis
Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
Washington, DC 20555

11a. TYPE OF REPORT

Technical

b. PERIOD COVERED (Inclusive dates)

12. SUPPLEMENTARY NOTES

13. ABSTRACT (200 words or less)

This report addresses the observed long term behavior of radioiodine in specific locations in the TMI-2 Auxiliary and Fuel Handling Buildings, and provides data on the behavior of ^{131}I at relatively low temperatures, (50° - 85°F) and non-equilibrium conditions, since the building ventilation systems were in operation. This report also discusses the observed effect of changes in the daily concentration of radioiodine due to diurnal temperature cycles, and establishes a numerical relationship between radioiodine concentration and ambient temperature.

14. DOCUMENT ANALYSIS – a. KEYWORDS/DESCRIPTORS

Radioiodine, Resuspension, TMI-2

b. IDENTIFIERS/OPEN-ENDED TERMS

15. AVAILABILITY STATEMENT

Unlimited

16. SECURITY CLASSIFICATION

(This page)

Unclassified

(This report)

Unclassified

17. NUMBER OF PAGES

18. PRICE

*U.S. GOVERNMENT PRINTING OFFICE:1987-181-682:60156

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555