Telephone:
(916) 445-0255

STATE OF CALIFORNIA
Office of the Auditor General
660 J STREET, SUITE 300
SACRAMENTO, CALIFORNIA 95814

Thomas W. Hayes
Auditor General

June 2, 1986

P-582.3

Honorable Art Agnos, Chairman
Members, Joint Legislative
Audit Committee
State Capitol, Room 3151
Sacramento, California 95814

Dear Mr. Chairman and Members:

We reviewed the Department of Health Services' (department) handling of Mr. and Mrs. Steve Harman's request that the department test their soil for toxic chemicals. The Harmans made the request following the death of their four-year-old son because they wanted to know if his death was caused by playing in soil contaminated with toxic waste. While the department is not required by law or regulation to take any specific actions on such a request, the department has the authority to determine if a property has dangerous levels of hazardous waste or poses a threat to health. The department acted upon the request but did not act promptly or decisively and, therefore, caused unnecessary confusion, frustration, and anxiety for the Harman family.

This review focuses on the department's response to the Harmans' request for assistance. It does not address the medical issue of whether or not the Harman child's death was caused by exposure to toxic waste.

BACKGROUND

On November 1, 1984, the four-year-old son of Mr. and Mrs. Steve Harman died of complications due to aplastic anemia, which the child had contracted suddenly and which progressed quickly. Because a known cause of aplastic anemia is exposure to toxic substances, the child's doctors asked the Harmans if their child might have been exposed to toxic chemicals in the Harmans' home. Since the Harman child often played and dug in the backyard soil of their home, which was near the Stringfellow toxic waste disposal site (Stringfellow) in Riverside County, the Harmans became worried that the property may have been contaminated by illegal dumping. They asked the department to test their soil for toxic chemicals to determine if their property was safe.

The Harmans' home is located one mile from Stringfellow, which was used for toxic waste disposal between 1956 and 1972. A mountain ridge separates the home from Stringfellow; therefore, the Harmans did not think that contaminated wastes could have seeped into the Harmans' property from Stringfellow. However, the Toxic Substance Control Division (toxics division) and the Harmans theorized that the land on which the Harman home was built in 1977 may have been the site of the illegal dumping of waste bound for Stringfellow. The Harman land is located just one freeway ramp from the Stringfellow off-ramp and was accessible by road for several years before any homes were built.

In conducting our review, we interviewed the Harmans and officials from the department, the Riverside County Health Department, Osborne Geotechnical Engineers, Inc., JRB Associates, and representatives of the Federal Bureau of Investigation. We also reviewed applicable government statutes and other documents, including laboratory and autopsy reports, department memos, and department correspondence.

CHRONOLOGY OF EVENTS

The following is a chronological summary of the actions taken by the department and by others involved in responding to the Harmans' request from November 1984 through April 1986.

September and October 1984 - The Harman child was admitted on September 21 to the Kaiser Foundation Hospital in Fontana, California, and was diagnosed as having hepatitis and aplastic anemia. The Harmans said that a Kaiser pathologist asked for a list of all chemicals in and about their house; after seeing the list, the pathologist excluded the chemicals named as a cause of the child's illness. The Harmans said that the boy's doctors then suggested that the Harmans' soil or water could be contaminated by chemicals.

November 1984 - After the Harmans' son died on November 1, the Harmans believed they should not let their daughter play in their backyard if the property was contaminated. They contacted the Riverside County Health Department and asked if their soil could be tested for toxics. An official from the Riverside County Health Department phoned an information officer at the toxics division Office of Public Information and Participation. The information officer then contacted the Harmans. The toxics division's project manager for Stringfellow and a scientist from JRB Associates (JRB), a Stringfellow contractor, went to the Harman property and took soil samples.

The department's project manager for Stringfellow and the JRB scientist stated that they told Mrs. Harman that they would wait for the autopsy report before testing the soil. The Harmans, however, said that no one told them that the soil would not be tested until the toxics division received the autopsy report. The Harmans told us that they expected that the soil would be tested immediately and that they would be told the results. However, the toxics division did not decide who would be responsible for obtaining the autopsy report. The JRB scientist said that he spoke to the child's physician and realized that it would be difficult to determine from an autopsy what chemicals, if any, were involved in the boy's death.

December 1984 - We found no evidence that anyone from the toxics division contacted the Harmans this month.

January 1985 - The Harmans spoke to the JRB scientist to find out why they had not received the results of the soil tests. The Harmans said that the JRB scientist told them that the soil had been tested for "gross amounts of organics" and that it was clean and safe for their daughter to play in. The Harmans asked for a copy of the test results and mentioned that the autopsy report was available. The JRB scientist said that he relayed this information to the toxics division.

We found no evidence that anyone from the toxics division contacted the Harmans this month.

February 1985 - When the Harmans did not receive a copy of the soil test results from JRB, they were suspicious that the soil was contaminated and, therefore, hired another laboratory, Osborne Geotechnical Engineering, Inc. (Osborne), to test their soil.

We found no evidence that anyone from the toxics division contacted the Harmans this month.

March 1985 - An information officer from the toxics division, who had spoken to the Harmans in November 1984, called the JRB scientist to find out if he had received a copy of the autopsy report. The scientist told the information officer that he had not received a copy of the report but that he learned from the hospital that the report was inconclusive. The chief of the toxics division's Program Management Section asked the department's Epidemiology Studies Section (epidemiology section) for assistance with the medical aspects of the case.

We found no evidence that anyone from the toxics division contacted the Harmans this month.

April 1985 - Osborne took soil samples and contracted with another laboratory to test those samples. The laboratory found selenium, cyanide, DDT, DDE, and naphthalene in the soil. Osborne sent the soil samples to a second laboratory, which confirmed the presence of DDT and DDE. Osborne contacted the department to find out what levels of the chemicals found in soil samples would be toxic, and Osborne was told that toxicity depended on the combination, types, and concentrations of the chemical substances. The department stated that it could not give Osborne a definite answer about whether the soil was toxic or not. In its written summary of the test results, Osborne did not conclude either that the soil was toxic or that it was not toxic. Informally, Osborne's president implied to the Harmans that the soil was unsafe.

We found no evidence that anyone from the toxics division contacted the Harmans this month.

May 1985 - The Harmans received the results of the soil tests from Osborne and contacted the information officer at the toxics division to find out why the JRB scientist had told them that the soil was clean when it actually contained toxic chemicals. The information officer told them that the soil samples collected by JRB had never been tested. The information officer called Osborne and requested a copy of its test results. When the toxics division received a copy of the test results, the information officer gave it to the department's Hazardous Materials Laboratory for review. The Hazardous Materials Laboratory concluded that Osborne's sampling and testing methodologies were flawed. The laboratory also concluded that the chemicals found in the soil by Osborne were at levels that could be found in "uncontaminated soil."

The toxics division received a copy of the autopsy report. The physician from the department's epidemiology section phoned the Harmans and requested that they sign a release form so that the epidemiology section could request their son's medical records from Kaiser Foundation Hospital. The Harmans stated that a physician in the epidemiology section told them that, if the soil samples taken by JRB were still good, they would be tested; if not, new samples would be taken. However, the toxics division did not order JRB to either test the samples or take new samples.

There is no evidence that the toxics division informed the Harmans or Osborne that the department's Hazardous Materials Laboratory disputed Osborne's methodology in testing the soil samples.

June 1985 - The department had still not decided whether the soil samples should be tested or who should pay for the tests. Since the Harman home was outside the Stringfellow contract area, the toxics division did not want to use Stringfellow contract money. In addition, the initial samples had been stored too long and could not be tested for some chemicals. An internal memo to the chief of the toxics division's program management section recommended that new samples be taken and tested using funds provided by the State's zone contracts. The toxics division estimated that the tests would cost between $20,000 and $30,000.

The chief of the department's Hazardous Materials Laboratory sent a letter to Osborne criticizing its testing methodology.

Because of their frustration in dealing with the department's headquarters staff, the Harmans contacted department staff in San Diego. An investigator from the toxics division's enforcement unit in San Diego met with the Harmans and told them that he would investigate the possibility that toxic wastes had been illegally deposited on their property. He also said that he would try to determine why they had received conflicting information about the testing of soil samples from their property. The Harmans believed that they had finally found someone who would help them.

The Harmans said that the physician from the department's epidemiology section left a message for them with a friend saying that the soil had been tested and that the levels of toxic chemicals were not hazardous. The physician told us that she was referring in this message to the Osborne results. The department had not yet tested the soil samples.

July 1985 - The physician from the epidemiology section called Mrs. Harman. Mrs. Harman recalls that the physician suggested that Mrs. Harman had given her son hepatitis and that hepatitis is what killed him. In addition, Mrs. Harman said that the physician told her that the department was not going to test the soil, and if it had been up to the physician, the samples would not have been taken in the first place. The physician denies that she ever said these things. She did tell Mrs. Harman that the child's hepatitis may have caused the aplastic anemia.

Two weeks after he had begun an investigation, the San Diego investigator was told by the chief of the toxic division's Enforcement Office Investigation Unit to stop his investigation. The investigator states that he was also told not to speak to the Harmans again. The investigator's supervisor wrote a letter to the chief of the

Enforcement Office and recommended that the investigation be completed, saying that if the Harmans took the case to the press or the federal government, the department might "find this situation embarrassing" later on. Despite the supervisor's concerns, the department stopped the investigation; however, the department did not inform the Harmans that the investigation had been halted.

The toxics division determined that the Harmans' request was not a toxic waste issue and that it was more appropriate for the epidemiology section to respond to the request as a public health issue. The department decided that the epidemiology section would work with the Harmans and that the toxics division would use funds from a state zone contract to take new soil samples and test them.

The department did not notify the Harmans that their case had been assigned to the epidemiology section or that new soil samples would be taken and tested.

August 1985 - When the Harmans realized that the department had halted the investigation without telling them why, they asked the Federal Bureau of Investigations (FBI) to look into the case. On August 16, the information officer from the toxics division sent a letter to the Harmans telling them that the epidemiology section was to handle their case and that additional soil samples would be taken and tested.

The Harmans requested a copy of the investigative case file from the supervisor of the San Diego investigator.

September 1985 - The epidemiology section developed a soil testing plan and arranged for sampling. The department contracted for laboratory testing of the soil samples. The physician in the epidemiology section sent a copy of the soil-testing plan to the Harmans. Samples were taken at the end of the month.

The department's chief deputy director informed the Harmans that they could not see the investigative case file because the information was confidential.

October 1985 - The Harmans claim that, early in the month, they contacted the department's chief deputy director, who told them that he had not looked at the investigative file but would review it and contact them.

The laboratory tests of the soil samples were completed and sent to the department's Hazardous Materials Laboratory for review. The Harmans

attempted to get the laboratory results from the contractor but were told that the results could be released only by the department. The physician from the epidemiology section explained to the Harmans that the report was being prepared. At the end of the month, the department learned that the FBI was investigating the Harman case.

November 1985 - The Hazardous Materials Laboratory reviewed the contractors' testing results and determined that they were valid. The Harmans called the Hazardous Materials Laboratory and were told that the laboratory had the results but had not prepared its report.

December 1985 - The epidemiology section prepared its report on the soil testing and sent a copy to the Harmans. The test results confirmed the types and amounts of chemicals reported by Osborne. The report concluded that "the child's yard was not the site of illicit dumping, that the child's yard contains no chemicals known to cause aplastic anemia at high levels, and that the yard is no different chemically from a typical safe yard in the Riverside area." The physician from the epidemiology section met with the Harmans to answer questions they had about the report.

January 1986 - The Harmans testified at a hearing of the Joint Legislative Audit Committee. They described their frustrations in dealing with the department and requested that the air in their house also be tested.

February 1986 - The Harmans were contacted by the epidemiology section about testing the air in their house, but the Harmans no longer wanted the testing done.

March 1986 - The Harmans sold their house.

ANALYSIS

The Department of Health Services did not adequately respond to the Harmans' request that their soil be tested. Although the department is not required by regulation to take specific actions on a request such as the Harmans', the department has the authority and responsibility to take whatever action is necessary to preserve the public health. The department's toxics division may investigate requests such as the Harmans' to determine if a property has dangerous levels of hazardous waste. In addition, one of the functions of the department's epidemiology section is to distinguish between environmental exposures that are a health hazard and those that are not.

The department erred in three ways when it took the initial soil sample. First, it did not determine whether testing soil samples would accomplish its purpose. The testing of the soil was intended to accomplish three things: to determine whether toxic wastes had been illegally deposited on the Harman property; to determine whether the death of the Harmans' son was caused by playing in soil contaminated by toxic waste; and to determine whether it was safe for the Harmans' daughter to play in the soil. Later, experts from the epidemiology section told toxics division staff that testing the soil might not indicate whether toxic soil caused the child's death. In addition, the toxics division's project manager for Stringfellow told us that the type of surface soil testing done on the Harmans' property would not necessarily detect illegal dumping.

Second, the department did not determine if it was appropriate for the toxics division to take the lead role in responding to the Harmans' request. The toxics division staff realized that they did not have the medical and toxicological expertise necessary to deal with the public health issues involved in the case; however, it took the toxics division seven months to finally transfer the case to the epidemiology section, which had the necessary expertise.

Finally, the department did not determine if Stringfellow was involved before it asked the Stringfellow contractor to take soil samples. When the toxics division decided that the Harman property was outside the Stringfellow contract area, it delayed testing until appropriate funding was found.

In addition, throughout the investigation, the department failed to communicate clearly and promptly with the Harmans. When the department took the initial soil sample from the Harman property, the Harmans expected the department to test the soil promptly for toxic substances and to let them know whether the soil was safe for their daughter to play in. However, the department did not designate one person to explain to the Harmans exactly what the toxics division would do and to keep the Harmans informed throughout the investigation. Nor did the department provide the Harmans with accurate medical and toxicological information, which might have lessened their confusion and frustration.

The department also failed to respond quickly to the Harmans' request. The first soil sample was taken in November 1984, and the Harmans expected a quick response to their questions. However, the department did not decide to test the soil until July 1985, when it had to take new samples because the original samples were too old to test. The department did not contact the Harmans for five months after the first

soil sample was taken and did not supply them with the test results until a year after the first sample was taken. This delay occurred because the toxics division realized it did not have the expertise to help the Harmans and that it had used the wrong contractor to take the soil samples. Therefore, the department transferred the case to the epidemiology section and found another contractor.

Furthermore, most of the contacts between the department and the Harmans were made by phone and the discussions were not confirmed in writing. In some instances, messages were relayed through a third party. Consequently, the Harmans sometimes received unclear and conflicting information.

Because the department failed to communicate promptly and directly in responding to the Harmans' request, the Harmans became increasingly frustrated, confused, and suspicious of the department. For example, when they were told by the JRB scientist that the soil had been tested and found to be safe but discovered later that the tests had not been run, the Harmans believed that the department was lying to them. Again, when the investigator from San Diego began working on their case, the Harmans believed that someone was responding to their concerns and that something would be done. However, when the toxics division halted the investigation and failed either to notify the Harmans or to explain why the investigation was halted, the Harmans believed that the department was trying to hide something and, therefore, they contacted the FBI.

CONCLUSION

In November 1984, the Harmans requested that the department test the soil on their property for toxic chemicals. The Harmans wanted to know if their child's death was caused by playing in contaminated soil. The department took the initial soil samples from the Harman property without considering what information testing the soil would provide or how the department would obtain that information. It took the department over a year to decide to test the soil and report the results to the Harmans. Furthermore, while the department was deciding what action to take, it communicated infrequently with the Harmans and gave them unclear, conflicting, and incomplete information. As time passed and the Harmans did not receive the information that they expected, they became confused, frustrated, and suspicious.

RECOMMENDATIONS

The department should respond more promptly and sensitively to requests for toxics-related investigations. The department needs to make an initial investigation quickly, decide what actions it will and will not take, and communicate those decisions to the requester. Furthermore, the department should assign responsibility for each investigation to one person who will coordinate the investigation and keep the requester informed of the department's progress and findings.

We conducted this review under the authority vested in the Auditor General by Section 10500 et seq. of the California Government Code and according to generally accepted governmental auditing standards.

Respectfully submitted,

THOMAS W. HAYES
Auditor General

Attachment: Department of Health Services' response to the Auditor General's report

DEPARTMENT OF HEALTH SERVICES
714/744 P STREET
SACRAMENTO, CA 95814
(916) 324-1826

Thomas W. Hayes
Office of the Auditor General
660 J Street, Suite 300
Sacramento, CA 9584

Dear Mr. Hayes:

The Department has reviewed the draft report prepared by the Office of the Auditor General regarding the Department of Health Services' (DOHS) handling of the request by the Harman family of Riverside to test their soil for toxic substances following the death of their son.

First, I wish to emphasize that we have completed a report (attached)* which concludes that the Harman's yard was not the site of illicit dumping, that the yard contains no chemicals known to cause aplastic anemia at high levels, and that the yard is no different chemically from a typical safe yard in the Riverside area.

While it appears that the report accurately reflects the Harman's concerns about what happened to them and tends to support the conclusions of the auditors that the Department could have responded more promptly and sensitively to their requests, and should have assigned appropriate staff to follow through with the Harman's situation from the beginning, I do not believe that it completely reflects the involvement of other agencies and institutions that should have assisted the Harmans in determining the cause of their son's death.

For example, not mentioned in the report are other parties who should have been involved early on. Specifically, the county health department incorrectly assumed that the Harman's problem was related to Stringfellow and referred it to the Department, but actually probably would have been able to perform most of the investigation at the local level. We understand this would have had the advantage of having more accessible and personal contact with the grieving family.

*Auditor General's Note: Due to its length, the Department of Health Services' report is not included with the response but is available for review at the Office of the Auditor General.

In addition, there are several points about the medical condition and the actions of the physicians that I feel should be mentioned. In most cases of aplastic anemia the cause is unknown. There have been occasional anecdotal reports of association between viral illnesses and subsequent aplastic anemia, and one well-documented relationship between the antibiotic chloramphenicol and other drugs and aplastic anemia. Since aplastic anemia is sometimes associated with other bone marrow disorders (leukemias, polycythemias), it has been seen in association with risk factors for some of these diseases. In addition, it has been seen in high-dose occupational exposure to benzene and in idiosyncratic reactions to high doses of a number of other chemicals. Epidemiological studies of aplastic anemia have involved interviews of cases about all exposures antecedent to their illness, but, since none have looked at similar people who were not ill, they have not been successful in finding the cause in the majority of cases.

In the case of Michael Harman, it was the Kaiser hospital hematologist who first raised the concern that chemicals could have been the cause. According to Mrs. Harman, the physician said, "He died so quickly. It must have been chemicals." However, there is no evidence that the cause of a particular case of aplastic anemia is related to the severity of the disease. According to the autopsy report, in the case of the Harman child, it seems most likely that an untreated infection (appendicitis) was responsible for his rapid downhill course. A review of the child's medical records would have been helpful in this regard, but unfortunately, the department has been denied access to the records.

A definitive report on the Harman case prepared by the Department's Epidemiological Studies Section concluded that the Harman yard contained no chemicals which could explain the child's illness or death. We understand that this report was submitted by the Harmans to the prospective new owners during escrow as documentation that the property is safe.

It is unfortunate that the Department's actions to investigate the death of a child have been identified as being insensitive and insufficient. I believe that this is not an accurate conclusion, and feel that the investigation difficulties were the direct result of the lack of an established mechanism for responding to an incident which is not normally within the Department's program responsibilities. In retrospect, it is apparent that the involved programs should have elevated the issue to ensure total Departmental awareness of the situation. This approach would have created a coordinated response with the Harman family and would have minimized the opportunity for miscommunication.

I believe that it is the lack of a coordinated response which affected the Department's ability to respond to the Harman family. This problem has been corrected to ensure that the Department's involvement in any future cases will be clearly defined and well coordinated.

The Department has a number of specific comments attached for your review. I appreciate the opportunity to provide these comments and request that they be included in the final report.

Sincerely,

Kenneth W. Kizer, M.D. M.P.H.
Director

Attachment

SPECIFIC COMMENTS REGARDING THE HARMAN REPORT

The following comments are provided by the involved program staff who produced files and other documentation upon which the following specific comments are based. Such information continues to be available to the auditors as requested.

Page 3, Second Paragraph, December 1984

"We found no evidence that anyone from the toxics division contacted the Harmans this month."

Response

It should be made clear that November was when the Department first received notice of the Harman child death. Further, the Department was advised by the County that the Harmans not be contacted directly because they were very upset. Instead, the County recommended the Department make contact through a relative of the Harmans.

The Information Officer then contacted the relative who explained that the boy had died of aplastic anemia after a brief illness and that the treating physician suspected the death was a result of eating contaminated soil, "probably from Stringfellow." The relative indicated that the Harmans wanted their soil tested as they were concerned about risks to their eight year old daughter. Based upon this information the Information Officer contacted the Department's Stringfellow Project Manager and the State's Stringfellow contractor to discuss the possibility of sampling the Harman's backyard. The Information Officer then contacted Mrs. Harman by telephone to let her know that the Department's staff working on Stringfellow project would be by to talk to her.

Page 3, Last Paragraph, March 1985

"The chief of the toxics division's Program Management Section asked the department's epidemiological studies section for assistance with the medical aspects of the case. We found no evidence that anyone from the toxics division contacted the Harmans this month."

Response

In early March, Dr. San Marcos still had not returned calls to the Department or it's contractor, JRB. The JRB Project Manager, in following up, had been able to speak with a physician's assistant at Kaiser who told him that the autopsy report was inconclusive.

In mid-March, the Information Officer contacted the Department's Epidemiological Studies Section (ESS) to request their assistance in obtaining a copy of the autopsy report and the child's medical records from Dr. San Marcos.

The epidemiologist from ESS was provided the name of the child and his physician at Kaiser hospital, who told the epidemiologist that the legal office had instructed physicians not to discuss the case with anyone. The physician then called the Kaiser legal office, who said they would release no information without an informed consent signed by the parents. TSCD was informed that this would be necessary to obtain further information.

Based upon these events, the Toxics Division prepared a formal referral to ESS requesting their assistance in this matter.

Also throughout the month of March, project staff continued to review aerial photographs and maps of the area around the Harman residence. These investigations revealed that a cement manufacturing and drying plant had been located north of the Harman home. The drying processes in some cement plants produce naphthalene. Exposure to naphthalene has been known to cause some types of anemia.

Page 4, Fifth Paragraph, May 1985

"The Harmans stated that the physician in the epidemiological studies section told them that, if the soil samples taken by JRB were still good, they would be tested; if not, new samples would be taken."

Response

The ESS physician did not promise the Harmans that any soil samples would be tested. The ESS physician states that she did explain that if soil samples were to be tested that it might be necessary to resample, since holding times had been so long. She also stated that she told Mrs. Harman that the department had not decided whether or not to test, that she probably would not have recommended testing in November of 1984, but that she believed that past commitments to test soil should be taken seriously.

Page 5, Fourth Paragraph, June 1985

"The Harmans said that the physician from the department's epidemiological studies section left a message for them with a friend saying that the soil had been tested and that the levels of toxic chemicals were not hazardous. The physician told us that she was referring in this message to the Osborne results. The department had not yet tested soil samples."

Response

The telephone call from the ESS physician to the Harmans was indeed about the results of the Department's assessment of the Osborne laboratory results. The ESS physician stated that a letter was sent to the Harmans on June 16 explaining that the review was in progress and that the Department would inform them when it was done. The phone message was a follow-up to this letter. A phone number where they could call ESS collect was also left with the message.

Page 5, Sixth Paragraph, July 1985

"The physician from the epidemiological studies section called Mrs. Harman. Mrs. Harman recalls that the physician suggested that Mrs. Harman had given her boy hepatitis and that hepatitis is what killed him. In addition, Mrs. Harman said that the physician told her that the department was not going to test the soil, and if it had been up to the physician, the samples would not have been taken in the first place. The phyisican denies that she ever said these things. She did tell Mrs. Harman that the child's hepatitis may have caused the aplastic anemia."

Response

It should be noted that the ESS physician called the Harmans after having been informed by Mr. Cain of the misunderstanding that had resulted from the previous phone call. Further, it should be made clear that no one in ESS ever attempted to blame Mrs. Harman for the death of her son. Mrs. Harman had many questions about why her son had died. She was angry and upset that the child had been so healthy and then had become so ill and had died so suddenly, and had many questions about possible causes of his death. It was in this context that the possibility that the hepatitis might have been related to the aplastic anemia was raised. However, lacking sufficient clinical information about the child (which was never received from Kaiser hospital), the ESS physician was unable to determine whether the hepatitis was a type that might be associated with aplastic anemia or that might be contagious.

Page 6, Sixth Paragraph, September 1985

"The epidemiological studies section developed a soil testing plan and arranged for sampling. The department contracted for laboratory testing of the soil samples. The physician in the epidemiological studies section sent a copy of the soil testing plan to the Harmans. Samples were taken at the end of the month."

Response

It should be noted that the Department was attempting to work closely with the Harman family. For example, the Department delayed sampling by one week at the Harman's request so that the Harman's could have more time to review the protocol. Representatives from ESS, HML, and TSCD had a conference call with Mr. Harman prior to sampling in order to review the plan and answer his questions. The ESS physician spoke to Mrs. Harman as well. Mrs. Harman raised concerns about white powder on the kitchen floor and dampness and grass coming up in a bedroom and arrangements were made for TSCD staff to enter and inspect the house at the time of sampling to investigate this. The problems were not present at the time of inspection.

Page 8, Second Paragraph

"Second, the department did not determine if it was appropriate for the toxics division to take the lead role in responding to the Harman's request. The toxics division staff realized that they did not have the medical and toxicological expertise necessary to deal with the public health issues involved in the case; however, it took the toxics division seven months to finally transfer the case to the epidemiological studies section, which had the necessary expertise."

Response

Typically, isolated incidences such as the unusual death of a child are handled through the local county health department. In this instance, the County referred the case to the Department's Toxic Substances Control Division in the event that there may have been a connection between the death and the Stringfellow hazardous waste site.

While formal transfer of the case from the Toxics Division to the Epidemiological Studies Section (ESS) occurred seven months after the initial contact, there were many instances of ESS involvement throughout the seven month period (the earliest which was in March, 1985, less than four months from the child's death).

Page 8, Third Paragraph

"Finally, the department did not determine if Stringfellow was involved before it asked the Stringfellow contractor to take soil samples. When the toxics division decided that the Harman property was outside the Stringfellow contract area, it delayed testing until appropriate funding was found."

Response

With the objective of responding to the Harman's in a timely manner, the Department took the initial soil samples immediately after the case was referred by the County. Department staff were told that the child's treating physician had told the Harmans that their yard might be contaminated from the Stringfellow site. At the time the samples were taken, the Department was involved in an extensive drilling and sampling program to determine the direction and extent of groundwater flow in the Stringfellow area. Prior to this program, the Department had not conclusively determined that groundwater did not flow in the direction of the Harman residence. When the samples were taken, the Department did not have sufficient groundwater contamination data, nor did the Department have any documentation to eliminate the possiblity of dumping of Stringfellow wastes or contaminated soil at the Harman residence to rule out the Stringfellow site as a source of the alleged contamination. Therefore, soil samples were collected in an effort to rule out Stringfellow-type contaminants from the Harman yard and to establish if other chemicals present in the soil could have caused the child's illness and death.

Later, based upon data collected as part of the on-going Stringfellow project, the Department was able to rule out the migration of contaminated groundwater as a possible cause of the child's death. Continued investigation into the possibility of dumping of Stringfellow wastes at the Harman yard also proved fruitless, therefore this possibility was also eliminated. The only remaining question was whether or not the yard was indeed contaminated, which could only be answered by analyses of the samples taken.

In order to determine which chemicals to analyze for, and to avoid the expense of analyzing for unknown constituents, it was necessary to determine the exact cause and sequence of illnesses which preceeded the child's death. Much of the initial delay in analyzing the first samples resulted from waiting for the autopsy report which was expected to be available shortly after the death. The Department requested the report in November 1984 from the Harmans and the hospital at which the child died. The report was not made available to the Department until the end of May, 1985, when Congressman Brown's staff provided the document.

Page 8, Fourth Paragraph

"In addition, throughout the investigation, the department failed to communicate clearly and promptly with the Harmans."

Response

When the case was referred to the Toxics Division, the County informed Department staff that the child's parents were grieving (the child had died less than a week before), and that contact should be made with Ms. Renee Cabick, a relative of the parents. It is this information and the Department's attempt to respect the parents need for privacy which prompted DHS to make as few contacts with the Harmans as possible.

As stated earlier, these types of cases are typically handled by local health departments and not DHS. Realizing this, TSCD staff purposely did not contact the Harmans, and sought the assistance of ESS which has staff physicians trained to communicate with grieving family members. In retrospect, it seems obvious that TSCD staff should have contacted the family on at least a monthly basis.

Page 8, Fifth Paragraph

"The department also failed to respond quickly to the Harman's request."

Response

The Department responded quickly to the initial request by immediately taking soil samples from the Harman yard. At this point, the Department had to rely on information from sources outside the Department to continue the investigation of soil contamination. The Department felt that the autopsy report or an

interview of the child's physician could help to determine which constituents may have caused the child's death. Department staff and contractors attempted repeatedly to contact the child's physician, but no phone calls were ever returned. Department staff and contractors also attempted repeatedly to get a copy of the autopsy report and finally received a copy from Congressman Brown's office in May, 1985. At that time, it was determined that the samples taken by the Department were too old for certain analyses and staff recommended that new samples be taken by the Zone contractors, the only available resource for this activity.

Page 9, Second Paragraph

"Furthermore, most of the contacts between the department and the Harmans were made by phone and the discussions were not confirmed in writing."

Response

The Department agrees that many of the misunderstandings with the Harmans could have been avoided by confirming all telephone conversations in writing. To eliminate the possibility of miscommunication in future cases, the Department intends to institute policies which will establish proper contact procedures.

Page 9, Third Paragraph

"However, when the toxics division halted the investigation and failed either to notify the Harmans or explain why the investigation was halted, the Harmans believed that the department was trying to hide something and, therefore contacted the FBI."

Response

The Toxics Division did not stop the investigation of the Harman case as the audit report indicates. The reason the investigator from San Diego was asked to discontinue his investigation of the Harman case was because his investigation was occurring concurrently with the Department investigation already in progress. The investigator briefed his supervisor, the enforcement coordinator, on July 2, 1985 regarding the Harman case. After that meeting, they briefed the TSCD Division chief on the Harman investigation already underway in the Division and the concurrent investigation begun by the San Diego investigator. As a result of that meeting, it was decided that there was no evidence to indicate the illegal disposal of toxic waste at the Harman residence and that there was no evidence of violation of the Health and Safety code. These two items were the focus of the enforcement investigator's work. It was determined that the San Diego investigator's efforts could be directed toward other cases with more substantial evidence of violation of the Health and Safety code. It was not apparent that the review of the Stringfellow contractor's billing records, as the investigator proposed, was warranted. It was also reconfirmed that the Harman property investigation should be pursued through the lead of the ESS. If ESS were to confirm the

presence of contamination indicative of the disposal of toxic wastes at the Harman residence, the enforcement investigation would have been continued.