

Health Consultation

PUBLIC HEALTH EVALUATION OF SOIL DATA

AT

FAITH CHURCH

(a/k/a FORMER ROGG MANUFACTURING)

NEW MILFORD, LITCHFIELD COUNTY, CONNECTICUT

Connecticut DEP Remediation ID: 5294

SEPTEMBER 26, 2005

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Atlanta, Georgia 30333

Health Consultation: A Note of Explanation

An ATSDR health consultation is a verbal or written response from ATSDR to a specific request for information about health risks related to a specific site, a chemical release, or the presence of hazardous material. In order to prevent or mitigate exposures, a consultation may lead to specific actions, such as restricting use of or replacing water supplies; intensifying environmental sampling; restricting site access; or removing the contaminated material.

In addition, consultations may recommend additional public health actions, such as conducting health surveillance activities to evaluate exposure or trends in adverse health outcomes; conducting biological indicators of exposure studies to assess exposure; and providing health education for health care providers and community members. This concludes the health consultation process for this site, unless additional information is obtained by ATSDR which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

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Prepared by:

The Connecticut Department of Public Health
Under Cooperative Agreement with the
Agency for Toxic Substances and Disease Registry

The conclusions and recommendations in this health consultation are based on the data and information made available to the Connecticut Department of Public Health (CTDPH) and the Agency for Toxic Substances and Disease Registry (ATSDR). CTDPH and ATSDR will review additional information when received. The review of additional data could change the conclusions and recommendations listed in this document.

BACKGROUND AND STATEMENT OF ISSUE

In April 2005, the New Milford Health Department (NMHD) requested that the Connecticut Department of Public Health (CTDPH) evaluate the public health significance of soil sampling data from Faith Church which currently occupies the former Rogg Manufacturing Facility in New Milford, Connecticut.

The site is located adjacent to the west side of State Route 7 at the southern boundary of New Milford, CT. Although the majority of the parcel is located in New Milford, a small portion extends into the neighboring town of Brookfield. The site is approximately four acres.

According to New Milford town records and interviews with persons knowledgeable about the site, this area of land was undeveloped woodland until 1965 when the manufacturing facility was constructed (EnviroMed Services 2004). During the late 1970s and later in the late 1990s, sand and gravel mining took place east and then north of the Rogg Manufacturing Building. In the late 1970s and early 1980s, steel scrap metal chips were buried northwest of the Building and then covered with sand. In 1999, buried metal waste was removed from an area that is northwest of the Building (an area designated as Area of Environmental Concern (AEC) 8).

Rogg Manufacturing was used from 1965 to 1997 for the manufacture of precision parts and assemblies for the aircraft and defense industries. Various metals, such as aluminum alloys, nickel, zinc, beryllium alloys for a short period, and ferrous metals including steel alloys and stainless steel were used in this facility. Rogg Manufacturing also used petroleum-based cutting oils in the manufacturing process. Limited amounts of chlorinated solvents and kerosene were used for degreasing. Faith Church purchased the former Rogg Manufacturing property in late fall 2002.

In January 2005, a contractor investigating the site identified 10 AECs. A map of the site is located in Appendix A. The main contaminant of concern in soil for this site is total petroleum hydrocarbons, although cadmium was found in deeper soils in AEC 8. By the summer of 2005, all of these areas have been remediated except for AEC 8 and the soil under the former Rogg Manufacturing Building. Future remediation of AEC 8 is planned for sometime in the near future (CTDEP 2005).

The new property owners submitted plans to build a parking lot which abuts the easternmost part of AEC 8 in 2005. Additional soil sampling of AEC 8 was conducted in May 2005 in order to fully characterize the soil contamination in the area. The NMHD requested that CT DPH review soil sampling data from AEC 8 and evaluate the public

health significance of this data before the property owner builds the parking lot and receives a certificate of occupancy permit for the church.

Site Visit

The CTDPH, the NMHD, a Faith Church representative and the Connecticut Department of Environmental Protection (CTDEP) did a site visit on April 29, 2005. CTDPH, NMHD, and CTDEP met with contractors who answered soil sampling and remediation questions. The weather was sunny, warm, and dry. The location of the future parking lot of Faith Church and its close proximity to AEC 8 was observed. In addition, CTDPH discussed with NMHD, the Faith Church Representative, and CTDEP safety issues concerning access to the former Rogg Building by trespassers.

Demographics

Faith Church Ministries is comprised of approximately 1500 members. It will also have on its property a pre-school to college preparatory school with approximately 280 students that will open in the fall of 2005.

Environmental Contamination and Health Comparison Values

In May 2005, contractors sampled soils at various depths from several locations in AEC 8 of the former Rogg Manufacturing Facility for various heavy metals and volatile organic compounds (VOCs). No surface soil samples were collected. Table 1 gives a summary of the soil sampling data taken in AEC 8 of the former Rogg Manufacturing Facility in May 2005.

There were only two soil samples at depth (4-6 and 8-10 feet (ft)) that contained cadmium at levels that exceeded the Connecticut Remediation Standard Regulations Direct Exposure Criteria (CT RSRs). CT RSRs were developed to protect children and adults who have contact with soils on a daily basis for many years (30 years). The maximum cadmium concentration in the soil samples was 86.1 parts per million (ppm), about three times the CT RSRs. The depth interval of this soil sample was 4-6 feet below ground surface (bgs).

Table 1. Summary of Subsurface Soil Sample Results, Rogg Manufacturing, AEC 8, May 2005.

Contaminant	Sample Date	Sample Depth (foot)	Concentration Range (ppm [#])	Number of Exceedances of Comparison Value/Number of Samples Taken	Comparison Value (ppm)	Comparison Value Source
Cadmium	5/2005	4-6	86.1	1/8	34	CT RSR [^]
		8-10	42.3	1/10		

[^]Connecticut Remediation Standard Regulations Direct Exposure Criteria (CT RSRs). CT RSRs are soil standards that were developed to be protective of children and adults who have contact with soils on a daily basis for many years (30 years).

[#]ppm=parts per million

DISCUSSION

Exposure Pathway Analysis

To evaluate potential exposures to soil contaminants in the former Rogg Manufacturing Facility, CTDPH evaluated the environmental data and considered how people might come into contact with contaminants in soil. The possible pathways of exposure are dermal, inhalation, and incidental ingestion. In other words, in order to be exposed to contaminants in soil, one must come into contact with the soil by touching the soil, breathing airborne soil particles, or eating soil adhered to fingers or food items.

Although surface soil (0-6 inch bgs) was not sampled in AEC 8, this area is covered with gravel and is in a low traffic area. Therefore, we do not expect any exposure to occur even if the surface soil is contaminated. Surface soil is considered to be a potential pathway and is not evaluated quantitatively in this health consultation.

The environmental data indicates that cadmium is present in subsurface soils at levels exceeding CT RSRs. The current owners plan to build a parking lot adjacent to the contaminated soil area. The current owners also plan on removing the soil contaminated with cadmium at a later date. The soil in AEC 8 is covered with a layer of gravel.

Under current conditions, workers or landscapers could come into contact with subsurface soils during activities that penetrate into deeper soils. However, the contaminated soil is very deep (greater than 4 feet), and it is very unlikely that anyone would perform any activities that would disturb this soil. Because of the fact that contamination is located at depths greater than 4 feet bgs, it is very unlikely that any exposure could occur. In summary, CTDPH considers exposure to subsurface soils to be a potential exposure pathway, and it is not evaluated quantitatively in this health consultation.

Public Health Implications for Adults and Children

When determining the public health implications of exposure to hazardous contaminants, CTDPH only evaluates exposures that are complete pathways. Because the subsurface soil contamination in AEC 8 is in deep soil, the likelihood of exposure is very low. We do not believe that there is a health risk from exposure to soil contamination in AEC 8 at depth at this site.

The site owners plan on cleaning up the contaminated soil in AEC 8 at a later date. Dust levels should be controlled while these remedial activities occur. In addition, for safety reasons, a fence should be installed preventing access to the former Rogg Manufacturing Building and signs should be posted.

EVALUATION OF COMMUNITY CONCERNS

1. Members of Faith Church are concerned that attendees of the church may be exposed to soil contamination from the former Rogg Manufacturing Facility.

Nearly all of the contamination in the former Rogg Manufacturing Facility has been cleaned up. There are two samples in AEC 8 where cadmium levels are elevated, but they are at levels that are deep (4-8 feet). No one will be exposed to this contamination unless they perform deep digging activities.

The only other soil contamination that remains on the site is under the former Rogg Manufacturing Building. However, the soil is inaccessible because it is located under the building. Therefore, there is currently no risk of exposure. However, if the Building is removed in the future, then evaluation of soil contamination under the building is necessary.

CONCLUSIONS

Subsurface soils samples taken in May 2005 show the presence of elevated levels of cadmium in AEC 8 which is adjacent to the area of the future parking lot for Faith Church. However, subsurface soil contamination is only present in two samples at elevated levels and the contamination is only in deep (> 4 feet) soil. Because exposure to deep soils in this area is very unlikely, we conclude that there is no health concern for this site.

Contractors have already remediated the majority of the site by May 2005. The only remaining areas with elevated levels of contamination in soil [are](#) AEC 8 and the soil under the former Rogg Manufacturing Building. Contractors plan to clean up the deeper soil contamination in AEC 8 (CTDEP 2005). CTDPH recommends that deep digging be prohibited in this area until it can be remediated.

ATSDR has a categorization scheme whereby the level of public health hazard at a site is assigned to one of five conclusion categories (Appendix F). CTDPH has concluded that

subsurface soils Faith Church, aka Rogg Manufacturing, present no apparent public health hazard under current conditions and that health effects are unlikely. Even though no apparent health threat exists, CTDPH has concluded that for safety reasons, a fence should be built and signs posted limiting access to the grounds immediately surrounding the building. In addition, dust levels should be controlled while the remaining remedial activities are taking place.

RECOMMENDATIONS

1. CT DPH recommends that a fence be built preventing access to the former Rogg Manufacturing Building for safety reasons. In addition, signs should be posted.
2. CT DPH recommends that digging activities should not take place in deeper soils in AEC 8 and under the former Rogg Manufacturing Building until the contaminated soil is remediated.
3. CT DPH recommends that dust levels near the parking lot be controlled while remaining remedial activities take place.
4. In the future, if removal of the former Rogg Manufacturing Building is planned, evaluation of soil contamination under the building should be performed.

PUBLIC HEALTH PLAN

Actions Taken

1. CTDPH did a site visit with NMHD, and CTDEP staff in April 2005. CTDEP, CTDPH, and NMHD met with contractors at the site to discuss soil sampling and remedial activities of the site. CTDPH also discussed health concerns with the NMHD.
2. CTDPH wrote a response letter on June 10, 2005 to NMHD evaluating soil sampling data and addressing health concerns related to the site. CTDPH also made recommendations to prevent soil exposure to church attendees in the future.

Actions Planned

1. CTDPH will continue to work with CTDEP and NMHD to respond to health questions and concerns regarding cleanup and use of the former Rogg Manufacturing Facility, aka Faith Church.

REFERENCES

CTDEP. May 2005. Phone Discussion with Camille Fontanella of The Connecticut Department of Environmental Protection.

Enviromed Services. 2004. Phase II/Phase III Report of Rogg Manufacturing, New Milford, Connecticut.

CERTIFICATION

The Health Consultation for the Evaluation of Soil Data for Faith Church, aka the former Rogg Manufacturing Facility, New Milford, Connecticut was prepared by the Connecticut Department of Public Health under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). It was completed in accordance with approved methodology and procedures existing at the time the health consultation was initiated. Editorial review was completed by the ATSDR Cooperative Agreement Program.

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The Division of Health Assessment and Consultation (DHAC), ATSDR, has reviewed this health consultation and concurs with its findings.

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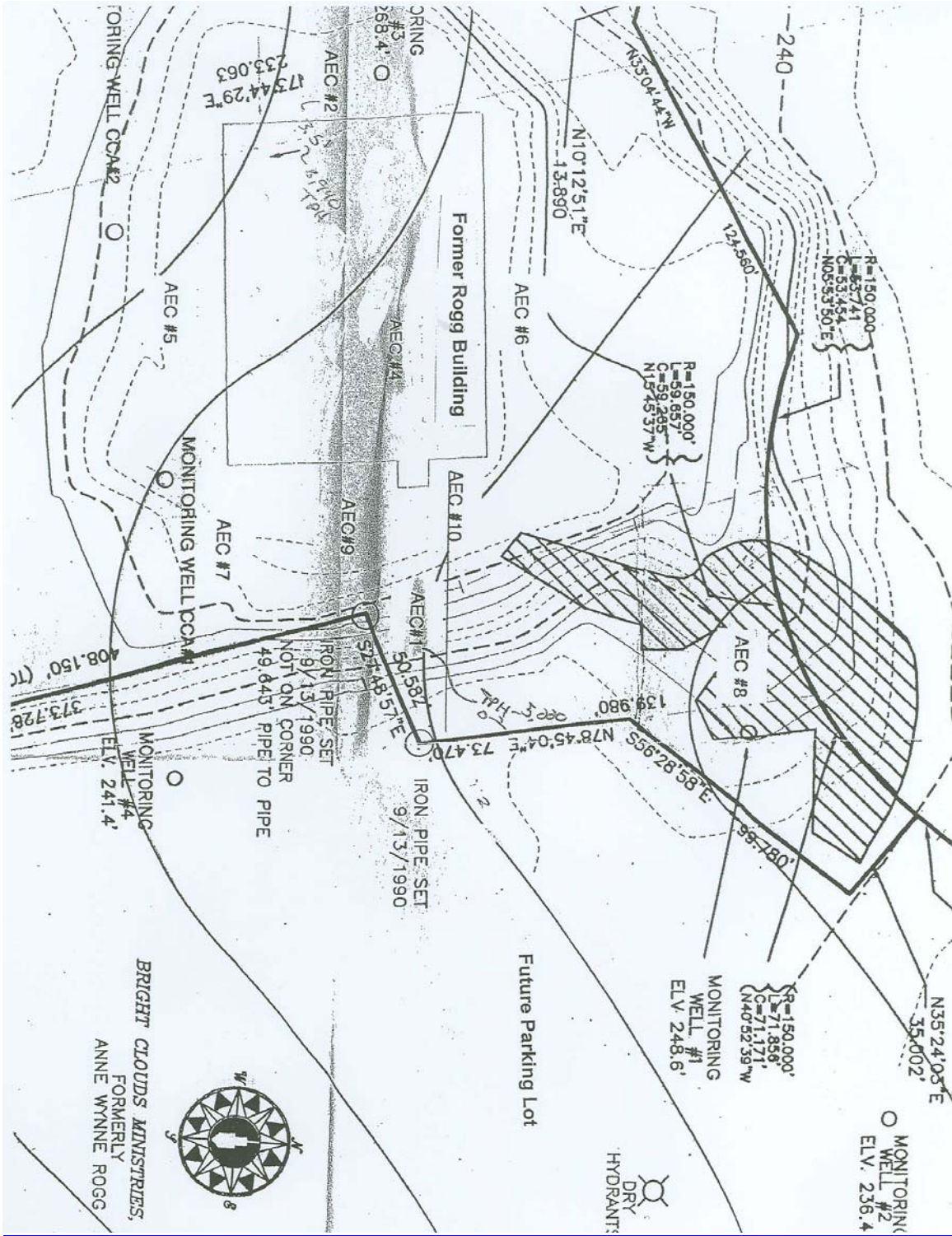
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Appendix A
 Map of the Former Rogg Manufacturing Facility



Appendix B. ATSDR Public Health Categories

Category/Definition	Criteria	ASTDR Actions
<p>1. Urgent Public Health Hazard</p> <p>This category is used for sites where short-term exposures (< 1 year) to hazardous substances or conditions could result in adverse health effects that require rapid intervention.</p> <p>This determination represents a professional judgment based on critical data which ATSDR has judged sufficient to support a decision.</p> <p>This does not necessarily imply that the available data are complete; in some cases additional data may be required to confirm or further support the decision made.</p>	<p>Evaluation of available relevant information indicates that the site-specific conditions or likely exposures have had, or are likely to have in the future, an adverse impact on human health that requires immediate action or intervention. Such site-specific conditions or exposures may include the presence of serious physical or safety hazards.</p>	<p>ATSDR will expeditiously issue a health advisory that includes strong recommendations to immediately stop or reduce exposure to mitigate the health risks posed by the site.</p>
<p>2. Public Health Hazard</p> <p>This category is used for sites that pose a public health hazard due to the existence of long-term exposures (> 1 year) to hazardous substance or conditions that could result in adverse health effects.</p> <p>This determination represents a professional judgment based on critical data which ATSDR has judged sufficient to support a decision. This does not necessarily imply that the available data are complete; in some cases additional data may be required to confirm or further support the decision made.</p>	<p>Evaluation of available relevant information suggests that, under site-specific conditions of exposure, long-term exposures to site-specific contaminants (including radionuclides) have had, are having, or are likely to have in the future, an adverse impact on human health that requires one or more public health interventions. Such site-specific exposures may include the presence of serious physical or safety hazards.</p>	<p>ATSDR will make recommendations to stop or reduce exposure in a timely manner to mitigate the health risks posed by the site.</p>

Appendix B. ATSDR Public Health Categories (Continued)

Category/Definition	Criteria	ASTDR Actions
<p>3. Indeterminate Public Health Hazard</p> <p>This category is used for sites in which “critical” data are insufficient with regard to extent of exposure and/or toxicologic properties at estimated exposure levels.</p> <p>This determination represents a professional judgment that critical data are missing and ATSDR has judged the data are insufficient to support a decision. This does not necessarily imply all data are incomplete; but that some additional data are required to support a decision.</p>	<p>This category is used for sites in which “critical” data are insufficient with regard to extent of exposure and/or toxicologic properties at estimated exposure levels. The health assessor must determine, using professional judgement, the “criticality” of such data and the likelihood that the data can be obtained and will be obtained in a timely manner. Where some data are available, even limited data, the health assessor is encouraged to the extent possible, to select other hazard categories and to support their decision with clear narrative that explains the limits of the data and the rationale for the decision.</p>	<p>ATSDR will make recommendations in the public health assessment to identify the data or information needed to adequately assess the public health risks posed by the site.</p>
<p>4. No Apparent Public Health Hazard</p> <p>This category is used for sites where human exposure to contaminated media may be occurring, may have occurred in the past, and/or may occur in the future, but the exposure is not expected to cause any adverse health effects.</p> <p>This determination represents a professional judgment based on critical data which ATSDR considers sufficient to support a decision. This does not necessarily imply that the available data are complete; in some cases additional data may be required to confirm or further support the decision made.</p>	<p>Evaluation of available relevant information indicates that, under site-specific conditions of exposure, exposures to site-specific contaminants in the past, present, or future are not likely to result in any adverse impact on human health.</p>	<p>Recommendations made to reduce exposure are not needed to reduce risk but may be considered prudent public health practice.</p>
<p>5. No Public Health Hazard</p> <p>This category is used for sites that, because of the absence of exposure, do NOT pose a public health hazard.</p>	<p>Sufficient evidence indicates that no human exposures to contaminated media may have occurred, no exposures are currently occurring, and exposures are not likely to occur in the future.</p>	<p>ATSDR may make no recommendations or may recommend community health education.</p>