1. FOR REFERENCE ONLY PRE-CLEAN-UP DATA ONLY

CleanHarbors
ENVIRONMENTAL SERVICES COMPANIES
24 HOUR SERVICE
P.O. BOX 1812
ALBANY, N.Y. 12201
(518) 434-0149

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INCIDENT SUMMARY

On Sunday, December 29, 1991, the State University of New York, College at New Paltz, was affected by an electrical power surge originating off the campus. The event caused damage to five electrical transformers inside five campus buildings. The five transformers, similar to most transformers manufactured before 1977, contained PCB insulating oil because of its fire resistant properties. Prior to 1977, insurance companies mandated that all indoor transformers contain PCB fluids. In 1976, legislation was enacted prohibiting the manufacture of PCBs after 1977 and placed stringent restrictions on the use of existing PCB transformers.

As a precaution, all transformers within buildings on campus are encased in special secured vaults for safety purposes. Accordingly, when the transformers were damaged, PCBs in various quantities were released predominantly within the confines of the transformer vaults.

The New York State Department of Health and the Ulster County Health Department have been advising both the college and the New York State Office of General Services (OGS) on the investigation and cleanup of potential contamination in the buildings. No building can be opened without the approval of the Ulster County Health Department in consultation with the New York State Department of Health, Clean Harbors, Inc. and the New York Office of General Services.

The New York State Office of General Services has retained Clean Harbors, Inc., a nationally-known environmental services firm, to conduct the PCB sampling and laboratory analysis, to provide technical counsel, and to supervise the cleanup.

PRESENT STATUS

The damaged transformers have been disconnected, and liquid PCB fluids have been removed from both the vaults and transformers to prevent any further release of PCBs.

Having eliminated the source of contamination and made substantial progress in characterizing the nature and extent of the problem, the situation has progressed from an emergency response operation to the remediation phase.

IT IS IMPORTANT TO NOTE:

* **None of the test results of the air samples taken within the buildings showed PCB contamination above the New York State Department of Health's cleanup criteria of one microgram per 100 cubic [redacted]meters in air.**

* **A New York State Department of Health document states "Based on our review of the circumstances of the incident and the date, we do not see any reason for anyone in the surrounding community to be concerned about exposure to contaminants from the State University of New York, College at New Paltz, incident."**

* **Three rainwater outfalls and a nearby pond were sampled during a rainstorm on 1/10/92 and those test results did not detect PCB contamination.**

* **In the buildings where contamination was detected, the highest levels of PCB contamination were in the vicinity of the building's transformer vaults.**

* **All facility contamination detected thus far can be remediated through standard decontamination methods which may include disposal of affected items within the contaminated buildings and possibly some demolition.**

From the PCB sampling results gathered thus far, the circumstances at New Paltz are far less severe than levels of contamination which have been detected in other notable incidents of PCB contamination throughout the country and overseas and in industrial settings where exposure to PCBs was once commonplace.

This situation does not compare in magnitude to several other incidents -- including a PCB-related fire in an 18-story high rise building in Binghamton, NY -- which have occurred throughout the country where PCB transformers burst or caught fire causing far more damage and contamination than presently exists at New Paltz.

CLEAN-UP CRITERIA

In response to the Binghamton incident, the New York State Department of Health convened an expert panel which recommended specific clean-up criteria. The criteria are for both PCBs and polychlorinated dibenzo-p dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs). (PCDDs and PCDFs can be formed when PCB mixtures are heated to a high temperature or catch fire.*) In 1988, the National Academy of Sciences reviewed the New York State criteria for PCDDs and PCDFs, as part of a review of criteria developed in the United States in response to numerous PCB transformer incidents. The Academy recommended that the New York State PCDD and PCDF criteria be adopted in making cleanup decisions.

The New York State Department of Health cleanup criteria for PCBs being used are one microgram per cubic meter in air and one microgram per 100 square centimeters on surfaces. A microgram is one millionth of a gram.

This is less than the federal EPA's cleanup criteria which is 10 micrograms per 100 square centimeters on surfaces in high contact with PCB spills.

According to generally available reports, everyone in the United States and other industrialized countries are exposed to PCBs, and when blood is tested for PCBs, they are often detected. It is also documented that although PCBs in high concentrations are known to cause cancer in animals, studies to prove a definitive link between PCBs and cancer in humans have been inconclusive.

Although PCBs have not been manufactured since 1977, they can still be found in many transformers throughout the world. Before PCB manufacturing was banned in the U.S., products such as waxes, carbonless copying paper, printing inks, ironing board covers, paints, and adhesives included PCBs.

According to the New York Department of Health, a survey of 103 houses in New York State in 1985 found that PCBs in indoor air ranged from less than 0.01 micrograms per cubic meter of air to 1.08 micrograms per cubic meter of air. The National Institute of Occupational Safety and Health (NIOSH) reported that PCB levels in the workspace air of office buildings in Boston, MA range from 0.06 to 0.31. Another study found that the average PCB level in buildings containing electrical transformers was 0.46 compared to 0.23 in buildings without transformers.

[* The Ulster County Health Department and the New York State Department of Health have issued separate reports on the results of PCDD and PCDF sampling.]

SAMPLING PROCEDURES

The sampling and analysis is an on-going and systematic effort. The regimen requires thorough and methodical testing and retesting. These exacting procedures, by their very nature, are time consuming. Clean Harbors has accorded this project the highest priority in its testing laboratories and is analyzing samples as efficiently as the laboratory instrumentation will allow. Results which would ordinarily require a minimum of a two-week turnaround time, are being processed in 18-24 hours while maintaining stringent quality assurance and quality control.

Results are being used to indicate if and where additional sampling is required and what level of remediation is necessary, if any, in that specific area. The sampling is being overseen by the Ulster County Health Department and the New York State Department of Health which will review the results. Clean Harbors will recommend what additional sampling is needed, what conclusions can be reached about the potential contamination and what clean-up is needed.

The clean-up plans at New Paltz are being formulated and modified as the analytical results come in. Remediation has already begun on those areas identified as contaminated. Clean-up efforts will continue until satisfactory analytical results have been reviewed by the health departments confirming that the buildings are safe to occupy.

To ensure an orderly and thorough process for investigating potential contamination in campus buildings, the buildings were classified into three separate categories:

"Directly Affected" Buildings

These buildings contained the five damaged transformers:

Gage Hall (residence)
Scudder Hall (residence)
Bliss Hall (residence)
Parker Theater
Coykendall Science Building

"Potentially Affected" Buildings

As an additional precaution to ensure the protection of public health and the environment, surface and air samples were taken in 14 "potentially affected" buildings. Although, they did not appear damaged, some of these buildings contain PCB transformers:

Capen Hall (residence)
Old Main Building
Wooster Science Building*
Elting Gymnasium
Campus Health Center
Lecture Center*
Air Structure*
Faculty Tower
Old Library Building
Smiley Arts Building
Van Den Berg Learning Center
Sojourner Truth Library
McKenna Theatre*
Bardes House (rescue squad)*

(* no PCB transformer in building)

"Non-Affected" Buildings

Buildings that did not contain PCB transformers were not suspected of contamination. Selected buildings were tested to establish "background" values for the campus. These comparative measurements were then used for quality assurance and quality control.

SUMMARY OF RESULTS

PCB fluid from some of the building's transformers was sampled to confirm the percentage of PCBs. The fluid tested had not been spilled and was still contained inside the transformer. The result was a range of 59 to 100 percent of PCBs, the latter being equivalent to one million micrograms per gram of fluid.

"Directly Affected" Buildings

The results of the samples taken from the five affected buildings indicate that the greatest amount of PCB contamination is in the vaults surrounding the damaged transformers and limited mostly to the immediate area of the transformers and vaults. In general, the level of PCBs detected decreases as the distance from the transformer increases.

The results from the surface wipe samples from the five "directly affected" buildings known to have transformer damage are as follows (ALL numbers referred to in following are in micrograms per 100 square centimeters):

Gage Hall -- Gage had relatively little PCB contamination -- most of the samples were "non-detect." The PCB sample results indicate that the contamination, most of it in the basement near the transformer, is all at levels under 10 micrograms per 100 square centimeters, except for one sample result with a level of 59. None of the test results taken on the first and second floor indicate PCB contamination, and one sample taken from the third floor hallway shows a level of 5.1.

Coykendall Science Building -- The highest level of PCBs is found near the transformer at 3200 micrograms per 100 square centimeters; samples from other basement rooms were found with PCB levels of 2300 to 16. Samples from four rooms on the first floor had PCB levels 34 to 4.5. On the second floor, two wipes showed levels of 50 and 32. Samples from the third floor had increasingly lower levels between 12 and 1.9.

Bliss Hall -- The sample results indicate that the majority of contamination is in the vault area, with much lower levels throughout the building. Samples from the rest of the basement show levels all under 10 micrograms per 100 square centimeters, the first floor has levels of 42 and lower, the second floor has low levels with one wipe with a level of 90 in the hallway outside the elevator, and the third floor samples indicate low levels of PCB contamination, with the exception of one level of 350 in the hallway outside the elevator.

Parker Theatre -- most of the contamination appears to be concentrated in the area of the transformer vault, specifically in the loading dock area which is directly adjacent to the vault. the levels there range from 5900 to 49 micrograms per 100 square centimeter. Other readings on the first floor are all at levels under 10. A sample taken on the second floor indicated no PCB contamination.

Scudder Hall -- The transformer is located in a corner room, and the areas immediately outside that corner room appear to have some contamination at levels between 9000 and 91 micrograms per 100 square centimeters, except for one sample result of 30,000 micrograms in the hallway outside the transformer room. The first floor has one sample with a level of 700 above the transformer room; the rest of the levels fall between 61 and 1.8 on that floor. The second has no contamination and the third floor has two samples with low levels of 52 and 20.

"Potentially Affected" Buildings
No contamination was found in the following "potentially affected" buildings:

Faculty Tower, Wooster Science Building, Lecture Center, McKenna Theatre, Old Main Building, Air Structure, and Bardes House. All these buildings have now been reopened for general admission by the Ulster County Health Department.

The remaining "potentially affected" buildings tested showed varying levels of contamination in some of the analytical results, primarily in low levels near the transformers. Those buildings include: Capen Hall, Old Library, van den Berg Learning Center, Campus Health Center, Elting Gymnasium, Sojourner Truth Library, and Smiley Arts Building.

Clean Harbors proposed cleanup plans for all these buildings. The health departments and OGS reopened all but one of the buildings which are now "clean" and safe for reoccupancy -- except Capen Hall which is expected to be cleaned and reopened in the near future.

Of the "potentially affected" buildings tested, Capen's levels of PCBs were at a level of 830 micrograms in the transformer vault, basement samples indicated little contamination, and none of the samples taken on the other floors indicate PCB contamination.

Samples from the Smiley Art Building, van den Berg, Elting Gym and the Campus Health Center indicated low levels of PCBs -- at a level of 11 and lower -- exclusively in the transformer vault areas (which is not unusual for transformer vaults).

The Old Library had two sample results with levels of 28 and 24 in the basement and a level of 4 near the transformer vault (the college believes that a transformer once occupied that location which was removed some years ago).

"Non-Affected" Buildings

As expected, none of the buildings sampled to establish background levels showed contamination.

As part of the analytical regimen, sampling and re-sampling will continue throughout the entire operation. At this time, approximately 300 additional samples are being collected from Gage and Capen halls, from individual dormitory rooms. Results will be forthcoming from the on-going sampling.

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[This summary is a condensed version of a full report which has been supplied to the New York State Department of Health, The New York Office of General Services, the State University of New York, College of New Paltz, and The Ulster County Health Department containing the results from PCB sampling which was begun on the day of the incident.]

To put this in perspective, it is important to note that everyone in the United States and other industrialized countries has been exposed to PCB's and when blood is tested for PCB's, they are usually detected. A survey of 103 houses in New York State in 1985 found that PCB's in indoor air ranged from less than 0.01 micrograms per cubic meter of air to 0.70 micrograms per cubic meter of air. The National Institute of Occupational Safety and Health reported that PCB levels in the workspace air of office buildings in Boston, MA range from 0.06 to 0.31. Another study found that the average PCB level in buildings containing electrical transformers was 0.46 compared to 0.23 in buildings without transformers.

It should also be noted that although PCB's are known to cause cancer in animals, studies have yet to prove a definitive link between PCB's and cancer in humans.

SUMMARY OF RESULTS

The preliminary results of the samples taken from the five affected buildings indicate that the majority of the PCB contamination is contained in the vaults surrounding the damaged transformers and limited mostly to the immediate area. In general, the level of PCBs drop as the distance from the transformer increases.

In taking a conservative approach to ensure the protection of both the environment and human health, sampling is also being done at all of the non-affected buildings which contain transformers with PCB's, and depending on the results, clean-up plans may be formulated.

We have moved from the emergency phase of the operation to the remediation phase. The potential threat of further contamination has been eliminated, the situation has been stabilized, and plans are being made for remediation.

The sampling and analysis is an on-going and systematic effort. In-coming results indicate if and where additional sampling needs to be done and what level of remediation is needed, if needed, in that specific area. The clean-up efforts are being formulated as the analytical results come in.

Plans are in place to begin remediation tomorrow (1-9-92) on those areas identified as contaminated. Clean-up efforts will continue until satisfactory analytical results have been obtained confirming that the buildings are absolutely safe to occupy.

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INCIDENT SUMMARY

On Sunday, December 29, 1991, an electrical power spike at the campus of the State University of New York, College at New Paltz, caused five transformers containing PCB's to fail. The New York State Health Department and the Ulster County Health Department have been advising both the university and the New York State Office of General Services (OGS) on the investigation of potential contamination in the buildings.

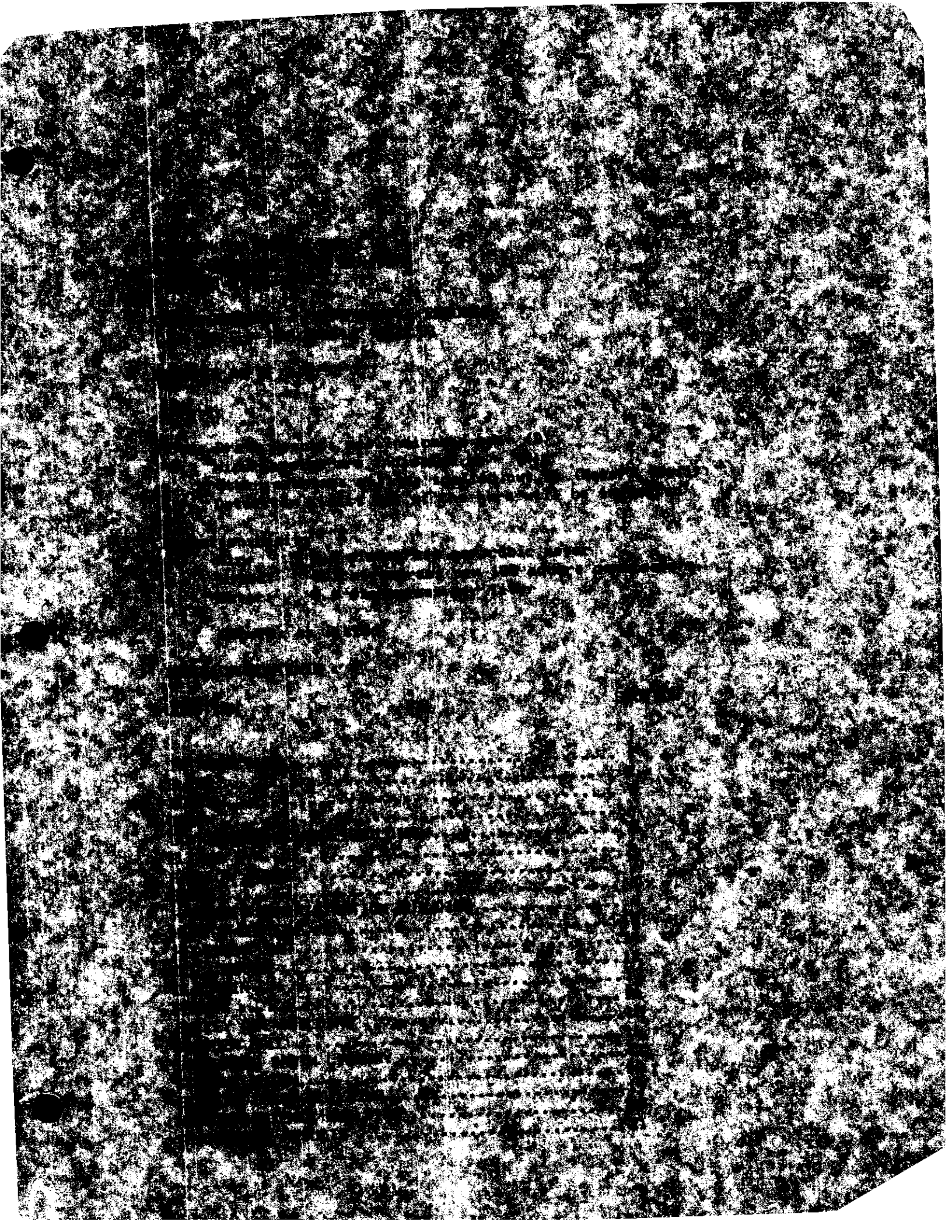
Air and surface wipe samples are being taken in the five "affected" buildings (those buildings containing the damaged transformers) as well as all other "non-affected" buildings that contain transformers with PCB's. The wipe samples are being collected and analyzed by Clean Harbors, Inc., a consultant retained by the OGS. The sampling is being overseen by the health departments and they will in turn review the results and determine what additional sampling is needed and what conclusions can be reached about the potential contamination and remediation.

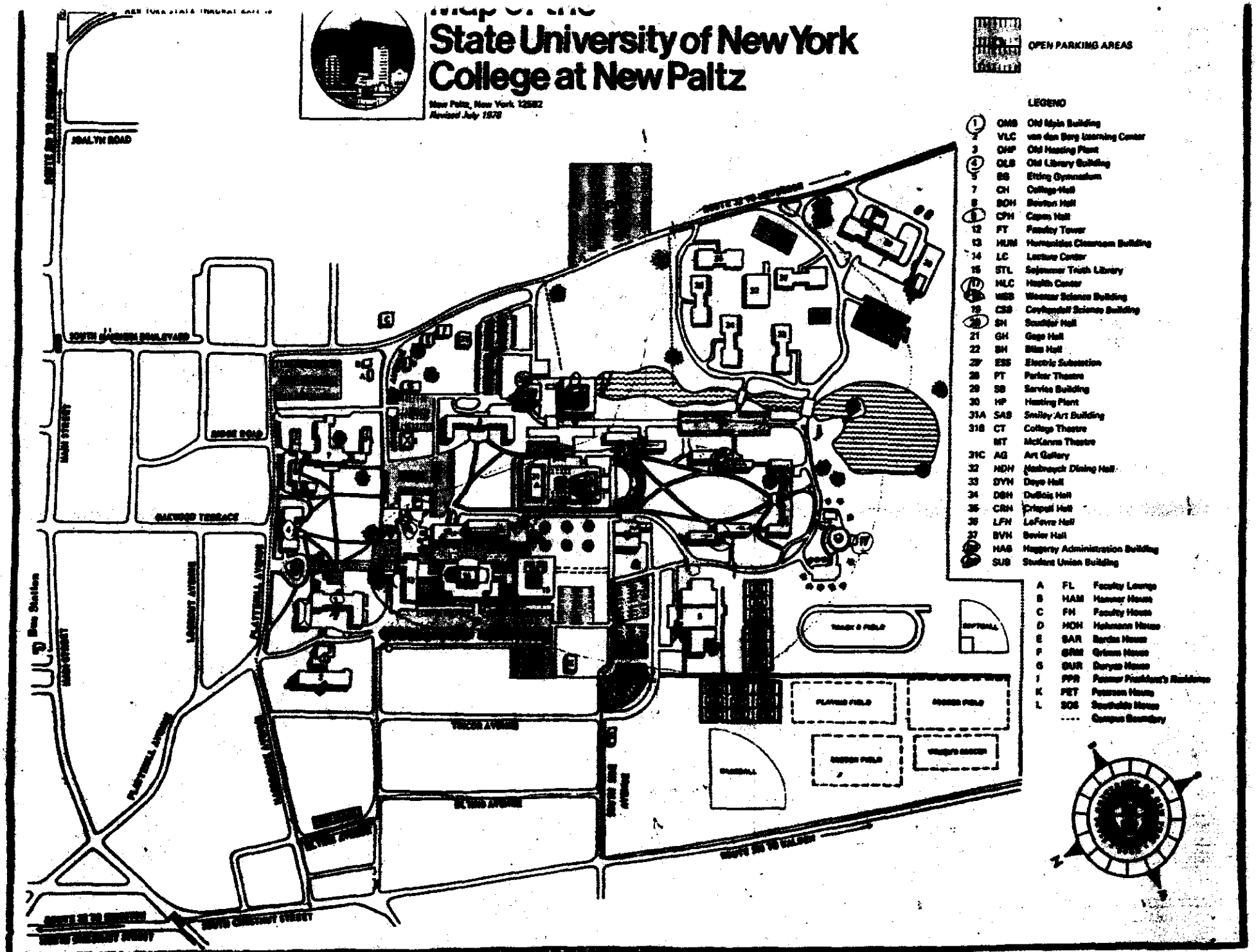
The damaged transformers have been disconnected, and liquid PCB's have been removed from both the vaults and transformers to prevent additional potential releases to the environment.

CLEAN-UP CRITERIA

There have been several other incidents throughout the country in which PCB transformers burst or caught on fire. In response to an incident involving a PCB transformer in a state office building, the New York State Department of Health convened an expert panel which recommended specific clean-up criteria. The criteria are for both PCB's and polychlorinated dibenzo-p dioxins (PCDDs) and polybichlorinated dibenzofurans (PCDF's) (PCDD's and PCDF's can be formed when PCB mixtures are heated to a high temperature or catch on fire). These criteria, developed for people working in an office building who would have skin contact with potentially contaminated surfaces and who would breathe potentially contaminated air, will be used according to the sampling location.

The maximum levels of PCB's deemed "acceptable" by the New York Department of Health are one microgram per cubic meter in air and one microgram per 100 square centimeters on surfaces (a microgram is one millionth of a gram).




State University of New York
College at New Paltz
New Paltz, New York 12562
Revised July 1978
OPEN PARKING AREAS
LEGEND
1 OMB Old Main Building
2 VLC van den Berg Learning Center
3 OHP Old Heating Plant
4 OLB Old Library Building
5 BG Elting Gymnasium
7 CH College Hall
8 BOH Boston Hall
9 CPH Capen Hall
12 FT Fireplay Tower
13 HUM Humanities Classroom Building
14 LC Lecture Center
15 STL Sojourner Truth Library
16 HLC Health Center
17 MSB Messner Science Building
18 CSB Coykendall Science Building
20 SH Scudder Hall
21 GH Gage Hall
22 BH Bliss Hall
27 ESS Electric Substation
28 PT Parker Theatre
29 SB Service Building
30 HP Heating Plant
31A SAB Smiley Art Building
31B CT College Theatre
MT McKenna Theatre
31C AG Art Gallery
32 HDH Habbayeh Dining Hall
33 DYH Dayo Hall
34 DBH DuBois Hall
35 CRH Crispell Hall
36 LFH LeFevre Hall
37 BVH Bevier Hall
HAB Haggerty Administration Building
SUB Student Union Building
A FL Faculty Lounge
B HAM Hawver House
C FH Faculty House
D HOH Hoheimer House
E BAR Bardin House
F GRM Grimm House
G SUR Duryea House
I PPR Provost/President's Residence
K PET Petersen House
L SOS Southside House
Campus Boundary
JOYCE ROAD
SOUTH CHESTNUT STREET
MAIN STREET
OAKWOOD TERRACE
HAWK AVENUE
HERTEL AVENUE
LIBERTY AVENUE
TRACK & FIELD
SOFTBALL
PLAYING FIELD
SOCCER FIELD
BASEBALL
TENNIS COURTS
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