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SITE INSPECTION

GAF CORPORATION

AKA: GENERAL ANILINE AND FILM

GLOUCESTER CITY, CAMDEN COUNTY

EPA ID NO.: NJD043292606

New Jersey Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation
Bureau of Site Assessment

216794

GAF CORPORATION
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WATER AND CHARLES STREETS
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NARRATIVE

GAF CORPORATION
AKA: GENERAL ANILINE AND FILM
WATER AND CHARLES STREETS
GLOUCESTER CITY, CAMDEN COUNTY, NEW JERSEY
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GENERAL INFORMATION AND SITE HISTORY

General Aniline and Film (GAF) Corporation encompasses approximately 36 acres at the intersection of Water and Charles Streets in Gloucester City, Camden County, New Jersey. The site includes Block 110, Lot 2A (which according to the Gloucester City tax office includes Lots 3, 3A, 4, 15, 17 and 20); Block 111, Lot 1; Block 116A, Lots 14A, 16, 17, 19 through 24, 14F, 15, 61 through 67 and 25 through 28; and Block 120A, Lot 3. GAF owned Block 110, Lot 3B until August 1981, when it sold this property to Vanguard Vinyl Siding, Inc.

The property is bordered to the south by the Amspec Corporation, to the west by the Delaware River and to the north by Vanguard Vinyl Siding, Inc. The estimated population residing within 4 miles of the site is 311,300. The nearest residence is located within 0.3 mile of the site.

The facility included a manufacturing plant, a power plant facility which generated and distributed steam to the manufacturing plant, a warehouse facility comprised of one large and a few smaller buildings (the Water Street Warehouse) and an additional warehouse (the Charles Street Warehouse). Prior to the closure of the manufacturing and power plant in 1983, the warehouses were used in part to store the roofing felt manufactured at the plant.

Sanborn Fire Insurance Maps show a hotel at the site from the late 1890s through the early 1900s. Prior to World War I the Pusey and Jones shipyard (also known as the Pennsylvania Shipbuilding Company) was constructed at the site. It is believed that Lang Mills had an existing paper mill operation adjacent to the shipyard. Prior to 1930, Lang Mills purchased a portion of the Pusey and Jones property and apparently converted the building to paper manufacturing. During the 1930s (approximately 1935) Lang Mills was acquired by the Ruberoid Company and continued to operate as a paper mill. In 1967 GAF and Ruberoid merged; GAF ceased operations at the site on December 31, 1983.

The New Jersey Department of Environmental Protection determined that cleanup responsibilities under the Environmental Cleanup Responsibility Act (ECRA) were triggered by GAF's cessation of its warehousing activities for a period of more than two years. This ruling was affirmed by the Superior Court of New Jersey, Appellate Division on January 6, 1992. Previous rulings had noted that even though the manufacturing operations at GAF had ceased before December 31, 1983, their warehouses continued to store hazardous materials after this date. It was also noted that the Standard Industrial Classification (SIC) number 2661 assigned to the manufacturing activity also applied to the storage of the manufactured product, thus subjecting the warehouses to ECRA's remedial and regulatory provisions.

SITE OPERATIONS OF CONCERN

Manufacturing operations conducted at the facility included the use of paper, wood chips and sawdust to make felt paper for roofing, flooring and vinyl siding. The felt paper was manufactured, then shipped off site for saturation and binding to make various end products. In addition, GAF produced asbestos pipe coverings from the 1950s until the late 1960s. Approximately 12 to 15 percent of the asbestos produced was discarded as solid waste. It is believed that asbestos production was conducted at the area of the site currently owned by Vanguard Vinyl Siding, Inc.

The manufacturing facility consisted of three paper machines and associated stock preparation equipment for manufacturing both roofing and flooring grades of felt. Ingredients used in this process included defibered wood and mixed papers (office waste paper, waste corrugated and kraft corrugated). In addition, wood flour was occasionally used as a supplement. Approximately 50 percent of the wood used was oak, the other 50 percent was pine. Raw stock was processed through sizing screens, reducing the wood chips to a fibrous form. This material was then transferred to a storage chest for further refining, screening and final blending. The paper stock portion of the system involved a mixture of 50 percent mixed papers and 50 percent corrugated as a blend. Contaminants (cellophane, plastics, aluminum, etc.) removed during this process were packed in waste disposal boxes and removed to the on-site landfill.

As part of the manufacturing process, water was withdrawn from the Delaware River, processed through the power plant and supplied as makeup to the processing operations. The manufacturing plant contained a closed process water system which prevented any wastewater discharges. The makeup water required amounted to the portion of water lost to evaporation during the drying process (approximately 92,000 gallons per day). Tannins generated as a result of the steam cooking process required neutralization; liquid sodium hydroxide was an additive to the overall water treatment process to maintain a near neutral pH. Typical water treating chemicals were used to control hardness. In addition, a polymeric material of the polyamide family was utilized in the process to help coagulate fines and properly introduce them to the finished products during the felt forming stage.

Steam used for drying the paper was obtained from either of two 100,000-pound Badenhousen boilers. Boiler blowdown was discharged to the local municipal sewage treatment plant.

Wastes from the plant consisted predominantly of cellophane, plastics, aluminum, cans, glass and bark. A portion of the site (Area C) was used as a fill area to dispose of metal, glass, plastic and other impurities removed from the process stream during the initial steps of the felt manufacturing process. Additionally, other plant debris including scrap finished products which contained bound asbestos, was periodically disposed of in the fill area.

GAF initially submitted a Notification of Hazardous Waste Activity Form to the United States Environmental Protection Agency (USEPA) on August 12, 1980. The notification was for the treatment/storage/disposal of waste classified as hazardous. On November 19, 1980 GAF submitted an incomplete Resource Conservation Recovery Act (RCRA) Part A permit application to the

USEPA. Subsequently, on July 10, 1981 GAF requested that further processing of its permit application be discontinued due to the fact that GAF did not generate, treat, store or dispose of any waste classified as hazardous in excess of the small quantity generator exclusion limit.

The NJDEP/Division of Hazardous Waste Management/Bureau of Hazardous Waste Engineering (DHWM/BHWE) and the Division of Hazardous Waste Management/Southern Bureau of Field Operations (DHWM/SBFO) conducted an inspection on January 9, 1990 at the GAF site. At that time it was determined that GAF did not treat, store or dispose of hazardous waste. This facility was later delisted from treatment, storage and disposal status. No RCRA

Two areas of the site were used by contractors from approximately May 1988 until March 1990, during the construction of the Gloucester City Sewage Pump Station by the Camden County Municipal Utilities Authority. Lisbon Contractors, Inc. of Danboro, Pennsylvania stored equipment and materials on a portion of GAF's property at the corner of 6th and Water Street. The pump station was constructed on the lot immediately north of the Gloucester City Plant, directly across the street from the power house (Building 11).

Carbro Construction Corporation of Bridgewater, New Jersey used a portion of the GAF property, on the corner of Charles and Water Streets, as a field construction office. Carbro Construction was involved in the installation of underground sewer pipes for the Gloucester City Sewage Pump Station.

A spill of approximately 300 to 400 gallons of Askarel (polychlorinated biphenyls, PCBs), occurred at the power house area of the GAF site (Area D) on April 14, 1978. PCB-contaminated soils and liquids were excavated and manifested off site to Chemtrol Pollution Service of Model City, New York.

On May 27, 1979 approximately 300 gallons of No.6 fuel oil escaped from a heat exchanger blowdown when a fuel line inside the exchanger broke. The oil mixed with the water and discharged onto the ground covering an area approximately 100 feet by 10 feet. Oil and soil were excavated from this area and manifested off site to Kinsley Landfill of Deptford, New Jersey.

Approximately 2,000 gallons of water spilled from the top of a process water tank at GAF on June 22, 1983. The spill was the result of an adjustment being made to a pump impeller, followed by a trip out of a standby pump. The spill was soaked up with corrugated pulp and returned to the process tank by a front end loader. Some of the spilled water was reported as reaching the storm sewer catch basin at the curb.

Various hazardous waste liquids, solids and corrosive materials were removed from the facility between 1985 and 1986 by Clean Venture and S.J. Transportation Company. A site investigation by the NJDEP/DHWM/SBFO on April 27, 1987 determined that no visible contamination or storage of wastes was found on site.

A Preliminary Assessment of the site conducted by the NJDEP/Division of

Hazardous Waste Management/Bureau of Planning and Assessment (DHWM/BPA) reported that former employees of GAF stated that an area behind the facility and between the Delaware River was used as a dump site for asbestos waste from the plant. Dumping in this area apparently began with the Ruberoid Corporation and continued until approximately 1971. In addition, a portion of the asbestos on site was removed off site and used as clean fill in areas of Gloucester City. Currently GAF is cooperating with the NJDEP/Division of Responsible Party Site Remediation/Bureau of State Case Management (DRPSR/BSCM) to remediate several properties in Gloucester City/Gloucester Heights which contain asbestos material believed to have originated from the GAF site.

Three underground storage tanks existed at the site; Tank No. A1 was a 10,000-gallon kerosene tank, which was last used in 1972. Tank No. A2 was a 1,000-gallon leaded gasoline tank which was last used in 1985. These tanks were abandoned and filled with gravel on December 15, 1988. The abandonment procedure entailed exposing the upper surface of the tank, ventilating the tank and testing for combustible fumes. The top of each tank was subsequently burned out and completely filled with gravel. In addition, the area above the tanks was filled with gravel and brought up to grade. Joric Inc. of Gloucester, New Jersey performed this abandonment procedure. It was noted that the tanks did not contain any liquids and exhibited negligible beads of condensation on the inner surface, which evaporated during the burning process.

Tank No. A3 was a 550-gallon No. 2 fuel oil tank which sat in a depression in the ground. This tank had been last used in 1979. In December 1988 this tank was decommissioned and moved to a new location at the site. The revised sampling plan proposal prepared by Environmental Science and Engineering Inc., of Plymouth Meeting, Pennsylvania, submitted in January 1991, stated that soil sampling would occur at these areas in the future.

Numerous aboveground tanks were located at the site. A 400,000-gallon aboveground tank containing No. 6 fuel oil and two 8,000-gallon aboveground No. 6 fuel oil tanks were listed on the Site Evaluation Submission for GAF. Two aboveground process water tanks (one 125,000 gallons, the other 100,000 gallons) were also listed. In addition, a 20,000-gallon aboveground tank containing caustic was installed at the site in 1970. All aboveground tanks are still currently on site.

On October 1, 1991 a magnetometer survey was conducted by Langan Environmental Services, Inc. (LESI) of Elmwood Park, New Jersey in Area C to identify any areas which may contain anomalies. Five test pits were excavated to the bottom of the fill material and a soil sample was collected at each area. Elevated levels of copper, zinc and nickel were detected at several of the test pits. Asbestos levels in the soils in the fill area ranged from 10 to 15 percent.

The magnetometer survey determined that wide areas of the site exhibited anomalous readings ranging from ±1,000 gammas to ±1,500 gammas. It was thought that surficial metal debris and metal debris located 6 to 12 inches below the surface may have been the cause of the readings. LESI stated that a tank or drum approximately 1 to 2 meters below the ground surface would exhibit anomalous readings of ±10,000 to ±30,000 gammas.

The highest reading recorded was ±6,000 gammas, which was detected at three locations. Test pits 2A and 1A were dug at two areas exhibiting this reading. The third anomaly was identified as a stainless steel "segment" found at the surface on October 2, 1991. During the excavation of test pit 2A a metal plate approximately 1-inch thick and 4 feet by 8 feet was discovered. The excavation at test pit 1A did not reveal any source for the anomalous reading. After excavation the pit no longer exhibited these readings.

Test pit 3A was excavated at a large area which exhibited anomalous readings of ±2,000 to ±4,000 gammas. Approximately 12 inches below the surface a 6- to 12-inch layer of metal, glass and soil was discovered.

Test pit 4A was excavated in an area where an anomaly of +3,000 gammas was recorded. The upper 12 to 18 inches of this area contained fill material including metal debris.

The PCB transformer area is known as Area D. Additional transformers are located at other areas of the site. During a June 14, 1990 site inspection by the NJDEP/Division of Hazardous Waste Management/Bureau of Environmental Evaluation and Cleanup Responsibility Assessment (DHWM/BEECRA) two additional batteries of transformers were observed east of Building 21 and inside the south end of Buildings 2 and 4, respectively.

On September 20, 1991 Resource Management, Inc. of Media, Pennsylvania collected suspect asbestos samples from the GAF facility. Analysis of the samples was performed by Environmental Hazards Services, Inc. of Philadelphia, Pennsylvania. Six of the samples collected at Building 11 exhibited asbestos containing materials composed of chrysotile, some of which also contained amosite or crocidolite. Samples collected at Building 1 contained asbestos containing material composed of amosite and chrysotile. Samples collected at Buildings 2, 4, 5, 6, 8 and 16 exhibited asbestos containing material composed of chrysotile.

Asbesto Problem

GROUNDWATER ROUTE

GAF is located in the Atlantic Coastal Plain Physiographic Region. Underlying this area are unconsolidated sediments of Quaternary, Tertiary and Cretaceous age consisting of alternating layers of sands, silts and clays. The sediments are approximately 250 feet thick at the facility site and thicken eastward toward the Atlantic Ocean. The underlying bedrock material is Cambrian to Pre-Cambrian in age and is called the Wissahickon Schist. In Camden County the Potomac-Raritan-Magothy aquifer system is the most productive source of groundwater. This system consists of aquifers composed of sand and some gravel and confining units composed of silts and clays, and is overlain in the outcrop area by highly permeable Pleistocene sand and gravel. The sands are divided into three hydrologic units, an upper, middle and lower aquifer. The Magothy Formation comprises the upper unit; the middle and lower units are composed of sands of the Raritan Formation and the Potomac Group.

The Magothy and Raritan Formations consist of alternating beds of sand, gravel and clay. The Raritan Formation is predominantly light colored; the Magothy beds include some darker lignitic and glauconitic material. The maximum thickness of the formations in the Camden area is approximately 240 feet. In the vicinity of the GAF facility, two water bearing zones have been identified in the Magothy and Raritan Formations. The zones are

separated hydraulically by clay beds. Local and regional groundwater flow within the aquifer of concern is northwest toward the Delaware River.

Four monitoring wells were installed on site on September 26, 1991 by Environmental Drilling Inc. of West Creek, New Jersey.

WELL #	DEPTH (feet)	DEPTH OF WATER (feet)	LOCATIONS
MW1	21.48	6.84	Located at Area C, east of Water Street, east of Test Pit 3.
MW2	21.5	8.44	Located at Area C, east of Water Street at the southeast corner.
MW3	21.5	8.28	Located at Area C, east of Water Street, east of the Water Street Warehouse, west of Test Pit 4.
MW4	36.18	26.1	Located at Area B, adjacent to the decommissioned kerosene and gasoline underground storage tanks.

MW1, MW2 and MW3 were installed in Area C to determine if groundwater had been impacted by former disposal practices. MW4 was installed in Area B, adjacent to the decommissioned kerosene and gasoline underground storage tanks. MW1, MW2 and MW3 are screened in the surficial water table aquifer; MW4 does not intersect this water table, nor the tidal marsh deposits.

Groundwater sampling was conducted on October 15, 1991 by Langan Environmental Services, Inc. (LESI) of Elmwood Park, New Jersey. All samples collected for metal analyses were filtered in the field prior to analyses. No volatile organic or semivolatile organic compounds were detected above the method detection limits. In addition, no polychlorinated biphenyls (PCBs), phenol or lead was detected in any samples. Antimony was detected in MW2; arsenic, chromium, copper and zinc were detected in some of the samples, but no levels exceeded the NJDEPE action levels.

A second round of groundwater sampling occurred on November 18, 1991. Results of this sampling episode were not found in the files reviewed. LESI proposes to seal the four wells using a certified well driller if the results of the second round of sampling do not indicate contaminants above NJDEPE action levels.

Gloucester City Water Department operates four wells approximately 0.83 mile from the site. Depths of the wells range from 260 feet to 306 feet, all wells tap the Raritan/Magothy Aquifer. Approximately 12,500 residents are serviced in Gloucester City by this system.

Brooklawn Water Department operates three wells approximately 0.76 mile from the site. Depths of the wells range from 293 feet to 327 feet; all tap the Raritan/Magothy Aquifer. Approximately 2,520 residents in Brooklawn are serviced by this system.

National Park Water Department operates two wells approximately 3.3 miles from the site. One well is 282 feet deep, the other is 275 feet deep; both wells tap the Raritan/Magothy Aquifer. Approximately 3,550 residents in the Borough of National Park are serviced by this system.

New Jersey American Water Company operates eight wells within a 3 to 4 mile radius of the site. Two additional wells are located approximately 2.8 miles from the site. All wells tap the Raritan/Magothy Aquifer and range in depth from 190 feet to 598 feet. Approximately 33,490 residents are serviced by this system in sections of Haddon Heights and Runnemede.

Collingswood Water Department operates six wells within a 3 to 4 mile radius of the site. A seventh well is located approximately 2.4 miles from the site. The seven wells range in depth from 281 feet to 318 feet and all tap the Raritan/Magothy Aquifer. Collingswood Water Department services approximately 20,000 residents in Collingswood, a section of Woodlyn and a section of Haddon Township.

Bellmawr Water Department operates two wells approximately 1.45 miles from the site. Average depth of the wells is 373 feet. Two additional wells are located approximately 2.45 miles from the site; average depth of the wells is 560 feet. All wells tap the Raritan/Magothy Aquifer. Approximately 9,520 residents are served by this water system, about half of Bellmawr Boro.

Camden City Water Department operates three wells which service the Parkside Treatment Plant. The wells are approximately 3.3 miles from the site and range in depth from 230 feet to 290 feet. All three wells tap the Raritan/Magothy Aquifer; approximately 20,000 residents are serviced in the Camden City Area.

West Deptford Water Department operates one well 2.5 miles from the site. A second well is 3.3 miles from the site. The wells are approximately 365 feet deep and tap the Raritan/Magothy Aquifer. The two wells are part of an interconnected water system which is comprised of a total of seven wells. Approximately 19,000 residents are serviced by this system and approximately 64 residents are served by private wells in West Deptford Township. In addition, approximately four industries in the area are serviced by private wells.

Westville Water Department operates three wells approximately 1.2 miles from the site. Depths of the wells range from 274 feet to 317 feet; all wells tap the Raritan/Magothy Aquifer. Approximately 7,000 residents are serviced in Westville and portions of Deptford and West Deptford.

Deptford Township Municipal Utilities Authority operates one well approximately 2.5 miles from the site. It is 363 feet deep and taps the Raritan/Magothy Aquifer. Approximately 1,100 residents are serviced in a section of Deptford Township.

Woodbury Water Department operates two wells within a 3 to 4 mile radius of the site. One well is 188 feet deep, the other is 305 feet deep; both tap the Raritan/Magothy Aquifer. The wells are part of an interconnected system (with a total of five wells) which services approximately 11,920 residents in Woodbury, West Deptford, Deptford, Wenonah and Woodbury Heights.

Haddon Township Water Department operates four wells within a 3 to 4 mile radius of the site. The wells range in depth from 448 to 487 feet in depth and all tap the Raritan/Magothy Aquifer. Approximately 12,000 residents are serviced by this system in Haddon Township.

The first groundwater sampling episode at the site did not reveal any contaminants present above the NJDEPE action levels at Area C (the fill area) or at Area B (the location of the abandoned underground storage tanks). Shallow groundwater flow in the tidal deposits at the site was determined to be predominantly to the north/northwest, toward the Delaware River. Groundwater flow in the lower water bearing unit (by MW4) could not be determined. PCB-contaminated soil was detected on site, possible groundwater contamination may have occurred from this source. Monitoring wells on site are located south of the past PCB spill.

SURFACE WATER ROUTE

GAF is located adjacent to the Delaware River to the west; runoff from the site would flow into the Delaware River which flows south from the site. The Delaware River from river mile 108.4, to below the mouth of Big Timber Creek is classified as Zone 3. Designated uses in Zone 3 include agricultural, industrial and public water supply after reasonable treatment; wildlife; maintenance of resident fish and other aquatic biota; migration of anadromous fish; secondary contact recreation; and navigation.

GAF was issued a renewal of their New Jersey Pollutant Discharge Elimination System/Discharge to Surface Water (NJPDES/DSW) permit (No. NJ0005371) by the NJDEP/Division of Water Resources/Bureau of Water Quality Management (DWR/BWQM) on March 19, 1985 to discharge non-contact cooling water to the Delaware River. This permit was due to expire on April 30, 1990. On October 6, 1986 GAF filed an affidavit of exemption to terminate the above permit, due to the closure of the facility.

The Delaware River is tidal at the site, numerous industrial intakes are located between river mile 106 and river mile 97 in New Jersey. The City of Philadelphia operates one drinking water intake on the Delaware River at Torresdale, Pennsylvania. This intake is approximately 14.7 miles upstream from the site.

Two coastal wetlands (tidal flats) are located downstream of the site. One area is approximately 80 acres in size and is approximately 0.63 mile from the site. The second area is approximately 1.5 miles downstream from the site.

Previous practices at the site are alleged to have included the dumping of asbestos waste at an area of the site behind the facility between the Delaware River. The possibility for surface water contamination exists if this waste was not contained.

Approximately 7.4 miles upstream from the site is habitat known to be utilized by a New Jersey state endangered or threatened specie. Twelve threatened or endangered species in New Jersey utilize habitats such as those found in the USGS Philadelphia, Woodbury, Runnemede and Camden Quadrangles. They include the shortnose sturgeon (Acipenser brevirostrum), American shad (Alosa sapidissima), pine barrens treefrog (Hyla andersonii), brook trout (Salvelinus fontinalis), northern pine snake (Pituophis melanoleucus), bog turtle (Clemmys muhlenbergii), wood turtle (Clemmys insculpta), peregrine falcon (Falco peregrinus), red-shouldered hawk (Buteo lineatus), black rail (Laterallus jamaicensis), upland sandpiper (Batramia longicauda) and Henslow's sparrow (Ammodramus henslowii).

AIR ROUTE

GAF (Plant ID Nos. 50002 and 50127) possessed numerous Air Pollution Certificates with the NJDEP/Department of Environmental Quality (DEQ) regarding stacks located at various areas on site. Air contaminants noted as being emitted from the stacks included sulfur dioxide, nitrogen oxides, particulates, carbon monoxide and hydrocarbons.

On July 2, 1971 the NJDEP/DEQ conducted an investigation concerning possible releases to the atmosphere by Gulf and Western Industries, Kewanee Oil Company and GAF, as reported by area residents. Approximately 23 residents were interviewed on this date. Complaints ranged from rotten egg odors to gas odors, chemical odors and smoke and dust emissions. All of the complainants named the three subject companies as the source, along with possible odors from Philadelphia.

The NJDEP/DEQ issued an Order on September 29, 1971 to GAF to discontinue the discharge of solid particles into the atmosphere from stacks or chimneys. This violation had occurred on July 22, 1971 at the facility.

GAF was issued a Notice of Prosecution (NOP) from the NJDEP/DEQ on April 6, 1972 for issuing smoke greater than number 1 Ringlemann, for a period of 9.75 minutes out of a 30 minute observation period. GAF was fined $100.00 for this violation.

A complaint was registered with the NJDEP/DEQ against GAF on October 3, 1975 by the Brooklawn Police Department. It was noted that on weekends GAF blew black smoke over the town of Brooklawn. The police department received numerous calls regarding these releases. An investigation of this complaint by the NJDEP/DEQ on October 25, 1975 could not confirm this occurrence.

A NOP was issued on May 7, 1979 to GAF by the NJDEP/DEQ regarding an opacity violation which had occurred on February 22, 1979. GAF was fined $100.00 for this violation.

A complaint was verified by the NJDEP/DEQ against GAF on June 13, 1983 regarding a black rancid liquid, located on the ground around the waste disposal dump trucks on site. This matter was referred to the NJDEP/Division of Waste Management.

GAF ceased operating at the site in December 1983. The possibility for air contamination at the site may exist if asbestos dumped at the site was not containerized or covered correctly. An unidentifiable white substance was noted on the surface at the fill area during the March 20, 1992

Pre-Sampling Assessment conducted by the NJDEPE/Division of Responsible Party Site Remediation/Bureau of Site Assessment (DRPSR/BSA). Possible air contamination may exist at this area of the site if this substance proves to be asbestos waste.

SOIL

Soil at the site is classified as Downer-Woodstown-Dragston series which includes gently sloping, grayish-brown sandy soils. The Downer series consists of dark grayish-brown, well-drained soils that have a yellowish-brown subsoil containing only slightly more clay than the surface layer. These soils are nearly level to gently sloping. Soils of the Downer-Woodstown-Dragston Series are rapidly permeable to moderately permeable.

A description of the soil and the fill material at the site was obtained during the drilling of soil borings, monitoring wells and test pit excavations completed September 26 and October 2, 1991. Material noted included imported fill, tidal marsh deposits and non-marine, recent Quaternary deposits.

Material comprising the artificial fill extends to depths of 3 feet to greater than 6 feet below the existing grade. Different areas of the site exhibited varying amounts and type of fill material. The areas surrounding the former power house consists of coal fragments and powder, and gravel with low to moderate amounts of soil. Underlying this area is soil fill consisting of red-brown, fine to coarse sand and gravel.

The fill area (Area C) consists of fill material containing a 6-inch to 12-inch layer of miscellaneous debris intermingled within a soil of high organic content. Underlying this material are one or more fill layers: a black silt to fine sand material, a red-brown soil which contains high volume percentages of glass and metal, a layer of wood and burnt wood material with low to moderate amounts of silt-fine sand and a layer of white material. Varying amounts of fill material consisting of wood, metal, bricks and plastics are located between the above mentioned layers. The underlying native soil in this area consists of fine to coarse sands with silt and gravel.

Native tidal marsh deposits, which consist of clay-silt to silty sand, were noted below the fill material in areas where the overlying unit was penetrated. These deposits extend to depths of at least 20 feet below grade with local thicknesses of approximately 15 feet. Also noted in this unit were occasional fine sand and fine gravel lenses. Tidal deposits varied in color from gray to brown, indicative of the amount of organic material present.

The Quaternary deposits consist of soil composed of varying amounts of fine sand and gravel. This soil type was encountered throughout the boring for MW4 and in several borings in Area C at a depth of approximately 20 to 22 feet below grade (below the tidal marsh deposits). The color of this unit varies from light brown to off-white. The thickness and the lateral extent of this unit could not be determined from the available soil boring data, though it was believed to be a riverbank deposit.

On November 18, 1985 BCM Eastern Inc. of Plymouth Meeting, Pennsylvania collected soil borings at two areas of the site where potential PCB

contamination was suspected. BCM Eastern Inc. collected a total of 19 soil samples at these locations. Samples were analyzed for polychlorinated biphenyls (PCBs) to determine if previous remedial efforts addressing a PCB spill at the site in 1978 were appropriate for current NJDEP cleanup guidelines. Sample results revealed that PCB contamination existed at Area G; levels ranged from 7.6 parts per million (ppm) to 183 ppm. At Area H one sample contained PCB levels of 6.4 ppm. It was recommended at that time that future remedial work should involve the excavation of 6 inches of soil at this area of the site. Subsequently, contaminated soils and liquids were diposed off site at CECOS International of Niagara Falls, New York and Chem Waste Management of Emelle, Alabama in 1985.

Langan Environmental Services, Inc. (LESI) of Elmwood Park, New Jersey conducted a sampling episode at the site from September 30, 1991 through October 2, 1991. Twenty-four soil samples were collected at Area A (the aboveground storage tank area), Area B (the underground storage tank area) and Area C (the fill area) on September 30, 1991. Elevated levels of petroleum hydrocarbons (PHCs) were detected in three samples at Area A ranging from 11,000 ppm to 38,200 ppm. Carcinogenic base/neutral compounds were detected in one sample within the tank dike area at 19,100 ppm.

On October 1, 1991 fourteen soil samples were collected from Area D (the transformer area) and miscellaneous areas (the french drain and the pier/pipeline) at the site. PHCs were not detected in any sample above NJDEPE action levels. One sample at Area D contained 7,600 ppb Aroclor-1260.

Eight wipe samples and eleven soil samples were collected on October 2, 1991. Samples were collected at the concrete trench, the french drain and Area C. The wipe samples were collected from concrete surfaces adjacent to the existing transformer. Soil samples were analyzed for PHCs and base/neutral compounds; the wipe samples were analyzed for PCBs. Soil and wipe samples collected from the PCB transformer area contained PHCs below the NJDEPE action level. PCB concentrations at the old spill area were detected above the NJDEPE action level of 5 ppm in one sample, HA-2 at 7.6 ppm. PHCs were detected at the existing transformer area below the NJDEPE action level. PCBs were not detected above NJDEPE action levels at the existing transformer area or in any of the wipe samples.

Soil samples collected from the fill area were analyzed for volatile and semivolatile organic compounds, priority pollutant metals plus 40, PCBs and asbestos. Five test pits (TP-1A through TP-5A) were excavated at Area C (the fill area) to the bottom of the fill material. Total volatile organic compounds in the soils collected from the test pits ranged from none detected (ND) to 14 ppb. Total semivolatile organic compounds ranged from ND to 5,050 ppb, below the NJDEPE action level.

Eleven metals were detected in the test pit samples. Antimony ranged from ND to 45.9 ppm at TP-5A; arsenic levels were not detected above the NJDEPE action level of 20 ppm. Cadmium levels ranged from ND to 3.44 ppm at TP-3A, above the NJDEPE action level of 3 ppm.

Chromium was detected at all of the sampling locations at concentrations ranging from 9.98 ppm at TP-1A to 30.1 ppm at TP-4A; the NJDEPE action level for chromium was not exceeded at any of the sampling locations. Copper was detected at all of the sampling locations with concentrations ranging from 31.8 ppm at TP-4A to 918 ppm at TP-3A. The NJDEPE action

level for copper was exceeded at TP-2A and TP-3A. Lead was detected at all of the sampling locations, ranging from 9.03 ppm to 823 ppm. Mercury concentrations ranged from ND to 3.43 ppm at TP-3A. Nickel was detected at all sampling locations ranging from 19.7 ppm at TP-1A to 102 ppm at TP-4A. Zinc was detected at all of the sampling locations with concentrations ranging from 133 ppm at TP-1A to 1,240 ppm at TP-3A. NJDEPE action levels for zinc were exceeded at TP-2A, TP-3A and TP-5A. Beryllium was only detected at TP-1A and only slightly above the NJDEPE action level of 1 ppm. Selenium concentrations ranged from ND to 4.69 ppm at TP-1A. PCBs were detected at location TP-2A at a concentration below the NJDEPE action level.

Asbestos levels in the soils in the fill area ranged from 10 to 15 percent and was composed mainly of amosite and chrysotile.

DIRECT CONTACT

The area of the site west of Water Street is enclosed by a fence, as is the portion of the site which is located on the east side of Water Street. Access to the site by the off-site population does not appear to be a matter of concern. A caretaker is also located at the site.

FIRE AND EXPLOSION

A documented fire occurred at the GAF facility on April 16, 1981. This was noted as being a one alarm fire, involving wood and paper products. GAF ceased operating in 1983; all hazardous materials were manifested off site between 1985 and 1986. No record of flammable or explosive materials were noted at the site during a site inspection by the NJDEP/DHWM/BHWE and the SBFO on January 9, 1990.

ADDITIONAL CONSIDERATIONS

No damage to flora or fauna has been noted on site. Several areas in Gloucester City/Gloucester Heights had received asbestos contaminated material from the GAF facility, which had been used as clean fill. Currently, several residences are undergoing remedial activities regarding this material.

ENFORCEMENT ACTIONS

A NOV was issued to GAF, for notification purposes only, on July 28, 1987 by the NJDEP/DHWM/SBFO for discharging a hazardous substance. Of concern was a release of asbestos material due to improper disposal and failure to notify the Department of said release. The Stein residence and adjacent properties were noted as areas containing a dry fibrous asbestos material. Two types of asbestos material were detected at the Stein property, chrysotile and amosite.

On August 19, 1986 GAF was issued a letter of violation from the NJDEP/Division of Water Resources for nonsubmittal of a Discharge Monitoring Report.

SUMMARY OF SAMPLING DATA

1. Sampling date: November 18, 1985

   Sampled by: BCM Eastern Inc.
   Plymouth Meeting, Pennsylvania

Samples: 19 soil samples

Laboratory: BCM Eastern Inc.
Norristown, Pennsylvania
Lab Certification #77175

Parameters: Polychlorinated biphenyls (PCBs)

Sample description: Soil borings were conducted at two areas of the site. Hand augers were used to collect samples at a maximum depth of 4 feet.

Contaminants detected:

SAMPLE AREA AND DEPTH (inches)		SAMPLE NO.	PCB CONCENTRATION (ppm)
G-1	2-4"	520597	103
	22-24"	520598	0.9
	46-48"	520599	3.1
G-2	2-4"	520600	81
	22-24"	520601	2.9
	46-48"	520602	2.9
G-3	2-4"	520603	130
	22-24"	520604	1.8
	46-48"	520605	0.3
G-4	2-4"	520606	42
	22-24"	520607	2.1
	46-48"	520608	<0.1
G-5	2-4"	520609	183
	22-24"	520610	7.6
	46-48"	520611	1.1
H-1	2-4"	520612	6.4
	22-24"	520613	0.7
H-2	2-4"	520614	0.1
	22-24"	520615	<0.1

No sample was collected at areas H-1 and H-2 at a depth of 46-48 inches.

QA/QC: No QA/QC data was noted in the files reviewed.

File location: Attachment S
NJDEP/Bureau of Environmental Evaluation
Cleanup and Responsibility Assessment
Trenton, New Jersey

2. Sampling date: September 30, 1991

Sampled by: Langan Environmental Services, Inc.
Elmwood Park, New Jersey

Samples:	24 soil samples
Laboratory:	Bridgeport Environmental Inc. Bridgeport, New Jersey Lab Certification #08555
Parameters:	Samples collected from Area A and Area C were analyzed for total petroleum hydrocarbons (PHCs) and base/neutral compounds + 15. Samples collected from Area B were analyzed for volatile organic compounds + 15 (VOs + 15). Samples collected from the area of the former 10,000-gallon kerosene UST were analyzed for VOs + 15 and naphthalene and PHCs.
Sample description:	Samples from Area A were collected from 0 to 6 inches. Samples from Area B were collected from depths of 5 to 5.5 feet to 10 to 10.5 feet.
Contaminants detected:	Sample No. 122/S-11 collected at the tank dike area contained 38,200 ppm PHCs. Sample Nos. 114/S-3 and 118/S-7, collected from the area of the two 8,000-gallon aboveground storage tanks contained 15,300 ppm and 11,000 ppm PHCs, respectively. In addition, carcinogenic base/neutral compounds were detected in Sample No. 123/S-12 at 19,100 ppm.
QA/QC:	All QA/QC was submitted to the NJDEP.
File location:	Attachment Y NJDEPE/DRPSR/BEECRA Trenton, New Jersey

3. Sampling date: October 1, 1991

Sampled by:	Langan Environmental Services, Inc. Elmwood Park, New Jersey
Samples:	14 soil samples
Laboratory:	Bridgeport Environmental Inc. Bridgeport, New Jersey Lab Certification #08555
Parameters:	Samples collected from Area D were analyzed for PCBs and PHCs. Samples collected from the pier/pipeline area and a sample from the french drain were analyzed for BN + 15 and PHCs.
Sample description:	Samples from Area D were collected from 0 to 6 inches to 30 to 36 inches. Samples from

the pier/pipeline area were collected 0 to 6 inches or 30 to 36 inches. The sample from the french drain was collected from a depth of 30 to 36 inches.

Contaminants detected: PHCs were not detected above the NJDEPE action level. Sample No. HA-2 contained 7,600 ppb of Aroclor-1260.

QA/QC: All QA/QC data has been submitted to the NJDEPE.

File location: Attachment Y
NJDEPE/DRPSR/BEECRA
Trenton, New Jersey

4. Sampling date: October 2, 1991

Sampled by: Langan Environmental Services, Inc.
Elmwood Park, New Jersey

Samples: 8 wipe samples and 10 soil samples

Laboratory: Bridgeport Environmental Inc.
Bridgeport, New Jersey
Lab Certification #08555

Parameter: Samples collected from the concrete trench and french drain were analyzed for BN + 15 and PHCs. The wipe samples were analyzed for PCBs. Samples collected at Area C at the test pits were analyzed for priority pollutant compounds (minus pesticides, but including PCBs) and asbestos.

Sample description: The soil samples were collected from depths of 30 to 36 inches and 36 to 42 inches. The eight wipe samples were collected from concrete surfaces adjacent to the existing transformer.

Contaminants detected: Cyanide was detected at several of the test pit locations, but at concentrations below NJDEPE action levels. Asbestos in the soils in the fill area ranged from 10 to 15 percent and was mainly comprised of amosite and chrysotile. PCBs were not detected in any of the wipe samples above NJDEPE action levels. Contaminants detected at the test pits and former PCB spill area are listed below:

AREA	SAMPLE NO./LOCATION	CONTAMINANT	CONCENTRATION
Test pit 1A	TP-1A	beryllium	1.13 ppm
		selenium	4.69 ppm

AREA	SAMPLE NO./LOCATION	CONTAMINANT	CONCENTRATION
Test pit 2A	TP-2A	copper	214 ppm
		zinc	353 ppm
Test pit 3A	TP-3A	cadmium	3.44 ppm
		copper	918 ppm
		mercury	3.43 ppm
		zinc	1,240 ppm
		lead	823 ppm
Test pit 4A	TP-4A	nickel	102 ppm
Test pit 5A	TP-5A	antimony	45.9 ppm
		zinc	490 ppm
		lead	259 ppm
Concrete Trench	145/TP-3	PHC	57 ppm
Concrete Trench	146/TP-4	PHC	ND
French Drain	143/TP-1	PHC	ND
French Drain	144/TP-2	PHC	55.3 ppm
French Drain	140/HA-7	PHC	86 ppm

ND = Not detected

QA/QC: All QA/QC was submitted to the NJDEPE.

File location: Attachment Y
NJDEPE/DRPSR/BEECRA
Trenton, New Jersey

5. Sampling date: October 15, 1991

Sampled by: Langan Environmental Services, Inc.
Elmwood Park, New Jersey

Samples: 4 groundwater samples

Laboratory: Bridgeport Environmental Inc.
Bridgeport, New Jersey
Lab Certification #08555

Parameters: MW1 through MW3 were analyzed for priority pollutant compounds + 40 (minus pesticides but including PCBs), total dissolved solids and pH. MW4 was analyzed for volatile organics + 15, base/neutrals + 15, methyl tertiary butyl ether, tertiary butyl alcohol, total dissolved solids and pH.

Sample description: Samples were collected at the four monitoring wells. All samples collected for

metal analyses were filtered in the field according to NJDEPE guidelines.

Contaminants detected: No volatile organic or semivolatile organic compounds were detected above the method detection limit; no polychlorinated biphenyls (PCBs), phenol or lead were detected in any samples. Cyanide was detected in MW1 and MW2, but below the NJDEPE action level. Total dissolved solid concentrations ranged from 75 mg/l at MW2 to 445 mg/l at MW3. The pH values ranged from 6.5 at MW1 to 6.8 at MW3. Metals detected did not exceed NJDEPE action levels.

QA/QC: All QA/QC data was submitted to the NJDEPE.

File location: Attachment Y
NJDEPE/DRPSR/BEECRA
Trenton, New Jersey

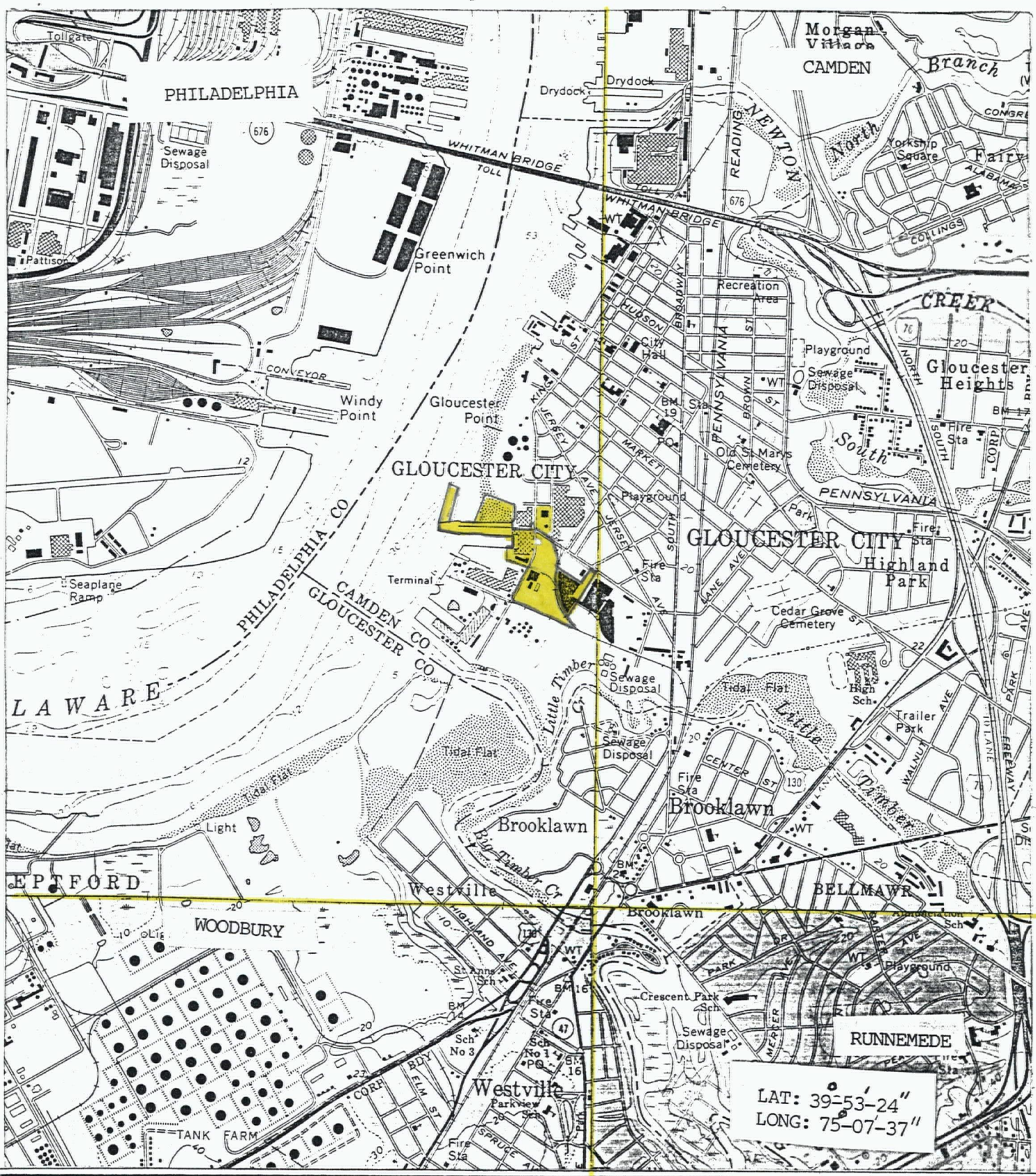
RECOMMENDATIONS

On January 6, 1992 the Superior Court of New Jersey, Appellate Division affirmed the determination of the New Jersey Department of Environmental Protection and Energy concerning GAF's cleanup responsibilities under the Environmental Cleanup Responsibility Act (ECRA). It was concluded that ECRA was triggered by GAF's cessation of its warehousing activities for a period of more than two years. Due to the fact that GAF is currently undergoing remedial activities under the direction of the Bureau of Environmental Evaluation Cleanup Responsibility Assessment (BEECRA), no further action under CERCLA is recommended at this time.

Submitted by:

Eileen Stewart
Hazardous Site Mitigation
Specialist Trainee
Bureau of Field Operations
March 23, 1992

MAPS



SCALE 1:24000

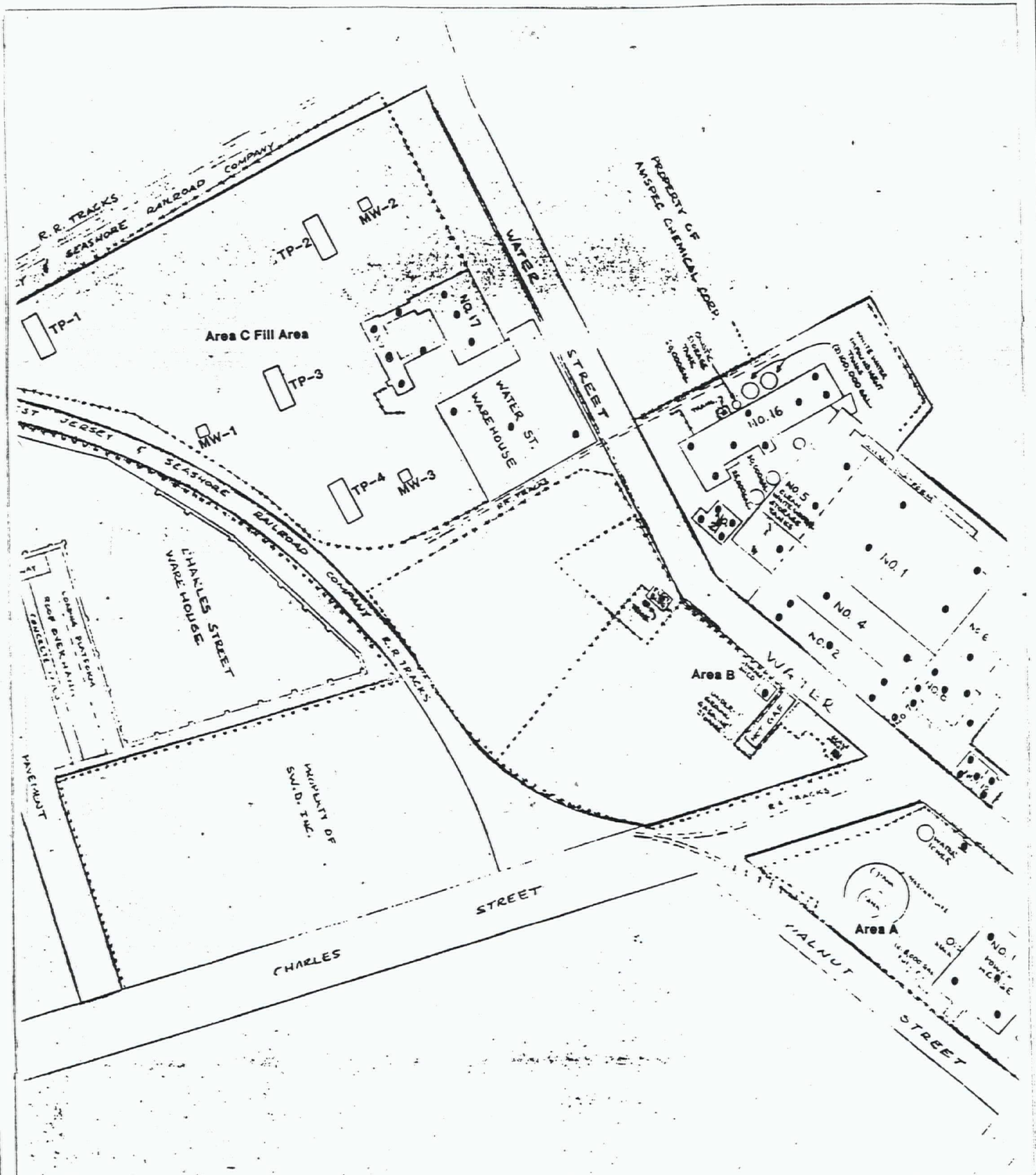
1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

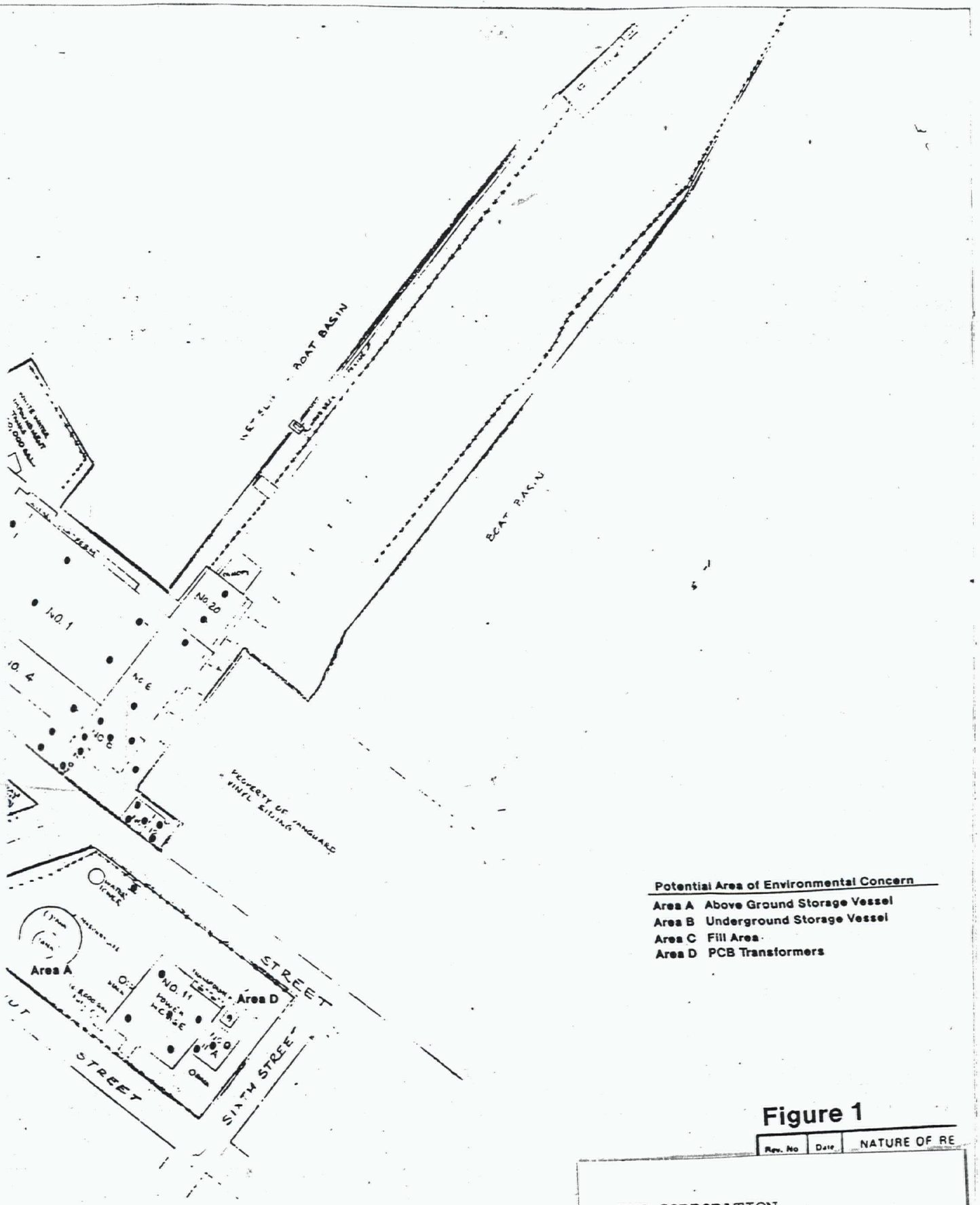
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

GAF CORPORATION
CHARLES AND WATER STREETS
GLOUCESTER CITY, CAMDEN COUNTY
USGS TOPOGRAPHIC MAP
MAP-1



GAF CORPORATION
CHARLES AND WATER STREETS
GLOUCESTER CITY, CAMDEN COUNTY
SITE MAP-
MAP-2A



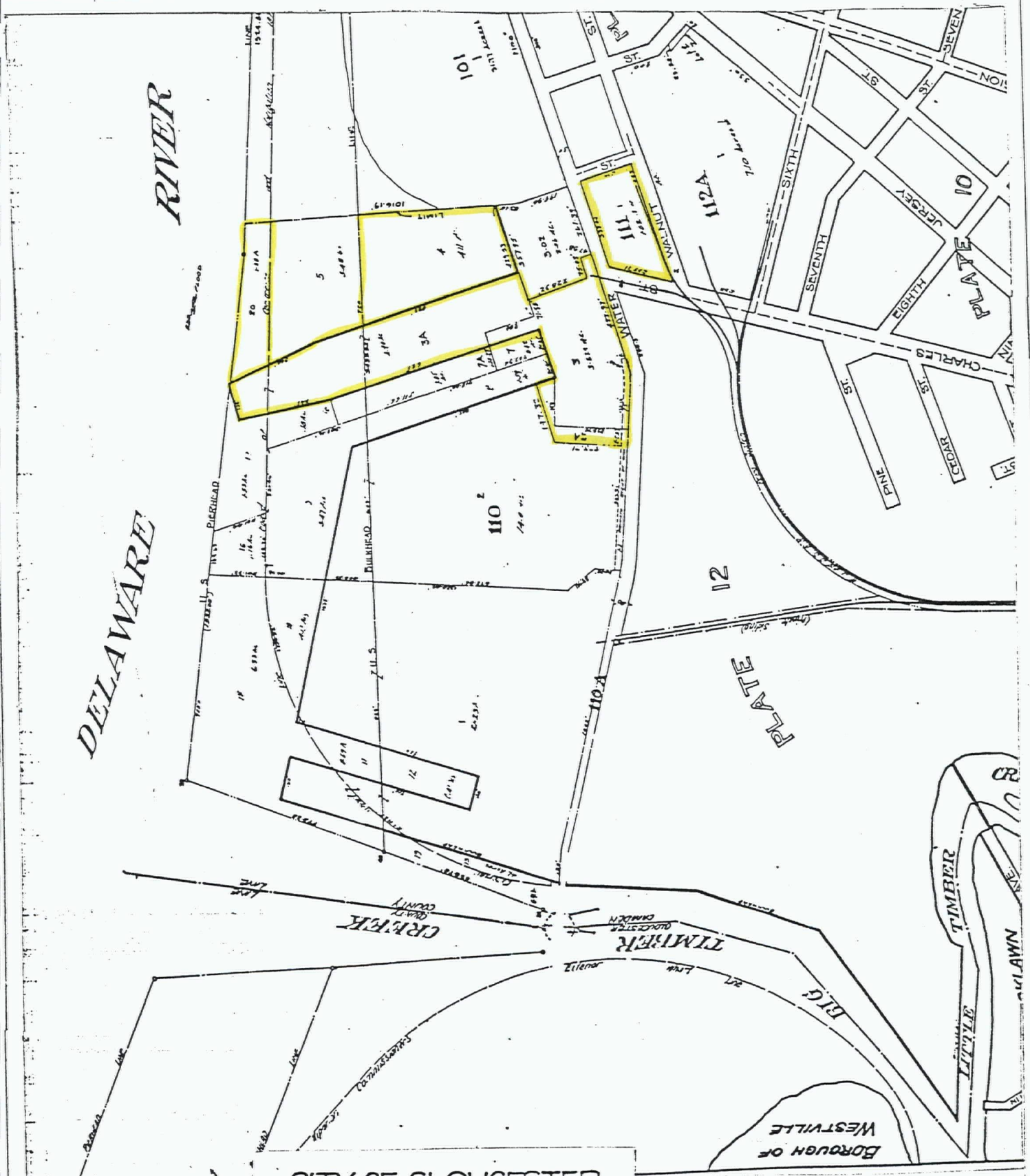
Potential Area of Environmental Concern

Area A	Above Ground Storage Vessel
Area B	Underground Storage Vessel
Area C	Fill Area
Area D	PCB Transformers

Figure 1

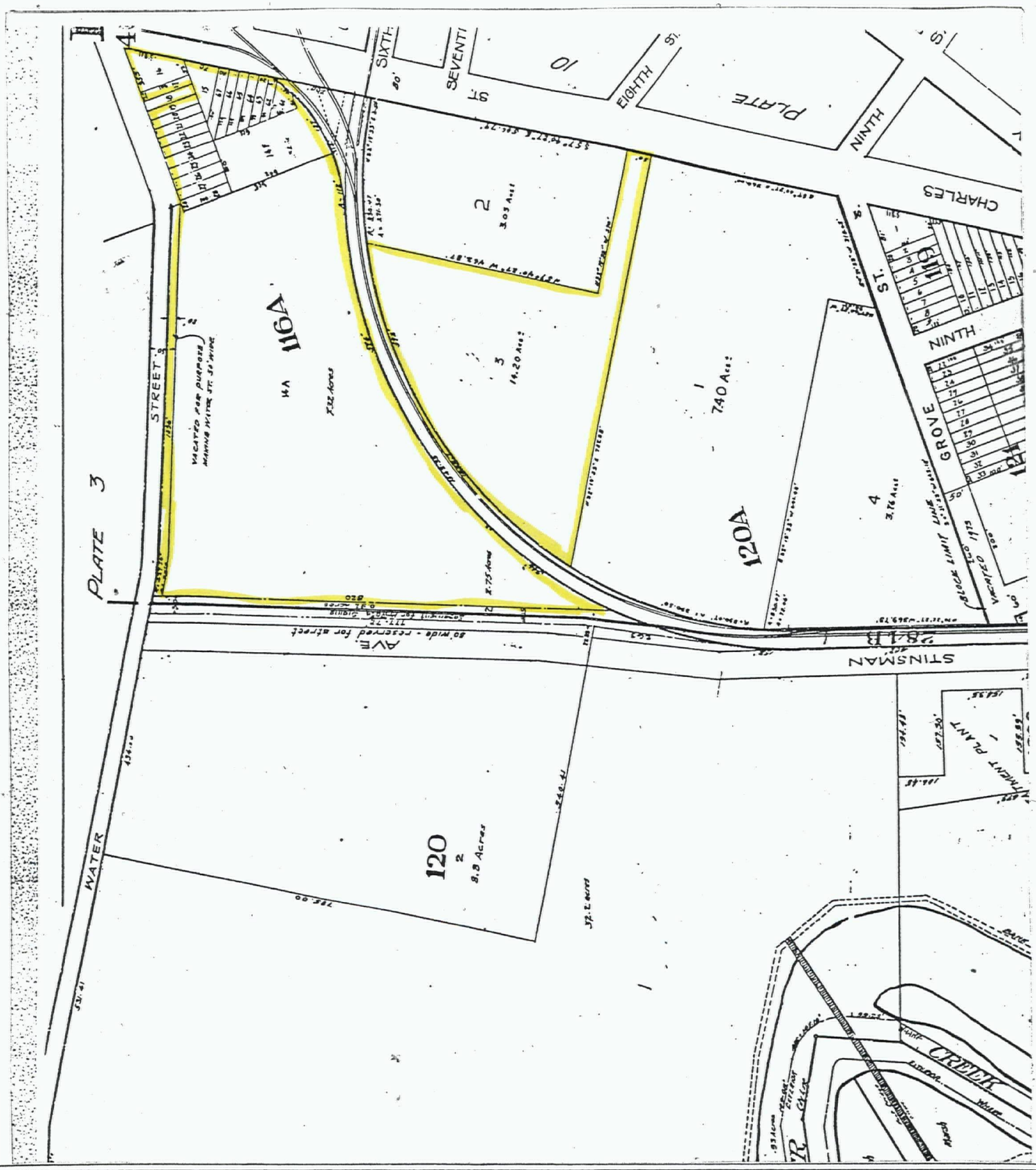
Rev. No	Date	NATURE OF RE

GAF CORPORATION
CHARLES AND WATER STREETS
GLOUCESTER CITY, CAMDEN COUNTY
SITE MAP-
MAP-2B



CITY OF GLOUCESTER
CAMDEN COUNTY, NEW JERSEY
Plotted from Surveys & Records
by
Remington & Vosbury, Civil Engineers
Camden, N.J.
July, 1929

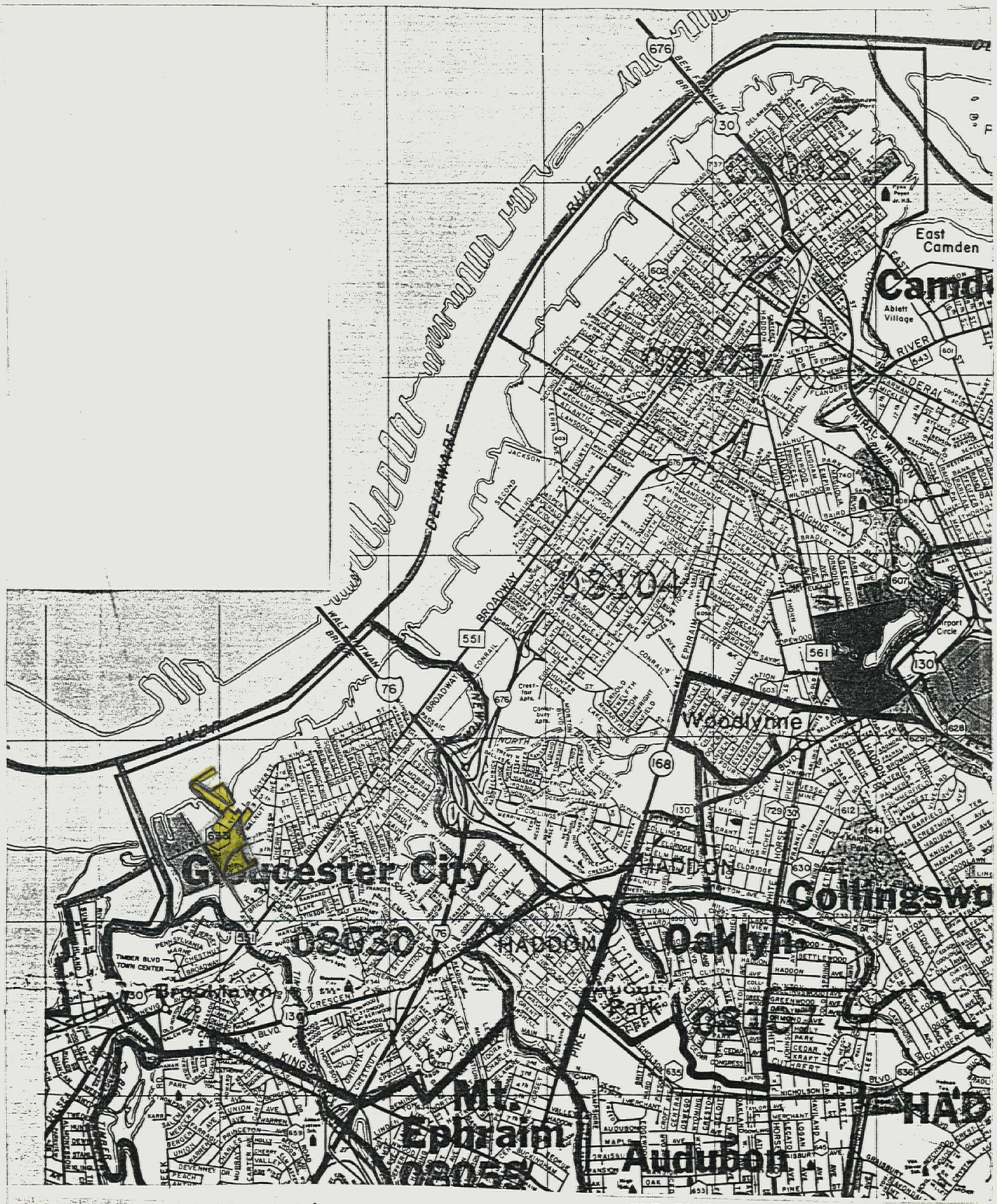
GAF CORPORATION
CHARLES AND WATER STREETS
GLOUCESTER CITY, CAMDEN COUNTY
TAX MAP
MAP-3A



CITY OF GLOUCESTER
CAMDEN COUNTY, NEW JERSEY
Plotted from Surveys & Records
by
Remington & Vosbury Civil Engineers

Revised to Sept 1931-1932-1935- / [illegible]
1940 - Dec 1947 - Oct 1961 - 1962 - 1963 - 1964 - 1965
Aug. 1976, Oct. 1, 1977, [illegible]
Revised by Remington Eng. Oct. 1, 1981, 1983, 1984

GAF CORPORATION
CHARLES AND WATER STREETS
GLOUCESTER CITY, CAMDEN COUNTY
TAX MAP
MAP-3B



GAF CORPORATION
CHARLES AND WATER STREETS
GLOUCESTER CITY, CAMDEN COUNTY
CAMDEN COUNTY ROAD MAP
MAP-4

Scale: 1 Mile to an Inch.

Miles: 1 3/4 1/2 1/4 0 1 2 3

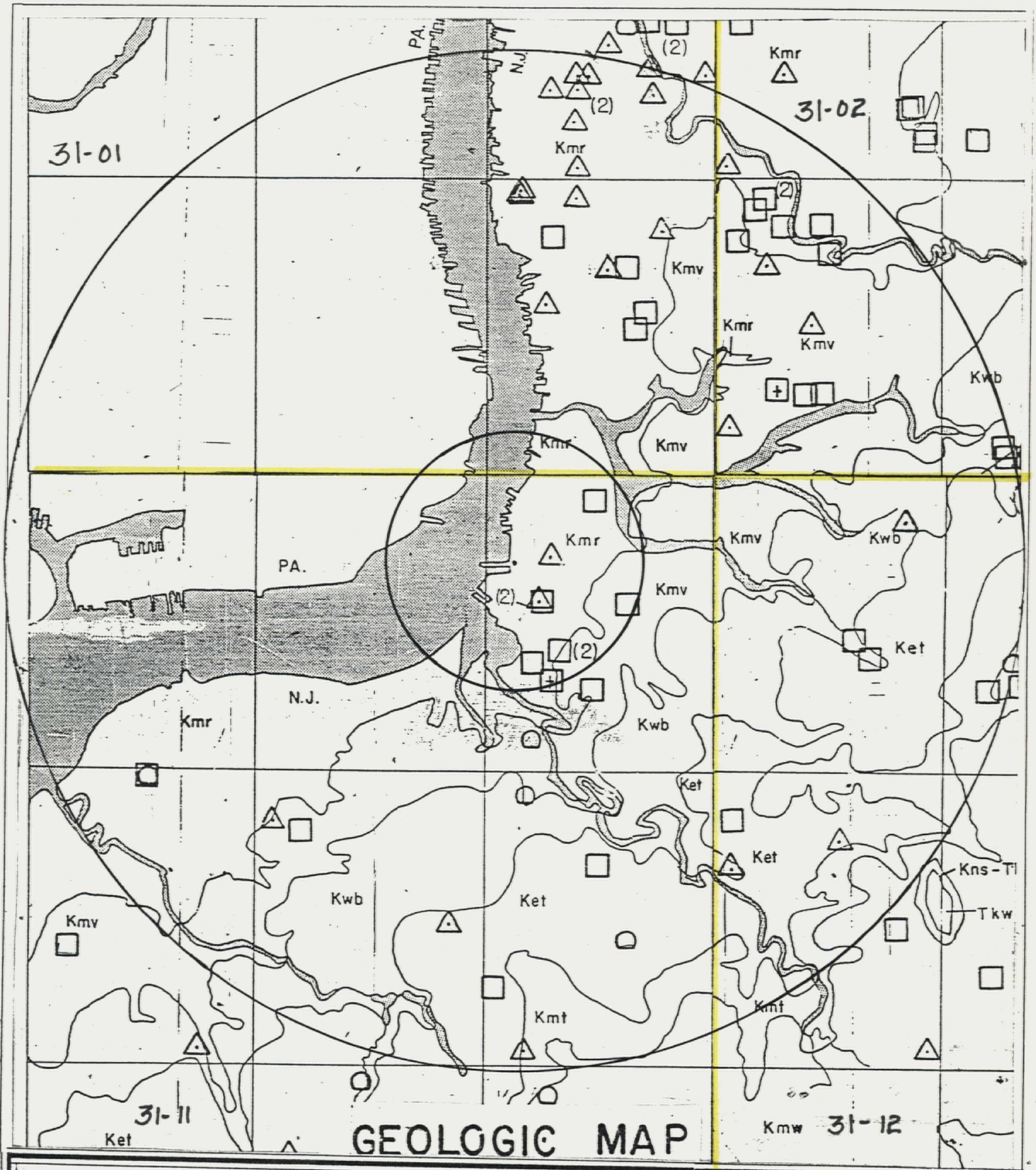
Yards: 1000 500 0 1000 2000 3000

Meters: 1000 500 0 1000 2000 3000

A. HOEN & CO. BALTIMORE, MD

Contour Interval: 20 feet

GAF CORPORATION
CHARLES AND WATER STREETS
GLOUCESTER CITY, CAMDEN COUNTY
NEW JERSEY ATLAS
BASE MAP-SHEET 31
MAP-5



Scale: 1 Mile to an Inch.

Miles 1 3/4 1/2 1/4 0 1 2 3

Yards 1000 500 0 1000 2000 3000

Meters 1000 500 0 1000 2000 3000

A. HOEN & CO. BALTIMORE, MD

Contour Interval: 20 feet

GAF CORPORATION
CHARLES AND WATER STREETS
GLOUCESTER CITY, CAMDEN COUNTY
NEW JERSEY ATLAS
GEOLOGIC OVERLAY-SHEET 31
MAP-6

LEGEND

WATER SUPPLY

- AREA SERVED BY PRIVATE WATER SERVICE COMPANIES
- AREA SERVED BY REGIONALLY OWNED WATER SERVICE COMPANIES
- AREA SERVED BY MUNICIPALLY OWNED WATER SERVICE COMPANIES
- AREA NOT PRESENTLY SERVED BY WATER SERVICE
- PUBLIC SUPPLY WELLS
- WATER MAIN ACROSS HIGHWAY FOR FUTURE USE
- SURFACE WATER INTAKE
- —W— MAJOR WATER MAINS

SEWAGE, LANDFILL

- AREA SERVED BY PUBLIC SEWAGE SERVICE
- AREA NOT PRESENTLY SERVED BY SEWAGE SERVICE
- SANITARY LANDFILLS
- SEWAGE TREATMENT PLANTS (CAPACITY <0.3mgd)
- SEWAGE TREATMENT PLANTS (CAPACITY ≥0.3mgd)
- —S— MAJOR SEWAGE TRANSMISSION LINES

DRAINAGE BASIN

- DRAINAGE BASIN BOUNDARY
- RIVER BASIN BOUNDARY
- HUDSON DRAINAGE BASIN NAME
- STREAMS AND RIVERS
- FLOOD PRONE AREAS

POPULATION

- COUNTY BOUNDARY
- MUNICIPAL BOUNDARY
- ( ) POPULATION DENSITY IN PERSONS PER SQUARE MILE
- [ ] AREA IN SQUARE MILES
- % PERCENT AREA OF MUNICIPALITY ON BLOCK
- MARKET ROADS
- BUILT UP AREAS
- STATE BOUNDARY

LEGEND FOR ATLAS SHEET 28

△ INDUSTRIAL WELL YIELD OVER 70 GALLONS PER MINUTE

□ PUBLIC SUPPLY WELL YIELDING OVER 70 GALLONS ~~PER MINUTE~~

⊕ UNSUCCESSFULL ROCK WELL YIELDING LESS THAN 70 GALLONS PER MINUTE

⊙ UNSUCCESSFULL SAND WELL YIELDING LESS THAN 70 GALLONS PER MINUTE

⊡ NO TEST – NO DATA ON YIELD

FAULT (DASHED WHERE INFERRED)

CONTACT (DASHED WHERE INFERRED)

PIEDMONT / COASTAL PLAIN — PHYSIOGRAPHIC PROVINCE BOUNDARY

WATER SUPPLY TRANSMISSION LINE

SEDIMENTARY ROCKS

TERTIARY

Tbh	BEACON HILL GRAVEL
Tch	COHANSEY SAND
Tkw	KIRKWOOD SAND
Tmq	MANASQUAN MARL
Tvt	VINCENTOWN SAND
Tht	HORNERSTOWN MARL

CRETACEOUS

Krb	RED BANK
Krbt	RED BANK (TRANSITIONAL UNIT)
Krbg	RED BANK (GLAUCONITE SAND UNIT)
Kns	NAVESINK MARL
Kml	MOUNT LAUREL SAND
Kw	WENONAH SAND
Kmt	MARSHALLTOWN FORMATION
Ket	ENGLISHTOWN SAND
Kwb	WOODBURY CLAY
Kmv	MERCHANTVILLE CLAY
Kmr	MAGOTHY AND RARITAN FORMATIONS
Km	MAGOTHY FORMATION
Kr	RARITAN FORMATION

ATLAS SHEET 28
(CONTINUED)

TRIASSIC

Ꞧb	BRUNSWICK FORMATION
Ꞧl	LOCKATONG FORMATION
Ꞧs	STOCKTON FORMATION

CAMBRIAN

Ꞓh	HARDYSTON QUARTZITE

IGNEOUS ROCKS

TRIASSIC

Ꞧdb	DIABASE

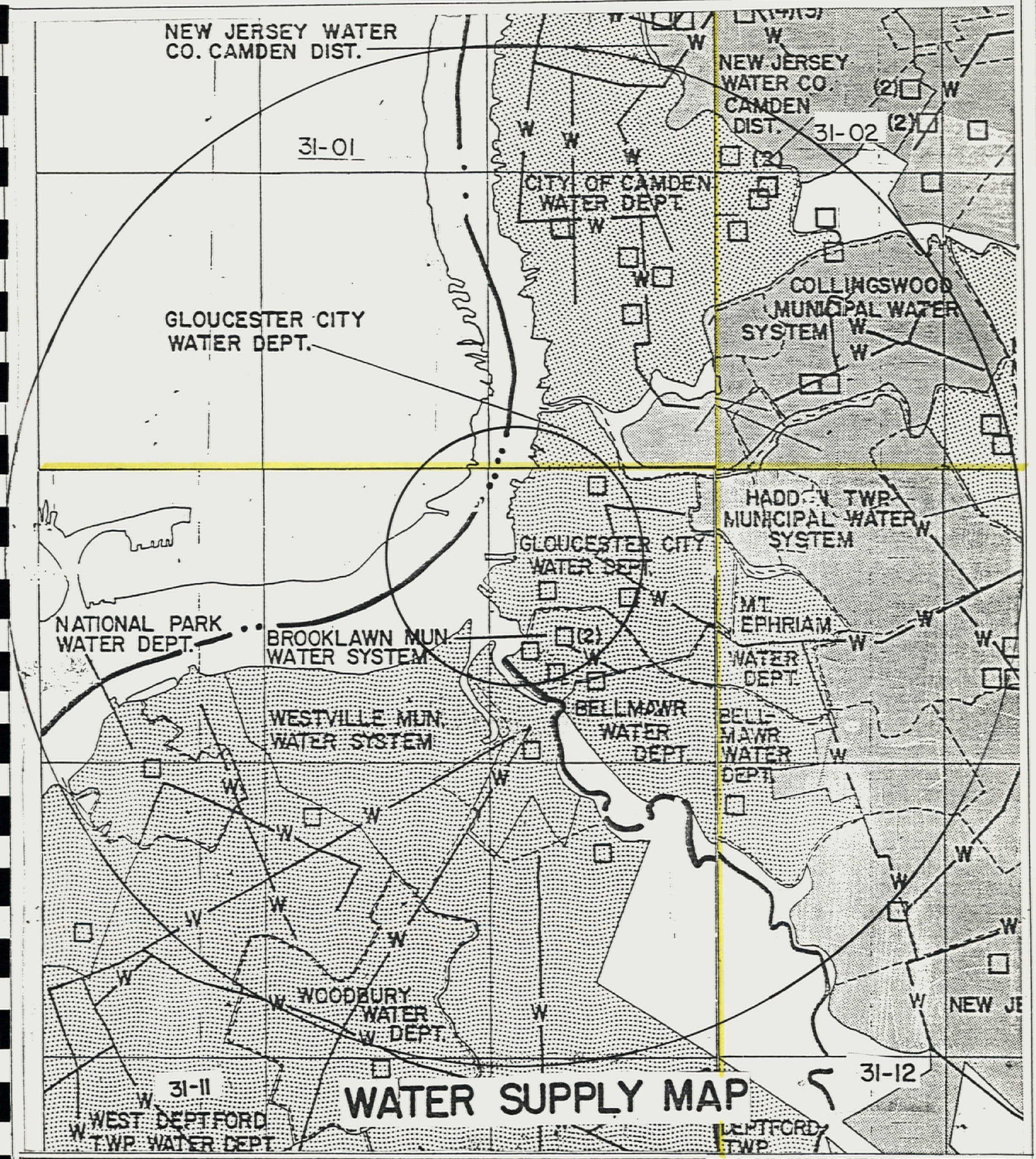
PRECAMBRIAN

gb	GABBRO
bgn	BYRAM GNEISS

METAMORPHIC ROCKS

UNKNOWN ORIGIN

Wgn	WISSAHICKON SCHIST
gn	AMPHIBOLITES AND GNEISSES



Scale: 1 Mile to an Inch.

Miles: 1 3/4 1/2 1/4 0 1 2 3

Yards: 1000 500 0 1000 2000 3000

Meters: 1000 500 0 1000 2000 3000

A. HOEN & CO. BALTIMORE, MD

Contour interval: 20 feet

GAF CORPORATION
CHARLES AND WATER STREETS
GLOUCESTER CITY, CAMDEN COUNTY
NEW JERSEY ATLAS
WATER SUPPLY OVERLAY-SHEET 31
MAP-7

BLOCK #31-01

A. Camden, Philadelphia

B. Delaware River-Newton Creek, Coopers Creek

C. 2.

Map No.	Location	Period of Record
449	Cooper River at Camden	1967-
3. 335	Newton Creek, North Branch, Woodlyne	1965

D. Magothy and Raritan Formations (Kmr), Merchantville Clay (Kmv)

E. 1. Physiographic Province: Coastal Plain
Subdivision: Inner Plain
Major Topographic Features: Delaware River, Clay and Marl Region
Elevations (ft. above sea level): hills 45, valleys 0
Relief (ft.): 45

2. a. Normal Year: 43"
Dry Year: 35"
Wet Year: 48"

b. January: 33°F
July: 76°F

c. 250 days. Last killing frost: 4/15; first killing frost: 11/5

G. Corps of Engineers (U.S.Army) - Petty Island

H. Camden:
Walt Whitman House
Benjamin Cooper House
Joseph Cooper House
Pomona Hall
Taylor House
Newton Friends Meeting House
Charles S. Boyer Memorial Hall

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
31-01-652	City of Camden, #5	1963	134-169	171	1000	Kmr
△ 31-01-655	H. Kohnstamm & Co., Inc.	1954	116-136	136	150	"
31-01-656	U.S. Gasker, #1	1953	130-141	153	100	"
△ 31-01-657	Savar Amusement Corp.	1950	82-113	113	500*	Kr
△ 31-01-657	Stanley Corp. of America	1949	118-138	150	200*	"
31-01-662	City of Camden, #15	1954	116-136	155	1000	"
31-01-664	Camden Water Dept., #1-A	1953	155-170	175	1000	"
31-01-665	City of Camden, Test Well #1	1950	129-150	166	300	"
31-01-665	" #14	1953	105-145	164	1000	"
△ 31-01-667	Sungil Co.	1947	147-157	157	100	"
31-01-669	Paris Produce Co.	1964	150-166	167	100	Kmr
△ 31-01-673	Lintonia Pure Food Shop, Inc.	1950	102-123	128	315*	"
△ 31-01-681	Savar Amusement Corp., #2	1950	110-130	130	500*	Kr
31-01-681	Camden Trust Co.	1949	93-123	127	430*	"
△ 31-01-684	Stanley Corp. of America	1949	110-130	152	600*	"
△ 31-01-687	Savar Amusement Corp.	1949	114-134	138	600	"
31-01-691	Baltimore Markets, #2	1950	138-170	170	1200*	"
△ 31-01-912	Public Service Elec.& Gas Co.	1950	120-146	149	600	"
31-01-912	"	1954	113-145	145	350	"
□ 31-01-916	City of Camden, #2-B	1953	111-136	204	1000	"
△ 31-01-921	Stanley Corp. of America	1949	86-150	163	250*	"
△ 31-01-928	Samuel Adelson	1952	92-102	102	200	"
□ 31-01-929	Camden Water Dept.	1948	111-136	165	1012	"
△ 31-01-934	Liberty Theatre #1	1949	112-130	130	150	"
△ 31-01-943	MacAndrews & Forbes Co.	1951	82-103	114	350	"
□ 31-01-956	Camden Water Dept.,#7	1966	123-163	167	1023	"
□ 31-01-961	City of Camden, #11	1942	124-154	166	1005	"

*Indicates use as a recharge well.

J. Geodetic Control Survey monuments described in Index Map 48; Adjacent Index Maps 44,54

A. Camden

B. Delaware River-Baldwin Run, Coopers Run, Newton Creek, Pennsauken

C. 1. Cherry Hill - Non-recording temperature and precipitation gauges

2. Map No.	Location	Period of Record
194	South Branch Pennsauken Creek at Cherry Hill	1967-
196	Cooper River at Haddonfield	1963-
447	North Branch Cooper River at Marlton	1964-
448	North Branch Cooper River at Ellisburg	1964-
449	Cooper River at Camden	1964-
450	Newton Creek at Collingswood	1964-
3. 196	Cooper River at Haddonfield	1965-.
334	Newton Creek at West Collingswood	
335	North Branch Newton Creek at Woodlyne	

Water Quality Standards: (explained in Atlas Sheet description) FW3, TW2

D. Mount Laurel and Wenonah Sands (Kmw), Marshalltown Formation (Kmt), Englishtown Sand (Ket), Woodbury Clay (Kwb), Merchantville Clay (Kmv), Magothy and Raritan Formations (Kmr)

E. 1. Physiographic Province: Coastal Plain
Subdivision: Inner Plain
Major Topographic Features: Delaware River, Clay and Marl Region
Elevations (ft.above sea level): hills 100, valleys 0
Relief (ft.): 100

2. a. Normal Year: 43"
Dry Year: 36"
Wet Year: 48"

b. January: 33°F
July: 76°F

c. 249 days. Last killing frost: 4/15; first killing frost: 10/30

F. Camden County:
Cooper River Park

G. Corps of Engineers (U.S.Army) - Petty Island

H. Griffin Morgan House, Pennsauken
1743 Samuel Cole House, Cherry Hill

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	For
31-02-195	Paragon Oil Co., #1	1961	51-61	61	100	Kmr
31-02-225	City of Camden, #4-A	1960	95-130	134	1585	"
31-02-227	" #5-NA	1960	79-114	121	1520	"
31-02-228	" #3	1953	73-107	136	1000	"
31-02-228	" #8	1953	89-124	141	1000	"
31-02-228	" #10	1960	75-115	118	1529	"
31-02-235	Kingston Trap Rock	1955	55-65	68	125	"
31-02-238	" #2	1966	115-123	127	200	"
31-02-238	Atlantic Blue Diamond Corp.	1958	100-110	110	180	"
31-02-281	City of Camden	1975	140-180	190	1200	"
31-02-293	Meadow Brook Swim Club	1963	97-107	107	200	"
31-02-297	H&H Industries	1959	71-81	81	100	"
31-02-331	Riverton-Palmyra Water Co. #16	1965	144-176	192	1034	"
31-02-331	" #13	1963	166-197	206	610	"
31-02-361	Delaware Valley Water Co., #28	1969	225-260	264	1200	"
31-02-363	" #31	1970	215-261	267	1002	"
31-02-419	New Jersey Water Co., #50	1958	139-170	176	1000	"
31-02-427	" #25	1961	305-367	399	1050	"
31-02-433	Merchantville-Pennsauken Water Co.	1968	109-139	139	882	"
31-02-442	City of Camden, Test #6	1954	153-175	181	210	Kr
31-02-443	New Jersey Water Co., #44	1950	154-186	187	1400	Kmr
31-02-443	" #45	1950	141-173	173	955	"
31-02-443	" #46	1950	148-178	179	1400	"
31-02-443	" #48	1954	122-164	171	1412	"
31-02-444	City of Camden, #16	1954	149-179	181	1000	"
31-02-449	Savar Amusement Corp.	1949	169-189	189	450	"
31-02-451	H. Kohnstomm & Co., Inc., #5-A	1967	163-184	194	200	"
31-02-451	"	1959	133-158	158	250	"
31-02-451	New Jersey Water Co., #52	1965	147-198	198	1404	"
31-02-451	" #38	1933	126-162	166	846	"
31-02-451	" #47	1953	159-175	177	1012	"
31-02-462	Parks Dairies	1958	154-170	172	200	"
31-02-477	Camden Co. Park Commission	1950	186-217	217	1200	"
31-02-492	Merchantville-Pennsauken Water Comm., #9	1956	107-137	141	875	"
31-02-492	" #10	1963	223-258	262	1000	"
31-02-496	" #2-A	1965	110-140	143	900	"
31-02-496	" #1-R	1971	132-152	159	875	"
31-02-519	" Test Well	1963	118-138	160	400	"
31-02-537	" Test Well #1	1956	247-268	293	317	"
31-02-554	" #2	1962	245-285	300	1040	"
31-02-561	" #6	1957	242-277	283	1020	"
31-02-575	Camden Co. Board of Ed.	1967	322-401	401	320	"
31-02-621	Merchantville-Pennsauken Water Comm., #7	1958	240-275	330	1000	"
31-02-692	" #8	1960	207-237	240	875	"
31-02-694	New Jersey Water Co., #22	1960	371-453	497	1067	"
31-02-697	" #24	1961	112-167	186	1051	"
31-02-699	"	1967	376-427	430	1030	"

□ 31-02-712	City of Camden, Test #5	1953	205-225	277	280	Kmr
□ 31-02-712	"	1953	185-225	243	1000	"
□ 31-02-712	" #17	1954	230-265	274	1000	"
□ 31-02-714	"	1953	90-115	123	1000	"
□ 31-02-716	Our Lady of Lourdes Hospital	1963	237-257	261	275	"
△ 31-02-718	A. N. Stoll Werck, Inc.	1950	111-131	136	210	"
□ 31-02-725	Boro.of Collingswood, #3-R	1960	257-287	294	1000	Kr
□ 31-02-728	" #2-B	1960	248-278	308	1000	Kmr
△ 31-02-754	Friendship Dairy, #1	1955	143-164	164	100	"
⊞ 31-02-773	Boro.of Collingswood Test #1	1964	307-333	370	-	"
△ 31-02-774	A.M.Ellis Theatres,Inc.,#3	1961	83-103	115	250*	"
□ 31-02-781	Boro.of Collingswood, "B"	1965	224-313	336	1034	"
□ 31-02-782	" "A"	1965	219-312	331	1034	"
31-02-837	New Jersey National Guard	1956	96-111	111	150	"
31-02-857	Morgan Brothers, Inc.	1967	431-451	451	302	"
31-02-865	Joe's Trailer Camp	1955	112-122	122	70	"
31-02-879	Twp. of Haddon, #4	1965	417-448	455	1000	"
31-02-879	" #3	1956	432-469	490	800	"
31-02-887	" Bd.of Ed.,#1	1966	142-162	165	200	"
31-02-887	" New #1	1968	401-479	481	870	"
31-02-898	Boro.of Haddonfield,Test #1	1965	490-510	510	350	"
31-02-899	"	1967	307-372	380	1029	"
31-02-982	New Jersey Water Co.,#23	1960	321-378	405	1001	"
31-02-982	" #13	1953	491-527	527	1200	"
31-02-986	Hunt Tract Swimming Club	1957	232-243	243	90	"

*Indicates use as a recharge well.

J. Geodetic Control Survey monuments described in Index Map 48; Adjacent Index Maps 44,49,54,55

BLOCK #31-11 9/76

A. Camden, Philadelphia, Runnemede, Woodbury

B. Delaware River-Big Timber Creek, Mantua Creek, Newton Creek, Woodbury Creek

C. 3. Map No. Location Period of Record
333 Woodbury Creek at Woodbury 1965-

Water Quality Standards: (explained in Atlas Sheet description)
FW2, TW1 except where classified FW3

D. Kirkwood Sand (Tkw), Hornerstown Marl (Tht), Navesink Marl (Kns), Mount Laurel and Wenonah Sands (Kmw), Marshalltown Formation (Kmt), Englishtown Sand (Ket), Woodbury Clay (Kwb), Merchantville Clay (Kmv), Magothy and Raritan Formations (Kmr)

E. 1. Physiographic Province: Coastal Plain
Subdivision: Inner Plain
Major Topographic Features: Delaware River, Clay and Marl Region
Elevations (ft.above sea level): hills 100, valleys 0
Relief (ft.): 100

2. a. Normal Year: 44"
Dry Year: 34"
Wet Year: 51"

b. January: 33°F
July: 76°F

c. 250 days. Last killing frost: 4/20; first killing frost: 10/30

H. Red Bank Battlefield, National Park
James Whitall House, National Park
Woodbury Friends Meeting House, Woodbury

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield
31-11-319	Atlantic Ice Mfg. Co.	1962	205-240	242	200
31-11-322	City of Gloucester	1965	225-265	270	1034
31-11-343	"	1961	221-261	280	1000
31-11-343	New Jersey Zinc Co.	1958	223-253	275	600
31-11-343	"	1958	249-279	285	600
31-11-348	Borough of Brooklawn	1961	307-327	327	400
31-11-349	"	1927	101-141	152	225
31-11-349	"	1927	114-157	165	225
31-11-353	City of Gloucester	1958	161-185	188	500
31-11-373	Borough of Brooklawn	1969	288-321	324	App.300
31-11-378	Borough of Westville	1957	286-313	323	1205
31-11-382	Borough of Bellmawr	1956	334-359	423	800
31-11-422	Borough of National Park	1950	-	87	175
31-11-422	"	1956	241-282	307	636
31-11-448	West Deptford Little League	1958	62-72	72	100
31-11-497	Polyrez Co.	1959	134-166	166	503
31-11-514	Texaco Co.	1973	266-306	329	1001
31-11-515	Twp. of West Deptford	1961	307-353	363	752
31-11-565	General Engines Co.	1954	38-43	43	100
31-11-612	Steinberger	1959	-	170	-
31-11-628	Deptford Twp.	1971	282-361	361	752
31-11-659	John G. Baleter	1960	-	200	-
31-11-671	Child Care Center	1967	216-236	294	100
31-11-678	Woodbury Asso.Market Co.	1966	201-221	221	400
31-11-744	Colonial Pipeline Co.	1963	127-137	137	150
31-11-751	Twp. of West Deptford	1973	388-345	480	1012
31-11-754	"	1972	392-412	412	151
31-11-759	Greenfield Water Co.	1963	241-288	336	608
31-11-818	Lynn Const. Co.	1959	158-169	172	100
31-11-822	City of Woodbury	1960	405-457	462	1016
31-11-824	John Johanson	1953	-	148	-
31-11-857	Deptford Twp.Mun.Util.Auth.	1956	252-273	400	503
31-11-913	Albert Boginsky	1958	-	152	-

J. Geodetic Control Survey monuments described in Index Maps 48,54

BLOCK #31-12 9/76

A. Camden, Runnemede

B. Delaware River-Big Timber Creek, Coopers Creek, Newton Creek

C. 1. Audubon - Non-recording temperature and precipitation gauges

2.

Map No.	Location	Period of Record
446	Cooper River at Kirkwood	1964-
447	North Branch Cooper River near Marlton	1964-
451	South Branch Newton Creek at Haddon Heights	1964-
452	South Branch Big Timber Creek at Blackwood	1964-

3.

334	Newton Creek at West Collingswood	1965-
336	South Branch Newton Creek at Mt.Ephriam	1965-
337	Big Timber Creek at Chews Landing	1965-
338	South Branch Big Timber Creek at Blackwood	1965-

Water Quality Standards: (explained in Atlas Sheet description) FW3

D. Kirkwood Sand (Tkw), Vincentown Sand (Tvt), Hornerstown Marl (Tht), Navesink Marl (Kns), Mount Laurel and Wenonah Sands (Kmw), Marshalltown Formation (Kmt), Englishtown Sand (Ket), Woodbury Clay (Kwb), Merchantville Formation (Kmr), Magothy and Raritan Formation (Kmr)

E. 1. Physiographic Province: Coastal Plain
Subdivision: Inner Plain, Outer Plain
Major Topographic Features: Clay and Marl Region, Pine Plains
Elevations (ft.above sea level): hills 140, valleys 0
Relief (ft.): 140

2. a. Normal Year: 44"
Dry Year: 35"
Wet Year: 51"

b. January: 33°F
July: 76°F

c. 249 days. Last killing frost: 4/20; first killing frost: 10/30

H. Whitman-Stafford House, Lindenwold (State owned)
Indian King Tavern, Haddonfield
Haddon Fortnightly, Haddonfield
Benjamin Clark House, Deptford

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
31-12-135	Imperial Gold & Silver Kid Co.	1948	140-170	170	250	Kmr
31-12-156	New Jersey Zinc Co., #18	1958	144-191	201	708	"
31-12-157	" #33	1967	422-484	500	850	"
31-12-222	Green Valley Farms	1965	195-215	227	151	"
31-12-232	Haddon Ice & Coal Co.	1957	190-221	225	360	"
31-12-249	N. J. Water Co., #14	1954	506-598	606	1018	"
31-12-272	" #34	1967	288-377	390	1050	"
31-12-273	" #30	1965	224-275	279	811	"
31-12-281	" #15	1956	455-597	634	1100	"
31-12-281	" #1	1968	480-490	517	133	"
31-12-317	Borough of Haddonfield, #2	1956	206-246	254	1001	"
31-12-355	Tavistock Country Club	1968	219-246	246	300	"
31-12-414	Borough of Bellmawr	1966	380-557	580	1016	"
31-12-417	Miller International Co.	1963	250-260	263	150	"
31-12-428	Trap Rock Industries	1963	195-221	350	254	Ket
31-12-465	N. J. Water Co., #19	1958	297-339	340	1900	Kmr
31-12-499	RCA	1964	180-190	212	125	Ket
31-12-523	Weyerhauser Corp.	1969	243-273	285	243	Kmr
31-12-525	Owens-Corning Fiberglass Co., #2 Test	1964	563-618	685	900	"
31-12-526	#1 Test	1964	107-137	140	170	Ket
31-12-526	#3 Test	1964	-	515	500	Kmr
31-12-534	#1	1956	285-315	502	1045	"
31-12-534	#2	1946	290-320	344	1000	"
31-12-534	Laurel Springs Water Co.	1964	428-510	524	710	"
31-12-572	N. J. Water Co., #29	1965	612-712	722	1050	Kr
31-12-584	Owens-Corning Fiberglass Co.	1957	-	306	100	Kmr
31-12-646	Tracy Val Inc.	1972	294-303	303	100	"
31-12-652	Abbotts Dairies Inc.	1960	354-375	447	200	"
31-12-658	Laurel Springs Water Co.	1956	398-441	500	709	Kr
31-12-786	Gloucester Twp.Mun.Util.Auth.	1971	334-359	359	75	Kmr
31-12-938	Laurel Springs Water Co., #13	1954	394-456	555	800	"
31-12-938	" #15	1964	395-473	481	650	"
31-12-974	Garden State Water Co., #1 Test	1970	457-467	514	75	"

J. Geodetic Control Survey monuments described in Index Maps 48,54; adjacent Index Maps 49,55

SUBJECT TO REVISION

WATER WITHDRAWAL POINTS AND NJGS CASE INDEX SITES WITHIN 5.0 MILES OF:

LATITUDE 395324
LONGITUDE 750737

DRAFT

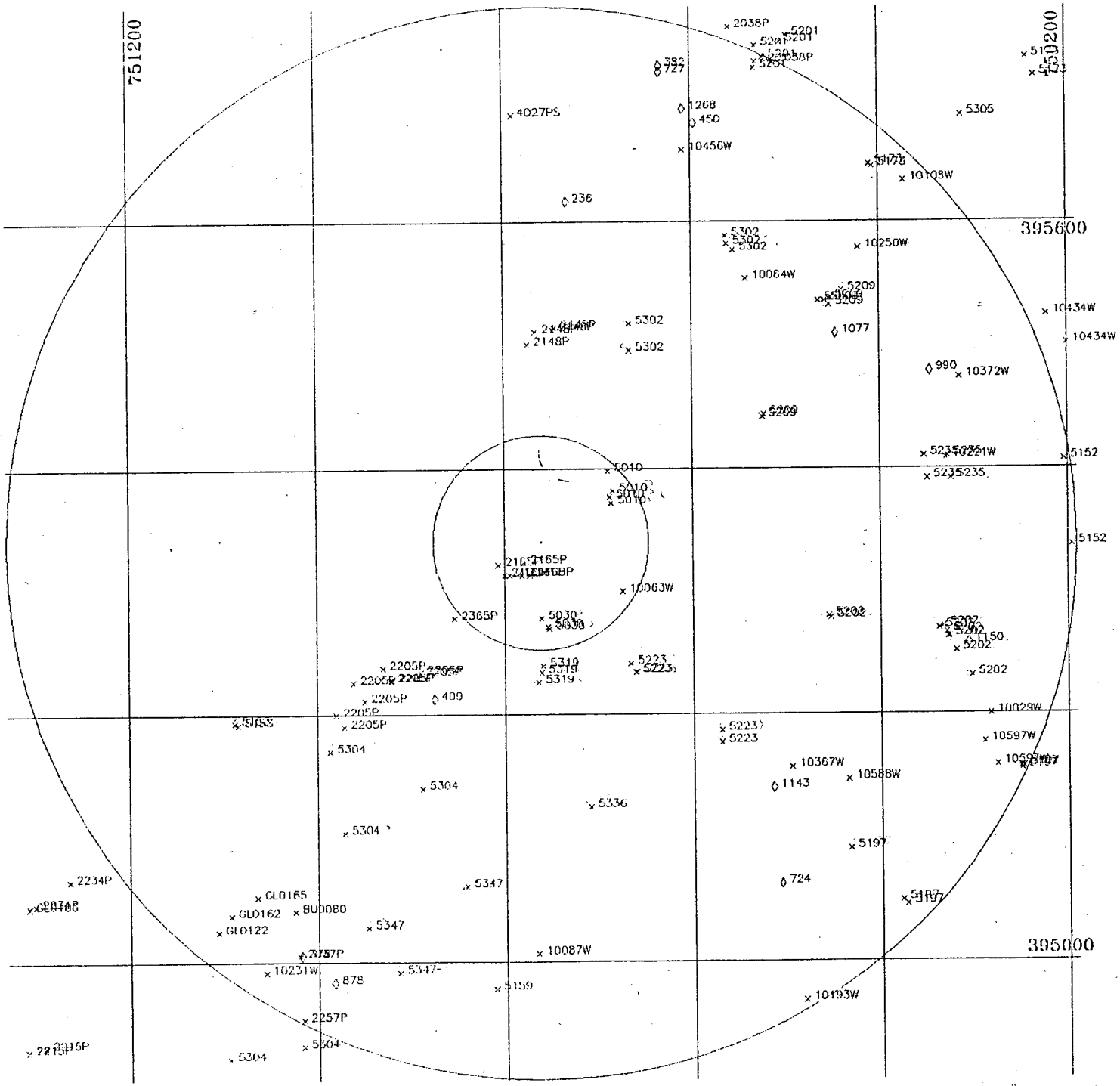
SCALE: 1:63,360
3/4 Inch = 1 Mile)

× WATER WITHDRAWAL POINTS
◊ NJGS CASE INDEX SITES
1 MILE AND 5 MILE RADII INDICATED

NJGS CASE INDEX DATA RETRIEVED FROM:
NEW JERSEY GEOLOGICAL SURVEY
ON 12/22/87

PLOT PRODUCED BY:
NJDEPE
WATER TECHNICAL PROGRAMS
BUREAU OF WATER ALLOCATION
CN-029
TRENTON, NJ 08625

DATE: 11/27/91



SUBJECT TO REVISION

WATER WITHDRAWAL POINTS MAP
MAP -8

 PRELIMINARY SURVEY OF WATER WITHDRAWAL POINTS WITHIN 5.0 MILES OF 395324 LAT. 750737 LON. (IN ORDER BY PERMIT NUMBER) - 11/27/91

NUMBER	NAME	SOURCEID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	MUN	DEPTH	GEO1	GEO2	CAPACITY
10029W	WEYERHAEUSER PAPER COMPANY	3105360	1	395200	750250	F	4.5	07	03	285	GWR		243
-10063W	GLOUCESTER CITY BD. OF ED.	3104482	1	395300	750645	F	0.9	07	14		GWR		
-10064W	OUR LADY OF LOURDES MED. CENT.	3104620	1	395532	750525	F	3.1	07	08	257	GWR		250
-10087W	DEPTWOOD SHOPPING CENTER	3102728	1	395004	750740	F	3.8	15	22	221	GWR		300
10108W	CAMDEN CO VOC. & TECH. SCHOOLS	3105139	1	395620	750344	F	4.8	07	15	401	GWR		
10193W	GLOUCESTER TWP. M.U.A.	3105802	2	394941	750449	T	4.9	07	15		GWR		
-10221W	HADDON TOWNSHIP BOARD OF ED.	3104986	1	395405	750318	T	3.9	07	16	165	GWR		100
10231W	WOODBURY COUNTRY CLUB	3103393	1	394955	751034	F	4.8	15	22		GWR		
-10250W	BISHOP EUSTACE PREP SCHOOL	3117824	1	395547	750413	T	4.0	07	27	150	GWR		200
-10367W	TRAP ROCK INDUSTRIES, INC.	3104633	1	395134	750457	F	3.1	07	30	222	GWR		175
10372W	MORGAN BROTHERS, INC.	3105138	1	395444	750309	F	4.2	07	16	451	GWR		300
10434W	GARDEN STATE RACE TRACK, INC.	5100094	1	395514	750213	T	5.2	07	09	154	GWR		300
	GARDEN STATE RACE TRACK, INC.	5100095	2	395500	750200	M	5.2	07	09	150	GWR		400
-10456W	CONCORD CHEMICAL CO., INC.	5100154	1	395635	750605	F	3.9	07	08	140	GWNW		400
-10588W	COMFORT INN	3129702		395128	750421	M	3.6	07	30		GWR		30
10597W	OWENS-CORNING FIBERGLAS CORP.	3102492	1	395146	750254	F	4.5	07	03	318	GWR		1000
	OWENS-CORNING FIBERGLAS CORP.	3102493	2	395135	750246	F	4.7	07	23	332	GWR		1000
2037P	ATOCHEM INC., ELF AQUITAINE GR	3117960	WELL NO. 2	395003	751012	1	4.5	15	20	142	GWR		280
	ATOCHEM INC., ELF-AQUITAINE GR	3103864	WELL NO. 3	395003	751012	1	4.5	15	20	165	GWR		280
2038P	GENERAL COLOR CO.	3119275	7	395735	750535		5.1	07	08	194	GWR		180
	GENERAL COLOR CO.	3105064	6	395718	750507		5.0	07	08	184	GWR		0
-2146P	MAC ANDREWS & FORBES COMPANY	3100290	1	395507	750729	F	2.0	07	08	103	GWR		300
	-MAC ANDREWS & FORBES COMPANY	5100035	2	395500	750745		1.8	07		99	GWR		350
	-MAC ANDREWS & FORBES COMPANY	3123580	2R	395508	750728	F	2.0	07	08	140	GWR		350
	-MAC ANDREWS & FORBES COMPANY	DELAWARE RIVER		395506	750740	U	2.0	07	08		SDDEL		
2165P	-G & W NATURAL RESOURCES GROUP	3106642	1R	395314	750748	F	0.2	07	14	261	GWR		600
	-G & W NATURAL RESOURCES GROUP	3101210	2	395308	750757	F	0.4	07	14	280	GWR		600
	-G & W NATURAL RESOURCES GROUP	3103401	3	395313	750804	F	0.4	07	14	255	GWR		600
	-G & W NATURAL RESOURCES GROUP	3103402	4	395308	750744	F	0.3	07	14	291	GWR		600
	-G & W NATURAL RESOURCES GROUP	3104454	5	395308	750749	F	0.4	07	14	274	GWR		600
	-G & W NATURAL RESOURCES GROUP	BIG TIMBER CR.		395308	750800	U	0.5	07	14		SDBIG		
2200P	COASTAL EAGLE POINT OIL CO.	3100007	1	395217	750913	1	1.9	15	20	238	GWR		800
	COASTAL EAGLE POINT OIL CO.	3100009	2	395207	750930	1	2.2	15	20	269	GWR		800
	COASTAL EAGLE POINT OIL CO.	3100008	3	395223	750918	1	1.9	15	20	288	GWR		600
	COASTAL EAGLE POINT OIL CO.	3110647	4A	395216	750937	1	2.2	15	20	296	GWR		1000
	COASTAL EAGLE POINT OIL CO.	3100028	5	395221	750854	1	1.6	15	20	283	GWR		600
	COASTAL EAGLE POINT OIL CO.	3117788	6A	395154	750943	1	2.5	05	20	335	GWR		1000
	COASTAL EAGLE POINT OIL CO.	3106834	7	395200	750948	1	2.5	15	20	306	GWR		1000
	COASTAL EAGLE POINT OIL CO.	DELAWARE RIVER		395217	750912	U	1.9	15	20		SDDEL		9500
	COASTAL EAGLE POINT OIL CO.	3123046	RW-1	395217	750912		1.9	15	20	80	GWR		110
	COASTAL EAGLE POINT OIL CO.	3125768	147-2	395220	750855		1.7	15	20	55	GWR		10
2215P	HUNTSMAN POLYPROPYLENE CORP.	3000898	WELL NO. 1	394917	751307	1	6.7	15	20	360	GWR		850
	HUNTSMAN POLYPROPYLENE CORP.	3000899	WELL NO. 2	394917	751307	1	6.7	15	20	290	GWR		200
	HUNTSMAN POLYPROPYLENE CORP.	3000900	WELL NO. 3	394919	751256	1	6.6	15	20	384	GWR		850
	HUNTSMAN POLYPROPYLENE CORP.	3000901	WELL NO. 4	394919	751256	1	6.6	15	20	159	GWR		850
2234P	AUSIMONT USA, INC.	3001173	418	395028	751302	1	5.8	15	20	290	GWR		500
	AUSIMONT USA, INC.	3001174	417	395040	751240	1	5.4	15	20	278	GWR		1000
2257P	WESTWOOD GOLF CLUB	3106230	1	394932	751010	1	5.0	15	22	140	GWR		450
2365P	SES GLOUCESTER COMPANY, L.P.	DELAWARE RIVER	RM 95.2	395247	750632	T	1.1	20	15		SDDEL		
4027PS	GENERAL ELECTRIC AEROSPACE	DELAWARE RIVER		395652	750754	T	4.0	07	08		SDDEL		
*5010	*GLOUCESTER CITY	3104306	WELL #40	395349	750651		0.8	07	14	262	GWR		1000
	*GLOUCESTER CITY	3127737	WELL #41	395359	750654		0.9	07	14	269	GWR		1000
	*GLOUCESTER CITY	3105042	WELL #42	395343	750652		0.8	07	14	306	GWR		1000
	*GLOUCESTER CITY	3118632	WELL #43	395346	750653		0.8	07	14	260	GWR		1000
5030	*PAUSLAWN BOROUGH WATER DEPT.	3104125	1	395242	750732	F	0.8	07	07	327	GWR		300

 PRELIMINARY SURVEY OF WATER WITHDRAWAL POINTS WITHIN 5.0 MILES OF 395324 LAT. 750737 LON. (IN ORDER BY PERMIT NUMBER) - 11/27/91

NUMBER	NAME	SOURCEID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	MUN	DEPTH	GEO1	GEO2	CAPACITY
	BROOKLAWN BOROUGH WATER DEPT.	3114471	3	395243	750733	F	0.8	07	07	320	GKMR		350
	BROOKLAWN BOROUGH WATER DEPT.	3119765	4	395247	750737	F	0.7	07	07	293	GKMR		350
5152	HADDONFIELD BOROUGH	3102570	1A	395322	750157		5.0	07	17	254	GKMR		1000
	HADDONFIELD BOROUGH	3105108	6	395404	750202		4.9	07	17	390	GKMR		1000
5153	NATIONAL PARK BOROUGH	3102555	5	395156	751053	1	3.3	15	12	282	GKMR		700
	NATIONAL PARK BOROUGH	3117938	6	395155	751051	1	3.3	15	12	275	GKMR		600
5159	WOODBURY HEIGHTS BOROUGH	3106356	1	394947	750607	1	4.2	15	23	235	GKMR		1000
5173	MERCHANTVILLE-PENNSAUKEN WATER	3105641	BROWNING1A	395627	750404		4.7	07	24	152	GKMR		875
	MERCHANTVILLE-PENNSAUKEN WATER	3102915	MARION 1	395720	750225		6.4	07	27	279	GKMR		1000
	MERCHANTVILLE-PENNSAUKEN WATER	3104641	MARION 2	395711	750220		6.3	07	27	262	GKMR		1000
	MERCHANTVILLE-PENNSAUKEN WATER	3104836	BROWNING2A	395628	750406		4.7	07	27	140	GKMR		900
5197	NEW JERSEY-AMERICAN WATER CO.	3104743	MAGNOLIA16	395134	750229	F	5.0	07	23	510	GKMR		1050
	NEW JERSEY-AMERICAN WATER CO.	3105100	MAGNOLIA33	395134	750230	F	4.9	07	23	348	GKMR		1050
	NEW JERSEY-AMERICAN WATER CO.	5100015	RMEDE 7	395055	750420	F	4.0	07	30	318	GKMR		325
	NEW JERSEY-AMERICAN WATER CO.	3103307	RMEDE 19	395055	750420	F	4.0	07	30	338	GKMR		770
	NEW JERSEY-AMERICAN WATER CO.	3104756	OTTER 29	395030	750347	F	4.7	07	15	722	GKMR		1050
	NEW JERSEY-AMERICAN WATER CO.	3105041	OTTER 34	395029	750344	F	4.8	07	15	377	GKMR		1050
	NEW JERSEY-AMERICAN WATER CO.	3105226	OTTER 39	395030	750347	F	4.7	07	15	349	GKMR		1400
	NEW JERSEY-AMERICAN WATER CO.	PROPOSED	MAGNOLIA64	395133	750230	F	5.0	07	23		GKMR		1040
5201	NEW JERSEY-AMERICAN WATER CO.	3103456	50	395726	750518	F	5.1	07	08	170	GKMR		700
	NEW JERSEY-AMERICAN WATER CO.	3104780	51	395720	750513	F	5.0	07	08	192	GKMR		1300
	NEW JERSEY-AMERICAN WATER CO.	3104947	52	395715	750519	F	4.9	07	08	198	GKMR		1050
	NEW JERSEY-AMERICAN WATER CO.	3118947	53	395728	750502	F	5.2	07	08	194	GKMR		1000
	NEW JERSEY-AMERICAN WATER CO.	3118944	54	395731	750458	F	5.3	07	08	195	GKMR		1000
	NEW JERSEY-AMERICAN WATER CO.	3120270	55	395718	750518	F	4.9	07	08	176	GKMR		1050
5202	NEW JERSEY-AMERICAN WATER CO.	5100008	HADDON 11	395243	750320	F	3.9	07	18	272	GKMR		700
	NEW JERSEY-AMERICAN WATER CO.	5100009	HADDON 12	395240	750318	F	3.9	07	18	267	GKMR		700
	NEW JERSEY-AMERICAN WATER CO.	3101124	HADDON 14	395242	750323	F	3.8	07	18	598	GKMR		800
	NEW JERSEY-AMERICAN WATER CO.	3102434	HADDON 15	395239	750316	F	3.9	07	18	597	GKMR		800
	NEW JERSEY-AMERICAN WATER CO.	3103375	HADDON 20	395231	750312	F	4.0	07	18	267	GKMR		700
	NEW JERSEY-AMERICAN WATER CO.	3104798	HADDON 30	395238	750317	F	3.9	07	18	279	GKMR		805
	NEW JERSEY-AMERICAN WATER CO.	3103308	EGBERT 18	395248	750433	F	2.8	07	18	190	GKMR		700
	NEW JERSEY-AMERICAN WATER CO.	3105054	EGBERT 35	395247	750432	F	2.8	07	18	484	GKMR		700
	NEW JERSEY-AMERICAN WATER CO.	PROPOSED	HADDON 63	395219	750302	F	4.2	07	03	490	GKMR		1040
5209	COLLINGSWOOD BOROUGH	3104053	2R	395519	750432		3.5	07	12	281	GKMR		700
	COLLINGSWOOD BOROUGH	3104054	3R	395522	750432		3.5	07	12	290	GKMR		800
	COLLINGSWOOD BOROUGH	5100030	4	395521	750435		3.5	07	12	304	GKMR		870
	COLLINGSWOOD BOROUGH	3100079	5	395521	750439		3.4	07	12	311	GKMR		650
	COLLINGSWOOD BOROUGH	5100031	6	395526	750424		3.7	07	12	281	GKMR		1000
	COLLINGSWOOD BOROUGH	3104799	7	395521	750439		3.4	07	12	312	GKMR		1000
	COLLINGSWOOD BOROUGH	3104797	8	395426	750614		2.4	07	12	318	GKMR		1000
	COLLINGSWOOD BOROUGH	NEWTON CREEK		395425	750615		2.4	07	12		SDLOO		1000 NOT USED.
5223	BELLMAWR BOROUGH	5100032	1	395221	750636		1.5	07	04	164	GKMR		500 NO LONGER IN USE.
	BELLMAWR BOROUGH	3102687	3	395221	750637		1.5	07	04	359	GKMR		800
	BELLMAWR BOROUGH	3104969	4	395146	750642		2.5	07	04	557	GKMR		1000
	BELLMAWR BOROUGH	3112315	5	395152	750642		2.4	07	04	562	GKMR		1000
	BELLMAWR BOROUGH	3119218	6	395225	750640		1.4	07	04	386	GKMR		1000
5235	HADDON TOWNSHIP WATER DEPT.	3105243	1A	395406	750317	F	3.9	07	16	481	GKMR		870
	HADDON TOWNSHIP WATER DEPT.	3104655	4	395406	750332	F	3.7	07	16	449	GKMR		1000
	HADDON TOWNSHIP WATER DEPT.	3129099	2A	395355	750330	F	3.7	07	16	487	GKMR		800
	HADDON TOWNSHIP WATER DEPT.	3128996	3A	395355	750315	F	3.9	07	16	475	GKMR		750
5302	CAMDEN CITY, WATER DIVISION	5100060	CITY 7	395457	750640	F	2.0	07	08	163	GKMR		1500-water only service Resource Recovery!
	CAMDEN CITY, WATER DIVISION	5100061	CITY 11	395510	750640	F	2.2	07	08	159	GKMR		1010-only used in emergencies.
	CAMDEN CITY, WATER DIVISION	3100904	CITY 13	395553	750538	F	3.3	07	08	230	GKMR		1200
	CAMDEN CITY, WATER DIVISION	3101250	CITY 17	395546	750533	F	3.3	07	08	270	GKMR		1500
	CAMDEN CITY, WATER DIVISION	3109574	CITY 19	395549	750537	F	3.3	07	08	290	GKMR		1200

NUMBER	NAME	SOURCEID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	MUN	DEPTH	GEO1	GEO2	CAPACITY
	CAMDEN CITY, WATER DIVISION	3104649	CITY 5	395457	750640		2.0	07	08	171	GNMR		1100-used for G.W. monitoring
5304	WEST DEPTFORD WATER DEPT.	3104231	2	395142	750952	S	2.8	15	20	353	GNMR		840- No longer in use.
	WEST DEPTFORD WATER DEPT.	3103021	3	394919	751010	S	5.2	15	20	243	GNMR		750
	WEST DEPTFORD WATER DEPT.	3107056	5	394913	751057	S	5.6	15	20	440	GNMR		1000
	WEST DEPTFORD WATER DEPT.	5100063	6	395103	750943	S	3.3	15	20	366	GNMR		1000
	WEST DEPTFORD WATER DEPT.	3117452	7	395124	750853	S	2.5	15	20	363	GNMR		1000
5305	MERCHANTVILLE-PENNSAUKEN	3104642	WOODBINE 1	395652	750307		5.6	07	24	288	GNMR		1000
	MERCHANTVILLE-PENNSAUKEN	3114563	WOODBINE 2	395652	750307		5.6	07	24	227	GNMR		1000
5319	WESTVILLE BOROUGH	3103418	4	395221	750737	F	1.2	15	21	313	GNMR		750
	WESTVILLE BOROUGH	3105699	5	395216	750739	F	1.3	15	21	274	GNMR		1000
	WESTVILLE BOROUGH	3117923	6	395224	750736	F	1.1	15	21	317	GNMR		1000
5336	DEPTFORD TOWNSHIP MUA	3105513	4	395115	750706		2.5	15	02	363	GNMR		700
5347	WOODBURY CITY WATER DEPT.	5100100	3	395017	750928	F	3.9	15	22	188	GNMR		700
	WOODBURY CITY WATER DEPT.	3104059	5	394955	750908	F	4.2	15	22	457	GNMR		1000
	WOODBURY CITY WATER DEPT.	3307973	6	395037	750825	F	3.3	15	22	305	GNMR		1000
BU0080	GARDNER, JOHN & RUTH ANN	5100125	WELL 1	395025	751015	F	4.1	05	32	45	GTCH		1000
	GARDNER, JOHN & RUTH ANN	3213727	WELL 2	395025	751015	F	4.1	05	32	87	GTCH		
	GARDNER, JOHN & RUTH ANN	POND 1	POND 1	395025	751015	F	4.1	05	32	25	GTCH		
GL0106	NO LONGER FARMS	STREAM 1		395027	751306	U	5.9	15					
GL0122	MARPLE, JOHN	MATTHEWS BR	POND 1	395015	751104	F	4.7	15	20	2	SD		1000
	MARPLE, JOHN	STREAM 1		395015	751104	F	4.7	15	20		SD		1000
GL0162	DE HART, CHARLES JR.	WOODBURY CREEK	STREAM 1	395023	751056	F	4.5	15	20		SD		
GL0165	DE HART PARTNERS	POND	1	395032	751039	M	4.2	15	20	8	SD		1000

Number of Observations: 134

 NJGS CASE INDEX SITES WITHIN 5.0 MILES OF 395324 LAT. 750737 LON. AS OF 12/22/87 (IN ORDER BY DECREASING LONGITUDE) - 11/27/91

SITENUM	NAME	LAT	LON	DISTANCE	CONTAM	PMCODE1	PMCODE2	STATUS1	STATUS2
378	POLYREZ CO., WOODBURY, GLOUCESTER CO.	395003	751011	4.5	34	2070	0	9	I
878	MARK CONTROLS, WOODBURY, GLOUCESTER CO.	394950	750950	4.5	63	2080	2080	1	B
409	TEXACO, WESTVILLE, GLOUCESTER CO.	395208	750845	1.8	0	2080	0	9	
236	MONK'S AMOCO, CAMDEN CO.	395610	750720	3.2	51	103	2080	5	
382	CAMDEN MUNICIPAL WELLS, CAMDEN CITY, CAMDEN CO.	395716	750620	4.6	00	0102	2080	1	
727	HARRISON AVE. LANDFILL, CAMDEN, CAMDEN CO.	395713	750620	4.5	0	2080	0	9	
1268	ADVANCED CHEMICAL TECHNOLOGY, CAMDEN CITY, CAMDEN CO.	395655	750605	4.3	68	0102	2080	1	2
450	CONRAIL, PAVONIA YARD, CAMDEN, CAMDEN CO.	395648	750558	4.2	53	103	160	1	
724	FAZZIO LANDFILL, DEPTFORD TWP., GLOUCESTER CO.	395038	750504	3.9	58	2060	0	9	
1143	DELVAL MECHANICAL SPECIALISTS INC, RUNNEMEDE, CAMDEN CO.	395124	750469	3.2				3	
1077	BOB'S EXTRA STATION, COLLINGSWOOD, CAMDEN CO	395505	750428	3.4	51	2080	0	F	
990	WESTMONT MOBIL, WESTMONT, CAMDEN CO.	395447	750328	4.0	0	0	0	3	
1150	SHELL SERVICE STATION, RT30 & GROVE RD, HADDON HEIGHTS, CAMDEN CO.	395235	750304	4.1	51			3	

Number of Observations: 13

ATTACHMENT A

50127

Company Name GAF CORPORATION Plant I.D. No. [redacted]

GLOUCESTER CITY

Legal Action Log

Date	Subchapter Section Paragraph	Action Taken	Penalty	
4-18-68	4-2.1	ORDER	NONE	
6-4-71	9.2(a)	ORDER	NONE	
9-29-71	6.2(a)	ORDER	NONE	
2-16-72	6.2(a)	CONSENT JUDGEMENT	NONE	
4-6-72	4-2.2	NOTICE OF PROSECUTION	$100	
8-31-72	6.2(a)	AMENDED CONSENT JUDGEMENT	NONE	
9-19-74	8.3(a)+(b)	ORDER	NONE	
5-7-79	3.2(a)	NOTICE OF PROSECUTION	$100	Pd. 5/31/79
6-5-81	8.3(a)&(b)	NOTICE OF PROSECUTION	$800	Pd. 6/11/81

ATTACHMENT A-1

ATTACHMENT B

VEMINSPC-1 04/20/82

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR POLLUTION CONTROL
SCHEDULED PLANT VISITS FOR JUNE 1982

PLANT ID	COUNTY	MUNICIPALITY	BUSINESS NAME	PLANT NAME
50002	CAM	GLOUCESTER CITY	GAF CORP.	BUILDING & INDUSTRIAL PRODUCTS

EXP. DAT	STATUS		STACK	COMPANY DESIGNATION	CERT	LAST
		*	001	PNEU CONVE AND STOR SILO		
		*	002	WOOD FLOUR COMPRESSOR DISCH. BIN		
02/26/83	PERM	*	003	WOOD LOG CHIPPER NO.1	033594 ✓	
02/26/83	PERM	*	004	WOOD LOG CHIPPER NO.2	033595 /	
	GRAN	*	005	NO 1 BOILER STACK		
	GRAN	*	006	BOILER STACK NO 6		
			007	EXTRUDER LINE NO 1		
			008	EXTRUDER LINE NO 2		
			009	SCRAP GRINDER		
	DELETE		010	VACUUM LOAD-EXT HOP NO 1		
	DELETE		011	VACUUM LOAD-EXT HOP NO 2		
	DELETE		012	VAC LOADER-EXT HOP NO 3		
	DELETE		013	VACUUM LOAD-EXT HOP NO 4		
	DELETE		014	VAC LOADER-EXT HOP NO 5		
			015	COMPOUNDING AREA		
			016	USE BIN N1,TRANS PUMP F1		
			017	RECLAIM BIN W1		
			018	BULK STOR BIN SA		
			019	BULK STORAGE BIN SB		
			020	TRANS PUMP V-TRUCK UNLOA		
			021	VACUUM PRES RECEIVER F2		
			022	COOL MIXER		
			023	HEAT MIXER		
			024	STORAGE SILO SC		
	DELETE		025	VAL PRINTER-EMBOS 3,4		
			026	SURGE BIN H-1		
		*	027	BLDG 21-VENT SYS		
08/20/83	PERM	*	028	THREE BLACK-CLAWSON THICKNERS	033634 ✓	
			029	LINES 5+6 EXTRUDER LOAD		
08/30/86	PERM		030	SD (STORAGE SILO)	051641	
08/30/86	PERM		031	SF (STORAGE SILO)	051642	
08/30/86	PERM		032	PP-6 (PALLMAN PULVERIZER)	051643	
08/30/86	PERM		033	SE (STORAGE SILO)	051644	

(*GAF CORP. NEW FILE)

ATTACHMENT B-1

ROSCOE P. KANDLE, M.D., M.P.H.
State Commissioner of Health

RICHARD J. SULLIVAN, Director
Division of Clean Air and Water

State of New Jersey

DEPARTMENT OF HEALTH

JOHN FITCH PLAZA, P.O. BOX 1540, TRENTON, 08625

Air Pollution Control Code
ORDER

To: General Aniline and Film Corporation
Corporation Trust Company, Registered Agent
15 Exchange Place
Jersey City, New Jersey

Re: Air Pollution Control Code

WHEREAS, the State Department of Health has determined by investigation(s) or inspection(s) made pursuant to the Provisions of the New Jersey Air Pollution Control Act, that on March 25, 1968, General Aniline and Film Corporation did cause, suffer, allow or permit smoke from fuel-burning equipment, the shade or appearance of which was darker than Number 2 of the Ringelmann Smoke Chart, to be emitted into the open air on the premises known as Block 111, Lot 1, Gloucester City - City, Camden County, New Jersey

in violation of Chapter(s) IV, Section(s) 2.1, of the New Jersey Air Pollution Control Code.

NOW THEREFORE, YOU ARE HEREBY ORDERED, to cease emitting smoke into the open air from fuel-burning equipment, the shade or appearance of which is darker than Number 2 of the Ringelmann Smoke Chart in violation of said code on premises owned, leased, operated, or maintained by you, on or before MAY 3, 1968.

STATE DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY

Dated: APRIL 18, 1968

Richard J. Sullivan, Director
Division of Clean Air and Water

cc: Gloucester City B.O.H.
Southern Health District
Certified Mail

ATTACHMENT B-2

Air-L18
Mar 67

(OVER)

M5134

NEW JERSEY STATE DEPARTMENT OF HEALTH

NEW JERSEY AIR POLLUTION CONTROL CODE
FIELD RECORD OF VIOLATION

3/25/68 TIME AT SITE 2:15 ~~a.m.~~ p.m. (from) 4:30 ~~a.m.~~ p.m. (to)

ATE HEALTH DISTRICT SOUTHERN COUNTY CAMDEN

PERSON IN VIOLATION (Sec. A)

FULL BUSINESS NAME GENERAL ANILINE & FILM CORP. (BUILDING PRODUCTS DIVISION)

MAILING ADDRESS CHARLES & WATER STS (No. / Street) GLOUCESTER CITY (Post Office) 08030 (Zip Code)

TYPE OF OWNERSHIP:	NAME OF OWNER, PARTNERS, OFFICERS, OFFICIALS	TITLE
Individual	DR. JESSE WARNER	PRES.
Partnership	C. JOSEPH HYLAND	SECY
Corporation ✓	FRANK P. SATTSOTTILE	TREAS
Municipal (type)		

Person(s) interviewed EARL VANCLEVE (SUPT. OF POWER PLANT)

Person authorized to receive processes HERBERT ABROMS (Name)

MAILING ADDRESS 140 W. 51ST ST. (No. / Street) NEW YORK N.Y. (Post Office) 10020 (Zip Code)

REMARKS: MR. ABROMS IS A VICE PRES. OF THE CORP.

LOCATION OF VIOLATION (Sec. B)

LOCATION ADDRESS CHARLES & WATER ST. (No. / Street) GLOUCESTER CITY (Municipality) 08030

(Show details on reverse side) Book Plate 3 Lot 1 Block 111

Premises occupied as: Owner ✓ Lessee ____ Tenant ____

Owner GENERAL ANILINE & FILM CORP. (BUILDING PRODUCTS DIV.) (Name) CHARLES & WATER STS (No. / Street) GLOUCESTER (City)

DETAILS OF VIOLATION (Sec. C)

CODE REFERENCE Chapter(s) IV Section(s) 7 Paragraph(s) 7.1

DETAILS SMOKE EXCEEDING RINGELMAN 2 FOR 6 3/4 MIN OUT OF 30 MIN.

REMARKS ONE OF INDUCED DRAFT FANS WAS BEING RECONDITIONED

RECOMMENDED ACTION Order.

ATTACHMENT B-3

Robert C. Deal
Signed

P.H.E.W.
Title

(OVER)

6924

NEW JERSEY AIR POLLUTION CONTROL CODE
FIELD RECORD OF VIOLATION

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
JOHN FITCH PLAZA, P.O. BOX 1390, TRENTON, N.J. 08625

NOTICE OF PROSECUTION

F. Deal

General Aniline & Film Corporation
Corporation Trust Co., Registered Agent
15 Exchange Place
Jersey City, New Jersey

Re: Air Pollution Control Code ORDER, Dated April 18, 1968

VIOLATION OCCURRED ON PREMISES KNOWN AS:
Water & Charles Street, Block 111, Lot 1, Gloucester City - City, Camden County, New Jersey

Dear Sir:

Investigation(s) by this Department on March 15, 1972 discloses violation(s) of Chapter IV, Section(s) 2.2 of the New Jersey Air Pollution Control Code and referenced ORDER (see paragraph(s) C below.

Prosecution is being withheld until April 21, 1972 to allow for settlement of a claim for a penalty against you in the amount of $ 100.00. Should you desire to settle your claim, payment must be made on or before this date by money order or check drawn to the order of the New Jersey State Department of Environmental Protection. In the event payment is not made within the time specified, this case will be referred to the Office of the Attorney General for prosecution.

A CHAPTER II, SECTION 1.1: The investigation(s) discloses open burning of refuse including _____ on the premises identified above.

B CHAPTER II, SECTION 1.2: The investigation(s) discloses a salvage operation by open burning of _____ on the premises identified above.

C CHAPTER IV, SECTION 2.2: The investigation(s) discloses smoke from fuel-burning equipment, the shade or appearance of which was darker than Number 2 of the Ringelmann Smoke Chart, being emitted into the open air on the premises identified above.

D CHAPTER XI, SECTION 3.2 (b): The investigation(s) discloses smoke from the incinerator stack, the shade or appearance of which was darker than Number 1 of the Ringelmann Smoke Chart or the opacity of which was greater than the emission designated as Number 1 of the Ringelmann Smoke Chart, being emitted into the open air on the premises identified above.

E CHAPTER XI, SECTION 3.3: The investigation(s) discloses the emission of particles of unburned waste or ash from the incinerator stack which were individually large enough to be visible while suspended in the atmosphere at the premises identified above.

F CHAPTER XI, SECTION 3.4: The investigation(s) discloses the emissions of odors, from the use of the incinerator on the premises identified above, which were detectable by the sense of smell in an area of human use or occupancy.

G CHAPTER XI, SECTION 2.1 (b) The investigation(s) discloses the use of an incinerator not of the multiple chamber type nor of the types approved by the Department as being equally effective for the purpose of air pollution control.

Dated April 6, 1972

Grant F. Walton
Grant F. Walton, Director

cc: Board of Health:
State Health District: Camden County
Copy For: Southern
Certified Mail

ATTACHMENT B-4

(OVER)

Air-L 19
Aug. 71

ENFORCEMENT FILE

STATE DEPARTMENT OF HEALTH

NEW JERSEY AIR POLLUTION CONTROL CODE
FIELD RECORD OF VIOLATION

DATE 3/15/72 TIME AT SITE 2:48 ~~a.m.~~ p.m. (from) 4:15 ~~a.m.~~ p.m. (to)

STATE HEALTH DISTRICT SOUTHERN COUNTY CAMDEN

Sec. A — PERSON IN VIOLATION

FULL BUSINESS NAME GENERAL ANILINE AND FILM CORP.

MAILING ADDRESS CHARLES AND WATER ST. GLOUCESTER 08030
(No. / Street / Post Office / Zip Code)

TYPE OF OWNERSHIP: NAME OF OWNER, PARTNERS, OFFICERS, OFFICIALS — TITLE

Individual
Partnership
Corporation ✓
Municipal (type)

Person(s) interviewed MR. EARL VAN CLEVE, SUPERINTENDENT - POWER HOUSE

Person authorized to receive processes CORPORATION TRUST CO.
(Name)

MAILING ADDRESS 15 EXCHANGE PLACE, JERSEY CITY
(No. / Street / Post Office / Zip Code)

REMARKS:

Sec. B — LOCATION OF VIOLATION

LOCATION ADDRESS WATER & CHARLES STREETS, GLOUCESTER CITY
(No. / Street / Municipality)

(Show details on reverse side) ~~Book Plate~~ Lot 1 Block 111

Premises occupied as: Owner ✓ Lessee Tenant

Owner GENERAL ANILINE & FILM CORP. CHARLES & WATER ST. GLOUCESTER CITY
(Name / No. / Street / City)

Sec. C — DETAILS OF VIOLATION

CODE REFERENCE Chapter(s) 4 Section(s) Paragraph(s)

DETAILS #6 BOILER @ 4000 HP WHICH VENTS THROUGH A STACK WITH AN I.D. GREATER THAN 60" WAS OBSERVED ISSUING SMOKE GREATER THAN NUMBER 1 RINGLEMANN ~~THA~~ FOR A PERIOD OF 9 3/4 MINUTES OUT OF A 30 MINUTE OBSERVATION PERIOD

REMARKS PLEASE SEE ATTACHMENT #1
SEE ORDER, DATED 4-18-68

RECOMMENDED ACTION N.O.P.

ATTACHMENT B-5

John T. Barbour
Signed

SR. ENVIR. ENG'G.
Title

BBD 3-21-72

(OVER)

MEMO

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO Byron Sullivan

FROM Edward Londres DATE 7-6-71

SUBJECT Gloucester City

1. Gulf + Western Industries, Inc.
   The New Jersey Zinc Co.

2. Kewanee Oil Company
   Harshaw Chemical Co.

3. GAF Corporation
   Building Products Division

Purpose of Investigation: Effects Survey

Visit Date: July 2, 1971 9:30 A.M. - 11:30 A.M.

Report Date: July 2, 1971

Mrs. Paul Gross, 345 8th St., Gloucester City complained of SO_2, white powder, odors, and many other types of pollution coming from subject companies and as a result of this complaint the following persons were interviewed.

NAME	GLOUCESTER CITY ADDRESS	ODOR COMPLAINTS
1. Mrs. Iacone	348 - 8th St.	No complaint
2. Mrs. McGraw	336 - "	Chem. odors twice/wk. when dam
3. Mrs. Beckett	337 - "	Rotten eggs, twice per week
4. Mr. & Mrs. Crowder	736 - Division St.	Hospital odor ever day
5. Mr. & Mrs. Krelis	732 - "	Mild odors
6. Mrs. VanFossen	724 - "	Mild odors once/mo
7. Mrs. Wilkins	720 - "	Smoke, dust, odors of natural gas
8. Mrs. Lees	714 - "	No complaint
9. Mrs. Schwenger	708 - "	No complaint
10. Mrs. Broadbelt	706 - "	Annoyed sometimes
11. Mrs. Davids	715 - "	Rotten eggs once/m
12. Mrs. Duffield	711 - "	Rotten eggs twice per week
13. Mrs. Thomas	719 - "	Can't describe twice/week
14. Mrs. Rocco	635 - "	Natural gas twice per week

ATTACHMENT B-6

NAME	GLOUCESTER CITY ADDRESS	ODOR COMPLAINTS
15. Mrs. Dolson	623 Division St.	No complaint
16. Mrs. Pitus	619 "	Odors from across river
17. Mrs. Reid	617 "	No complaint
18. Mrs. Higginbatham	609 "	Gas odors, twice per week
19. Mrs. Werz	611 "	No complaint
20. Mrs. Dolson	607 "	Odors everyday can't describe
21. Mrs. Barrett	605 "	No complaint
22. Mrs. Joseph	702 Cherry St.	No complaint
23. Mrs. Mecchella	704 "	Odors twice/mo.

All the complainants listed named the three subject companies as the source along with possible odors from Philadelphia.

Summary: A definite odor condition exists as indicated by the remarks of the complainants.

Recommendations: Complete a Chapter 6 Source Evalustion at each of the subject companies listed.

Edward Londres

Edward Londres, Sr. Env. Engr.

ATTACHMENT B-7

Air-13

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR POLLUTION CONTROL

REPORT OF FIELD INVESTIGATION

DATE 10-20-75 TIME 11:00 AM FILE REFERENCE TO CHAPTER 5

FULL BUSINESS NAME GAF CORP.

Location No. Street GLOUCESTER CITY Municipality

Mailing Address No. Street Post Office BROOKLAWN Zip Code

Person(s) Interviewed POLICE CHIEF READ Title ~~BOILER~~ POWER HOUSE SUPV.
MR. VAN CLEVE Title

Comments COMPLAINT FORM ATTACHED

Report Requested by Title

Purpose of Investigation FOLLOW-UP

Observations CONTACTED POLICE CHIEF AND WAS NOT ABLE TO RECORD SPECIFIC DATA OF DATE AND TIME OF OCCURENCE. GAVE SFO TELEPHONE NUMBER AND ACTION LINE NUMBER, ASKED CHIEF TO NOTIFY US ON EACH OCCURENCE.
CONTACTED THE COMPANY AND THE SUPERVISOR CHECKED OPACITY CHARTS (BAILEY METER) AND CHARTS DID NOT INDICATE ANY SMOKE PROBLEMS.

Conclusions THE COMPLAINT WAS NOT CONFIRMED. SPECIFIC DATE AND TIME OF OCCURENCE SHOULD BE RECORDED.

Recommendations FILE FOR REFERENCE.

Investigated by A. Di Denni Signed
S.E.S. Title

ATTACHMENT B-8

logged (ao)

COMPLAINT FORM

DATE: OCT. 3, 1975 3:38 PM TELEPHONE: 456 0750

NAME & ADDRESS OF COMPLAINANT:

PTL. SHOMO (POLICE CHIEF READ)

BROOKLAWN POLICE DEPT.

NAME & LOCATION OF ALLEGED VIOLATOR:

GAF CORP.

WATER ST.

GLOUCESTER

NATURE OF VIOLATION:

ON WEEKENDS, CO. BLOWS BLACK SMOKE OVER TOWN OF BROOKLAWN. POLICE GET MANY CALLS. THEY ARE CALLING US TO REGISTER THIS COMPLAINT.

M5324 BY: J Gohrzyeski

ATTACHMENT B-8A

Tivold
Follow up 79
Legal RT - Put on Log

16174

ORDER

RECEIVED

MAY 8 1979

NJ STATE DEPT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR POLLUTION CONTROL
SOUTHERN FIELD OFFICE

TO: G.A.F. Corporation
Corp. Trust Co.
28 W. State St.
Trenton, N.J. 08608

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL QUALITY
JOHN FITCH PLAZA, P. O. BOX 2807, TRENTON, N. J. 08625

NOTICE OF PROSECUTION

To: G.A.F. Corporation
Corporation Trust Co., Registered Agent
28 West State Street
Trenton, New Jersey 08608

Re: N.J.A.C. 7:27- 3.2(a)
ORDER, Dated: April 18, 1968
Plant Identification No. Not listed
Violation Occurred on Premises Known As:
Charles & Water Streets, Block 110, Lots 2A, 3, 3A, 4, 15, 14 & 20; Block 116A, Lots 14A, 14F, 15, 16, 17, 19-24, 25-28 & 61-67, Gloucester City, Camden County, New Jersey

WHEREAS, the State Department of Environmental Protection has determined by investigation(s) or inspection(s) made pursuant to the Provisions of the New Jersey Air Pollution Control Act that on February 22, 1979 you did violate Title 7, Chapter 27, Subchapter 3, Section 3.2(a), of the New Jersey Administrative Code.

The investigation(s) discloses visible smoke being emitted into the outdoor air from the combustion of fuel in the boilers vented by N.J.#5 on the premises identified above.

Prosecution is being withheld until May 22, 1979 to allow for settlement of a claim for a penalty against you in the amount of $100.00. Should you desire to settle your claim, payment must be made on or before this date by money order or check drawn to the order of the New Jersey State Department of Environmental Protection. In the event payment is not made within the time specified, this case will be referred to the Office of the Attorney General for prosecution.

Dated: May 7, 1979

Edward J. Londres
Edward J. Londres
Assistant Chief
Bureau of Air Pollution Control

cc: Local District Gloucester City
Field Office Southern

CERTIFIED MAIL

VAP002
Jul. 76

ATTACHMENT B-9

FIELD OFFICE - ENFORCEMENT FILE

Dave V.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10007

APR 18 1979

Mr. David J. Shotwell
State of New Jersey
Department of Environmental Protection
Division of Environmental Quality
John Fitch Plaza, CN 027, Trenton, N.J. 08625

Dear Dave:

This is in response to your April 2, 1979 letter:

1) The stack on which the opacity violation was documented on February 22, 1979 is identified as NJ 5 venting boilers No 1 B.H., No 1 B&W Sterling standby, No 2 B&W Sterling standby No 3 B&W Sterling standby and No 4 B&W Sterling standby. The Block and Lot number's are as follows:

   Block 110 Lots 2A,3,3A,4,15,14,20

   Block 116A Lots 14A,14F,15,16,17,19-24,25-28,61-67

2) The Lot and Block numbers for Vineland Municipal Electric are Lot 1 Blocks 390,394

Sincerely yours,

Jehuda

Jehuda H. Menczel, Ph.D, Chief
New Jersey/Puerto Rico Section
Air Facilities Branch

Rec'd 4-30-79

cc: Dave [illegible]

ATTACHMENT B-10

Form DEQ-062
12/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL QUALITY
BUREAU OF AIR POLLUTION CONTROL

FIELD INVESTIGATION ASSIGNMENT REPORT

TYPE OF INVESTIGATION REQUIRED	INSPECTOR ASSIGNED (Code No.)	DATE ASSIGNED	REQUIRED COMPLETION DATE	ACTUAL COMPLETION DATE	COUNTY	NO.	SUBCHAPTER	UNITS/	INSPECTOR'S INITIALS
1. ☒ COMPLAINT									
2. ☐ ORDER/NOP COMPLIANCE									
3. ☐ APEDS									
4. ☐ OTHER	037			6-13-83	CAM	1	5	18	aov

ATTACHMENT

1. COMPLAINT Date Rec'd. 6-13-83 Tel. No. 456-3930 Name AMSPEC CHEM CO. AL FRAMO
Time 9:40 AM Address GLOUCESTER CITY

Name and Address of Alleged Violator GAF CORP. GLOUCESTER CITY Nature of Violation ODORS Recorded by J. TIWALD

Investigation Results Date 6-13-83 Time 11:00 AM Observation GROUND AREA AROUND WASTE DISPOSAL DUMP TO TRUCKS WAS SATURATED WITH BLACK, RANCID LIQUID.

(continued on attached ☐ yes ☒ no)

☒ Verified
☐ Not Verified Recommendations REFER TO WASTE MGT. — DONE, DAVE POTTS WAS CONTACTED. 609-859-2958

2. ORDER/NOP COMPLIANCE Company _____ Location _____

NJAC 7:27 _____ Order, NOP Dated _____ Compliance ☐ yes ☐ no

Comments _____

(continued on attached ☐ yes ☐ no)

3. APEDS Company _____ Location _____

I.D. No. _____

Inspect Stack No. _____ Cycle _____

(or Stack Nos. _____ thru _____, _____ thru _____,

_____ thru _____, (continued on attached ☐ yes ☐ no)

4. OTHER Company _____ Location _____

I.D. No. _____ N.J. Stack No. _____ ☐ N/A

Type of Inspection/Activity _____

Inspection Results or Activity _____

(continued on attached ☐ yes ☐ no)

ATTACHMENT B-11

Supervisor's Review

Initials [illegible] Date 6-13-83

AMSPEC

YEAR	DATE	COMPLAINANT & ADDRESS	TYPE OF COMPLAINT	VERIFICATION
1978	8/9	Mrs. Force 725 Cherry St., Gloucester	Odors	Not Verified
1978	8/9	Elda Wilson 357 at 8th & Cherry Gloucester City	Sulfur Odor	Not Verified
1978	8/9	Mrs. Gross 8th & Cherry St. Gloucester City	Sulfur odor	Not Verified
1979	8/7	Frank Reilly 431 Summit Ave. Westville	Odors	Not Verified
1979	10/25	Frank Reilley 431 Summit Ave. Westville	Odors	Not Verified
1980	5/8	Charles Lynch 820 Center St. Gloucester	White cloud Odor	Not Verified
1980	7/7	Frank Riley 431 Summit Ave. Westville	Odors	
1981	12/14	Dispatcher Rogers Gloucester City Police	Smoke	Not Verified
1983	4/29	Frank J. Riley 431 Summit Ave. Westville	Odors	Not Verified
1983	6/13	AMSPEC CHEM. CO.-Al Framo	Odors	Verified Referred to DWM

ATTACHMENT B-12

ATTACHMENT C

SWM-001 A 2 3-16-78

Mineral ~~Wood~~ Wood

FIELD REPRESENTATIVE WASTE SURVEY REPORT

DATE: 3/15/78

COMPANY: G A F CORP SIC NO. 3296

Address: CHARLES + WATER St. GLOUCESTER CAMDEN 08030
No. & Street City or Twsp County Zip Code

Telephone: 609-456-1201 Did you inspect waste facilities? Yes ✓ No

Person(s) Interviewed: E. FLOOD Title: MANAGER

Chief Executive: JACK J. ECK Title: CHEMIST

Company Product(s) Line: DRY FELT FOR ROOFING + FLOORING No. of Emp. 300

Raw Materials Used: FELT JUTE VINYLS FOR SIDING

Type of Operation: Mold./Extrusion ___ Fabricating ___ Assembling ___ Re-Packaging ___
Chemical Processing ___ Blending ___ Other ~~ALEC~~ Polymerize Compounding?

Complete 3/30/78

WASTE INFORMATION

Constituents (specify)	Quantity (lbs, gals/wk, mo, yr)
FELT, JUTE	120 CUBIC YDS DAY
VINYLS	3400 lbs per DAY

WASTE DISPOSAL ON-SITE none NO on-site disposal ___

Method of Treatment of On-Site Disposal Waste:

Waste Constituents	Treatment

WASTE DISPOSAL OFF-SITE PHIL No off-site disposal ___

Name of Hauler: OWN TRUCK + FRANCHI SERVICES Telephone: 547-9453

Address: RD 4-BOX 312A SEWELL GLOUCESTER 08080
No & Street City or Twsp County Zip Code

Name of Disposal Facility: KINGSLEY LAND INC. Telephone: 228-6116

Address: HURFFVILLE RD. FAIRVIEW GLOUCESTER 08080
No. & Street City or Twsp County Zip Code

Type of Facility: Compost: ___ Evaporation: ___ Incineration: ___ Neutralization ___
Sanitary Landfill: ___ Secured Landfill: ✓ Well: ___ Pond/Lagoon: ___
Other: (specify) ___ (check one or more)

Waste Constituents	Treatment
FELT, Jute	RECYCLING
VINYLS	

REMARKS: Does have permit to discharge whatever waste water is generated to municipal sewage system.

left I.W.S. form

A. J. Petelli
Field Representative

ATTACHMENT C-1

A. J. Patelli

3-30-7
Complete

State of New Jersey
Department of Environmental Protection
Solid Waste Administration
P.O. Box 2807
Trenton, New Jersey 08625

Industrial Waste Survey

Please Type or Print

Date August 11, 1978

1. Name of Firm (or Establishment) GAF Corporation

2. Mailing address Charles and Water Streets

3. City or Town Gloucester City County Camden Zip Code 08030

4. Location (if not as above) _____

5. Telephone number: Area Code (201/609) (609) 456-1200

6. Name and Title of person completing form H. J. Holloway, Environmental Eng'g. Dep't.

7. Name and Title of chief executive of firm E. J. Flood, Plant Manager

8. Industry type: Manufacturing X Storage/Break Bulk ___ Distribution ___ Other ___ (Specify)
Bldg. paper and bldg board mills.

9. S.I.C. Number (5 Digit) 2661 10. Number of employees 350

11. Principal products manufactured, stored, processed or sold

Roofing felt (construction paper) and vinyl siding.

12. Does your operation produce industrial wastes* having any of the following properties and/or constituents: Flammable-chemical, Corrosive, Explosive, Carcinogenic, Infectious, Radioactive, Heavy Metals, Halogenated Hydrocarbons, Generates Pressure, Irritant, Sensitizer, Toxic, Mutagenic, Teratogenic, Special Handling Requirements.

Yes ___ No X

[redacted]

*Any discarded materials resulting from industrial or commercial processes including all liquid, semi-liquid, or solid wastes and containers contaminated with process materials, but exclusive of non-process wastes, such as on-site cafeteria, office paper wastes, or NPDES discharges.

ATTACHMENT C-2

GAF Corporation
Corporate Environmental Engineering Department
1361 Alps Road
Wayne, New Jersey 07470
Telephone (201) 628-3501

August 11, 1978

Mr. A. J. Petrilli
Department of Environmental Protection
Solid Waste Administration
P. O. Box 2807
Trenton, New Jersey 08625

Reference: GAF Corporation, Gloucester City Plant
Industrial Waste Survey

Dear Mr. Petrilli:

Enclosed is the completed Industrial Waste Survey form for our Gloucester City facility. The amount of vinyl siding waste shown may differ from the figure you obtained from the plant earlier this year, the reason being that much of the scrap is ground for re-use and most of the remainder is sold to plastics manufacturers.

Very truly yours,

GAF CORPORATION

H. J. Holloway

H. J. Holloway

cc: E. J. Flood, Plant Manager

ATTACHMENT C-3

This letter is on GAF Bond, it can be used directly for Diazo Reproduction

13. Current Industrial Waste Characteristics and Management Practices

	Process (General)	Associated Waste	Estimated Quantities Tons/Yr	Cu Yds/Yr	Gal/Yr	Constituents of Waste Wet Basis % Major Constituents (Incl. water)	"Hazardous Constituents" ppm	Phy Sta 1-5
A.	Felt Production	Hydropulper waste (trash)	5400	36,000		Metal Glass Wire Styrofoam	100%	1
B.	Vinyl Siding Production	Vinyl Siding Scrap	24	480		Vinyl Siding	100%	1

Notes:
1. Please refer to insert (Key list and completed sample of the table) for guidance.
2. Please use the keys for guidance in completing Item No. 13. Use one or more key numbers, as appropriate, when completing each section of the table.

ATTACHMENT C-4

Waste Properties 6-18	Storage Prior to Disposal 19-25	Special Handling 26-30	Treatment Prior to Disposal 31-58	Frequency of Disposal 59-65	Disposal Point 66-67	Disposal Method 68-	Remarks
---	Dumpster	None	None	60	67	77	
---	Dumpster	None	None	61	67	77	

ATTACHMENT C-5

14. On-Site Disposal Facility (No on-site disposal) X

Landfill or land disposal ____ Incinerator ____ Other ____ (Specify) ____

Associated waste numbers, from Item 13 ____

Description of Facility ____

If on-site landfilling or land disposal has ever been used, indicate years of use (19____ to 19____).

15. Off-site Disposal Facility (No off-site disposal) ____

Landfill or land disposal X Incinerator ____ Ocean ____ Other ____ (Specify) ____

Associated waste number, from Item 13 A and B

Description of facility Kingsley Landfill, Inc.

Location: City or Town Deptford County Gloucester Zip Code ____

Name of Hauler GAF Corporation

Address of Hauler Charles and Water Streets, Gloucester City

Alternatives for ocean disposal ____

If off-site disposal practices have been changed in the past 12 months, indicate names and addresses of previous hauler and disposal facility. ____

16. New Industrial Wastes

Do you expect to produce new types of waste during the next calendar year (as a result of water pollution or air pollution controls, plant expansion, change of product, process modification, etc.). Yes ____ No X

If yes, please indicate:

General process ____

Associated waste ____

Quantity ____ Units ____

Constituents of waste ____

Method of disposal ____

ATTACHMENT C-6

ATTACHMENT D

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
OFFICE OF SPECIAL SERVICES

OIL AND HAZARDOUS MATERIALS SPILL REPORT

INITIAL REPORT

04-14

OHMP CASE NUMBER 78-4-143

Date of spill: 4/14/78
Municipality: GLOUSTER
Receiving waters:
Tributary to: NONE
Reported by: FLOOD, EUGENE
Telephone: (609) 456-1200
Address:
Affiliation: GAF
Charles + Water Streets

Time of spill: 1115 hrs.
Type of material: ASKAREL (PCB)
Quantity: 300 GAL - 400 gal.
Source: GAF
Location of spill: CHARLES & WATERS
(street, road, etc.)
Cause: DAMAGED TRANSFORMER
Date of report: 4/14/78
Time of report: 1148.

Attachment E

Initial Action

	Yes	No
Fish & Game Notified	☐	☑
Affected Water Supplies		
1. _____, Time _____	☐	☐
2. _____, Time _____	☐	☐

	Yes	No
Shellfish Notified	☐	☒
~~Coast Guard~~/EPA Notified	☒	☐
Basin Manager Notified	☐	☒

Report taken by: T. FARROW

Hot Line _____

Case Indexed ☑

Investigation (on scene) (telephone)
Name of investigator:
Date of investigation:
Station:
Time:

Persons contacted:

Name	Affiliation	Telephone
1 ART GERVITZ	EPA	201-321-6667
2 MR SNEYERS	USCG (POLLUTION)	(609) 456-1370
3		

Samples: Yes___ No___ Photos: Yes___ No___

Report of investigation and recommended containment and cleanup:

Memo in Spill File ☐

Dised off with sand.
Called Hazardous waste MIKE ROSENBERG who advised mr. Flood on disposal of PCB's.
mr. Gervitz will call mr. Flood to advise him as to EPA regulations

~~ATTACHMENT E~~
ATTACHMENT D-1

1533 hrs. Called USCG and talked to mr Sneyers. He wasn't informed of spill. Gave him all information and he will ~~expand~~ go out to GAF himself and get back to me with an update.
1628 hrs called USCG back and they reported that EPA told GAF to cover ASKAREL with sand and have it barreled and transferred to

OFFICE COPY

SANDY P

4/17/88 1135 hrs call'd Mr Flood to get an update. Mr Flood claims 18 drums were delivered to Model Cities (Chem Tech) at 0930 hrs 4/17. Area cleaned up and Mr Flood will send memo on clean up. No further action.

ATTACHMENT D-2

Let's protect our earth

NEW JERSE. .TE DEPARTMENT OF ENVIRONMEN. . ROTECTION
OFFICE OF HAZARDOUS SUBSTANCES CONTROL

OIL AND HAZARDOUS MATERIALS SPILL REPORT

INITIAL REPORT

04-14

OHMP CASE NUMBER 79-5-27-2

Date of spill: 5/27/79
Municipality: Gloucester City
Receiving waters: None
Tributary to: N/A
Reported by: Dispatche #27
Telephone: 609-456-0007
Address:
Affiliation: Gloucester City F.D.

Time of spill: 0940
Type of material: #6 Fuel Oil
Quantity: 2000 gals / 300 gals
Source: GRF
Location of spill: Walnut Street
(street, road, etc.)
Cause: Broken Line
Date of report: 5/27/79
Time of report: 1025
Report taken by: O.H.
Hot Line: x

Initial Action

AGENCY	TELEPHONE No.	NOTIFIED YES	NOTIFIED NO
Coast Guard/EPA	800 424-8802	☒	☐
Fish & Game	609 292-6685 201 236-2313	☐	☒
Basin Manager	609 292-0566(A) -0686(R) -0576(D) -0604(P)	☒	☐
Shellfish Notified	609 292-0566	☐	☒

AGENCY	TELEPHONE No.	NOTIFIED YES	NOTIFIED NO
State Police CD/DC	609 882-2000	☐	☒
Solid Waste	609 292-9877	☐	☒
Air Pollution	609 292-6724	☐	☒
Pesticides Control	609 292-5890	☐	☒
Affected Water Supplies		☐	☒

Investigation (on scene) (telephone)

Name of investigator: S. McCone
Date of investigation: 5/27/79
Station: Glass Bldg.
Time: 1030

Persons contacted:

Name	Affiliation	Telephone
1		
2		
3		

Samples: Yes___ No x Photos: Yes x No___

Report of investigation and recommended containment and cleanup:

On scene and met with Mr Flood. He said that 300 gallons of high poor #6 fuel oil escaped from a heat exchanger blowdown when a fuel line inside the exchanger broke. The oil mixed with the water and discharged onto the ground. Crews were working to remove the oil and to repair broken pipe.

Checked area. Oil covered an area 100 feet by 10 feet but were entered a sewer line. Mr Flood will remove the oil and dirt and either use it in his process or take it to Kinsley Landfill (permit for 10 yards issued)

Tuesday 5/29/79 Checked area, clean. No further action

Memo in Spill File ☐

ATTACHMENT D-3

OFFICE COPY

Form DEP-001
2/83

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

REPORT OF: ☒ PHONE CALL ☒ VISIT

DATE 6/22/83

REFERRED TO ~~[illegible]~~ Gloucester City

TIME

BUREAU OR OFFICE Region VI

FILE GAF Corp NPDES

4P4

PERSON CONTACTED Mr Biegenwald ~~Mr Bergenwald~~

PHONE NO. 456-5119

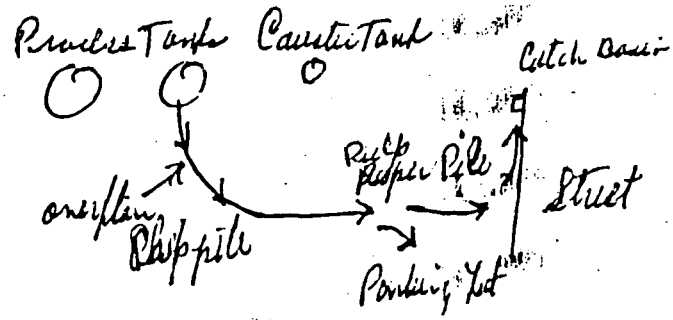
AFFILIATION/ADDRESS Hawkins Chemical

SUBJECT OF CALL/~~VISIT~~ Acid Storage Tanks Discharge to River

SUMMARY OF CALL/~~VISIT~~ Mr Bregenwald called to state that the Acid Storage Tanks at GAF are being discharged to the River.

6/24/83 Met with Mr Flood - Plant Manager J. Eck - Environmental a process water tank containing pulp fiber had overflowed due to a malfunctioning pump. Some water reached the storm sewer catch basin at the curb. The area has been cleaned up as stated in the attached letter. The other process water tank and the Caustic Tank were not affected. The Coast Guard also responded to this complaint.

ACTION RECOMMENDED None



Signature

ATTACHMENT D-4

GAF CORPORATION
Charles & Water Streets
Gloucester City NJ 08030
609 456 1200

June 23, 1983

N.J.D.E.P.
Division of Waste Mgt.
Rt. #1 Route 70
Vincentown, N.J. 08088

Attn: T. Ostrander

Dear Mr. Ostrander:

As discussed, several thousand gallons of water spilled from the top of our process water tank. We are a plant that recycles corrugated, mixed paper, wood chips, and sawdust into a sheet of felt paper. These items are mixed with river water which is recycled also in a closed system. Small amounts of caustic are added when needed to control PH to 5.8 to 6.2 in our plant, depending on the acidity of the incoming river water and/or any slight acidity generated from the wood chips.

When the spill occurred, the water was soaked up with corrugated pulp and returned to our process for use with a front end loader.

An adjustment being made to a pump impeller was the cause of the problem, followed by a trip out of a standby pump for a moment. To prevent any excessive spill out, should the back up pump have not been able to be re-started, all flow would have been stopped by the operator to the tank preventing any further spill.

An area where rejects are dumped to a lugger box is being cleaned up and this site will be corrected over the next month.

Very truly yours,
GAF CORPORATION

E. J. Flood
Plant Manager

EJF:by

ATTACHMENT D-5

An equal opportunity employer

ATTACHMENT E

To: Spill File

From: Bill Cronin

Subject: GAF Fire Phone log Case # 81-4-16-6

15:20 Tom Allen called George Weiss to report a possible fire at Harshaw Chemical in Gloucester City.

15:33 Scott Santora called Harshaw The fire is at GAF Corporation which is next door to Harshaw

15:35 Scott Santora called Harry Hornckel, Air Pollution southern office 609-295-7390 GAF recycles paper and manufactures PVC products.

15:40 Bruce Comfort called Gloucester City Fire Department. The fire is one alarm. It is in the paper processing building.

15:45 Scott Santora called Anthony Parzyck, Air Pollution Charlie Kraus will be notified Neil Cameron is being dispatched.

Bruce Comfort notified Cpt. Spedding, N.J. State Police Emergency Services

Jim Hall notified Trenton Dispatch

15:47 George Weiss called GAF and spoke to Harry Vickory, safety officer. The fire is out. Only wood and paper products were involved.

ATTACHMENT

Form HMP-005
/80

NEW JE Y DEPARTMENT OF ENVIRONMENTAL ECTION
OFFICE OF HAZARDOUS SUBSTANCE CONTROL

4-14 WP Ca

INCIDENT REPORT

O.H.S.C. Assigned Case Number 81-04-~~24~~ 16-006	OFFICE USE ONLY County/Munic. Code

Date 4/16/81	Time (Military) 15:20	O.H.S.C. I.D. No. of Employee Receiving Call 1180

INCIDENT REPORTED BY:

Name Tom Allen	Phone 2-5548	
Affiliation DHM		
Street		
City	State	Zip Code

INCIDENT LOCATION:

Name GAF	Phone	
Street Foot of Water Street		
City Gloucester City	State N.J.	Zip Code

SUSPECTED SPILLED SUBSTANCE:

1. Fire (wood & paper products)
2.

Date of Spill 4/16/81	Time (Military)	☐ SOLID ☐ LIQUID ☐ GAS ☐ MIXTURE
Amount Spilled none	Units	☐ ACTUAL ☐ ESTIMATED ☐ POTENTIAL
Cause fire		
Water Body Affected unk		
Associated Fire and/or Hazards		
Remarks		
O.H.S.C. Assigned Investigator I.D. No.		

SOURCE OF SPILLED SUBSTANCE: ☒ CONFIRMED ☐ ALLEGED

Name Same as Incident	Phone	
Street		
City Material on fire was only wood & paper products.	State	Zip Code

COMMENTS:

1. NFA Eng.
2. 4/21/81
3.
4.

ATTACHMENT E-2

ATTACHMENT F

Form WQM-1
12/81

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM
SUPPLEMENT TO THE STANDARD APPLICATION FORM CP # 1

Let's protect our earth

APPLICATION TO DISCHARGE WASTEWATERS AND RESIDUALS TO THE STATE'S LAND AND WATER

Answer all questions. Please print or type.

1. Circle the letter(s) for those discharge activities presently conducted or to be conducted as part of the facility's operation. (Seasonal facility operation shall be considered as a present operation.)
   - In the space provided, indicate if there is an existing NPDES or NJPDES permit for each circled activity (yes/no).
   - In the space provided, indicate if this application is for a "new" source, an "existing" source, or a "renewal" of a current permit.

DISCHARGE ACTIVITY	YES/NO	NEW, EXISTING, RENEWAL	
A. Municipal Surface Water Discharge			
(B) Industrial/Commercial Surface Water Discharge	YES	Renewal	#NJ 0005371
(C) Thermal Surface Water Discharge	YES	Renewal	
D. Land Application of Sludge and Septage			
E. Land Application of Industrial Waste Residues			
F. Landfill Wastes			
G. Spray Irrigation			
H. Overland Flow			
I. Rapid Infiltration			
J. Surface Impoundment			
K. Underground Injection			
L. Discharge to a Domestic Treatment Works			

2. Facility: Latitude 39° 53' 24" Longitude 75° 07' 37"

3. Name and address of applicant's parent corporation, subsidiary, or partnership data. *(Attach additional sheets if necessary.)*

   Name GAF Corporation Telephone No. (201) 628-3000

   Mailing Address 1361 Alps Road

   City or Town Wayne State NJ Zip Code 07470

4. Facility's Contact Person *(This person must be responsible for and familiar with the facility operation.)*

   Name H. J. Holloway Telephone No. (201) 628-3508

   Address of Operator

   City or Town State Zip Code

5. Is the facility a
   - ☐ Federal Facility
   - ☐ State Facility
   - ☐ Public Facility (a local government subdivision)
   - ☒ Private Facility

(Over)

ATTACHMENT F-1

~~Attachment D-1~~

6. List in order of priority all Standard Industrial Codes (SIC) which best reflect principal products or services provided by the facility.

SIC	PRODUCTS OR SERVICES PROVIDED
2661	Roofing Felt Paper

7. If applicable, identify all administrative orders, temporary or permanent injunctions, civil administrative penalties, civil penalties, or criminal actions concerning pollution issued against the facility during the last five (5) years.

ENFORCEMENT ACTION	DATE OF ACTION	RESULT
N/A		

8. If applicable, list all locations involved in the storage of solid or liquid waste at the facility for which the NJPDES application is being made and the ultimate disposal sites of solid or liquid wastes generated by the facility being permitted.

STORAGE SITE(S)	ULTIMATE DISPOSAL SITE(S)
N/A	

ATTACHMENT F-2

Let's protect our earth

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
CN 402
Trenton, N.J. 08625

PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to the further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Permit No.	Issuance Date	Effective Date	Expiration Date
NJ0005371	March 19, 1985	May 1, 1985	April 30, 1990

Name and Address of Applicant	Location of Activity/Facility	Name and Address of Owner
GAF Corporation 1361 Alps Road Wayne, NJ 07470	GAF Corporation Charles and Water Streets Gloucester City, NJ 08030	Same as Applicant

Issuing Division	Type of Permit	Statute(s)	Application No.
Water Resources	NJPDES-DSW	N.J.S.A. 58:10A-1 et seq.	NJ000537

This permit grants permission to:

Discharge to the Delaware River, classified as Zone 3 waters, in accordance with the conditions set forth in Parts I, II, III, and IV hereof.

Approved by the Department of Environmental Protection
By the Authority of:
John W. Gaston Jr., P.E.
Director
Division of Water Resources

Arnold Schiffman, Administrator
Water Quality Management

3/19/85
DATE

* *The word permit means "approval, certification, registration, etc."*

(GENERAL CONDITIONS ARE ON THE REVERSE SIDE.

ATTACHMENT F-3

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

STANDARD APPLICATION FORM (CP # 1)
CONSTRUCTION AND DISCHARGE PERMITS

READ REQUIREMENTS
PLEASE TYPE OR PRINT

1. Applicant/Owner* GAF Corporation Telephone (201) 628-3000

   Permanent Legal Address 1361 Alps Road

   City or Town Wayne State NJ Zip Code 07470

2. Location of Work Site

   Name of Facility, if applicable GAF Corporation

   Street/Road Charles and Water Streets

   Lot No. _____ Block No. _____

   City or Town Gloucester City State NJ Zip Code 08030

   Municipality _____ County _____

3. If applicable, give name of: Engineer/Surveyor/Well Driller/Geologist/Soil Scientist *(Specify).*

   Name N/A N.J. License No. _____

   Name of Firm, if employee _____

   Address _____ County _____

   Municipality _____ State _____ Zip Code _____

   Telephone ( ) _____

4. This is an application for Renewal of N.J. P.D.E.S. Permit
   (Name of permit, certification, approval or exemption. See Item 9. Next Page.)

   Permit No. NJ 0005371

5. Fee is attached (If applicable). $ N/A
   (Provide explanation of how fee was calculated. Read Requirements Section of Standard Application booklet.)

6. Estimated construction cost of project:

   a. $ _____ total cost of the project.

   b. $ _____ portion for which this permit is requested.

7. I have included certifications of any public notifications. Yes _____ No _____

8. If applicable:
   (For Waterfront Development applications, 8c. must be completed.)

   a. Source of Water Supply _____

   b. For Treatment at (Water Treatment Plant) _____

   c. Stream, Waterway, Pond or Lake _____

   d. Wastewater Treatment Facility _____

* *Applicant/Owner must be the individual or municipality, public agency, utility, company, industry who will be the eventual owner and operator of said facility (sewer extension or treatment works) when completed.*

ATTACHMENT E-4

9. Have any other applications for this site/project been submitted. Have any state permits been issued for this project? *(If yes, indicate status and project number below.)*

No ..... Yes ..... Decision .....

PERMIT TYPE *(Use additional sheets if necessary.)*	APPLICATION STATUS (PENDING - APPROVED)	PROJECT #
9.1 CAFRA		
9.2 Waterfront Development (Riparian)		
9.3 Wetlands		
9.4 Purchase Water		
Diversion:		
9.5 Divert Water Supply for Public Use		
9.6 Divert Surface Waters for Private Use		
9.7 Divert Subsurface/Percolating Water for Private Use		
9.8 Well Drilling		
Water Lowering:		
9.9 Permanent Lowering		
9.10 Temporary Lowering		
9.11 Construct/Modify, Operate Public Potable Water Works		
9.12 Connection between an approved water supply and non-approved supply		
9.13 Water Quality Certification		
9.14 Construct/Repair Dam		
9.15 Stream Encroachment		
9.16 Sewer Systems: Collectors, Pump Station, etc.		
9.17 Exemption from Sewer Ban		
9.18 New Jersey Pollutant Discharge Elimination System (Specify)		
9.19 Solid Waste Permits (Specify)		
9.20 Air Quality Permits (Specify)		
9.21 Delaware and Raritan Canal Review Zone "Certificate of Approval"		
9.22 Other State agencies' permits		
9.23 Local Permits		
9.24 Federal Permits		

10. Brief Description of the Proposed Project and Intended Use:

11. I hereby certify that the information furnished on this application (and the attachments) is true. I am aware that false swearing is a crime in this State and subject to prosecution.

John A. Brennan
Type: Name and Date

John A Brennan
Signature of Applicant

Sr. Vice President, Building Mat'ls.
Type: Position

May 17, 1988
Date

ATTACHMENT E-5

Please print or type in the unshaded areas only

NJD 043292606

Approval expires 3-31-84

FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER

EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS

Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
002	39	53	26	075	07	37	Delaware River
003	39	53	24	075	07	37	Delaware River

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g., for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
002	Power Plant Cooling Water (Non-Contact)	0.22 mgd	None		
003	Felt Mill Cooling Water (Non-Contact)	0.20 mgd	None		

ATTACHMENT F-6

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

CONTINUE ON REVERSE

EPA I.D. NUMBER (copy from Item 1 of Form 1)
13292606

Form Approved
OMB No. 2000-0059
Approval expires 3-31-84

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may b discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in you possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
NONE			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. Is any pollutant listed in Item V-C a substance or a component of a substance which you do or expect that you will over the next 5 years use or manufactur as an intermediate or final product or byproduct?

☐ YES *(list all such pollutants below)* ☒ NO *(go to Item VI-B)*

B. Are your operations such that your raw materials, processes, or products can reasonably be expected to vary so that your discharges of pollutants may durin the next 5 years exceed two times the maximum values reported in Item V?

☐ YES *(complete Item VI-C below)* ☒ NO *(go to Section VII)*

C. If you answered "Yes" to Item VI-B, explain below and describe in detail the sources and expected levels of such pollutants which you anticipate will be discharged from each outfall over the next 5 years, to the best of your ability at this time. Continue on additional sheets if you need more space.

ATTACHMENT F-7

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

[ ] YES *(identify the test(s) and describe their purposes below)* [X] NO *(go to Section VIII)*

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

[X] YES *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* [ ] NO *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*
Betz, Converse, Murdoch, Inc.	Plymouth Meeting, Pennsylvania	(215) 825-3800	All Reported

IX. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
John A. Brennan, Sr. Vice President	(201) 628-3000
C. SIGNATURE: John A. Brennan	D. DATE SIGNED: 5/22/84

ATTACHMENT F-8

ATTACHMENT G

GAF CORPORATION
1361 Alps Road
Wayne NJ 07470
201 628 3000

N.J. Department of Environmental Protection
Division of Waste Management
CN 028
Trenton, NJ 08625

October 3, 1985

Gentlemen:

Attached is waste manifest number NJA0027698 for the transport and storage by Eastern High Voltage, Inc. of PCB liquids and solids from GAF's Gloucester City, N.J. facility.

Very truly yours,

H. J. Holloway

H. J. Holloway

HJH/db

cc: J. Wright - Gloucester City

Attachment

bcc: Wayne
F. Belardo
S. Graziano
B. Lloyd

ATTACHMENT G-1

VHW-001 (REV 9-84)

State of New Jersey
Department of Enviromental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: N J 0 0 4 3 9 7 2 6 9 6 2 7 4 9 8
Manifest Document No.
2. Page 1 of
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: BRF Corp. [illegible] Alps Road Wayne NJ 07470
4. Generator's Phone: (201) 628-[illegible]

A. State Manifest Document Number: NJA0027698
B. State Gen. ID: Chemicals & Water St. Gloucester NJ 08030

5. Transporter 1 Company Name: Eastern High Voltage, Inc.
6. US EPA ID Number:
C. State Transporter's ID: NJSR7S8349-
7. Transporter 2 Company Name:
8. US EPA ID Number:
D. Transporter's Phone: 609-396-8200
E. State Transporter's ID:
9. Designated Facility Name and Site Address: Raburn High Voltage, Inc. 104 Marlton Drive Mt. Laurel, N.J. 08054
10. US EPA ID Number:
F. Transporter's Phone:
G. State Facility's ID:
H. Facility's Phone:

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Polychlorinated Biphenyls [illegible] Liquids	[illegible]	DM	[illegible]	P	N/A
b. [illegible]	001	DM	[illegible]	G	N/A
c. POLYCHLORINATED BIPHENYLS [illegible] CLASS-E UN2315	001	TP	01990	P	X727
d.					

J. Additional Descriptions for Materials Listed Above
a. Soil, rags
b. Hazard + Kerosene
c. 100 RWA TARPS CALASS
d.

K. Handling codes for Wastes Listed Above
a. S01
b. S01
c.
d.

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations, and all applicable State laws and regulations.

Printed/Typed Name: John F. Wright Jr. Corp. Pres.
Signature: John F. Wright
Date: Month 09 Day 12 Year 89

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible]
Signature: [illegible]
Date: Month [illegible] Day [illegible] Year [illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: [illegible] Wilson, Vice President
Signature: [illegible]
Date: Month Day Year

EPA Form 8700-22 (3-84) 3 – TSD MAIL TO – GENERATOR

ATTACHMENT G-2

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NJD043292606 — Manifest Document No. 00001

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
GAF CORPORATION
CHARLES + WATER STREETS
GLOUCESTER CITY N J 08030

4. Generator's Phone (609) 456-2598

A. State Manifest Document Number: CWMA 236255

B. State Generator's ID: SAME

5. Transporter 1 Company Name: S-J TRANSPORTATION CO.

6. US EPA ID Number: NJD071629976

C. State Transporter's ID: [illegible]

D. Transporter's Phone: (609) [illegible]

7. Transporter 2 Company Name: ——

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

10. US EPA ID Number: ALD000622464

G. State Facility's ID:

H. Facility's Phone: 205/652-9721

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE POLYCHLORINATED BIPHENYLS (PCB CONTAMINATED SOIL) ORM-E UN-2315 CWM Profile Number E65825	001	ROLL OFF CM	12	Y	N/A
b. CWM Profile Number					
c. CWM Profile Number					
d. CWM Profile Number					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above
a. c.
b. d.

15. Special Handling Instructions and Additional Information
I CERTIFY THAT NO ABSORBENT HAS BEEN ADDED TO THE ABOVE WASTE WHICH WOULD PROHIBIT ITS BEING LANDFILLED PER RCRA SECTION 3004(C-1)

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: H. J. HOLLOWAY — Signature: H. J. Holloway — Month Day Year: 04 29 86

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Bruce Nichols — Signature: Bruce Nichols — Month Day Year: 04 29 86

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Month Day Year:

19. Discrepancy Indication Space

ATTACHMENT G-3

GAF CORPORATION
1361 Alps Road
Wayne NJ 07470
201 628 3000

State of New Jersey
Department of Environmental Protection
Division of Waste Management
CN028
Trenton, NJ 08625

September 29, 1986

Subject: Uniform Hazardous Waste Manifests

Gentlemen:

Enclosed are Copy 6 (Destination State) and Copy 7 (Generator State) of the following Uniform Hazardous Waste Manifests:

NJA0180000	Page 1 of 1
NJA0234636	Page 1 of 1
NJA0234639	Page 1 of 1
NJA0234640	Page 1 of 1
NJA0234641	Page 1 of 1
NJA0234642	Page 1 of 1

These manifests are for material transported from GAF's Gloucester City, N.J. facility on September 15, 1986.

Very truly yours,

F. Bright

F. Bright
Project Engineer

FB/db

cc: A. Dresner, S. Graziano, B. Lloyd, R. Munn - GAF, Wayne
J. Wright - GAF, Gloucester City

ATTACHMENT G-4

An equal opportunity employer

VHW-001 (REV. 9-84)

State of New Jersey
Department of Environmental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2060-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. WJD048292606 Manifest Document No. 00001
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.*

A. State Manifest Document Number NJA0180000

3. Generator's Name and Mailing Address
G.A.F. Corp. Bldg #2
1361 Alps Road Wayne New Jersey 07470

4. Generator's Phone (201) 628-3031 Attn: Fred Bright

5. Transporter 1 Company Name: Clean Venture Inc.
6. US EPA ID Number: WJD085634335

7. Transporter 2 Company Name:
8. US EPA ID Number:

9. Designated Facility Name and Site Address
Perk Chemical Company Inc.
217 South First Street
Elizabeth New Jersey 07206
10. US EPA ID Number: WJD002200046

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Waste Flammable Solid N.O.S. Flammable Solid U.N. 1325	011	DM	03300	P
b. Waste Corrosive Liquid Poisonous N.O.S. Corrosive Material U.N. 2922	004	DM	00200	G
c. Hazardous Waste Solid N.O.S. ORM-E N.A. 9189	011	DM	03300	P
d. Waste Oxidizer Poisonous Solid N.O.S. Oxidizer N.A. 9200	002	DM	00600	P

[illegible]

15. Special Handling Instructions and Additional Information
Product Code # 71132AA {a b c d
Also included 61 empty drums and 19 empty 5 gal pails PC# 71132 MT
Also Included w/ Shipment 1 Drum (#31 L.P.) Non-Hazardous Waste

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: John Wright
Signature: [signature]
Date: Month 09 Day 15 Year 86

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Peter D'Agata
Signature: Peter D'Agata
Date: Month 09 Day 15 Year 86

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month Day Year

19. Discrepancy Indication Space

ATTACHMENT G-5

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name:
Signature:
Date: Month Day Year

EPA Form 8700-22 (Rev. 4-85) Previous edition obsolete

GENERATOR

TRANSPORTER

FACILITY

VHW-001 (REV 9-84)

State of New Jersey
Department of Environmental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NJD042192196 — Manifest Document No. 00092
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number NJA0234636

3. Generator's Name and Mailing Address
GAF Corporation
1361 Alps Road, Wayne New Jersey 07470
4. Generator's Phone (201) 628-3031 Attn: Fred E. [illegible]

5. Transporter 1. Company Name: Clean Venture Inc. — 6. US EPA ID Number: NJD985613335

7. Transporter 2. Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address
Peak Chemical Company Inc.
217 South First Street
Elizabeth New Jersey 07206
10. US EPA ID Number: NJD002490996

(201) [illegible]

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No	Type	13. Total Quantity	14. Unit Wt/Vol	
a. Waste Corrosive Solid N.O.S. Corrosive Material U.N. 1759	002	DM	009.00	P	[illegible]
b. Waste Petroleum Oil N.O.S. Combustible Liquid U.N. 1270	009	DM	00459	G	[illegible]
c. Waste Chromic Acid Solution Corrosive Material U.N. 1755	001	DM	00005	G	[illegible]
d. Hazardous Waste Solid N.O.S. ORM-E N.A. 9189	034	DM	00500	P	X-910

J. Additional Descriptions for Materials Listed Above
a. Waste Corrosive Solid N.O.S. — Protective Clothing, T-Shirts, Boots, Tyvek, Gloves, Socks
b. Used Lubricating Oils Liquid

15. Special Handling Instructions and Additional Information
Product Code # a-71132AA c-71132DC d-71132LC
b-71132LS(2), 71132OC(2), 71132LJ(2), 71132OI, 71320M, 71132OT

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable state laws and regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: [illegible] — Signature: [illegible] — Date: Month 09 Day 15 Year 86

17. Transporter 1 Acknowledgement of Receipt of Materials — Date
Printed/Typed Name: [illegible] — Signature: [illegible] — Date: Month [illegible] Day [illegible] Year [illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials — Date
Printed/Typed Name — Signature — Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Date: Month Day Year

GENERATOR / TRANSPORTER / FACILITY

In case of an emergency or spill immediately call the state the emergency occurred and the N.J. Dept. of Transportation Prote[illegible] (609) [illegible] (609) [illegible] 7172

EPA Form 8700-22 (Rev 4-85) Previous edition obsolete

6 – GENERATOR MAIL TO TSD'S STATE

ATTACHMENT G-6

VHW-001 (REV 9-84)

State of New Jersey
Department of Environmental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039 Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NJD041329696 | Manifest Document No. 99993 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: GAF Co[redacted] Building #2, 1361 Al[redacted] Wayne New Jersey 07470

4. Generator's Phone: (201) 628-3031 Attn: Fred Bright

A. State Manifest Document Number: NJA0234639

5. Transporter 1 Company Name: Clean Venture Inc. | 6. US EPA ID Number: NJD985634335

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address: Peri Chemical Company Inc. 217 South First Street Elizabeth New Jersey 07206 | 10. US EPA ID Number: NJD994299946

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit
a. Waste Poisonous Liquid N.O.S. Poison B U.N. 2810	001	04	00055	G
b. Waste Calcium Oxide ORM-B U.N. 1910	001	04	00400	P
c. Waste Sodium Nitrate Oxidizer U.N. 1498	001	04	00300	P
d. Waste Corrosive Solid N.O.S. Corrosive Material U.N. 1759	001	04	00300	P

GENERATOR

J. Additional Descriptions for Materials Listed Above: [illegible] Sodium Hexametaphosphate 100% C-5014

15. Special Handling Instructions and Additional Information: Product Code # a-7113 2IC c-7113 2LE b-7113 2LD d-7113 2LF Waste not Sound x Non-Hazardous Waste PCB 7113 2LA, 7113 2LB, 7113 2DR, 7113 2LK, 7113 2LL

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable state laws and regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: John Haigh | Signature: [illegible] | Date: Month 09 Day 15 Year 86

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials | Date

Printed/Typed Name: [illegible] | Signature: [illegible] | Date: Month 09 Day 17 Year 86

18. Transporter 2 Acknowledgement of Receipt of Materials | Date

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19 | Date

Printed/Typed Name | Signature | Date: Month Day Year

EPA Form 8700-22 (Rev. 4-85) Previous edition obsolete

6 – GENERATOR MAIL TO TSD'S STATE ATTACHMENT G-1

VMR-001 (REV 3-84)

State of New Jersey
Department of Environmental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039 Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NJD041321696 | Manifest Document No. 99993 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: GAF Co[illegible] Building #2, 1361 Al[illegible] Wayne New Jersey 07470
4. Generator's Phone: (201) 628-3031 Attn: Fred Bright

4A. State Manifest Document Number: NJA0234639

5. Transporter 1 Company Name: Clean Venture Inc. | 6. US EPA ID Number: NJD985634335

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address: Perth Chemical Company Inc. 217 South First Street, Elizabeth New Jersey 07206 | 10. US EPA ID Number: NJD994409946

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	
a. Waste Poisonous Liquid N.O.S. Poison B U.N. 2810	001	04	00055	G	X-90
b. Waste Calcium Oxide ORM-B U.N. 1910	001	04	00400	P	0002
c. Waste Sodium Nitrate Oxidizer U.N. 1498	001	04	00300	P	
d. Waste Corrosive Solid N.O.S. Corrosive Material U.N. 1759	001	04	00300	P	0002

J. Additional Descriptions for Materials Listed Above
a. [illegible] Listed Above
b. Sodium Hexametaphosphate 100% C-Solid

15. Special Handling Instructions and Additional Information
Product Code # a-71132IC C-71132LE
b-71132LD d-71132LF
Also see Manifest Supplement Non-Hazardous Waste Pickup 71132LA, 71132LB, 71132LC, 71132LK, 71132LL

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable state laws and regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: John Haigh | Signature | Date: Month 09 Day 15 Year 86

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] | Signature | Date: Month 09 Day 15 Year 86

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19
Printed/Typed Name | Signature | Date: Month Day Year

GENERATOR / TRANSPORTER / FACILITY

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection (609) 292-7172 (609) 292-5580 (24 hrs.)

EPA Form 8700-22 (Rev. 4-85) Previous edition obsolete

6 – GENERATOR MAIL TO TSD'S STATE

ATTACHMENT G-8

State of New Jersey
Department of Environmental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2000-0404 Expires 7-31-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. WJD043292606 | Manifest Document No. 00004 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.*

3. Generator's Name and Mailing Address: G.A.F. [illegible] Building #2, 1361 Alps [illegible] Wayne New Jersey 07470

4. Generator's Phone: 201-628-3031 Attn: Fred Bright

A. State Manifest Document Number: NJA0234640

5. Transporter 1 Company Name: Clean Venture Inc. | 6. US EPA ID Number: WJD085634335

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address: Perk Chemical Company Inc., 217 South First Street, Elizabeth New Jersey 07206 | 10. US EPA ID Number: WJD002200046

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No	Type	13. Total Quantity	14. Unit Wt/Vol	
a. Hazardous Waste Solid N.O.S. ORM-E N.A. 9189	005	DM	02500	P	D001
b. Hazardous Waste Liquid N.O.S. ORM-E N.A. 9189	002	DM	00110	G	
c. Hazardous Waste Liquid N.O.S. ORM-E N.A. 9189	002	DM	00110	G	
d. Waste Corrosive Liquid N.O.S. Corrosive Material UN 1760	002	DM	00110	G	D002

J. Additional Descriptions for Materials Listed Above: [illegible] Polyalkenoxide [illegible] Water [illegible] Diethylamine [illegible] Water 80% T-Liquid | d. Water 60% C-Liquid

15. Special Handling Instructions and Additional Information: Product Code # a-71132LG d-71132CD b-71132HS c-71132AP

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable state laws and regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: John [illegible] | Signature: [illegible] | Date: Month 09 Day 15 Year 11

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature: [illegible] | Date: Month 09 Day 15 Year 96

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name | Signature | Date: Month Day Year

GENERATOR / TRANSPORTER / FACILITY

EPA Form 8700-22 (Rev. 4-85) Previous edition obsolete

6 – GENERATOR MAIL TO TSD'S STATE

ATTACHMENT G-9

State of New Jersey
Department of Environmental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039 Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NJD043292696 | Manifest Document No. 000105 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
G.A.F. C[illegible] Building #2
1361 Al[illegible] Linden New Jersey 07470
4. Generator's Phone 201 925-3031 Attn: Fred Bright

M. State Manifest Document Number NJA0234641

5. Transporter 1 Company Name: Clean Venture Inc. | 6. US EPA ID Number: NJD08[illegible]4335

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address
Perth Chemical Company Inc.
217 South First Street
Elizabeth New Jersey 07206
10. US EPA ID Number: NJD002200946

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	
a. Waste Sodium Aluminate Solution, Corrosive Material U.N. 1819	002	1	00060	G	D002
b. Waste Corrosive Liquid N.O.S., Corrosive Material U.N. 1760	001	04	00055	G	[illegible]
c. Waste Flammable Liquid N.O.S., Flammable Liquid U.N. 1993	001	04	00055	G	[illegible]
d. Hazardous Waste Liquid N.O.S., ORM-E N.A. 9189	001	04	00055	G	X900

J. Additional Descriptions for Materials Listed Above
a. [illegible] Waste 1596, [illegible] E-[illegible]
b. Sodium Silicate Solution C-Ethylhexyl Acrylate 10% Waste 3[illegible]

15. Special Handling Instructions and Additional Information
Product Code # a - 71132HA d - 71132 DM
b - 71132LH, 71132CS, 71132CH
c - 71132IO

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable state laws and regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: [illegible] | Signature: [illegible] | Date: Month [illegible] Day [illegible] Year [illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: PETER DI[illegible] | Signature: Peter Di[illegible] | Date: Month 19 Day [illegible] Year [illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19
Printed/Typed Name | Signature | Date: Month Day Year

GENERATOR — TRANSPORTER — FACILITY

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection. (609) 292-7172 (Night)

EPA Form 8700-22 (Rev. 4-85) Previous edition obsolete

6 – GENERATOR MAIL TO TSD'S STATE ATTACHMENT G-10

WWW-001 (REV 9-84)

State of New Jersey
Department of Environmental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NJD043492606 — Manifest Document No. 000096
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.*

3. Generator's Name and Mailing Address: GAF Corporation Building #2, 1361 Alps Road, Wayne New Jersey 07470
4. Generator's Phone: (201) 628-3031 Attn: Fred Bright

A. State Manifest Document Number: NJA0234642

5. Transporter 1 Company Name: Clean Nature Inc. — 6. US EPA ID Number: NJD063433135
7. Transporter 2 Company Name — 8. US EPA ID Number:

9. Designated Facility Name and Site Address: Park Chemical Company Inc., 217 South First Street, Elizabeth New Jersey 07206 — 10. US EPA ID Number: NJD002220046

E. State Transporter's ID

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. Waste Aluminum, Metallic Powder, Flammable Solid U.N. 1396	002	04	00600	P	D001
b. Waste Flammable Liquid N.O.S., Flammable Liquid U.N. 1993	001	09	00055	G	
c. Waste Corrosive Solid N.O.S., Corrosive Material U.N. 1759	002	04	00600	P	
d. Waste Petroleum Oil N.O.S., Combustible Liquid N.A. 1270	001	04	00030	G	D226

J. Additional Descriptions for Materials Listed Above
a. Sodium Hydroxide 50% Liquid
b. Chlorpyrifos 5% I Liquid
c. Sodium Bisulfate 92% Solid
d. Methanol 10% Liquid

15. Special Handling Instructions and Additional Information
Pallet Code # a-71132LM
b-71132FE
c-71132LN

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable state laws and regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: John Wright — Signature: [illegible] — Date: Month 09 Day 15 Year 91

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] — Signature: [illegible] — Date: Month 09 Day 15 Year 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19
Printed/Typed Name — Signature — Date: Month Day Year

GENERATOR — TRANSPORTER — FACILITY

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection: (609) 292-7172 (night) (609) 292-8860 (day)

EPA Form 8700-22 (Rev. 4-85) Previous edition obsolete

6 – GENERATOR MAIL TO TSD'S STATE

ATTACHMENT G-11

GAF CORPORATION
1361 Alps Road
Wayne NJ 07470
201 628 3000

State of New York
Department of
Environmental Conservation
Division of Soild and
Hazardous Waste
P.O. Box 12820
Albany, NY 12212

November 11, 1986

Subject: Uniform Hazardous Waste Manifest

Gentlemen:

Enclosed is Copy #6 (Destination State) of the following Uniform Hazardous Waste Manifest:

NYA2701539 Page 1 of 1

This manifest is for material transported from GAF's Gloucester City, N.J. facility on November 7, 1986

Very truly yours,

Fred Bright
Project Engineer

FB/db

cc: A. Dresner, S. Graziano, B. Lloyd,
R. Munn - GAF, Wayne
J. Wright - GAF, Gloucester City

100 ANNIVERSARY

ATTACHMENT G-12

48-1-1-1 (10/84)

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please print or type.

Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: NJD043292806
Manifest Document No.: 01339
2. Page 1 of 1
Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address: GAF Corporation, Charles & Water Street, Gloucester City, NJ 08030

4. Generator's Phone ( ) 201 628-3031

5. Transporter 1 (Company Name): Resource Technology Services, INC
6. US EPA ID Number: PAD988330479

7. Transporter 2 (Company Name):
8. US EPA ID Number:

9. Designated Facility Name and Site Address: Northeastern Environmental Services, Canal Road, Canastota, NY 13032-0228
10. US EPA ID Number: NYD981558010

C. State Transporter's ID
D. Transporter's Phone
E. State Transporter's ID
F. Transporter's Phone
G. State Facility's ID
H. Facility's Phone

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. Waste Picric Acid, wet pot less than 10% water, Flammable Solid, NA 1344 *	1	DM	8	P	D001
b. Waste Sodium Hydrosulfile, Flammable Solid, UN 1384 *	1	DM	1	P	D001
c. Waste Sodium Peroxide, Oxidizer, UN 1504 *	1	DM	2	P	D001
d.					

J. Additional Descriptions for Materials listed Above
a. I-Lab Pack
c. K-I-Lab Pack
b. I-Lab Pack
d.

K. Handling Codes for Wastes Listed Above
a. ☑ c. ☑
b. ☑ d.

15. Special Handling Instructions and Additional Information

a) S043-86-01-X02
b) X03
c) X04

* See attached inventories

NJ Transport A... NJ DEP 57815

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and state laws and regulations.

Printed/Typed Name: John WRIGHT
Signature: John Wright
DATE: Mo. Day Year

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name:
Signature:
DATE: Mo. Day Year

18. Transporter 2 (Acknowledgement or Receipt of Materials)
Printed/Typed Name:
Signature:
DATE: Mo. Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name:
Signature:
DATE: Mo. Day Year

EPA Form 8700-22 (3-84)

ATTACHMENT G-13

COPY 6—Disposer State—mailed by generator

...emergency or spill immediately call the National Response Center (800) 424-8802 and the N.Y. Department of Transportation (518) 457-7362.

VHW-001 (REV. 9-84)

State of New Jersey
Department of Environmental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N J D 0 4 3 2 9 2 6 0 6

Manifest Document No. 4 0 4 0 6

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.*

A. State Manifest Document Number **NJA 0240406**

3. Generator's Name and Mailing Address
[illegible] Corporation
Charles Water Street
Gloucester City, NJ 08030

4. Generator's Phone (201) 628-3031

5. Transporter 1 Company Name: Resource Technology Services, Inc
6. US EPA ID Number: P A D 9 8 0 3 5 5 0 4 7 9

7. Transporter 2 Company Name: Chem Freight, Inc.
8. US EPA ID Number: O H D 0 7 5 0 0 6 3 0 4

9. Designated Facility Name and Site Address
Environmental Enterprises Inc
4650 Spring Grove Avenue
Cincinnati, OH 45215
10. US EPA ID Number: O H D 0 8 3 3 7 7 0 1 0

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No	Type	13. Total Quantity	14. Unit Wt/Vol
a. Waste Sodium Azide Poison B UN1687	1	DM	18	P
b.				
c.				
d.				

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

a. H-56

b.

15. Special Handling Instructions and Additional Information

[illegible]

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and all applicable state laws and regulations.
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Printed/Typed Name: John Wright | Signature | Date: Month 1 Day 1 Year 1 2 8 6

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature | Date: Month 1 Day 1 Year 1 2 8 6

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name | Signature | Date: Month Day Year

6 - GENERATOR MAIL TO TSD'S STATE

ATTACHMENT G-14

PPM INC

1875 FORGE STREET
TUCKER, GEORGIA 30084
(404) 934-0902
TELEX NO. 543-129

RECEIVED
1987 FEB -5 PM 1:54
ENG. DEPT.-BLDG. MAT'LS.
WAYNE, NJ

January 26, 1987

Max Sandler
Greylag Technical Services
PO Box 239
Ewan, NJ 08025

RE: PPM Job Control Number: 1291-0603

Dear Mr. Sandler:

This is to certify that the following material received from your company on manifest number NJA0205958 was properly disposed of on November 15, 1986 according to all appropriate Federal, State and Local regulations.

Generator	Description of Material
GAF Corporation	11 Drums Debris

If you have any questions concerning the disposal of your material, please feel free to contact me in our Tucker, Georgia office at (404)934-0902.

Sincerely,

PPM, INC.

Lorraine Gardner

Lorraine Gardner
Recordkeeper

ATTACHMENT G-15

10 CENTRAL AVENUE
KANSAS CITY, KANSAS 66118
(913) 621-4206
TELEX NO. 434-607

4105 WHITAKER AVENUE
PHILADELPHIA, PENNSYLVANIA 19124
(215) 425-5144
TELEX NO. 71-4972670

TORONTO STAR BUILDING
SUITE 801A
ONE YONGE
TORONTO, ONTARIO M5E-1E5
(416) 364-1919
TELEX NO. 065-242-00

DRUM #: S042-86-01-X04 GENERATOR: [illegible] / GMC Corp.

DATE: 11-7-86 MANIFEST #: [illegible]

DRUM SIZE: 5 gal Can

DRUM WEIGHT: _____ DRUM LABEL: Waste Sodium Peroxid

SPECIAL HAZARDS MANAGEMENT CO.
P.O. Box 711, Oaks, PA 19456

APPROVAL NO: _____

QTY.	SIZE	PHY. ST.	TYPE CONT.	CONTENTS	DOT #	EPA #
2	116	S	m	Sodium Peroxide	UN1504	

ATTACHMENT G-16

DRUM #: [illegible] GENERATOR: [illegible]

DATE: 11-2-86 MANIFEST #: [illegible]

DRUM SIZE: 55 gal

DRUM WEIGHT: _____ DRUM LABEL: Waste Sodium Hydrosulfite

SPECIAL HAZARDS MANAGEMENT CO.
P.O. Box 711, Oaks, PA 19456

APPROVAL NO: _____

QTY.	SIZE	PHY. ST.	TYPE CONT.	CONTENTS	DOT #	EPA #
1	116	S.	G	Sodium Bisulfite (Hydrosulfite)	UN1384	

ATTACHMENT G-19

DRUM #: 5042-86-01 X-2 GENERATOR: [illegible]/GAF Corp.

DATE: 11-7-86 MANIFEST #: [illegible]

DRUM SIZE: 5-1

DRUM WEIGHT: _____ DRUM LABEL: Waste [illegible] Acid, [illegible] 10% water

SPECIAL HAZARDS MANAGEMENT CO.
P.O. Box 711, Oaks, PA 19456

APPROVAL NO: _____

QTY.	SIZE	PHY. ST.	TYPE CONT.	CONTENTS	DOT #	EPA #
1	11b	5	G/P	Picric Acid [illegible] 9-2% water (1 [illegible])	NA1344	

ATTACHMENT G18

DRUM #: 5042-86-01-X01 GENERATOR: Clean Venture/GAF Corp

DATE: 11-2-86 MANIFEST #: NTA0240406

DRUM SIZE: 55-1

DRUM WEIGHT: _____ DRUM LABEL: Waste Sodium Azide

SPECIAL HAZARDS MANAGEMENT CO.
P.O. Box 711, Oaks, PA 19456

APPROVAL NO: _____

QTY.	SIZE	PHY. ST.	TYPE CONT.	CONTENTS	DOT #	EPA #
1	1000gr	S	G/P	Sodium Azide	UN1687	P105

ATTACHMENT 6-19

ATTACHMENT H

GAF CORPORATION
1361 Alps Road
Wayne NJ 07470
201 628 3000

October 6, 1986

State of New Jersey
Department of Environmental Protection
Division of Water Resources
CN029
Trenton, NJ 08625

ATT: Francesca Marrazzo
Bureau of Permits Administration
Water Quality Management

Subject: GAF Gloucester City, New Jersey Plant
NJPDES Permit No. NJ0005371
Deletion From Active File

Dear Francesca,

Enclosed please find a signed and notarized Affidavit of Exemption to terminate our permit for the above subject plant.

We understand that a new application must be filed with your office at least 180 days prior to any planned reactivation of discharge from the plant.

Thank you for your assistance in this matter.

Very truly yours,

Fred Bright

Fred Bright

FB/db

Enclosure

cc: Florence Power - Administration Analyst I
Bureau of Permits Administration

S. Graziano, B. Lloyd - GAF, Wayne
J. Wright - GAF, Gloucester City

An equal opportunity employer

ATTACHMENT H-1

Affidavit of Exemption
from the
New Jersey Pollutant
Discharge Elimination System Permit
NJPDES # NJ0005371
Gloucester City Plant

State of New Jersey)ss:
County of Camden)
_____, being sworn, states:

1. I am * Project Engineer
(Title and Position)

of GAF Building Materials Corporation
(Name of Company)

2. I have personal knowledge of the facts set forth herein.

3. NJPDES Permit No. 0005371, issued on 3/19/85, authorized the following "discharge" of "pollutants" to the waters of the State of New Jersey from Gloucester City Plt. or operation of
(plant or facility)
such facility. (Check appropriate type of discharge(s)).

___ Surface water/Municipal
X Surface water/Industrial
X Surface water/Thermal
___ Land application of sludge & septage
___ Land application/Industrial Waste residue
___ Landfill - Industrial/Commercial
___ Landfill - Municipal
___ Spray Irrigation - Industrial/Commercial
___ Spray Irrigation/Domestic
___ Overland Flow - Industrial/Commercial
___ Rapid Infiltration - Industrial/Commercial
___ Rapid Infiltration
___ Surface Impoundment - Industrial/Commercial
___ Surface Impoundment/Domestic

___ Underground Injection - Industrial/Commercial
___ Underground Injection/Domestic
___ Significant Industrial User
___ Individual Subsurface Sewage Disposal - Industrial/Commercial
___ Individual Subsurface Sewage Disposal - Community

___ Overland Flow/Domestic
___ Rapid Infiltration

___ Surface Impoundment/Domestic
___ Underground Injection/Domestic

Other - Describe _____

These terms are as defined in Section 3 of the New Jersey "Water Pollution Control Act" N.J.S.A. 58:10A-1 et seq. and the New Jersey Pollutant Discharge Elimination System Regulations, N.J.A.C 7:14A-1 et seq.

* Signatory must be the person responsible under N.J.A.C. 7:14A-2.4(b).

ATTACHMENT H-2

Affidavit of Exemption
from the
New Jersey Pollutant
Discharge Elimination System Permit
NJPDES #

State of _____)ss:
County of _____)
_____, being sworn, states:

1. I am * _____
(Title and Position)

of _____
(Name of Company)

2. I have personal knowledge of the facts set forth herein.

3. NJPDES Permit No. _____, issued on _____, authorized the following "discharge" of "pollutants" to the waters of the State of New Jersey from _____ or operation of
(plant or facility)
such facility. (Check appropriate type of discharge(s)).

___ Surface water/Municipal
___ Surface water/Industrial
___ Surface water/Thermal
___ Land application of sludge & septage
___ Land application/Industrial Waste residue
___ Landfill - Industrial/Commercial
___ Landfill - Municipal
___ Spray Irrigation - Industrial/Commercial
___ Spray Irrigation/Domestic
___ Overland Flow - Industrial/Commercial
___ Rapid Infiltration - Industrial/Commercial
___ Rapid Infiltration
___ Surface Impoundment - Industrial/Commercial
___ Surface Impoundment/Domestic

___ Underground Injection - Industrial/Commercial
___ Underground Injection/Domestic
___ Significant Industrial User
___ Individual Subsurface Sewage Disposal - Industrial/Commercial
___ Individual Subsurface Sewage Disposal - Community

___ Overland Flow/Domestic
___ Rapid Infiltration

___ Surface Impoundment/Domestic
___ Underground Injection/Domestic

Other - Describe _____
_____

These terms are as defined in Section 3 of the New Jersey "Water Pollution Control Act" N.J.S.A. 58:10A-1 et seq. and the New Jersey Pollutant Discharge Elimination System Regulations, N.J.A.C 7:14A-1 et seq.

* Signatory must be the person responsible under N.J.A.C. 7:14A-2.4(b).

ATTACHMENT H-3

ATTACHMENT I

04-14-05

Gloucester City News
10/86

Protestors Object To Alleged Burial Of Asbestos Stock

A group of protestors wearing surgical face masks and carrying signs, demonstrated Saturday, Oct. 18 at Market st., and Rte. 130. They were protesting the alleged burial of asbestos at the vacant GAF plant on Water st. in Gloucester City.

According to the protestors, both city and state officials, have neglected to inform residents of the asbestos which is supposed to be beneath the closed GAF plant.

"We have asked and asked the city to keep the people posted. After four years we have decided to do something," said Charles Zippel a resident, and Republican city chairman.

Residents also fear that toxic waste exist amid the several closed smokestack industries along the riverfront here.

GAF shut down about five years ago after approximately 30 years of operation. Building materials and waste from the factory and possibly other nearby ones have been buried on site and beneath a nearby ballfield, according to Zippel.

Zippel said he's unsure of the amount or the type of substance buried along the waterfront, but claims "tons and tons" of asbestos lie four to ten feet beneath the grounds on the GAF site.

Residents notified the state Department of Environmental Protection of the asbestos about three months ago, according to Frank Ganley, Republican candidate for mayor.

"They said they'd take care of it and look into it. To my knowledge, nobody has been down here," Ganley said.

[redacted] requested a DEP investigation, DEP spokesman James Stables [redacted] one.

Burying asbestos violates state environmental laws, Stables said. The state requires that companies responsible follow stringent regulations for removing it, he said.

Abestos causes lung cancer when it is absorbed into the air. But buried asbestos does not constitute an immediate health risk, according to Stables.

"As long as it can't blow around in the atmosphere, it's not an immediate danger. That's not to say it shouldn't be cleaned up," Stables said.

Asbestos fibers from GAF could have gotten into the atmosphere, according to Zippel.

Locked fences and no trespassing signs prohibit the public from inspecting the grounds.

Even if it is buried, asbestos may constitute a health threat if it was not covered up properly, according to David Sweeny, assistant environmental health coordinator for the Camden County Health Department.

The protestors also claim the asbestos may have contributed to several "unexplained deaths" in the city and the city's high rate of cancer and birth defects.

"People will be (made) aware of it so they can do something. Get rid of these people (mayor and council) or (have them) do something. We don't care how it's done. As long as it's done," Zippel said.

The county health department was never notified of the alleged asbestos burial. Burying asbestos instead of transporting it to a designated landfill is not an uncommon violation and the department would investigate any complaint, Sweeny said.

DEADLINE FRIDAY, 5 P.M.

ATTACHMENT I-1

Gloucester City News

Vol. 61 — No. 7 | GLOUCESTER CITY, N. J. 08030, THURSDAY, AUGUST 20, 1987 | Thirty Cents

Lewandowski Not Guilty Of Sexual Assault Charges

Joseph Lewandowski, who was charged in March 1986 with aggravated sexual assault and endangering the welfare of a child, was found not guilty in Camden County Superior Court last week. Lewandowski, a former Gloucester City resident who was active in local politics at one time, released the following statement regarding his case. It reads as follows:

"I am writing in regards to an article which appeared in G.C.N. March 27, 1986. The article reported that I had been charged with aggravated sexual assault and endangering the welfare of a child. To date I have appeared in Camden Su-

(Continued on Page 3)

Mr. James Duffy Founder Of Local Candy Store Dies

Mass of Christian Burial was celebrated on Friday at the Blessed Sacrament Church, Margate, for James J. Duffy, age 81, of Margate, who

DEP Investigating A Possible Asbestos Problem At Old Dump

Officials from the New Jersey Department of Environmental Protection (DEP) along with Gloucester City Mayor Robert Bevan are cautioning residents who live on either University, Memorial, Haverford or Temple Avenues to temporarily refrain from using any of the soil from the low land area that borders those streets and runs along Newton Creek.

The DEP along with Mayor Bevan, Councilwoman Maryann Callahan, and a representative from the Camden County Health Department met on Thursday at the foot of University Avenue to discuss a possible hazardous condition caused by the asbestos fill that was dumped in that area almost 20 years ago. Also present were representatives from GAF.

GAF, who operated a plant at Water and Charles sts., used to produce asbestos pipe covering, asbestos roof shingles, and asbestos pipe back in the 1950's up until the late 1960's. At that time it was not illegal to dump the waste from those products. As such a lot of it was discarded on the land that borders the creek in Gloucester Heights and covered over with fill dirt.

The meeting on Thursday was called to see what could be done about the asbestos, some of which has worked its way to the surface over the years due to erosion. Likewise the asbestos was disturbed by some people who used the soil from the dump site as fill around their properties.

According to a pamphlet put out by the Asbestos Victims of America, asbestos is a fibrous mineral that is used in many products. Besides the ones that were manufactured by GAF, it is also used for an example in paper, wallboard, wire coverings, tile and insulation. When the product is disposed of now it should be placed underground in containers and covered over with fill.

The pamphlet states the problem occurs when the tiny asbestos fibers become airborne; there can be a million of them in a single inch. Asbestos has been linked to causing various cancers and lung diseases.

In February, when informed about a possible problem at the old dump site, this newspaper called the DEP's hotline in Camden along with DEP's office in Trenton. Also contacted was the United States Environmental Protection Agency (EPA) in New York along with the Camden County Health Department. We asked each department to contact the proper agency to take a field test of the suspected material.

(Continued on Page 5)

"Hollywood" Film Makers Coming To Gloucester City

The talk last year by North Jersey developers of building a video complex in Gloucester City, to make motion picture films, and calling it "Hollywood East" might not have been so far fetched after all.

Although the idea itself never got any further then the drawing board, the recent announcment by Warner Brothers that they will be shooting several films in the Philadelphia - South Jersey area makes one wonder if the developers plans might of had some merit.

Especially since part of one of those films will be shot here in Gloucester City.

According to Steven Gore-

(Continued on Page 8)

Frank Smith Resigns From

Ambler Motel Has Borough

NEW RECYCLING TRASH SCHEDULE

STARTS OCT. 5TH

ATTACHMENT I-2

SPECIAL CITATION - Chief John Brocious, of the Borough of Audubon Park Police Department, was presented with a special award for the enforcement of the no-drinking and driving laws in 1986. Presenting the award was Harry J. Van Lenten of the N.J. State Safety Council. Looking on us Audubon Mayor William Cullen.

DEP Investigating

(Continued from Page 1)

A follow up letter was sent to the DEP in Trenton along with EPA in early March again asking for the test.

Another letter was sent to both departments on May 1 with copies of that letter sent to Mayor Bevan, Councilwoman Callahan and U.S. Congressman James Florio.

Through the efforts of Congressman Florio and his staff action was finally taken. On July 27 a letter was received from Michael F. DeBonis, acting director of the DEP. His letter reads in part,

"As I am sure you are aware, asbestos, if not properly packaged, is considered a hazardous waste. For this reason, this investigation was turned over to the Division of Hazardous Waste Management under the supervision of Thomas Downey, Region Chief of this Division's Southern Field Office.

An inspection by representatives of that Division on May 13 revealed that asbestos is indeed present on the property. The material was analyzed, and was found to contain 11 percent chrysotile and 9 percent amosite asbestos. In order to attempt a rectification of this problem, a meeting is scheduled to take place on July 28, with DEP personnel and representatives of GAF Corporation, which is considered to be a possible responsible party."

We were told by the DEP that the remaining 80 percent of the sample analyzed consisted of water which is mixed in with the asbestos when making the particular product.

At the July 28 meeting GAF and DEP officials agreed to inspect the site in person, which followed last Thursday's meeting with local officials. GAF, which closed its plant in Gloucester City several years ago, also at the time committed its environmental consultants to try and correct the situation.

Leonard Pasculli, an attorney for GAF along with two GAF environmental people toured part of the affected area which runs from the foot of the North-South Freeway at one end along the creek to the Nicholson rd. bridge at the other end.

Pasculli said he planned to discuss the findings of his environmental people with the company's upper echelon and come up with a plan of action hopefully within a week to 10 days.

Bevan and Callahan said they wanted to make sure the area residents and local officials are kept informed about what is found. They also asked for some kind of protection to keep children away from playing in the old dump site until the final results are known.

William Dunfee, a Division of Hazardous Waste field supervisor, along with David Sweeney, an assistant county Environmental Health Coordinator, emphasized that the people should not be overly alarmed at this time. They along with the GAF environmental consultants agreed that asbestos is not always dangerous even when it is exposed to the air.

Dunfee said that further testing, such as air sampling with monitors, must be taken before a final conclusion on the seriousness of the problem can be made. He also said a horizontal and vertical survey of the site must be made to determine the magnitude of the problem.

"In any event I promise the DEP is committed to correcting whatever problem is found", he said. "We will begin these tests right away. While they are going on we will look into the possibility of erecting a fence to keep the children from playing in the area."

He concluded by saying, "We recommend that no one disturb any soil in the neighborhood that people have any doubts about until the tests are completed. Area residents will be contacted to see if they have any questions or problems. The Department of Environmental Protection was founded to protect the people in our state and we will do our all to live up to that goal."

Letters To The Editor

(Continued from Page 4)

schools even receive less.

In my first three and one half years as Mayor, I have learned first hand the frustration of Pine Hill taxpayers.

The skyrocketing costs of trash disposal due to the county's failure to site a landfill following Kinsley's closing caused significant increases in all municipal taxes. Even after extraordinary tax collection endeavors to stabilize our Borough fiscally, the necessary local tax increase is always over-shadowed by the county's increases. Since the local resident receives the tax bill from the municipality, the municipal officials are always accountable first.

Now, it's time to shift the focus to a very expensive county government. Perhaps, if the freeholders sent the bills, the necessary accountability to our county's taxpayers would finally occur.

JOSEPH S. NUNES
Pine Hill Mayor

IMPORTANT NUMBERS

The phone number for the Gloucester City Police is 456-0900; Ambulance 456-0582; Fire Department 456-0007.

PTA NEWS

HIGHLAND PARK

A re-organization meeting of the PTA will be held on Thursday, Aug. 27, 7:30 p.m. at the home of Barbara Cunane, 158 Lambert ave.

Anyone and everyone is invited to come. Don't be shy.... let's be friends. We all have the same interest, our children. There are lots of exciting plans to make for the upcoming year, so why not come out and add your two cents. We need your help!

Max's
Seafood Cafe
Burlington & Hudson Sts.
456-9774

FLOUNDER FRANCAIS
Sauteed in White Wine; Lemon Butter Sauce; F.F., R&B $5.95

SHRIMP SCAMPI
Sauteed in Lemon Butter & White Wine; Served Over Rice; R&B $6.95

Sunday Thru Thursday
Linguine W/Clams Or Mussels (R-W)
Served With Garlic Bread $6.95

Mon. & Tues. 4:30-11 p.m.; Wed. & Thurs. 11:30 a.m.-11 p.m.
Fri. 11:30-Midnite; Sat. 3-12 p.m.; Sun. 3-8 p.m.

LARGEST SELECTION OF MOVIES IN GLOUCESTER AREA
WEST COAST VIDEO
OF GLOUCESTER CITY
IN THE NEW BROADWAY PLAZA, 417-435 BROADWAY
456-5100
OPEN: Mon.-Sat. 11 A.M.-10 P.M. Sunday 12 Noon-9 p.m.
OVERNITE RENTALS
$1.98
Each Additional Day
Only $1 With Membership
(Exclud. New Releases)
CHILDREN'S TAPES
NOW 99¢
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(Reduced) 99¢
Available For Sale
"STAR TREK II"
Limited Quantities
Details At Store
$9.95
LAST CHANCE TO REGISTER
WIN $4000 One-Carat Diamond Ring
SEMI-FINAL DRAWING AT GLOUCESTER STORE
3 P.M., SUNDAY, AUGUST 23
GRAND PRIZE DRAWING MONDAY, AUGUST 31

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Brooklawn
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456-9734
No Appointment Necessary

Donna Capertino Koncewicz
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STYLE CUTS
Women & Men
$5.00
PERMS
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($30 for Men)
Includes Cut

STATION PHARMACY
Broadway & Hunter St. Gloucester City
Your Locally Owned & Locally Operated Pharmacy
456-1092 Tom Delengowski, R.Ph 456-4495
• 10% Senior Citizen Prescription Discount
• Fast Free Delivery
• Convenient Off Street Parking

ster City News

C STER CITY, N. J. 08030, THURSDAY, SEPTEMBER 3, 1987 Thirty Cents

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by :10 a.m. The
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Bo Robert Bruce,
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, Zanikos.
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role Dohanicz, Frank
Elliott, Joey Ennis,
Fa , Betty-Jo Ferril,
on Page 6)

Answers Critics:

Mayor Bob Bevan Explains Actions Taken By Council

Gloucester City Mayor Robert S. Bevan released a statement today in answer to several Letters to the Editor that have appeared in this newspaper during the past several weeks. His statement reads as follows:

"The purpose of this letter is to educate and inform political motivated people who are making statements of the same quality that we have seen in last November's election. These statements are becoming as humorous as the political cartoons they circulated when their party came in a very distant third in that election.

"Let's cover some of their

(Continued on Page 8)

DR. IRVING J. KLEIN

REV. ALFRED C. THAWLEY

Stephen Farrell, president of the Gloucester City Senior Citizens Association, announced that Dr. Irving J. Klein, P.A., a local physician whose office is located at 237 Monmouth st., will be the guest speaker at their meeting on Thursday, Sept. 10 at 1 p.m. in Carpenters Hall, 430 South Broadway.

In addition to Dr. Klein, Rev. Alfred C. Thawley, former pastor of the Highland Park United Methodist Church, will also be a guest.

Asbestos Cleanup Of Dump Still In Talking Stages

Gloucester City Councilwoman Maryann Callahan announced today that she has talked with the state Department of Environmental Protection (DEP) regarding the asbestos fill that was dumped on land near Newton Creek in the Heights section of the city some 30 years ago.

On August 13, Callahan, along with Mayor Robert Bevan, the DEP, the Camden County Health Department and representatives from GAF Corp. met at the foot of University Avenue to discuss a possible hazardous condition caused by the asbestos which has worked its way to the surface over the years due to erosion. Officials from DEP promised after the meeting that work to correct the problem would begin right away.

GAF, who operated a plant at Water and Charles sts., used to produce abestos pipe covering, asbestos roof shingles and pipe back in the 1950's up until the late 1960's. At that time it was not illegal to dump the waste from those products. As such a lot of it was dis-

(Continued on Page 10)

Costello Grammar
l Room Assignments

W Howlett, prin-
lice Costello
la n, announced

tart at the Alice
l Wednesday,
a . All students,
l kindergarten
ld report at that
d garten class
t 11:30 a.m.
students should
e door of the
classroom.
indergarten
nvited to a short
eting in the school
8 5 a.m.
e eld for all first
h graders from
n. and from 12:30
s ool lunch will
d ntil Monday,
owever students

plete information will be sent home with students.

Students in grades one through four should report to the playground school entrance and students in grades five through eight and the P.I. class should report to the Bergen Street entrance.

Dr. Howlett released the names of the following students

(Continued on Page 11)

Freshmen To Report Wednesday At GCHS

Father Joseph Martelli, principal of Gloucester Catholic High School, 333 Ridgeway st., announced that school will reopen for the fall term on Wednesday, Sept. 9.

Wednesday, the Freshmen

Gloucester City Day Activities Are All Planned

Ted Howarth, chairman and the Gloucester City Day Committee announced that a full day of entertainment is set for the celebration Saturday, Sept. 12.

According to Howarth, on

DAVID DAMMINGER

David, son of Mrs. Joyce Damminger of Brooklawn, is

ATTACHMENT I-4

ATOR/TREASURER

CITY (CAMDEN COUNTY),
S, POPULATION 13,000 IS
APPLICATIONS FOR THE
ON. ADMINISTRATOR WILL
M BUDGET, 120 FULL-
EES. POSITION WILL BE
Y THE MAYOR AND COM-
MBA OR MPA PRE-
IMUM OF 5 YEARS AD-
EXPERIENCE. SALARY
0,000 DEPENDING UPON
NS AND EXPERIENCE.

ANDIDATES SHOULD SEND
ME AND SALARY REQUIRE-

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CITY, NEW JERSEY 08030
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LYURETHANE

BY MINWAX

- long lasting, durable finish
- easy-to-apply, easy-care
- satin or gloss finish

Glenn Van Leer S..., Joe and Irene Van Leer S..., of Gloucester City, graduated in June from Berlin Vocational Textile School as a maintenance mechanic.

Congratulations and Best of Luck from Mom and Dad, your brothers Joe and Gregg, John Walker Jr. and your son, Glen Jr., with love.

Asbestos Cleanup

(Continued from Page 1)

carded on the land that borders the creek in Gloucester Heights and covered over with fill dirt.

According to the councilwoman, officials from the DEP and Health Department met on August 28 to setup a plan of action. "The two departments intend to take further soil samples from the target area long with placing monitors near the site to test the air," she said. "This will be done in conjunction with the environmental people from GAF. The company has taken responsibility for the dumping.

Mrs. Callahan said the DEP blames the delay on the lack of equipment and manpower since both are needed for testing in those schools that have had asbestos removed during the summer. "The DEP said the schools have priority since they have to be ready to open for the new year.".

"They also mentioned that the department is looking into a block[illegible]e or fencing to keep children out of the area until all the testing is done. Until more information is available, residents are reminded to refrain from using any of the soil from the low land area that borders the old dump."

According to a pamphlet put out by the Asbestos Victims of America, asbestos is a fibrous mineral that is used in many products. Besides the ones that were manufactured by GAF, it is also used for an example in paper, wallboard, wire coverings, tile and insulation.

The pamphlet states the problem occurs when the tiny asbestos fibers become airborne; there can be a million of them in a single inch. Asbestos has been linked to causing various cancers and lung diseases.

See Walt Jost

acation visiting the library. Borrow some great books to read, and some video ta[illegible] for the whole family to enjoy. Right now the library is offering some wonderful VCR tapes for children: The Electric Grandmother, Charlotte's Web, Pinocchio, Raggedy Ann and Andy, That Darn Cat, Thumbelina, Cartoon Classics, Mother Goos Treasury, Mowgli's Brothers and Rip Van Winkle are just a few. The cost is just $1 for 24 hours. If you don't have a VCR, the library lends one for $2 for 24 hours. So end up the summer with a trip to your library for information, education and entertainment.

The library saluted the many volunteers who have aided library programs during the year at a luncheon held in the library meeting room last week. Along with a delicious meal, the volunteers enjoyed a special Bicentennial of the Constitution program. A visit from Colonial America (JoAnn Wright, an English teacher at Gloucester High School) described the life of a German immigrant at the time of the Stamp and Townsend Acts. In a lit room, the library volunteers traveled back in time to the creation of our constitution and the social conditions of an ordinary working class woman. It was an afternoon to remember.

Just a reminder to register your pre-school children for the library story hours this autumn. Children from 24 to 36 months may enroll in Tiny Tots, a program of songs and stories with Mommy. Boys and girls from three to five go to Pre-School Story Hour.

That program of stories, films, songs and games is held without parents in the room. The parents go to their own program, Coffee and Conversation, during Pre-School Story Hour. Call Mrs. Stanaitis at 456-4181 to register your children for these programs.

Gene A. Murphy, a ... due to Vietnam woun... elected national commar... the one-million-member ... ed American Veterans ... by delegates to the or... tion's national conventi... today.

Murphy, who was a ... tional officer for thre... prior to election to the o... tion's highest post, ... members of the DAV ... Auxiliary on to ... volunteer efforts to me... ing needs in the veterai... tion. Applauding these n... for volunteering 1.7 ... hours at VA medical ... last year, he warned n... are emerging outside ... hospital environment.

Teams Still Nee... For Annual Ma...

The Gloucester C... Department Softbal... are sponsoring a soft... athon Sept. 11, 12, & ... Little League field, ... bvld. and Nicholson r... to benefit the Burn ... tion; a donation of $7... quested per-game, a... are 90 minutes.

The Burn Founda... ports the operation ... burn centers at Croz... ter Medical Center, ... Medical Center, ... Christophers Hosp... Children. These ce... vide specialized b... ment for the res... South Jersey.

Make checks paya... Burn Foundation ... cester City Fire Dep... Jones, 227 S. Broad... cester City, 08030. ... and information ... Jones, 456-7257 ... Eller 456-3067.

LOW COST AUTO INSURANC...

Special New Low Policy Rates

• ANY CAR • ANY DRIVER

SAVE UP TO 40%*

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Acros... Broo... Shop...

931-6544 or 931-7532

ATTACHMENT 7-5

NOTICE!!!
YOU MUST NOW SEPARAT...
CARDBOARD-PAPERBOAR...

vironmental Protection (DEP) has released the results of its recent $1.3 million radon study of homes in Camden and Gloucester Counties. According to the study about half of the towns in Camden and Gloucester counties were identified as areas where resients should have their homes tested for radon.

Radon, which is thought to increase the risk of lung cancer, is described by the federal Environmental Protection Agency (EPA) as a colorless, odorless and tasteless gas.

It occurs from the breakdown of uranium and thorium occuring naturally in the soil, and can be found in high concentrations in soils and rocks containing uranium, granite, shale and phosphate.

(Continued on Page 16)

DeJesus Chosen By Republicans

Jose DeJesus, of Camden City, was chosen last week by the Republican Committeemen in the 5th District as their party's candidate for assembly in the November election.

DeJesus replaces Heriberto Collazo who won the June Primary but decided not to run after his employer told him his candidacy violated the Hatch act.

The act prohibits a person from running in a partisan election if his primary employment is connected with any type of federal funding.

Collazo works for the Camden County Board of Social Services as an income maintenance worker in the food stamp department. The food stamp program receives half its funding from the federal government.

DeJesus, 41, a licensed public accountant, is the chairman of Camden City's planning board,

(Continued on Page 3)

lowing statement today on why he and council feel they need to hire a business administrator.

"We own a corporation that spends $5 million every 12 months. The majority of us leave this corporation (our city) every morning and return every night. The question is — Who's watching the shop?

Can we expect a part-time mayor and council who are raising families and are busy earning a living 40 hours a week to take control and make proper decisions that will keep this $5 million business running efficiently and smoothly on a daily basis? Forget it. It's not happening now and it won't happen in the future without a change in the way that we have been doing things.

You elected a new administration to take an honest hard look at what's been happening to our community over the past 20 to 30 years. Non-political people. People like you who are going to evaluate this community and recommend changes that have to be made in order to start moving forward in order to improve the quality of life in Gloucester City. First and foremost, we have found out over the past eight months that we have to create a system that will be responsive to the needs and services that we expect from our community. Needs and services that have not been provided in the past.

As your representatives we must spend our time communicating with you the people we represent and from that point develop and make policies that will improve our community. That's our job. As part-time people that receive little or no compensation we

(Continued on Page 6)

cient items, I must collectively veiw the deficiencies as it relates to the best educational opportunity for each student. As I've ex-

students and staff.

Gloucester Heights School (built in 1920) is also deficient in a number of areas, similar to Broad-

new debt service for new school would be a negative figure.

Should a referendum for new

(Continued on Page 4)

In Gloucester Hts.

DEP PROMISES TO BEGIN WORK ON OLD DUMP

Jim Staples, spokesman for the state Department of Environmental Protection (DEP), announced last week that work will finally begin on the cleanup of the asbestos in Gloucester Heights the week of Sept. 28.

Staples was referring to the asbestos fill that was dumped on land near Newton Creek some 30 years ago by GAF who operated a plant at Water and Charlest sts. GAF used to produce asbestos pipe covering, asbestos roof shingles and pipe back in the 1950's and 1960's. At that time it was not illegal to dump the waste from those products.

As such alot of it was discarded on the land that borders the creek in Gloucester Heights and covered over with fill dirt. However over the years the asbestos has worked its way to the surface due to erosion.

DEP officials met with Mayor Robert Bevan and Councilwoman Maryann Callahan on August 13 to discuss the possible hazardous condition and what action would be taken to rectify the problem. Also present at the meeting, held at the foot of University Avenue, were representatives from GAF and a representative from the Camden County Health Department.

Staples said that GAF is cooperating with the DEP and will

(Continued on Page 9)

Brooklawn

Mayor Conover Comments On Political Controversy

Brooklawn Mayor and Republican Committeewoman Marion Conover released a statement today on Councilman Robert Sliwa's decision of having his name withdrawn from the Democratic Council race. It reads as follows:

Councilmen Ralph Scarlett and Robert Sliwa, who each received 125 votes in the June Primary, were in the process of asking for a recount when Democrat Municipal Chairman and Councilman Jon Sciarra made the statement someone had "peeked" at the machines after they had been impounded for recount, which in my opinion is illegal.

The two councilmen did not see any reason to follow thru on the recount after that incident. The councilmen did not make the decision for the local Democrat committee people to decide which councilman would be put on the ballot. This decision was made by Jon Sciarra who had formed a committee consisting of Boro residents.

Scarlett, a councilman for 20 years and Sliwa a councilman for nine years have always been endorsed by the Camden County Democrat Committee until this year when Committeeman Sciarra made his decision to endorse Michael Mevoli, with his new ideas, and not Scarlett and Sliwa.

As Mayor I would like to know what Mevoli's new ideas might be? When he ran as a write-in for Mayor against me in the last General Election and in the recent June 3 Primary, he did not have any issues to present.

Mevoli has had his opportunity to serve the people of Brooklawn as vice president of the School Board. All taxpayers in Camden County are complaining about the tax rate of the county, which is the highest in the state. Brooklawn county tax is $2.084 per $100 and the School Tax is $2.098 per $100.

Mevoli had every opportunity to help the taxpayers of Brooklawn when he served on the negotiating Committee for the School Board,

(Continued on Page 7)

Meet GOP Candidates For Freeholder Board

Registered voters in Gloucester City, Brooklawn, Mt. Ephraim, Bellmawr and surrounding communities are invited to meet the Republican Freeholder candidates on Wednesday, Sept. 30, 8 p.m., at the Brooklawn American Legion Post 72, Railroad ave.,

Brooklawn Mayor and Republican Committeewoman Marion Conover stated that all are welcome. "Regardless as to whether or not you are a registered Republican, Democrat, Independent or open voter, you are welcome to come and meet the Republican candidates who would like to represent you on the Camden County Freeholder Board."

ATTACHMENT I-6

9/29/87

ars, is bringing the very successful of- with him, the same plays ighlights ball control.

the Lions' scrimmage ast Gloucester Catholic, marched down the field in ays to score a touchdown.

e don't do anything fan- " said Harris. "We stress ecution. Our offense has ee very impressive. The d have made very few mis- kes. And that helps you to n games."

Harris has named sopho- or quarterback Sean cKinney to start against nalick.

"Sean is an exciting player," rris said. "He's not big, but very elusive and a fine int-out quarterback. He is ough, too."

cKinney will be joined in backfield by tailback Dal- McKinney, his cousin, and ac Dave Thomas. Dave et will be the flanker Hugh West and Rich win will divvy up the split ches and will serve as end ers, bringing in the on alternating downs.

Gloucester City Dart League

	W	L
eta	3	0
(A	3	0
k's (A)	3	1
	2	1
r's	2	1
	2	1
	1	2
	1	2
	1	2
	0	3
3)	0	3
	0	3

Bet r: B. Stein 45-45; H. -45; M. Settar 48-45; B. 6; J. Zagiel 51; R. Dick Orl do 50-49; J. Conley h

(Continued from Page 1)

be erecting a temporary fence at the foot of University Avenue this week or next to keep pedestrians away from the old dump site until the problem is corrected.

He also said that both GAF and the DEP will be placing monitors in the area and in some of the nearby homes to test the air, weather permitting. He said the tests work best if there is a dry spell for several days since the rain keeps the material too wet for a proper reading.

"Once the results are known from these tests we will know how serious the condition is and what course of action to follow," said Staples.

At the first meeting DEP had promised to take immediate action on the problem but because of the lack of manpower and equipment they were unable to keep their promise. Staples said that his people along with their equipment were needed for testing in those schools throughout the state that had asbestos removed during the summer. "The schools had priority since they had to be ready to open for the new year," said Staples.

The reason for all of the concern about asbestos is because the fiberous material has been linked to causing various cancers and lung diseases.

GLOU. CATHOLIC HIGH SCHOOL
GIRLS' VARSITY FIELD HOCKEY

SEPT.			
25	Gloucester	A	3:30
28	Edgewood	A	3:30
29	Wash. Twp.	A	3:30
OCT.			
3	Pennsauken	A	10:00
9	Deptford	A	3:30
14	Paul VI	A	3:30
15	Overbrook	A	3:45
19	Deptford	A	3:30
24	Cam. Catholic	A	10:00
26	Eastern	A	3:30
27	St. James	A	3:45

A — Away
H — Home

CALL AHEAD FOR QUICK PICK-UP
Occasions 742-0026

Bucket of Wings
With Sauce & Celery
35 pc. $5.99
45 pc. $7.79

New Hours: Tues. and Wed. 11 AM to 11 PM
Thurs. & Fri. 11 AM to 1 AM
Sat. 12 PM to 1 AM, Closed Sunday

FERRY'S SLIP INN
601 New Broadway Brooklawn

Dance with our "D.J." music
- Friday - Saturday and Sunday nights.
Mon. Nite - Ladies Nite ½ Price Drinks
Tues. Nite - Kamikaze Nite $1.00 Shot
Thurs. Nite - Pineapple Pecker Nite 50c Shot
Fri. Nite - Pizza Nite — Free Pizza
****
Dance With D.J. George Every Monday Nite And Every Weekend.

Daily Lunch Special
Special & Beverage $1.00

Happy Birthday: Betty McKernan Ellie Houser.

Open Daily Monday-Saturday 10 a.m. to 2 a.m.
Sunday 1 p.m. to 2 a.m.

Residents Of Gloucester City

NOTICE

The Street Sweepers Operating Again The Parking Signs For Cleaning Throughout the City **WILL NOT**

FRANK'S PLACE
Brings You Live Entertainment

Friday and Saturday Nights
September 25th & 26th
BASEMENT BAND
9 P.M. TILL CLOSING

Serving Homemade Lunches
Weekday Specials
Monday .....Beef Stew Tuesday .....Club Sandwich
Wednesday .....Meat Loaf Thursday .....Roast Beef
Friday .....

ATTACHMENT I-7

ATTACHMENT J

REPORT OF: ☐ PHONE CALL ☑ VISIT

DATE April 23, 1987

TIME 9:15

REFERRED TO

BUREAU OR OFFICE BEAC

FILE GAF Corp

PERSON CONTACTED

PHONE NO.

AFFILIATION/ADDRESS

SUBJECT OF CALL/VISIT Determine - SIC + Relationship of Water St. Warehouse to GAF manufacturing plant.

SUMMARY OF CALL/VISIT

Arrived at GAF manufacturing Plant on Water St. Plant appeared inactive but few men were standing outside plant entrance. Immediately noticed a walkway or scaffolding leading from the manufacturing plant to the power plant and then to the Water St. warehouse. Obvious from site visit that Water St warehouse was an ~~integral~~ integral part of the manufacturing plant. It is all one establishment and not auxiliary.

ACTION RECOMMENDED All one establishment - manufacturing plant, power plant + Water Street Warehouse

M De Tabro
Signature

ATTACHMENT J-1

ATTACHMENT K

FOR DAVE REID

Form DWM-051
1/86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

Page ____ of ____

INVESTIGATION

CASE #: _____ DWM FILE #: 84-14-05 (NF)

TIME ARRIVED: 1440

INVESTIGATOR: S. FROW DATE: 4/27/87 TIME DEPARTED: 1540

LOCATION: GAF PROPERTY OWNER: GAF

ADDRESS: WATER ST. MAILING ADDRESS: 1361 ALPS ROAD

Glouester City County - CAMDEN WAYNE, NJ

BLOCK: 116A LOT: 14A, 14F, 15-17, 19, 20-24, 61-67 RESPONSIBLE PARTY GAF

LOCATION TELEPHONE #: (201) 628-3000 (WAYNE HDQTRS) ADDRESS: _____

EPA ID #: NJD 043 292 606

LOCAL HEALTH DEPT. REP. None on site TELEPHONE #: —

ORIGIN OF COMPLAINT: — TELEPHONE #: —

NATURE OF COMPLAINT: Attempted RCRA inspection (LTD. RFA)

PHOTOGRAPHS TAKEN: N/A SAMPLE #: N/A

FINDINGS: Upon arrival at site, plant appeared to be shut down. MET John Wright, power plant supr., who remains onsite to supervise contractors who are removing machinery.

Wright stated that the plant shut down in January 1984 and contractors are now onsite to remove the remaining machinery. The plant had been involved in the manufacture of the base felt for roofing and flooring. This product was manufactured, then shipped elsewhere for saturation and bonding to make the final products.

Wright stated that all of the "so-called" hazardous materials were removed between 1985-86 by CLEAN VENTURE. All records are now located at the GAF Headquarters in Wayne, NJ. A tour of the facility revealed no noticeable contamination or storage of waste onsite.

The plant may be sold or rented in the future and may be involved with BCM / ECRA. Any information could be rec'd through GAF Headquarters, (201) 628-3000, contacts: Fred Bright or Jack Halloway with Environmental Engineering group.

No additional information was available at the location and I secured at approx 1545 hrs.

Terry Ostrander
Supervisor Signature

Investigator Signature

COPIES: White - DWM File Yellow - Local Health Dept. Pink - Investigator

ATTACHMENT K-1

ATTACHMENT L

GENERAL ANILINE AND FILM
GLOUCESTER CITY, CAMDEN COUNTY, NJ

General Aniline and Film (GAF) occupies approximately 36 acres on Water Street in Gloucester City, Camden County, N.J. The facility was involved in the recycling of corrugated, mixed paper, woodchips and saw dust into felt paper for roofing, flooring and the production of vinyl siding. The felt paper was manufactured, then shipped off-site for saturation and binding to make various end-products. Asbestos for pipe installation was also said to be manufactured at the facility. 12% - 15% of the asbestos produced was discarded as solid waste. Operations at this site began in 1927 with Ruberoid Corporation. Ruberoid subsequently merged into GAF in 1967 and operations at the site continued until 1984. In 1984 production was stopped and the facility closed indefinitely; the site is currently for sale.

GAF discharged non-contact cooling water to the Delaware River under NJPDES/DSW permit # NJ0005371. The final NJPDES/DSW permit was issued 3/19/85. On 10/6/86 GAF filed an affidavit of exemption to terminate their NJPDES permit, reasoning that the facility was closed.

Records of spill and incident reports reveal numerous events occurring at the site during the period of 1978-83. One spill of note, required the removal of approximately 400 gallons of Askarel (PCB) to an acceptable off-site disposal location. NJDEP Southern Region Enforcement Bureau files indicate that no further action was required for any of these events.

A file search revealed that various hazardous waste liquids, solids and corrosive materials were removed from the facility between 1985-1986 by outside parties, Clean Venture and S-J Transportation Co. A site investigation by NJDEP/DWM on 4/27/87 revealed no visible contamination or storage of wastes on site. An inspection in the same month by NJDEP/ECRA Bureau determined that GAF's manufacturing facility, power plant, Charles Street and Water Street warehouses are one contiguous industrial establishment pursuant to ECRA.

GAF is located in a largely industrial area adjacent to metropolitan Philadelphia. The site overlies the unconsolidated sands and clays of the Raritan formation which is the major aquifer for the domestic/public supply of the area. Industrial wells are also in the vicinity of the site. GAF possessed no wells on site and relied on the public water supply. From information obtained from GAF's permit application, a substantial amount of process waste water (92 thousand gal/day) evaporated daily at the facility. Information gained from aerial photographs of 1940 and 1978 identify what appears to have been storage tanks on either side of the bulkhead, and the presence of a lagoon-like area at the base of the bulkhead. This may potentially have been a site for wastewater evaporation. If this was the case, it may have presented a possible route for contaminant migration to groundwater. Former employees state that an area which lies behind the facility and between the Delaware River was used as a dump site for asbestos waste from the plant. The practice was began with Ruberoid and continued until about 1971. Part of the asbestos was trucked off site and used as "clean fill" in areas of Gloucester City.

ATTACHMENT L-1

Based on the limited information available, the fact that operations ended in 1984 and that the facility is currently for sale, the case of GAF should be directed to the Industrial Site Evaluation Element for further evaluation and determination of applicability of ECRA statutes to the case.

Submitted by:

Clare Whittaker
HSMS IV
Bureau of Planning and Assessment

CW:mer

ATTACHMENT L-2

ATTACHMENT M

Form HWM-004
3/87

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
5th Fl., 401 E. State St., Trenton, N.J. 08625

NOTICE OF VIOLATION

ID NO. 87-05-12-01 DATE JULY 28, 1987

NAME OF FACILITY G.A.F. CORPORATION

LOCATION OF FACILITY 1361 ALPS ROAD, WAYNE, N.J. 07470

NAME OF OPERATOR LEONARD P. PASCULLI - ASSOCIATE COUNSEL

You are hereby NOTIFIED that during my inspection of your facility on the above date, the following violation(s) of the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.) and Regulations (N.J.A.C. 7:26-1 et seq.) promulgated thereunder and/or the Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 et seq.) and Regulations (N.J.A.C. 7:1E-1 et seq.) promulgated thereunder were observed. These violation(s) have been recorded as part of the permanent enforcement history of your facility.

DESCRIPTION OF VIOLATION NJSA. 58:10-23.11 (c) - DISCHARGE OF A HAZARDOUS SUBSTANCE. RELEASE OF ASBESTOS MATERIAL DUE TO IMPROPER DISPOSAL. NJSA 58:10-23.11 (e) - FAILURE TO NOTIFY THE DEPT.

Remedial action to correct these violations must be initiated immediately and be completed by AUG. 12, 1987. Within fifteen (15) days of receipt of this Notice of Violation, you shall submit in writing, to the investigator issuing this notice at the above address, the corrective measures you have taken to attain compliance. The issuance of this document serves as notice to you that a violation has occurred and does not preclude the State of New Jersey, or any of its agencies from initiating further administrative or legal action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are punishable by penalties of $25,000 per violation.

Jack Allen

Investigator, Division of Waste Management
Department of Environmental Protection

20 E. CLEMENTON RD.
GLOUCESTER, N.J. 08026
ATT: J. ALLEN / S. FROW.
609 346-8000

ATTACHMENT M-1

MEMO: FILE
FROM: J. ALLEN THRU T. OSTRANDER
SUBJECT: STEIN RESIDENCE / MEETING WITH G.A.F.

A FIELD NOTICE OF VIOLATION WAS ISSUED TO G.A.F. CORP (NAME OF OPERATOR - LEONARD P. PASCULLI - ASSOCIATE COUNSEL) FOR VIOLATIONS OF: NJSA 58:10-23.11 (c) - "DISCHARGE OF A HAZARDOUS SUBSTANCE", AND NJSA 58:10-23.11 (e) - "FAILURE TO NOTIFY THE DEPARTMENT"

MR. PASCULLI STATED THAT HE WILL CONTACT THIS OFFICE (S. FROW OR THIS WRITER) WITHIN 7 DAYS TO ARRANGE A MUTUAL SITE VISIT AT WHICH TIME G.A.F CORP. REPRESENTATIVES AND NJDEP PERSONAL WILL MEET TO CONTINUE WORKING TWARDS THE END GOAL.

MR. PASCULLI STATED THAT HE WILL BE THE CONTACT PERSON AT G.A.F TO FIELD ALL QUESTIONS (INCLUDING PRESS) CONCERNING THIS SITE

MEETING WAS CONCLUDED @ 1430 HOURS.

ATTACHMENT M-2

RECOMMENDATIONS AND CONCLUSIONS:

G.A.F. APPEARS TO BE WILLING TO WORK WITH D.E.P. TO CLEAN-UP THE STEIN RESIDENCE AND ADJACENT PROPERTIES.

F.N.O.V. ISSUED FOR NOTIFICATION PURPOSES ONLY. (AT THIS TIME). RECOMMEND NO ENFORCEMENT ACTION AT THIS TIME PENDING CONTINUED COOPERATION AND SITE CLEAN-UP.

ATTACHMENT M-3

Form DWM-051 A
1/86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

INVESTIGATION

CASE # 87-05-12-015

DATE: May 13, 18, 1987

RECOMMENDATIONS & CONCLUSIONS

THE INVESTIGATION INTO POSSIBLE RESPONSIBLE PARTIES CONTINUES. BOTH INFORMANTS PROVIDED ADDITIONAL LEADS TO POSSIBLE INFORMATION ON PAST CORPORATE DISPOSAL PROCESS.

INVESTIGATION ONGOING

Terry Ostrander
Supervisor Signature

Jack [illegible]
Investigator Signature

COPIES: White - DWM File Yellow - Local Health Dept. Pink - Investigator

ATTACHMENT M-4

Form DEP-013
5/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

MEETING ATTENDANCE SHEET

SUBJECT	DATE
University Ave Asbestos - Glou. City, N.J.	July 28, 1987
MEETING LOCATION: 20 E. Clementon Rd, Gibbsboro, N.J.	
GROUP(S) ATTENDING: NJDEP, G.A.F. Corp	DEP DIVISION OR UNIT: Haz. Waste Mgt.

PLEASE PRINT ALL INFORMATION CLEARLY

NAME	TITLE	TELE. EXT.	AFFILIATION
J. Allen	Envl. Specialist	346-8000	NJDEP
Terry Ostrander	Princ Env. Spec	346-8000	DEP DHWM
S. Frow	Env. Engr.	346-8000	NJDEP
Fred Bright	Project Engineer	(201) 628-3507	GAF Building Mat'l Corp.
Leonard Pasculli	Associate Counsel	628-3546	GAF
William Dunfee	Sr. Env. Spec.	346-8000	NJDEP
Tom Downey	Region Chief	346-8000	NJDEP

ATTACHMENT H-5

Form DWM-051
1/86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

Page ____ of ____

INVESTIGATION

CASE #: 81-05-12-015

DWM FILE #: ____

TIME ARRIVED: 1400

INVESTIGATOR: J Allen

DATE: 6/2/87

TIME DEPARTED: 1540

LOCATION: Stein Residence

PROPERTY OWNER: Robert Stein

ADDRESS: 37 University Ave

MAILING ADDRESS: Same

Glou. City County - Camden

BLOCK: 225 LOT: 8

RESPONSIBLE PARTY: Unknown

LOCATION TELEPHONE #: (609) 228-1400

ADDRESS: ____

EPA ID #: None

LOCAL HEALTH DEPT. REP. None on Site - CCHD

TELEPHONE #: (609) 757-8600

ORIGIN OF COMPLAINT: NJDEP - Press Office

TELEPHONE #: (609) 292-2994

NATURE OF COMPLAINT: Possible Asbestos

PHOTOGRAPHS TAKEN: None

SAMPLE #: None.

FINDINGS: This writer arrived at the Gloucester City Tax Office on the above noted date and time. Met with Mr. Mike Sheridan - Gloucester City Tax Assessor, for a review of the office files in an attempt to gather any available background information on the University Ave Site. Upon meeting with Mr. Sheridan he explained that he had recently accepted the position of Tax Assessor for Gloucester City and was not familiar with the town history. He also explained that the town records office had suffered severe water damage from a flood in 1974. Upon inspection of the tax office records the unorganization and incompleteness of file was apparent. All that could be obtained was a small map with several probable property owners noted (see attached map).

This writer secured the tax office @ 1600 hours.

Terry Ostrander 8/3/87
Supervisor Signature

Jack Allen
Investigator Signature

ATTACHMENT M-6

COPIES: White - DWM File Yellow - Local Health Dept. Pink - Investigator

ATTACHMENT N

NUS CORPORATION

TELECON NOTE

CONTROL NO:	DATE:	TIME:
02-8901-04	2/14/89	3:30 p.m.

DISTRIBUTION:

Campbell Soup Company (Market St.)

BETWEEN:	OF:	PHONE:
John Rattie	Delaware River Basin Commission	(609) 883-9500

AND: (NUS)

Tammy Marquart

DISCUSSION:

Mr. Rattie said the Delaware River is tidal in the Camden area. In the Camden area the river is a large shipping area. The river is used for recreational boating, but no swimming.

For reference, the Ben Franklin Bridge is located at river mile 100.1 and the Cape is 0. He said the only drinking water intake is by ~~Philadelphia~~ City of Philadelphia at Torsdale - river mile 110.5. Mr. Rattie mentioned the following industrial intakes: Roman Haas at river mile 106.2 (Phila.), Georgia Pacific at river mile 104.3 (NJ), another industrial intake at river mile 97.8 (NJ), Texaco at River mile 94.0 (NJ), PSE&G of Burlington at river mile 117.2 (NJ) and Stepan Chemical Co. at river mile 127.2 (NJ).

Tammy Marquart 2/14/89

ACTION ITEMS:

Called Dr. Richard Tortoriello 1/27/92 of Delaware River Basin Commission. He stated that the City of Philadelphia, at Torresdale, has a drinking water intake on the Delaware. He does not think any of the towns on the N.J. side of the Delaware use the Delaware as a source of drinking water. As mentioned above there are numerous industrial intakes along this section of the Delaware. ES

ATTACHMENT N-1

ATTACHMENT O

02-8902-02-PA
REV. NO. 0

FINAL DRAFT
PRELIMINARY ASSESSMENT
GAF CORPORATION
GLOUCESTER CITY, NEW JERSEY

PREPARED UNDER

TECHNICAL DIRECTIVE DOCUMENT NO. 02-8902-02
CONTRACT NO. 68-01-7346

FOR THE

ENVIRONMENTAL SERVICES DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

MARCH 23, 1989

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY:

CHARLES LOBUE
PROJECT MANAGER

THOMAS VARNER
SITE MANAGER

REVIEWED/APPROVED BY:

RONALD M. NAMAN
FIT OFFICE MANAGER

ATTACHMENT 0-1

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT

PART I: SITE INFORMATION

1. Site Name/Alias GAF Corp.
   Street Water and Charles Streets
   City Gloucester City State New Jersey Zip 08030
2. County Camden County Code 007 Cong. Dist. NJ01
3. EPA ID No. NJD043292606
4. Latitude 39° 53' 26" N Longitude 075° 07' 44" W
   USGS Quad. Philadelphia Quadrangle
5. Owner GAF Corp. Tel. No. 609-456-1200 (Gloucester City) 201-628-3000 (Wayne)
   Street Water and Charles Streets
   City Gloucester City State New Jersey Zip 08030
6. Operator Same as owner Tel. No. _____
   Street _____
   City _____ State _____ Zip _____
7. Type of Ownership
   ☒ Private ☐ Federal ☐ State
   ☐ County ☐ Municipal ☐ Unknown ☐ Other _____
8. Owner/Operator Notification on File
   ☐ RCRA 3001 Date _____ ☐ CERCLA 103c Date _____
   ☐ None ☒ Unknown
9. Permit Information

Permit	Permit No.	Date Issued	Expiration Date	Comments
NJ Pollutant Discharge Elimination System (NJPDES)	NJ0005371	3/19/85	4/30/90	Exemption to terminate filed on 10/6/86.

10. Site Status
    ☐ Active ☒ Inactive ☐ Unknown
11. Years of Operation 1927 to 1984
12. Identify the types of waste units (e.g., landfill, surface impoundment, piles, stained soil, above- or below-ground tanks or containers, land treatment, etc.) on site. Initiate as many waste unit numbers as needed to identify all waste sources on site.
    (a) Waste Management Areas

Waste Unit No.	Waste Unit Type	Facility Name for Unit
1	PCB spill	PCB spill
2	Landfill	Asbestos dump

ATTACHMENT 0-2

(b) Other Areas of Concern

Identify any miscellaneous spills, dumping, etc. on site; describe the materials and identify their locations on site.

A surface impoundment (lagoon) may have existed at the site. This was identified as a potential recipient of waste in aerial photographs taken in 1940 and 1978. (Ref. No. 5)

At least two additional spill incidents occurred at the site. In May 1979, 300 gallons of No. 6 fuel oil was spilled, some of which subsequently entered the combined municipal storm/sanitary sewer system. This system has several discharge points along the Delaware River. This spill was reportedly cleaned up and disposed of off site. It is unknown whether any cleanup of the affected sewer system took place. The second spill involved the overflow of 2000 gallons of process water from a tank in 1983. The spill was reportedly soaked up and returned to the process tank from which it overflowed. (Ref. No. 30)

On September 15, 1986, at least 70 drums of hazardous waste were removed by Clean Venture, Inc., including waste corrosive liquids and solids (13); waste flammable liquids and solids (15); waste poisonous liquid and poisonous solids (3); waste petroleum oil (1); waste calcium oxide (1), sodium nitrate (1), sodium aluminate (1), and chromic acid solution (1); and 25 drums described either as hazardous waste solid or hazardous waste liquid. Storage practices associated with these wastes are not indicated in available information. (Ref. No. 24)

13. Information available from

Contact	Amy Brochu	Agency	U.S. EPA	Tel. No.	(201) 906-6802
Preparer	Thomas Varner	Agency	NUS Corp. Region 2 FIT	Date	March 16, 1989

PART II: WASTE SOURCE INFORMATION

For each of the waste units identified in Part I, complete the following six items.

Waste Unit 1 - PCB spill PCB spill

1. **Identify the RCRA status and permit history, if applicable, and the age of the waste unit.**

   Not applicable.

2. **Describe the location of the waste unit and identify clearly on the site map.**

   The precise location of this spill is not indicated in available information.

3. **Identify the size or quantity of the waste unit (e.g., area or volume of a landfill or surface impoundment, number and capacity of drums or tanks). Specify the quantity of hazardous substances in the waste unit.**

   Approximately 300 to 400 gallons of Askarel, a liquid containing polychlorinated biphenyls (PCBs), was spilled on April 14, 1978.

4. **Identify the physical state(s) of the waste type(s) as disposed of in the waste unit. The physical state(s) should be categorized as follows: solid, powder or fines, sludge, slurry, liquid, or gas.**

   The discharged Askarel was in the liquid state.

5. **Identify specific hazardous substance(s) known or suspected to be present in the waste unit.**

   PCBs were present in the spilled liquid.

6. **Describe the containment of the waste unit as it relates to contaminant migration via groundwater, surface water, and air.**

   Available information indicates that the PCB-contaminated liquid was drummed at least the same year in which it was spilled, and possibly even on the same day. However, a waste manifest (No. NJA0027698) indicates that PCB-contaminated soil and a transformer carcass were transported from the site on September 12, 1985. Twelve more cubic yards of PCB-contaminated soil was removed on April 29, 1986. PCB-contaminated particulates may therefore have been transported overland to the Delaware River between the time of the spill and the time of waste removal, if no containment measures were implemented during that period. It was also possible for rainwater to leach contaminants, which then could have subsequently passed through soil to the water table.

Ref. Nos. 5, 16, 17, 18, 30

PART II: WASTE SOURCE INFORMATION

For each of the waste units identified in Part I, complete the following six items.

Waste Unit 2 - Landfill Asbestos dump

1. **Identify the RCRA status and permit history, if applicable, and the age of the waste unit.**

   Asbestos was disposed of at the site as early as 1967. Removal of this asbestos is not documented in available information. RCRA status and permit history are not applicable to this waste unit.

2. **Describe the location of the waste unit and identify clearly on the site map.**

   Asbestos was dumped in an area between the facility and the Delaware River; the exact location is not documented in available information.

3. **Identify the size or quantity of the waste unit (e.g., area or volume of a landfill or surface impoundment, number and capacity of drums or tanks). Specify the quantity of hazardous substances in the waste unit.**

   Approximately 12 to 15 percent of the asbestos produced at this facility was discarded. This quantity is not documented in available information.

4. **Identify the physical state(s) of the waste type(s) as disposed of in the waste unit. The physical state(s) should be categorized as follows: solid, powder or fines, sludge, slurry, liquid, or gas.**

   The asbestos was disposed of as a solid.

5. **Identify specific hazardous substance(s) known or suspected to be present in the waste unit.**

   Only asbestos is known or suspected to be present in this unit.

6. **Describe the containment of the waste unit as it relates to contaminant migration via groundwater, surface water, and air.**

   There is a potential for asbestos fibers to become airborne or to be transported to the Delaware River in runoff, if the asbestos was not properly contained (e.g., covered with soil, etc.)

Ref. No. 5

PART III: HAZARD ASSESSMENT

GROUNDWATER ROUTE

1. **Describe the likelihood of a release of contaminant(s) to the groundwater as follows: observed, alleged, potential, or none. Identify the contaminant(s) detected or suspected, and provide a rationale for attributing the contaminant(s) to the facility.**

   There is a potential that rainwater leached PCBs, which would have been subsequently transported to the water table. PCB-contaminated soil may have remained on site for as long as 7 years (1978 to 1985). It is unknown whether any containment measures were implemented during that period.

   Ref. Nos. 18, 30

2. **Describe the aquifer of concern; include information such as depth, thickness, geologic composition, permeability, overlying strata, confining layers, interconnections, discontinuities, depth to water table, groundwater flow direction.**

   The aquifer of concern consists of the Potomac Group and the Magothy and the Raritan Formations, the last two being undifferentiated because of similar lithology. These three formations, taken as a whole, are considered one aquifer system because of their hydrologic interconnection. This aquifer system consists of three water-bearing layers of sand with some gravel, separated by layers of silt and clay, and contains the most important and productive water-bearing units in Camden and Gloucester Counties.

   The site is located in an outcrop area of the Magothy Formation, which is overlain extensively by highly permeable (and hydraulically connected) Pleistocene sand and gravel. The combined thickness of the Potomac-Magothy-Raritan System ranges from 260 to 1210 feet in Camden County. The depth to the water table is 57 feet, as indicated by data for an industrial well, located 670 feet from the site, owned by the Amspec Specialty Chemical Company (formerly the Harshaw Chemical Company). Local and regional groundwater flow within the aquifer of concern (which extends areally throughout the county) is northwest toward the Delaware River. The coefficient of permeability of the water-bearing zones within the aquifer system averages 1,000 gallons per day per square foot, or 4.72×10^{-2} cm/sec. The permeability of the overlying water table aquifer is greater than 10^{-3} cm/sec. The Potomac-Magothy-Raritan aquifer system is part of a designated sole source aquifer system (New Jersey Coastal Plain Aquifer System).

   Ref. Nos. 1, 2, 3, 4, 6

3. **Is a designated sole source aquifer within 3 miles of the site?**

   Yes, the site lies in an outcrop area (recharge area) of the Potomac-Magothy-Raritan aquifer system, part of the New Jersey Coastal Plain Aquifer System.

   Ref. Nos. 1, 6

4. **What is the depth from the lowest point of waste disposal/storage to the highest seasonal level of the saturated zone of the aquifer of concern?**

   The water level in a well located approximately 670 feet from the site indicates that the depth to the water table is 57 feet.

   Ref. Nos. 1, 33

5. **What is the permeability value of the least permeable continuous intervening stratum between the ground surface and the aquifer of concern?**

The permeability of overlying sands and gravel, if present above the aquifer outcrop at the site, is greater than 10^{-3} cm/sec.

Ref. Nos. 1, 3

6. **What is the net precipitation for the area?**

The net precipitation is 10 inches (44 - 34 = 10).

Ref. No. 3

7. **Identify uses of groundwater within 3 miles of the site (i.e., private drinking source, municipal source, commercial, industrial, irrigation, unusable).**

Groundwater from the aquifer of concern is the sole source of drinking water within 3 miles of the site. The New Jersey Water Company owns three wells that are part of a 50-well system in which common distribution lines are used. This system serves a population of 260,000 people. The Gloucester City Water Department owns four wells that deliver water to 13,400 people. One of these wells is the closest supply well that draws from the aquifer of concern; it lies 0.84 mile from the site. Four wells owned by the Bellmawr Boro Water Department serve 9,522 people with drinking water. Other public supply wells of note include Camden City Water Department wells (13), Brooklawn Boro Water Department wells (4), Westville Water Department wells (2), and one West Deptford Township well. All of the above-named wells lie within 3 miles of the site and draw water from the aquifer of concern.

A domestic supply well and 12 industrial supply wells that are completed in the Potomac-Magothy-Raritan aquifer system and lie within 3 miles of the site are listed in Table 1. No commercial or irrigation wells are potentially affected by the site.

Ref. Nos. 1, 6, 7, 8, 9, 10

8. **What is the distance to and depth of the nearest well that is currently used for drinking or irrigation purposes?**

Distance 0.84 mi Depth 306 ft

Ref. No. 1

9. **Identify the population served by the aquifer of concern within a 3-mile radius of the site.**

Approximately 282,900 people are served with drinking water from the aquifer of concern within 3 miles of the site.

Ref. Nos. 7, 9, 10

SURFACE WATER ROUTE

10. **Describe the likelihood of a release of contaminant(s) to surface water as follows: observed, alleged, potential, or none. Identify the contaminant(s) detected or suspected, and provide a rationale for attributing the contaminants to the facility.**

There is potential for a release of contaminants to surface water. PCB-contaminated soil may have remained on site (uncontained) for as long as 7 years (1978 to 1985). There may also be a

potential for migration of asbestos if this waste was not covered or otherwise properly contained. Two NJPDES-permitted pipes used for noncontact cooling water discharged directly to the Delaware River; however, this water is not known to have contained any hazardous substances.

Ref. Nos. 5, 18, 30

11. Identify and locate the nearest downslope surface water. If possible, include a description of possible surface drainage patterns from the site.

The nearest downslope surface water is the Delaware River, which borders the site on the west.

Ref. No. 4

12. What is the facility slope in percent? (Facility slope is measured from the highest point of deposited hazardous waste to the most downhill point of the waste area or to where contamination is detected.)

Available information does not indicate the locations of the spills. However, an off-site reconnaissance conducted by the NUS Corp. Region 2 FIT on February 7, 1989, indicates that the facility property is essentially level (slope less than 1 percent).

Ref. Nos. 5, 16, 27

13. What is the slope of the intervening terrain in percent? (Intervening terrain slope is measured from the most downhill point of the waste area to the probable point of entry to surface water.)

Available information does not indicate the locations of the spills; therefore, the slope of the intervening terrain cannot be calculated.

Ref. Nos. 5, 16

14. What is the 1-year 24-hour rainfall?

The 1-year 24-hour rainfall is 2.7 inches.

Ref. No. 3

15. What is the distance to the nearest downslope surface water? Measure the distance along a course that runoff can be expected to follow.

The Delaware River borders the site on the west. However, since available information does not indicate spill locations, the distance from the deposited waste to the Delaware River cannot be determined.

Ref. Nos. 4, 5, 16

16. Identify uses of surface waters within 3 miles downstream of the site (i.e., drinking, irrigation, recreation, commercial, industrial, not used).

The Delaware River is used for recreation (boating) and industrial purposes. There are two industrial water intakes within 3 miles of the site (GAF is approximately at river-mile 96). The Delaware River is not used for drinking or agricultural purposes within 3 stream-miles of the site.

Ref. Nos. 11, 13

17. **Describe any wetlands, greater than 5 acres in area, within 2 miles downstream of the site. Include whether it is a freshwater or coastal wetland.**

Two coastal wetlands (tidal flats) lie within 2 miles downstream of the site. One is approximately 80 acres in area and lies 0.63 mile downstream of the site. The other is approximately 320 acres in area and lies 1.5 miles downstream of the site.

Ref. Nos. 4, 15

18. **Describe any critical habitats of federally listed endangered species within 2 miles of the site along the migration path.**

No critical habitats of federally listed endangered species exist within 2 miles downstream of the site.

Ref. No. 12

19. **What is the distance to the nearest sensitive environment along or contiguous to the migration path (if any exist within 2 miles)?**

An 80-acre coastal wetland (tidal flat) lies 0.63 mile downstream from the site.

Ref. Nos. 4, 15

20. **Identify the population served or acres of food crops irrigated by surface water intakes within 3 miles downstream of the site and the distance to the intake(s).**

Not applicable.

21. **What is the state water quality classification of the water body of concern?**

The state water quality classification of the pertinent section of the Delaware River is Zone 3 waters.

Ref. No. 14

22. **Describe any apparent biota contamination that is attributable to the site.**

There is no documented biota contamination attributable to this site. Also, no biota contamination was noted during an NUS Corp. Region 2 FIT off-site reconnaissance conducted on February 7, 1989.

Ref. No. 27

AIR ROUTE

23. **Describe the likelihood of a release of contaminant(s) to the air as follows: observed, alleged, potential, none. Identify the contaminant(s) detected or suspected, and provide a rationale for attributing the contaminant(s) to the facility.**

There is a potential for asbestos fibers to become airborne if the asbestos waste is not properly contained (e.g., covered with soil, etc.).

There is no potential for a release of any other contaminants to the air. All remaining bulk hazardous waste and contaminated soil were removed from the site between 1985 and 1986.

Ref. Nos. 5, 18, 22, 23, 24, 25, 30

24. **What is the population within a 4-mile radius of the site?**

There are approximately 311,300 people that live within 4 miles of the site.

Ref. No. 26

FIRE AND EXPLOSION

25. **Describe the potential for a fire or explosion to occur with respect to the hazardous substance(s) known or suspected to be present on site. Identify the hazardous substance(s) and the method of storage or containment associated with each.**

There is no potential for a fire or explosion to occur. All remaining hazardous materials were removed from the site between 1985 and 1986.

Ref. Nos. 16, 18, 22, 23, 24, 25, 30

26. **What is the population within a 2-mile radius of the hazardous substance(s) at the facility?**

There are approximately 39,900 people that live within 2 miles of the site.

Ref. No. 26

DIRECT CONTACT/ON-SITE EXPOSURE

27. **Describe the potential for direct contact with hazardous substance(s) stored in any of the waste units on site or deposited in on-site soils. Identify the hazardous substance(s) and the accessibility of the waste unit.**

There is a potential for direct contact with the asbestos waste since it is unknown if this waste was properly covered.

There is little potential for direct contact with any other hazardous substances at the site. Property access is limited by a fence, and contaminated soils and all hazardous materials were removed between 1985 and 1986.

Ref. Nos. 5, 16, 18, 22, 23, 24, 25, 27, 30

28. **How many residents live on a property whose boundaries encompass any part of an area contaminated by the site?**

None. GAF Corp. is located in a commercial/industrial area of Gloucester City; there are no residents within 0.25 mile of the site.

Ref. Nos. 4, 26

29. **What is the population within a 1-mile radius of the site?**

There are approximately 11,800 people that live within 1 mile of the site.

Ref. No. 26

TABLE 1: DOMESTIC AND INDUSTRIAL SUPPLY WELLS WITHIN 3 MILES OF GAF CORP. THAT DRAW FROM THE AQUIFER OF CONCERN

Owner	No. of Wells	Use	Depth or Range of Depths (ft)
H.W. WIlson, Jr.	1	Domestic	112
Public Service Electric and Gas	1	Industrial	130
Hinde and Dauch	3	Industrial	260,261 (2)
Harshaw Chemical Co.	3	Industrial	251-266
G & W Natural Resources (formerly known as N.J. Zinc Co.)	5	Industrial (site is currently inactive)	175-279

Ref. Nos. 1, 19, 20

PART IV: SITE SUMMARY AND RECOMMENDATIONS

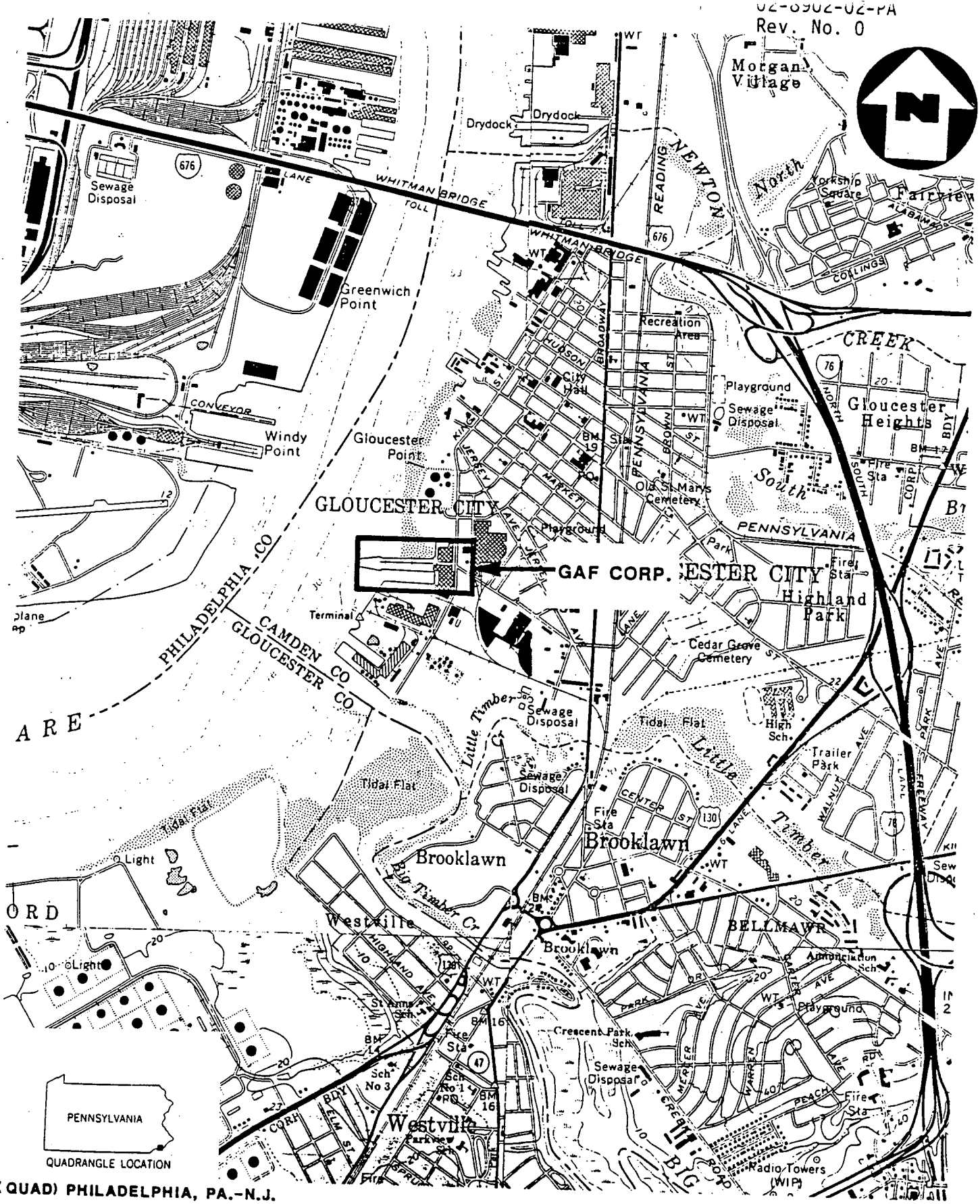
GAF Corporation is a privately owned, 36-acre site located in a commercial/industrial section of Gloucester City, Camden County, New Jersey. The facility occupies property adjacent to the Delaware River, and lies within 1.5 miles of approximately 400 acres of coastal wetlands (tidal flats). Over a quarter of a million people depend on groundwater (from a sole source aquifer) for drinking within 3 miles of the site.

The facility was originally owned and operated by the Ruberoid Corporation from 1927 until 1967, when it merged with GAF Corporation. Operations conducted at the site included the use of paper, woodchips, and sawdust to make felt paper for roofing, flooring, and vinyl siding. All manufacturing activities ceased in 1984. Following this, GAF Corp. filed an exemption to terminate its NJPDES permit, which had previously allowed the company to discharge 0.22 million gallons per day (mgd) of power plant and 0.20 mgd of felt mill noncontact cooling water to the Delaware River. Asbestos used for pipe insulation was also produced at this facility. Ruberoid and GAF Corp. both used an area between the facility and the Delaware River as a dump for some of the asbestos waste until 1971. Some asbestos waste was also removed from the facility and used as fill in areas of Gloucester County.

At least three notable spills occurred at the site. On April 14, 1978, approximately 300 to 400 gallons of Askarel, a PCB-contaminated fluid, was discharged onto the ground surface. This spill was reportedly cleaned up to the satisfaction of the NJDEP on the same day that it occurred; however, manifest documents indicate that PCB-contaminated soil and a transformer carcass were not removed until 1985 and 1986. On May 27, 1979, approximately 300 gallons of No. 6 fuel oil was spilled. This liquid was recovered and disposed of off site, but not before it reached the combined storm/sanitary sewer system. The oil is not known to have been a waste oil. Also, approximately 2000 gallons of water was discharged from a process tank in 1983. The water was reportedly absorbed and returned to the tank.

Media potentially affected by migration of hazardous contaminants (PCBs) include groundwater and the nearby Delaware River. No other cleanup actions are known to have been required by the NJDEP (or any other agency) in addition to those originally implemented by GAF Corp. There is little potential for direct contact since property access is limited by a fence, and contaminated soil and all hazardous materials were removed from the site between 1985 and 1986.

Because of the large number of people who depend on groundwater for drinking and the presence of two sensitive environments near the site, a **MEDIUM PRIORITY** site inspection is recommended for this site.



(QUAD) PHILADELPHIA, PA.-N.J.

SITE LOCATION MAP

GAF CORP., GLOUCESTER CITY, N.J.

SCALE: 1" = 2000'

FIGURE 1

NUS CORPORATION

ATTACHMENT 0-13

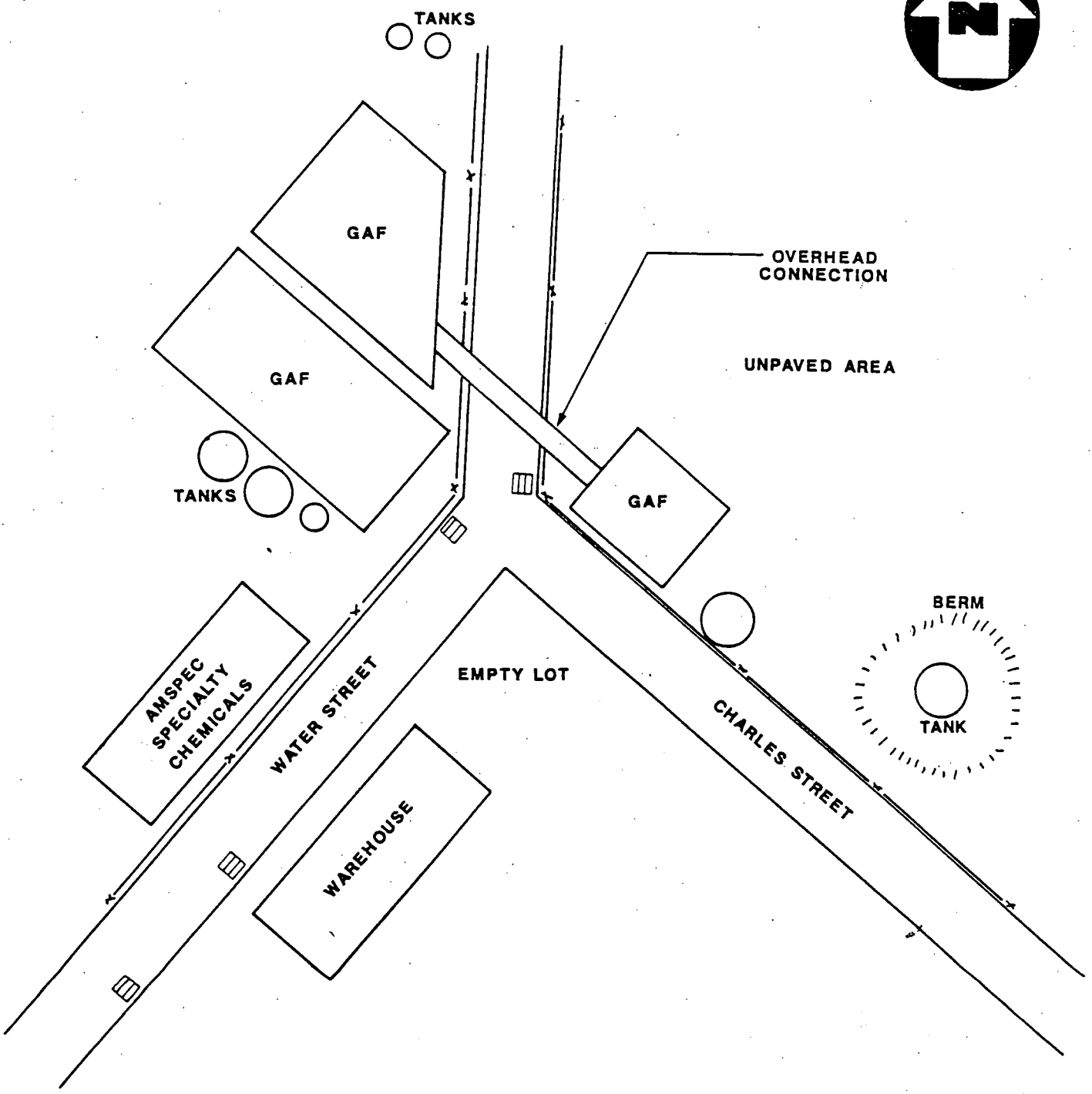


FIGURE 2

SITE MAP

GAF CORP., GLOUCESTER CITY, N.J.

NOT TO SCALE

NUS CORPORATION

ATTACHMENT 0-14

NUS CORPORATION

TELECON NOTE

CONTROL NO: 02-8902-02

DATE: FEB. 27, 1989

TIME: 1309

DISTRIBUTION: GAF Corp. file - COR

BETWEEN: Ms. Clare Whittaker

OF: NJDEP/Bureau of Planning and Assessment

PHONE: (609) 633-2217

AND: Thomas Varner

NUS

DISCUSSION:

Ms. Whittaker told me that the following events occurred at the GAF Corp. Site:

1978 - PCB spill - 18 drums of waste removed to Chemtrol during same year (precise date unknown).

1979 - No. 6 fuel oil spill (300 gallons) - oil recovered, transported to Kinsley Landfill during same year (exact date unknown) TV 2/27/89

1983 - Process water spill (2000 gallons) - from process water tank. Absorbed with corrugated paper and woodchips and returned to tank.

TAV 2/27/89

ACTION ITEMS:

NUS 287 REV SEP 2581

ATTACHMENT D-15

NUS CORPORATION

TELECON NOTE

CONTROL NO: 02-8902-02

DATE: Feb. 22, 1989

TIME: 10:02

DISTRIBUTION: GAF Corp. file - COR

BETWEEN: Ms. Carol Graubart

OF: NJDEP/Bureau of Case Management

PHONE: (609) 633-0701

AND: Thomas Varner

DISCUSSION:

NUS

Ms. Graubart returned my earlier call. I asked her the dates of the 2 spills at GAF. She told me that the PCB spill occurred on April 14, 1978 and the fuel oil spill occurred on May 27, 1979. I told her I had a copy of a waste manifest for PCB-contaminated soils and a transformer carcass, dated 9/12/85, and asked her if that corresponded to the date on which the contaminated soils associated with the spill were cleaned up. She said she had a report which says that 18 drums of material were removed the same day, but that there was no follow up report. She told me to contact Scott Frow of Hazardous Waste Engineering (formerly with the Southern Field Office) at (609) 633-1418.

client TV 2/24/89

to be TV 2/22/89

TV 2/24/89

ACTION ITEMS:

NUS 087 REV SEP 0581

ATTACHMENT D-16

NUS CORPORATION

TELECON NOTE

CONTROL NO:	DATE:	TIME:
02-8803-26	6/24/88	1450

DISTRIBUTION:

Deptford Plating Co., Inc. - COR

BETWEEN:	OF:	PHONE:
Mr. Ron Elkner	NJ. Water Co.	(609) 547-1700

AND:

Thomas Varner (NUS)

DISCUSSION:

Mr. Elkner said that the Runnemede Wells and the Gloucester Township wells (which are within 3 miles of the site - MV) are part of an interconnected system which uses a common pipe grid to distribute the water. This system serves approximately 260,000 people from 50 wells. This system serves Camden County: all of 14 municipalities and part of another 6. I asked him if affected water were to enter the system at one station could it be consumed by somebody else near another station, and he said yes.

ACTION ITEMS:

ATTACHMENT 0-17

NUS CORPORATION

TELECON NOTE

CONTROL NO:	DATE:	TIME:
02-8803-26	June 27, 1988	1445

DISTRIBUTION:

Deptford Plating Co., Inc Files - CUR

BETWEEN:	OF:	PHONE:
Mr. Bill Beckett	Bellmawr Boro Water Dept - operator	(609) 931-5721

AND: Thomas Varner (NUS)

DISCUSSION:

Mr. Beckett returned my call to the Bellmawr Boro Water Department on 6/24/88. He told me that Bellmawr Boro has a population of 9522 which depend on groundwater from 4 public supply wells which are completed in the Magothy and/or Raritan Formations. He said the wells are about 580 feet deep, and are overlain by a thick, tight clay layer. He said 2 wells are located on Warren Ave by a water tower, and the other 2 are located on Bell Rd. near another water tower. Well Nos. 3 and 4 are rated at 500 gpm, and nos. 5 and 6 at 1000 gpm. The two water towers hold 750,000 gallons of water, combined. He said any technical questions could be answered by Mr. Sansone, the Superintendent, or Mr. Mark Huff, the assistant Superintendent.

TAV 6/27/88

ATTACHMENT 0-18

NUS 087 REVISED 0581

MAYOR
KENNETH R. HINKLE
TOWNSHIP COMMITTEE
Joseph G. Nahas
Raymond T. Page
Thomas W. Roberts, Jr.
David P. Shields
Raymond L. Sherman, Clerk
Gerald A. White, Administrator
Richard M. Giuliani, Treasurer

WEST DEPTFORD TOWNSHIP

MUNICIPAL BUILDING
GROVE AVENUE AND CROWN POINT ROAD
THOROFARE, NEW JERSEY 08086
PHONE 845-4004

RECEIVED
JUL 13
NUS CORPORATION
REGION II
SENT TO

July 11, 1988

NUS
1090 King George's Post Road
Suite 1103
Edison, New Jersey 08837

Attention: Laura La Forge

Dear Ms. La Forge:

Following is a list of West Deptford Township's wells which serve a population of 18,500 residents:

Well	Depth	Year Drilled	Diameter	Yield
#3, Jessup Rd.	243 ft.	1957	12"	450 GPM
#4, Parkville Rd.	252 ft.	1957	8"	350 GPM
#5, Kings Highway	450 ft.	1973	12"	1000 GPM
#6, Red Bank Avenue	371 ft.	1973	12"	390 GPM
#7, Academy Ave.	370 ft.	1981	12"	600 GPM
#8, Parkville Rd.	350 ft.	1982	12"	1050 GPM

Also, enclosed you will find a map showing the location of these wells. Please contact me if you require any further information.

Sincerely,

Edward J Phelps III

Edward J. Phelps, III
Superintendent
Water and Sewer Department

EJP:mbr

Enclosure

ATTACHMENT D-19

NUS CORPORATION AND SUBSIDIARIES

TELECON NOTE

CONTROL NO:	DATE:	TIME:
02-8901-20	2/14/89	1045

DISTRIBUTION:
GOW Natural Resources File

BETWEEN:	OF:	PHONE:
Ed Knicely	Gloucester City Water Dept.	(609) 456-0165

AND:
Gary Rotelle

DISCUSSION:
Re: Drinking water Gloucester City
- Gloucester City Water Dept provides all potable water for Gloucester City Residents
- serves 13,400 people
- 4 wells are in use:
  GCWD 40
  " 41
  " 42
  " 43
- They are not tied in to either the Camden, Mt. Ephraim, or New Jersey Water Companies, but emergency hook-ups are available to each of these

ACTION ITEMS:

NUS 087 REVISED 0685

ATTACHMENT 8-20

ATTACHMENT 0-21

(FMS) I

GAF CORP.
LATITUDE 39:53:26 LONGITUDE 75: 7:44 1980 POPULATION

mi / KM	0.00 - 0.25 / 0.00-.400	0.25 - 0.50 / .400-.810	0.50 - 1.0 / .810-1.60	1.0 - 2.0 / 1.60-3.20	2.0 - 3.0 / 3.20-4.80	3.0 - 4.00 / 4.80-6.40	SECTOR TOTALS	0-1.0	0.0-2.0	0.0-3.0	0.0-4.0
S 1	0	3506	8264	28147	111304	160093	311314				
RING TOTALS	0	3506	8264	28147	111304	160093	311314	11,770	39,917	151,221	311,314

(FMS) I

GAF CORP.
LATITUDE 39:53:26 LONGITUDE 75: 7:44 1980 HOUSING

mi / KM	0.0 - 0.25 / 0.00-.400	0.25 - 0.50 / .400-.810	0.50 - 1.0 / .810-1.60	1.0 - 2.0 / 1.60-3.20	2.0 - 3.0 / 3.20-4.80	3.0 - 4.0 / 4.80-6.40	SECTOR TOTALS	0-1.0	0.0-2.0	2.0-3.0	0.0-4.0
S 1	0	1145	2933	10222	39319	60010	113629				
RING TOTALS	0	1145	2933	10222	39319	60010	113629	4,078	14,300	53,619	113,629

ATTACHMENT P

Form DWM-051
10/85

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

INVESTIGATION

CASE #: 89 - 10 - 12 - HW015 PAC GYC

DWM FILE #: 04 - 14 - 05

TIME ARRIVED: 1216

INVESTIGATOR: Ben Wilbur

DATE: 1-9-90

TIME DEPARTED: 1440

LOCATION: GAF Corporation

PROPERTY OWNER: GAF

ADDRESS: Water and Charles Sts. Gloucester City, Camden County

MAILING ADDRESS: 1361 ALPS Rd. Wayne NJ 07470 (201)-628-3000

LOCATION TELEPHONE #: (609) 456-2398

BLOCK: 120A

LOT: 3

EPA ID #: NJD 043292606

LOCAL HEALTH DEPT. REP.

TELEPHONE #:

ORIGIN OF COMPLAINT: Request from HWE

TELEPHONE #:

NATURE OF COMPLAINT: Determine HW status

PHOTOGRAPHS TAKEN: no.

SAMPLE #: no

FINDINGS: Ben Wilbur and Anthony Drummings (HWE) met with GAF representatives Ron De Biase (Mgr, Real Estate), Len Paculli (GAF legal), Fred Bright (GAF Eng.) and John Wright (on site operations, watchman, etc) on 1-9-90 De Biase, Paculli and Bright work out of GAF in Wayne N.J. (1361 Alps Rd., Wayne 07470; De Biase phone (201) 628-3000) we were conducted on a tour of the site by John Wright.
Our observations are discussed below; GAF described what was their on-site operations as we toured the buildings (see attached diagrams).
operations were completely related to the production of roofing felt which was made from chopped wood-fiber, and recycled paper- and cardboard. The felt so produced was shipped in rolls to other sites for asphalt impregnation for final use as a roofing shingle underlayment or so called Tar paper and for linoleum
The plant was divided into 3 basic parts.
1- wood-paper slurry (water slurry with biocides)
2- slurry lay down, press drying, oven drying, and roll up
3- storage and shipping (see diagram)
various storage tanks for wood, water and NaOH soln (to adjust PH) were part of this operation; all were empty
These operations were shut down in 12/31/83; machinery, pipes, electrical power equipment, was removed in 1986-1987. Hazardous waste was manifested off site in 1985-1986; PCB from capacitors was removed in 1988 under manifest.

ATTACHMENT P-1

Terry W. Ostrander 1/30/90

Ben Wilbur 1-9-90

COPIES: White - DWM File Yellow - Local Health Dept. Pink - Investigator

INVESTIGATION

PAC GYC

CASE # 89 - 10 - 12 - HW015

DATE 1-9-90

RECOMMENDATIONS AND CONCLUSIONS:

GAF Cont'd.

Throughout the tour of all buildings, no evidence of any ~~hazardous~~ previous hazardous waste was noted; no spills were evident. All drums on the site contained fresh with the exception of 1 drum of degreaser solvent used for maintance operations in the shop area. a small amt. < 10 gal of used degreaser was on site (accumulates in a satellite area)

Outside the operations area buildings was a vacant lot projecting into the river and was the site for #6 fuel line feed to the power house. no waste or spills were noted in this lot area.

GAF owns 4 additional buildings in the area as follows. (See diagram)

1- Power House we toured the power house and fuel oil storage tank and containment. The tank was empties in no evidence of spills was noted. No evidence of hazardous waste or waste operations were noted.

2- 22,000 ft² warehouse: Bldg was empty; and is used as a rental property

3- 110,002 ft² warehouse: Building also empty; also a rental property

4.- Locker-room:- abandoned, lockers still in building.

* note Part of original GAF site was sold to Vanguard Siding on 8/3/81; this part of the original property was the area where asbestos was handled. These ~~bad~~ buildings were not inspected; now appear to be abandoned, but owned by Vanguard.

Conclusions: We found no evidence to suggest that GAF was ever anything but a Hazardous waste generator at this site. described above which was inspected on 1-9-90

Terry W. Ostrander 1/30/90
Supervisor Signature

Ben Wilkin 1-9-90
Investigator Signature

COPIES: White - DWM File Yellow - Local Health Dept. Pink - Investigator

ATTACHMENT P-2

COPIES: White - DWM File Yellow - Local Health Dept. Pink - Investigator

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

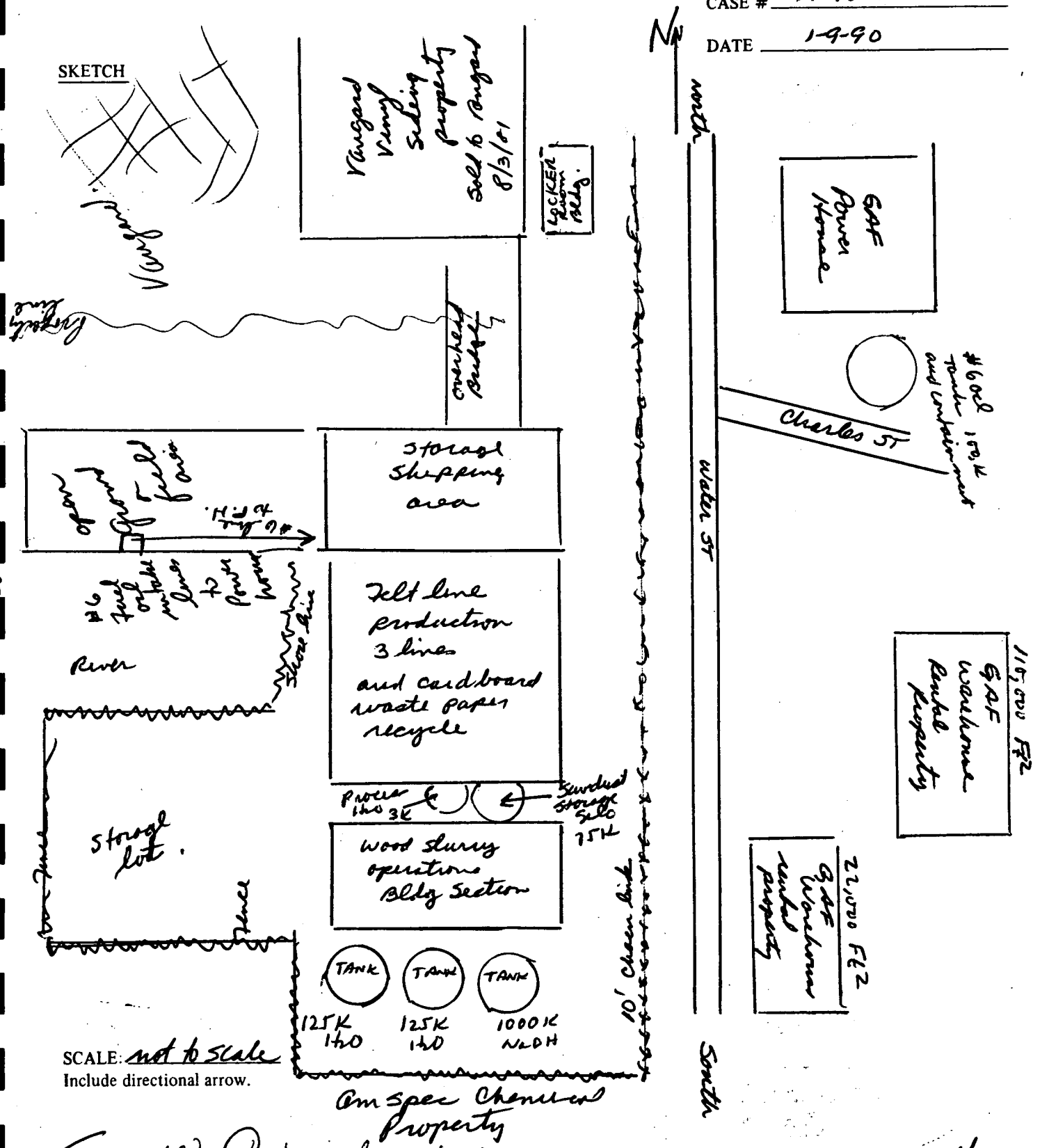
PAC GYC

INVESTIGATION

CASE # 89-10-12-HW015

DATE 1-9-90

SKETCH



SCALE: not to scale
Include directional arrow.

Terry W. Ostrander 1/30/90
Supervisor Signature

Benjamin Allbon 1-9-90
Investigator Signature

COPIES: *White - DWM File* *Yellow - Local Health Dept.* *Pink - Investigator*

ATTACHMENT P-3

COPIES: *White - DWM File* *Yellow - Local Health Dept.* *Pink - Investigator*

ATTACHMENT Q

JAN 15 1990

MEMORANDUM

TO: File

FROM: Anthony Drummings, Senior Environmental Specialist AD
Bureau of Hazardous Waste Engineering

SUBJECT: Site Inspection at GAF Corporation, Charles and Water Streets, Gloucester City, EPA ID No. NJD 043 292 606

On January 9, 1990, this writer conducted a joint site-inspection at the above subject location with Ben Wilbur of the Southern Bureau of Field Operations (SBFO).

The other participants were as follows:

Name	Title	Phone Number
Ronald D. DeBiasse	Dir. of Corporate Purchasing	(201) 628-3516
✓Fred W. Bright	Project Manager	(201) 628-3507
John Wright	On-Site Caretaker	(201) 628-3000
Len Paculli	GAF Legal Representative	(201) 628-3000

Background

On August 12, 1980, GAF submitted a notification of hazardous waste activity to the EPA. This notification indicated that GAF was a generator and a treater/storer/disposer of hazardous waste. On November 9, 1982, GAF requested that further processing of the Part A application be discontinued by EPA because their facility did not generate, treat, store, or dispose of any waste classified as hazardous. The site inspection was conducted in order to ascertain the proper regulatory status of GAF.

Observations

Arrived on-site at approximately 12:15 p.m. We first toured the area of the building which was once used for the felt mill production. Prior to January 1984, GAF manufactured base felt to be used as a substrate for roofing shingles. The ingredients used in the manufacturing process consisted of

ATTACHMENT Q-1

defibered wood and mixed papers (office waste paper, waste corrugated, and kraft corrugated). Outside on the west side of the building were two (2) epoxy-lined white water storage tanks. The first tank (on the left) had a 30,000 gallon storage capacity and the second tank (on the right) had a 25,000 gallon storage capacity. These tanks were empty and were previously used for the accumulation of process water.

The next area toured was the building which was previously used for the wood slurry operations. Outside on the west side of this building were three tanks. These first two (2) tanks (on the left) were previously used for accumulation of process water with each tank having a 100,000 gal. capacity. Both of these tanks were empty. The third tank (on the right) was previously used as part of the overall water treatment process in a "closed loop" system and accumulated sodium hydroxide (caustic soda) to maintain a near neutral pH. This tank was rinsed with firewater and emptied sometime in 1984. The rinsate was manifested off-site to a TSD.

The next building toured was the storage and shipping area for the base felt mill. In this area, we discovered one (1)-55 gallon drum with less than 10 gallons of spent degreaser solvent. Ben Wilbur advised that this waste be handled in accordance with the provisions for a satellite accumulation area. Mr. DeBiasse stated that he would have this drum removed and discontinue the degreasing of tools at this location if it would cause a regulatory problem. I stated that the DEP would address this activity in future correspondence with GAF.

Outside the storage and shipping area was a vacant field projecting into the Delaware river. This area was an entry point for a #6 fuel line feeding to the power house. There was no evidence of any waste or spills in this area.

We then proceeded to tour the power house and the fuel storage tank. The fuel storage tank has a capacity of 400,000 gallons. The tank was empty and the containment area surrounding the tank showed no visible evidence of any spills. Furthermore, there was no evidence of any hazardous waste in the power house.

In addition, GAF owns two warehouses (the Water St. Warehouse and the Charles St. Warehouse) which we toured. Both of these warehouses were empty but are retained for rental property.

The warehouses were the final areas toured. Mr. Bright said he would send me documents regarding the wastes which were previously manifested off-site. This writer and Ben Wilbur then left the site at approximately 1:40 p.m.

There was no evidence to indicate the GAF ever operated as a TSD facility at this site. Furthermore, this facility is presently undergoing an ECRA delineation and cleanup plan review. Therefore, it is my recommendation that GAF be delisted.

EP51/slw

ATTACHMENT Q-2

ATTACHMENT R

ECRA-002
12/87

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
INDUSTRIAL SITE EVALUATION ELEMENT
CN 028, TRENTON, N.J. 08625

ENVIRONMENTAL CLEANUP RESPONSIBILITY ACT (ECRA)

INITIAL NOTICE

SITE EVALUATION SUBMISSION (SES)

This is the second part of a two-part application form. This information must be submitted within 45 days following any applicable situation as specified at N.J.A.C. 7:26B-1.5 or any triggering event as specified at N.J.A.C. 7:26B-1.6. Please refer to the instructions and N.J.A.C. 7:26B-3.2 before filling out this form. Answer all questions. Should you encounter any problems in completing this form, we recommend that you discuss the matter with a representative from the Element. Submitting incorrect or insufficient data may cause processing delays and possible postponement of your transaction. Please call (609) 633-7141 between the hours of 8:30 a.m. and 4:30 p.m. to request assistance.

PLEASE PRINT OR TYPE

Date April 24, 1990

1. Industrial Establishment

Name GAF Building Materials Corporation

Address Charles & Water Streets

City or Town Gloucester City Zip Code 08030

Municipality _____ County Camden

A. Operational and Ownership History: *(Attach additional sheets if necessary)*

Name	Owner/ Operator	From	To	Current Address
Pusey and Jones Shipyard		WW I		N/A
Lang Paper Company				N/A
Ruberoid Company		mid 1940's	1967	N/A
GAF Corporation		1967	present	Charles & Water Streets Gloucester City, NJ

B. Brief description of past operation(s) conducted on site *(Attach additional sheets if necessary)*

Appendix A

ATTACHMENT B-1

ECRA-002
12/87

2. List all federal and state environmental permits applied for, or received, or both, at this facility *(Attach additional sheets if necessary)* Right to Know request submitted to NJDEP dated April 19, 1990. Additional permits, if any, will be submitted upon receipt from NJDEP.
Check here if no permits are involved _____

A.. New Jersey Bureau of Air Pollution Control

Permit Number	Certificate Number	Date of Approval or Denial	Reason for Denial (if applicable)	Expiration Date
NJ Stack No. 027	8745 (3 screens)			8-21-83
028	33634 (3 thickeners)			8-21-83
	33594 (log chipper)			~~Expired~~
(see attached sheet)	33595 (log chipper)			

B. New Jersey Pollutant Discharge Elimination System (NJPDES)

Number	Discharge Activity	Date Issued or Denied	Expiration Date	Body of Water Discharged Into
NJ0005371	Surface Water/ Industrial	3-19-85	4-30-90	Delaware River

C. United State Environmental Protection Agency (EPA) Identification Number and copy of the most recent generator Annual Report prepared pursuant to the New Jersey Hazardous Waste Regulations. *(If applicable)*

ID # NJD 043292606

Is a copy of the Annual Report attached? X Yes (See ~~Attachment~~ Appendix # B) ____ No

D. Resource, Conservation, Recovery Act (RCRA) Permit # NJD 043292602 (Submitted Part A 1981 requested suspension of permit application)

E. Bureau of Underground Storage Tank Registration Number(s) 0058430
(All underground tanks have been removed or abandoned)

F. All other federal, state, local governmental permits.

Agency Issuing Permit	Permit No.	Date of Approval or Denial	Expiration Date
Delaware River Basin Commission	DRBC 184	1975	

ATTACHMENT R-2

2. List all federal and state environmental permits applied for, or received, or both, at this facility.

A. New Jersey Bureau of Air Pollution Control

Permit Number NJ Stack No.	Certificate Number	Date of Approval or Denial	Reason for Denial	Expiration Date
001	13889 (Pneumatic wood flour unloading system and wood flour storage silo)			Expired
	7299 (dust collector)			Expired
	10708 (fabric collector)			Expired

ATTACHMENT R-3

ECRA-002
12/87

3. Summary of Enforcement Actions for Violation of Environmental Laws or Regulations:

Check here if no enforcement actions are involved _____

A. Date of Action 2-22-79

Section of Law or Statute violated _____

Type of Enforcement Action Notice of Prosecution

Description of the Violation Visible smoke

How was the violation resolved? Fine of $100.00

B. Date of Action 8-19-86

Section of Law or Statute violated _____

Type of Enforcement Action Letter indicating violation

Description of the Violation Violation of Discharge Monitoring Report - Non-submittal

How was the violation resolved? Discharge Monitoring Report submitted to State

4. Site Map

Is this map enclosed? X Yes (See Attachment # Appendix C) ____ No

If No, state the reason _____

(Attach additional pages, if necessary)

ATTACHMENT R-4

3. Summary of Enforcement Actions for Violation of Environmental Laws or Regulations.

C. Date of Action: July 1988
Section of Law or Statute violated:
Type of Enforcement Action: Letter indicating noncompliance
Description of the Violation: Notification of Noncompliance with Sludge Quality Assurance Regulations
How was the violation resolved: Letter sent to the State indicating plant is inactive.

ATTACHMENT R-5

5. Decription of Operations:

Is this report enclosed? X Yes (See ~~Attachment~~ Appendix # A) ____ No

If No, state the reason _____

6. Description of Building Heating System:

A. How is the Industrial Establishment currently heated? (Oil, Gas, Electric) #6 Fuel Oil

How long has the Industrial Establishment been heated by the above fuel/energy source: 40-50 years

B. Was the Industrial Establishment heated by fuel oil at any time: X Yes ____ No

Is information on the decommissioning of underground fuel oil tanks included with item No. 14 of this form?

X Yes ____ No If no, explain below: _____

C. Are the results of the Integrity Evaluation for Existing Underground Fuel Oil Tanks enclosed?

____ Yes (See Attachment #_____) X No If no, state the reason No existing underground fuel oil tanks

7. Summary of Industrial Establishment Wastewater Discharges of Sanitary and/or Industrial Waste:

A.

Discharge Period From	To	Discharge Type	Treatment By
unknown	Present	Sanitary/Cooling Water	Gloucester City Sewerage Authority

B. If the Industrial Establishment discharges sanitary and/or industrial wastes to a publicly-owned treatment plant, provide the name/address of that facility.

Name Gloucester City Sewerage Authority Telephone # 609-456-3970

Street Address 313 Monmouth Street

Municipality _____ State NJ Zip Code 08030

Date(s) of Discharge	Nature of Discharge
1.	
2.	
3.	

ATTACHMENT R-6

8. Hazardous Substance and Waste Containment Description: *(Attach additional sheets if necessary)*

Type of Storage Unit	Date Installed	Area or Volumetric Capacity (Include units)	Material Stored	Construction Type	Location Reference	Decommissioning or Sampling Reference
Underground Tank	1977	10,000 GAL	Kerosene	Steel	See Fig	See Item 14
Underground Tank	1952	1,000 GAL	Leaded Gasoline	Steel	See Fig	See Item 14
Underground Tank	1972	550 GAL	#2 Fuel	Steel	See Fig	See Item 14
Above Ground Tank	1950	400,000 GAL	#6 Fuel Oil	Steel	See Fig	See Item 14
Above Ground Tank	1930's	8,000 GAL	#6 Fuel Oil	Carbon Steel Epoxy Lined	See Fig	See Item 14
Above Ground Tank	1930's	8,000 GAL	#6 Fuel Oil	Carbon Steel Epoxy Lined	See Fig	See Item 14
Above Ground Tank	1970	125,000 GAL	Process Water	Steel	See Fig	See Item 14
Above Ground Tank	1970	100,000 GAL	Process Water	Steel	See Fig	See Item 14
Above Ground Tank	1970	20,000 GAL	Caustic	Carbon Steel	See Fig	See Item 14

9. **Hazardous Substance/Waste Inventory:** The following is a list of chemicals used at the plant when it was in operation. None of these chemicals are currently stored at the facility.

Material Name	Quantity (Indicate units)	Location Reference	Storage Method Container Type/Size	Typical Annual Usage	To Remain on Site (Yes or No)
Sodium Hydroxide	Unknown	at this time-Only used while plant was in operation,			NO
Polymer	Unknown	at this time-	"		NO
Light Oil	Unknown	at this time-	"		NO
Defoamer	Unknown	at this time-	"		NO
Alumimum Paste	Unknown	at this time-	"		NO
Biocide	Unknown	at this time-	"		NO
#6 Fuel Oil	Unknown	at this time-	"		NO
Hydrated Lime	Unknown	at this time-	"		NO

ATTACHMENT R-1

9. Hazardous Substance/Waste Inventory:

Material Name	Quantity	Location	Storage Method	Usage	To Remain Onsite
Sodium Carbonate		UNKNOWN AT THIS TIME			No
Sodium Nitrate		UNKNOWN AT THIS TIME			No
Sodium Sulfate		UNKNOWN AT THIS TIME			No
Sodium Hexametaphosphate		UNKNOWN AT THIS TIME			No
Sodium Chloride		UNKNOWN AT THIS TIME			No
Twin Sol		UNKNOWN AT THIS TIME			No
Kerosene		UNKNOWN AT THIS TIME			No

(see Appendix D for Material Safety Data Sheets)

ATTACHMENT R-8

10. Discharge History of Hazardous Substances and Wastes:

A. Have there been any discharges of hazardous substances and wastes?
X Yes (Complete Item B below) ____ No (Go to Item 10C)

B. Summary of Discharges and Resolutions

Description of Discharge Event	Response and Resolutions
1978-PCB Spill at Power House	Disposed of PCB Contaminated Soils and Liquid
	Transported to Chemtrol Pollution Service
	Model City,NY (Manifests available)
1985-PCB Spill at Power House	Disposed of Contaminated Soils and Liquids
	Transported to CECOS International Niagara
	Falls,NY and Chem Waste Management
	Emelle,AL (Manifests available)

C. Is this Industrial Establishment subject to Spill Prevention Control and Countermeasure (SPCC) per 40 CFR Part 112 or Discharge Prevention, Containment and Countermeasure (DPCC) Plan per NJAC 7:1E-4.1 requirements?

X Yes ____ No A copy of the Plan(s) may be required at the discretion of the Department.
SPCC available upon request

11. Sampling Plan Proposal

A. Is sampling proposed at the facility? X Yes (See Attachment # E) No____

If sampling is not proposed, please explain below. *(Attach additional sheets if necessary)*

B. Is groundwater sampling proposed? X Yes ____ No

Note: If groundwater sampling is proposed under the plan, you must complete ECRA Form 002A "Request for Hydrogeologic Assessment" and submit it with the application.

12. Decontamination/Decommissioning Plan

A. Is the facility Decontamination/Decommissioning Plan enclosed?

____Yes (See Attachment #_____) __X__No

B. If no, specify why decontamination/decommissioning is not considered necessary.

Facility was decommissioned at the time the plant ceased operations. No further plans are currently being considered.

13. Historical Data on environmental quality at the Industrial Establishment

A. Were sampling results obtained on Environmental Quality for the Industrial Establishment?

__X__Yes (See Appendix Attachment #__F__) ____No

B. If sampling results were obtained but are not part of this application, please explain below:

14. List any other information you are submitting or which has been formally requested by the Department:

Description	Appendix Attachment #
Abandon/Removal of Underground Storage Tanks	G

FEE CHECKLIST

Include below a breakdown of the total fee submitted with this application. (See N.J.A.C. 7:26B-1.10 for the appropriate fees.)

Item	Amount ($)
1. Initial Notice Review	
i. Without Sampling Plan	
ii. With Sampling Plan that includes only underground storage tank analysis without groundwater monitoring	
iii. With Sampling Plan other than ii. above or iv. below	
iv. With Sampling Plan that includes any groundwater monitoring	$ 7,500
2. Sampling Data Review	
3. Negative Declaration Review	
4. Cleanup Plan Review	
5. Oversight of Cleanup Plan Implementation	
TOTAL FEE ENCLOSED	$ 7,500

ARE FEES ENCLOSED? __X__ YES

ECRA-002
12/87

CERTIFICATIONS:

A. The following certification shall be signed by the highest ranking individual at the site with overall responsibility for that site or activity. Where there is no individual at the site with overall responsibility for that site or activity, this certification shall be signed by the individual having responsibility for the overall operation of the site or activity.

I certify under penalty of law that the information provided in this document is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of N.J.S.A. 13:1K-6 et seq., I am personally liable for the penalties set forth at N.J.S.A. 13:1K-8.

Typed/Printed Name Donald W. La Palme Title Vice President Operations

Signature Donald W La Palme Date April 24, 1990

Sworn to and Subscribed Before Me
on this 24th
Date of April 19 90

Roseann Nastasi
Notary

Roseann Nastasi
Notary Public of New Jersey
My Commission Expires 4/04/1994

B. The following certification shall be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
3. For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate, or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of N.J.S.A. 13:1K-6 et seq., I am personally liable for the penalties set forth at N.J.S.A. 13:1K-8.

Typed/Printed Name Donald W. La Palme Title Vice President Operations

Signature Donald W La Palme Date April 24, 1990

Sworn to and Subscribed Before Me
on this 24th
Date of April 1990

Roseann Nastasi
Notary

Roseann Nastasi
Notary Public of New Jersey
My Commission Expires 4/04/1994

ATTACHMENT R-11

ECRA-002A
12/87

Appendix = _____

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

NEW JERSEY GEOLOGICAL SURVEY

REQUEST FOR HYDROGEOLOGIC ASSESSMENT — ECRA PROGRAM

(To be completed whenever groundwater sampling is proposed or required as part of a Sampling Plan)

Preparer Susan D. Levin ESE, Inc. Date April 19, 1990

Name of Industrial Establishment GAF Building Materials Corporation

Address Charles & Water Streets

City/Township Gloucester City County Camden

USGS Quadrangle Philadelphia, PA - NJ

Latitude 39 53 ' 24 " Longitude 75 07 ' 37 "

1. Attach a site map or photo copy of the USGS "Quad" with the location of the site circled or outline in RED and any relevant information (e.g. analyses, well logs, etc.) Quad map included as Attachment 2

2. A. Are wells nearby? X Yes ____ No

   B. Are wells contaminated? ____ Yes ____ No Unknown at this time.

   C. To your knowledge, is there an imminent health hazard? ____ Yes X No

   D. Mark the location of any known wells near the facility, and complete the following if such information is available. *(Use back of sheet for additional remarks.)*

*** WELL SURVEY WILL BE CONDUCTED PRIOR TO INITIATION OF SAMPLING INVESTIGATION ***

	Well Owner	Distance from Edge of Property (ft.)	Depth	Use*	Remarks
1.					
2.					
3.					
4.					
5.					

* *P = Public Supply* *F = Irrigation* *I = Industrial* *M = Monitoring* *D = Domestic*

3. Briefly describe the nature of the operation (present/past) at this facility.

Manufactured base felt to be used as a substrate for roofing shingles (Refer to Appendix A for a more complete description)

ATTACHMENT B-12

Appendix = _____

4. Check known or suspected sources of ground water or soil contamination: (potential source areas)

___ Drums
___ Septic Tank(s)
X Below-ground Storage
x Landfill(s) Fill area
___ Discharge(s) onto Ground
___ Spill(s)
___ Lagoon(s)
___ Seepage Pit(s)
x Above-ground Storage
x Industrial Accident (PCB Spill)
___ Other - *Explain Below*

5. Additional Comments

_____
_____
_____
_____
_____
_____
_____
_____

ATTACHMENT B-13

APPENDIX A
PROCESS DESCRIPTION

ATTACHMENT R-14

The Gloucester City, NJ facility consisted of three paper machines and associated stock preparation equipment for manufacturing both roofing and flooring grades of felt. The ingredients used in the manufacturing process consisted of defibered wood and mixed papers (office waste paper, waste corrugated, and kraft corrugated). At times wood flour was also used as a supplement.

The type of wood used in the process was a mixture of approximately 50% pine and 50% oak. The raw stock was processed through sizing screens and delivered to storage bins directly over asplund defibrators which reduced the wood chips to fibrous form after a light cooking in a reaction chamber with steam at 160 PSI. The material was then transferred to a storage chest for subsequent refining, screening, and final blending. Eight defibrators and one raw chip refiner were used in this final processing.

The paper stock portion of the system involved a mixture of 50% mixed papers and 50% corrugated as a blend. Hydropulpers equipped with suitable trash removal equipment to eliminate strings, metal, and glass were used to process these raw materials. A 14-foot hydropulper was used to process off-quality felt which was used back in the manufacturing process for the prime product. Material was processed from the hydropulpers through high density cleaners, vibrating screens, thickening equipment and ultimately to a storage chest. Contaminants removed from this process were accumulated in waste disposal boxes and hauled to the onsite landfill.

After the hydropulping process, blended fibers (paper, wood, and waste) were blended through a proportioning system in ratios such that finished product specifications could be met regarding weight, strength, and absorbency. Prior to forming on the paper machines, the materials were refined through disc type refiners to reduce the fibers to the appropriate size and screened through either slotted vibrating flat screens or centrifugal pressure screens to remove minute contaminants. The finished stock was delivered to three paper machines from common storage chests where it was formed, pressed, and dried over steam heated dryers. The product was then calendered and accumulated on jumbo reels.

For roofing applications, prior to the being calendered, one quarter inch aluminum lines were printed onto one side of the sheet to serve as a guideline after the felt had been saturated. The line mixture consisted of aluminum paste, cornstarch, and water.

The jumbo reels were transferred to a rewinder where they were slit into appropriate sizes for shipment with edge trim or deckle trim. Any waste product was returned via an air system to a hydropulper for reuse. Following quality checks, the material was loaded onto trucks or rail cars for shipment to other company facilities or customers.

As part of the manufacturing process, water was withdrawn from the Delaware River, processed through the power plant, and supplied as makeup to the processing operations. The manufacturing plant had a closed process water system which resulted in no wastewater discharges. The makeup water required amounted to the amount of water lost to evaporation during the drying process.

As part of the overall water treatment process, liquid sodium hydroxide was introduced to maintain a near neutral pH. This was necessary in order to neutralize tannins generated as a result of the steam cooking process on both

oak and pine chips. In addition, a polymaric material of the polyamide family was utilized in the process to help coagulate fines and properly introduce them to the finished product during the felt forming stage.

In conventional paper making operations, synthetic blankets or combinations of synthetics and wool are used as machine felt - commonly referred to as blankets. These felts serve as a carrying medium for the newly formed paper and serve as a mechanism for dewatering the secondary fibers. When the felt blankets became soiled, the blankets were washed with a mixture of one gallon nonionic felt wash and 49 gallons water.

Steam used for drying the paper was obtained from either of two 100,000 pound Badenhausen boilers. Typical water treating chemicals were used to control hardness. Boiler blowdown was discharged to the local municipal sewage treatment plant.

Waste disposal from the plant consisted predominately of cellophane, plastics, aluminum cans, glass, and bark.

APPENDIX B
HAZARDOUS WASTE GENERATOR ANNUAL REPORT

ATTACHMENT B-17

GAF BUILDING MATERIALS CORPORATION
1361 Alps Road Wayne NJ 07470-3689
201 628 3000

A Subsidiary of
ORPORATION

GAF

September 12, 1989

State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management
CN 028
Trenton, NJ 08625

Attention: Mr. Chan Baldeo, Section Chief
Bureau of Manifest & Information Systems

Subject: GAF - Gloucester City, NJ Plant
Hazardous Waste Generator
Annual Report 1988

Dear Mr. Baldeo:

In response to your August 28, 1989 letter, we are proving the enclosed Hazardous Waste Generator Annual Report for 1988.

However, we would like to advise the Division of Hazardous Waste Management that our Gloucester City Plant has not been in operation since late 1983. We have no plans to restart this plant to manufacture its previous product, or any other product, at this time. Therefore, there is no hazardous waste activity associated with the plant.

You will note that a hazardous waste shipment was reported on the enclosed report. This was a one-time special occurrence to ship PCB capacitors that were removed in order to comply with the Federal EPA PCB regulations. There should be no further activity until future use of the plant has been decided.

We have been allowed to temporarily withdraw our NJ NPDES permit for this plant through the Division of Water Resources. Would a similar arrangement exist for our Hazardous Waste Generator reporting requirements?

ATTACHMENT K18

State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management

September 12, 1989

GAF - Gloucester City, NJ Plant
Hazardous Waste Generator
Annual Report 1988

Note: Please address all future correspondence relating to Hazardous Waste Management at the subject plant to me at the GAF Building Materials Corporate office in Wayne, NJ. Any environmental correspondence addressed to GAF Corporation is normally routed to the Chemical Corporation subsidiary first, which results in a response delay.

Should you have any questions or need additional information, please contact me at your convenience.

Sincerely,

Fred Bright

Fred Bright
Project Manager
GAF Building Materials Corporation
(201) 628-3507

FB:jhp
Attachment
(fb120)

ATTACHMENT B-19

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT ~~1985~~ 1988
- REPORT FORM -

1. Generator Name: GAF Building Materials Corp. EPA ID No.: NJD043292606

   Site Address: Charles and Water Streets, Gloucester City, NJ 08030

2. Transporter Name: S&J Transporter Company EPA ID No.: NJD071629976

3. TSD Facility Name: General Electric EPA ID No.: PAD043583848

   TSD Address: 1040 E. Erie Avenue, Philadelphia, PA 19124

A.) Waste Number	B.) Waste Description	C.) DOT Haz Class	D.) Total Quantity	E.) Units
Y321	PCB Capacitors		435	P

PCB Capacitors removed and disposed of in order to comply with Federal EPA regulation for elimination of PCB Capacitors not used in a restricted-access location.

NOTE: For each combination of transporter and TSD facility, list the total quantity manifested for each waste type.

ATTACHMENT R-20

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT ~~1985~~ 1988
- CERTIFICATION FORM -

I. EPA ID Number: NJD043292606

II. Generator Name: GAF Building Materials Corporation

III. Contact Person: Fred Bright

IV. Phone Number: (201) 628-3507

V. Certification:

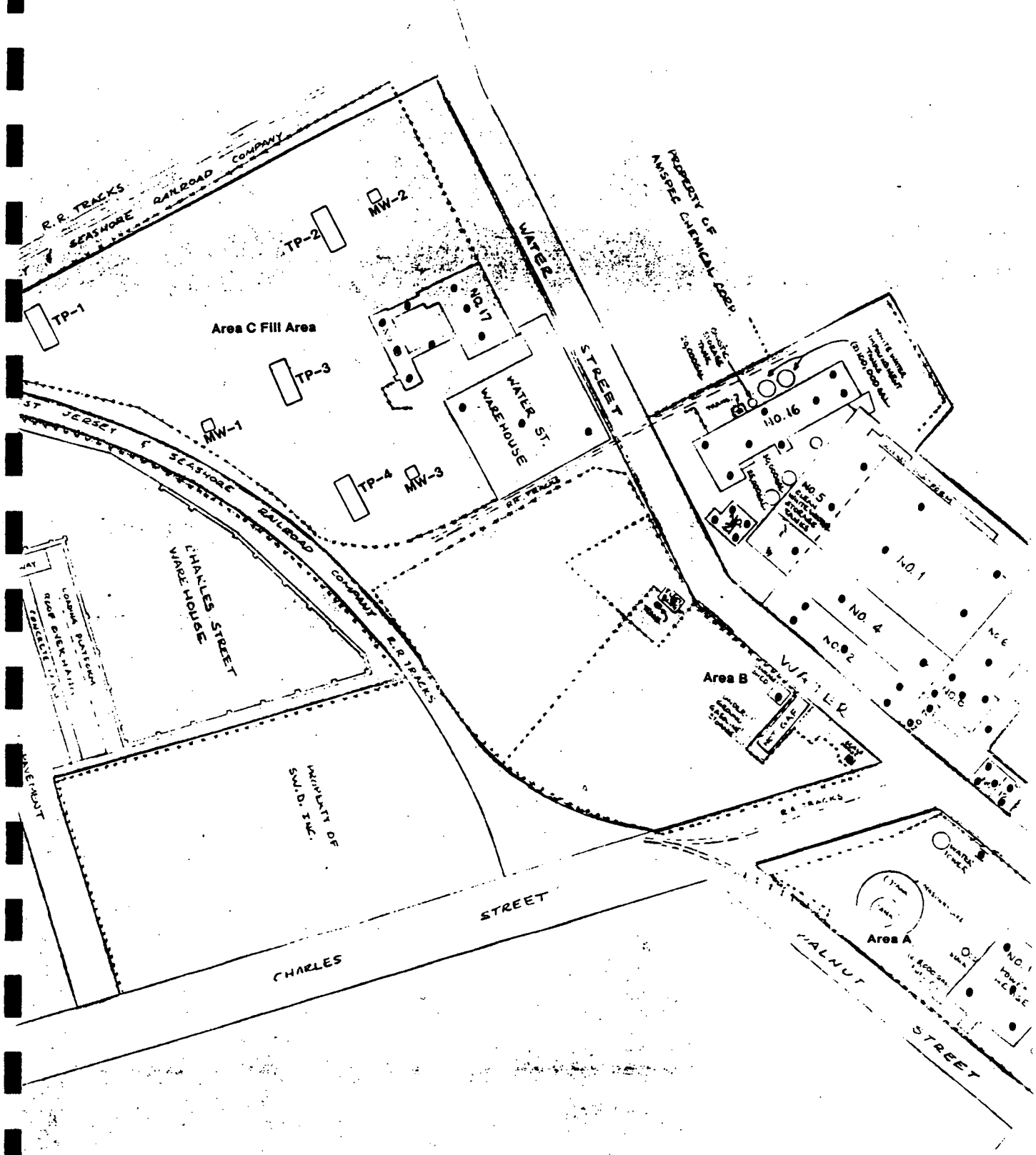
I certify that the information given in this annual report is true, accurate and complete.

Fred Bright	Fred Bright	9/12/89
(Print or type name)	(Signature)	(Date)

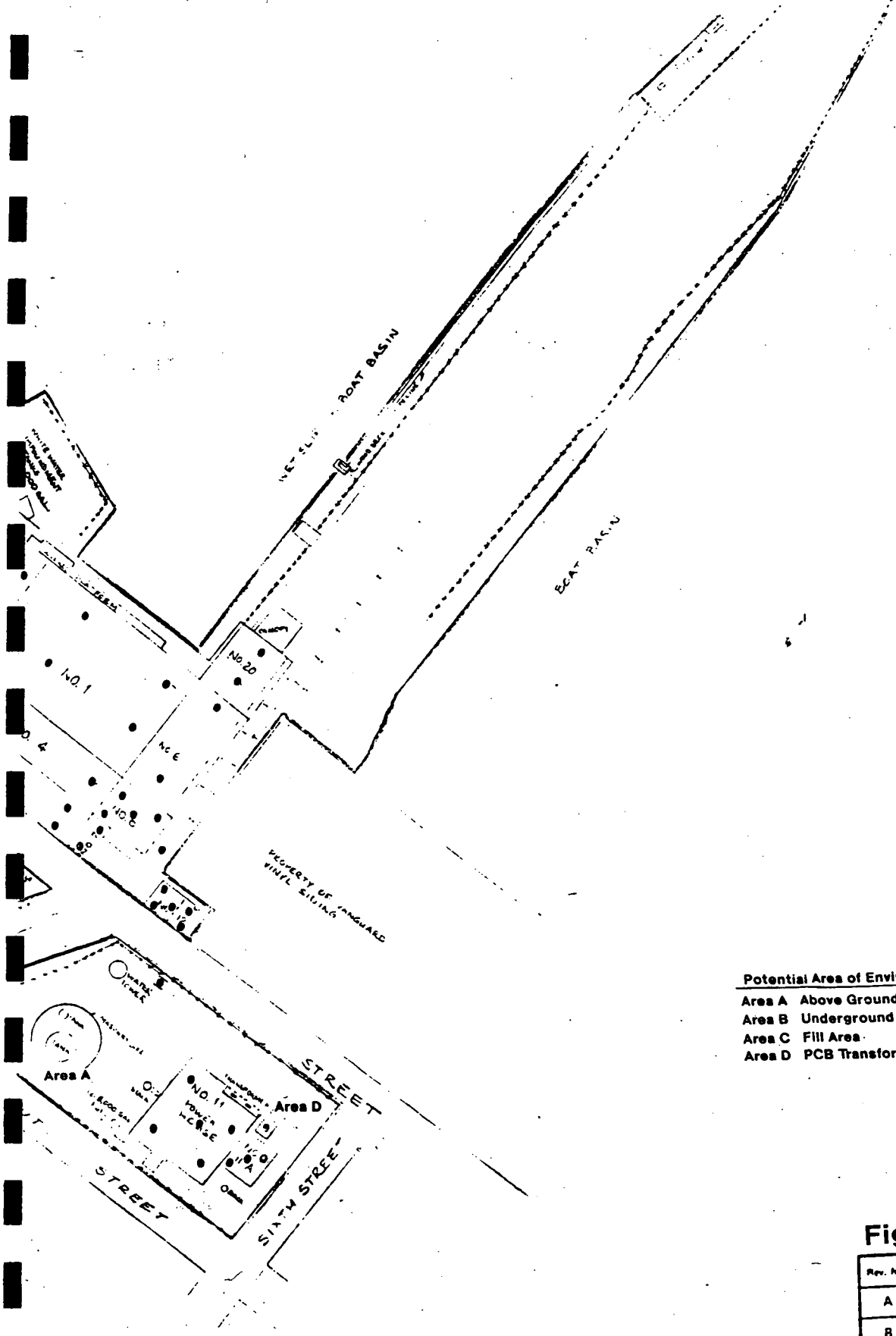
ATTACHMENT R-21

APPENDIX D
MATERIAL SAFETY DATA SHEETS

ATTACHMENT R-22



ATTACHMENT R-23



Potential Area of Environmental Concern

Area A Above Ground Storage Vessel
Area B Underground Storage Vessel
Area C Fill Area
Area D PCB Transformers

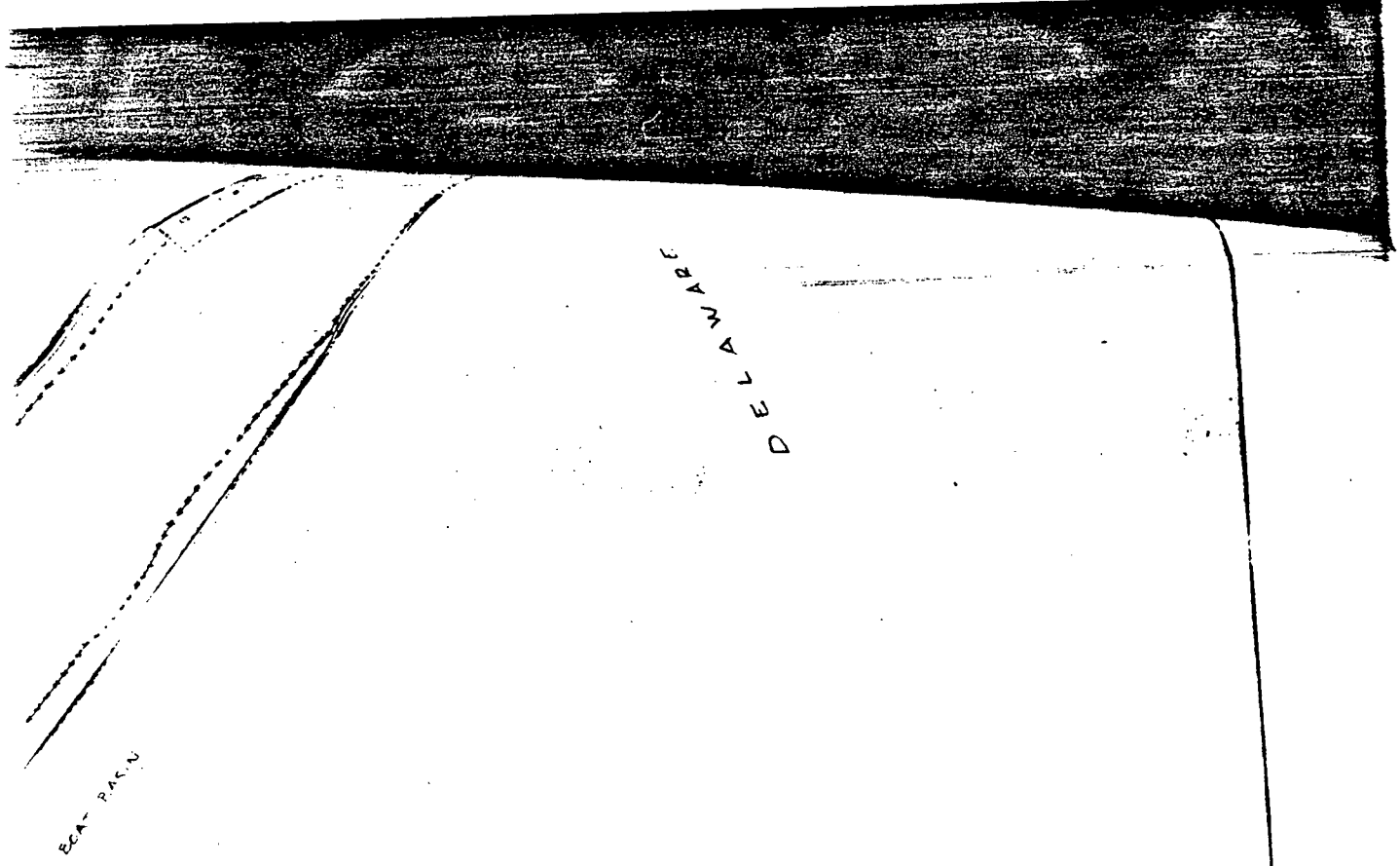
Figure 1

Rev. No	Date	NATURE OF RE
A		
B		
C		
D		
E		
F		
G		

This Drawing is the property of the G A F
and subject to return upon demand. It is to be
for which it is expressly loaned and not to be u
to the interest of the Corporation.

ATTACHMENT R-24

ATTACHMENT R-25



Potential Area of Environmental Concern

Area A Above Ground Storage Vessel
Area B Underground Storage Vessel
Area C Fill Area
Area D PCB Transformers

Legend

- ● – Asbestos Air Sampling Location
- □ – Monitoring Well Location
- ▭ – Test Pit Location

ATTACHMENT R-26

Figure 1

Rev. No	Date	NATURE OF REVISION	Rev By
A			
B			
C			
D			
E			
F			
G			

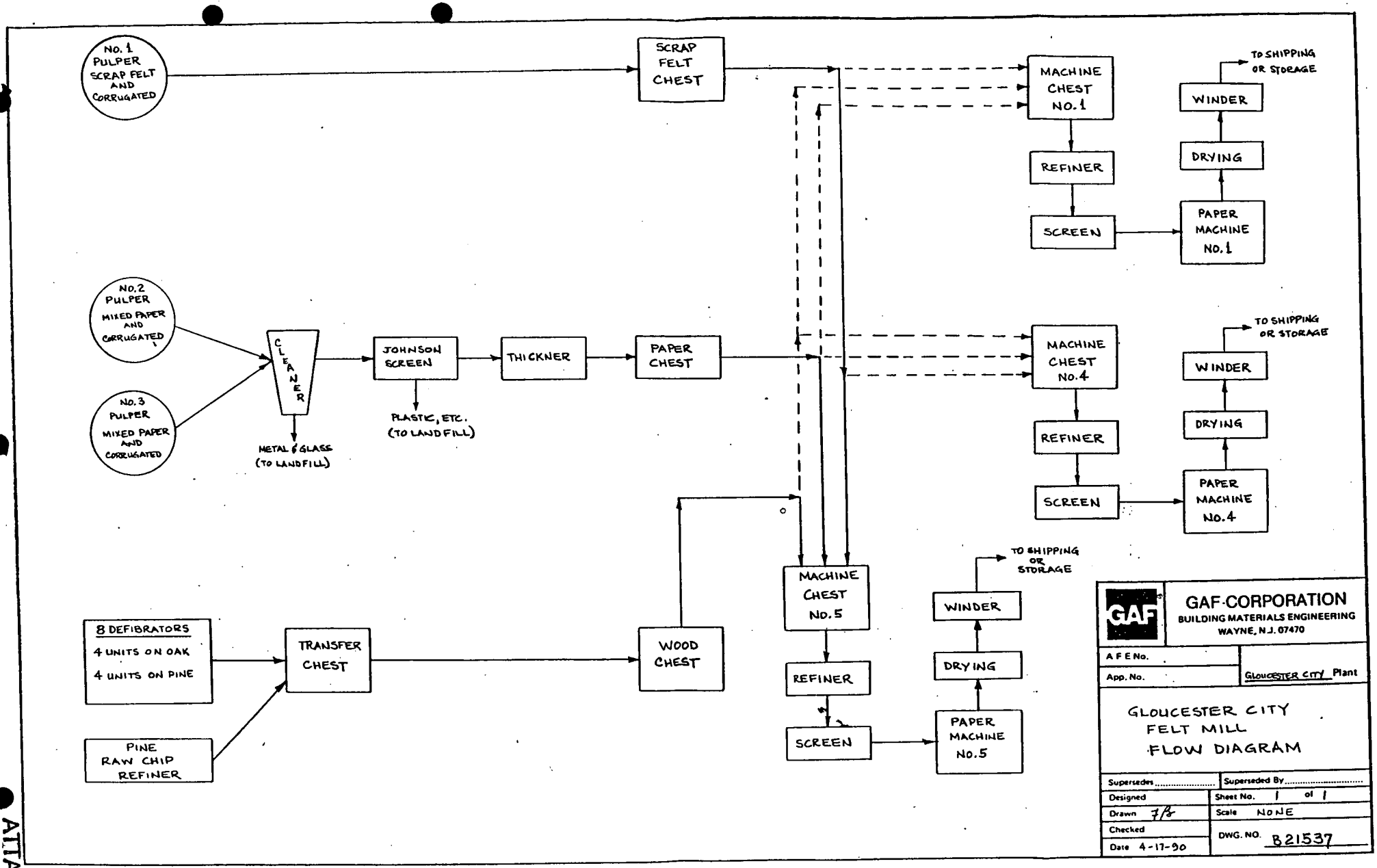
GAF CORPORATION
CORPORATE ENGINEERING
WAYNE, N.J. 07470

A F E No.
App. No
GLOUCESTER Plant

PLANT LAYOUT
GLOUCESTER, N.J.

Supersedes
Superseded By
Designed
Sheet No of
Drawn
Scale 7/8" ~ 100 FT.
Checked
DWG NO D-
Date 03/20/86

This Drawing is the property of the G A F Corporation and subject to return upon demand. It is to be used only for the purpose ... and not to be used in any way detrimental



ATTACHMENT B-27

APPENDIX E
SAMPLING PLAN PROPOSAL

ATTACHMENT R-28

ATTACHMENT S

SAMPLING PLAN PROPOSAL
FOR THE
GAF GLOUCESTER CITY, NJ FACILITY

Prepared for:

GAF BUILDING MATERIALS CORPORATION
WAYNE, NEW JERSEY

Prepared by:

Environmental Science & Engineering, Inc.
Plymouth Meeting, Pennsylvania

PROJECT # 4902058
April 1990

ATTACHMENT S-1

1.0 INTRODUCTION

Environmental Science & Engineering, Inc. (ESE) was retained by the GAF Building Materials Corporation to develop a sampling and analysis plan for their Gloucester City, New Jersey facility (Figure 1). This plan has been developed in conformance with the requirements of the Environmental Clean-up Responsibility Act (ECRA) as specified in N.J.A.C. 7:26B-3.2(c)11.

On March 14, 1990 the GAF Building Materials Corporation submitted an Initial Notice in the form of the General Information Submission (GIS) to the New Jersey Department of Environmental Protection (NJDEP) for their Gloucester City, New Jersey facility. In accordance with the provisions of ECRA, the following sampling plan is designed to determine the presence of and delineate any contaminantion which is (or has) emanating from the facility. Sampling locations were chosen based on an inspection of the facility and a review of past site operations.

This sampling and analysis plan proposes surface and subsurface soil sampling along with the installation and sampling of three groundwater monitoring wells. Based on the results of this sampling program, a cleanup plan will be developed, if necessary.

ATTACHMENT S-2

2.0 SITE DESCRIPTION

The GAF facility is located along the Delaware River in Gloucester City, Camden County, New Jersey. The facility is located in a heavily industrial area; a chemical manufacturer and oil storage facility are adjacent to the site. The facility lies within a flat-lying tidal marsh area.

2.1 GEOLOGY

The facility is situated near the western boundary of the Atlantic Coastal Plain physiographic province. The province is composed of a thick wedge of unconsolidated sediment overlying older consolidated bedrock. The unconsolidated sediment formations range in age from Holocene to Cretaceous and consist of clay, silt, sand, and gravel of both marine and non-marine origins. These sediments are approximately 250 feet thick at the facility site and thicken eastward toward the Atlantic Ocean. The underlying bedrock material is Cambrian to pre-Cambrian in age and is called the Wissahickon Schist. The Raritan and Magothy formations are immediately below the site. These formations are predominantly continental in origin and were deposited largely by the actions of streams. The Raritan formation is composed of light-colored quartzose sand, clay, and some gravel. The Magothy formation consists of dark grey or black clay, commonly lignitic, alternating with white micaceous fine sand. In the Gloucester City vicinity, it is difficult to distinguish between these two formations. Both formations dip at a relatively high angle to the southeast.

2.2 HYDROGEOLOGY

The Raritan and Magothy formations contain productive aquifers. However, the threat of salt water intrusion has significantly reduced the use of these aquifers as a potable water source. Water yields up to 1,400 gallons per minute (gpm) can still be obtained from these aquifers in the Gloucester City area, but the usefulness of this water is limited.

In the vicinity of the GAF facility, two water-bearing zones (aquifers) have been identified in the Magothy and Raritan formations. These two zones are separated

ATTACHMENT S-3

hydraulically by clay beds. Coefficients of transmissivity for the lower zone have been reported to be 42,000 gallons per day per foot (gpd/ft) and for the upper zone 52,000 gpd/ft. Both zones have had wells that yielded over 1,000 gpd.

The movement of groundwater in the two aquifers is influenced by industrial pumping on both sides of the Delaware River. The recharge for the aquifers prior to industrial development was mainly from precipitation on outcrop areas; currently most of the recharge appears to be coming from the Delaware River.

ATTACHMENT S-4

APPENDIX F
1985 SAMPLING INVESTIGATION

ATTACHMENT S-5

BCM

BCM Eastern Inc.
Engineers, Planners and Scientists

One Plymouth Meeting • Plymouth Meeting, PA 19462 • Phone: (215) 825-3800

RECEIVED
1986 JAN 27 AM 10 04
ENG. DEPT.-BLDG. MAT'LS.
WAYNE, NJ

January 22, 1986

Mr. Jack Holloway
GAF Corporation
1361 Alps Road
Wayne, NJ 07470

Subject: Soil Sampling
Gloucester City, New Jersey
BCM Project No. 00-4399-25

Dear Jack:

Based on BCM Proposal No. 10-8265-43, soil borings were conducted at two areas of the GAF Gloucester City, New Jersey facility where potential PCB contamination was suspected. Hand augers were used to collect samples at a maximum depth of four feet. A total of nineteen samples were collected.

Using appropriate chain-of-custody procedures, the samples were returned to the BCM laboratory, located in Norristown Pennsylvania, on the day that they were collected. Each sample was analyzed for PCBs to determine if past cleanup efforts were successful in light of the present standards of cleanliness. As indicated by the data presented in Table 1, significant PCB contamination remains at Area G. At Area H, one surface sample (520612) at location H-1 indicated a PCB level (6.4 mg/kg) slightly above the Bureau of Industrial Site Evaluation (Bureau) action level of 5.0 mg/kg.

All samples were collected to define the vertical and horizontal components of environmental concern at each site. In the future, when the GAF Gloucester facility becomes the subject of an ECRA case, the data presented in Table 1 will be useful input to a Cleanup Plan. Soil at the two to four foot depth is shown to be clean or near clean according to current standards. If the Bureau agrees, excavation of six inches of soil should render the site clean.

Jack, please review the enclosed information at your convenience. Should you have any questions or require further information, do not hesitate to contact me immediately.

Very truly yours,

Mark Stevens

Mark A. Stevens, P.E.
Technical Consultant

MAS/rkh
Enclosures

ATTACHMENT S-6

BCM

TABLE 1

AREA G AND H - PCB SAMPLING RESULTS
GAF - GLOUCESTER CITY, NEW JERSEY

Sample Location and Depth	Sample No.	PCB Concentration (mg/kg)
G-1		
2-4"	520597	103
22-24"	520598	0.9
46-48"	520599	3.1
G-2		
2-4"	520600	81
22-24"	520601	2.9
46-48"	520602	2.9
G-3		
2-4"	520603	130
22-24"	520604	1.8
46-48"	520605	0.3
G-4		
2-4"	520606	42
22-24"	520607	2.1
46-48"	520608	<0.1
G-5		
2-4"	520609	183
22-24"	520610	7.6
46-48"	520611	1.1
H-1*		
2-4"	520612	6.4
22-24"	520613	0.7
H-2*		
2-4"	520614	0.1
22-24"	520615	<0.1

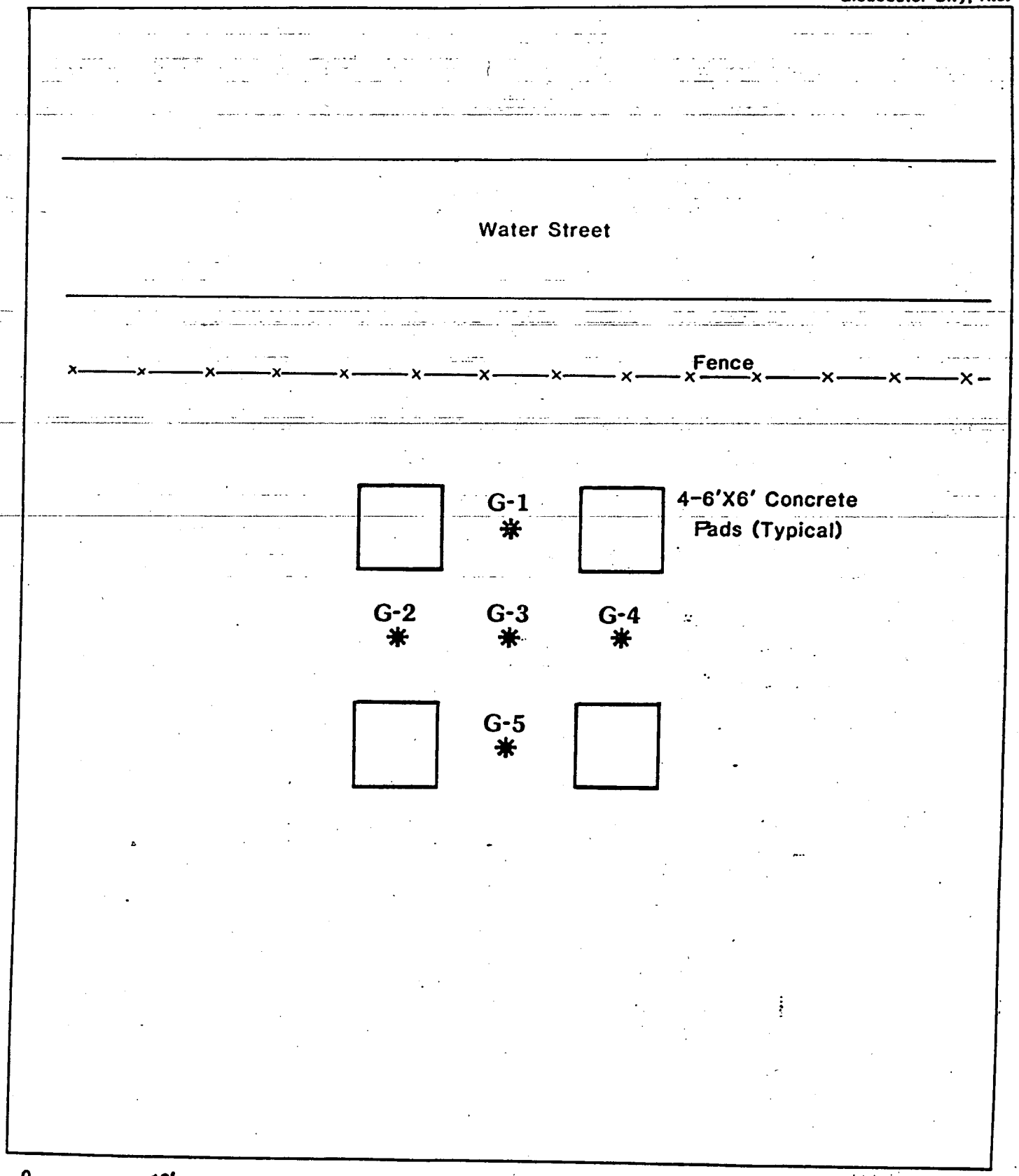
*No sample taken at depth of 46-48" for locations H-1 and H-2

Source: BCM Eastern Inc.

ATTACHMENT S-7

BCM

GAF CORPORATION
Gloucester City, N.J.



0 10'

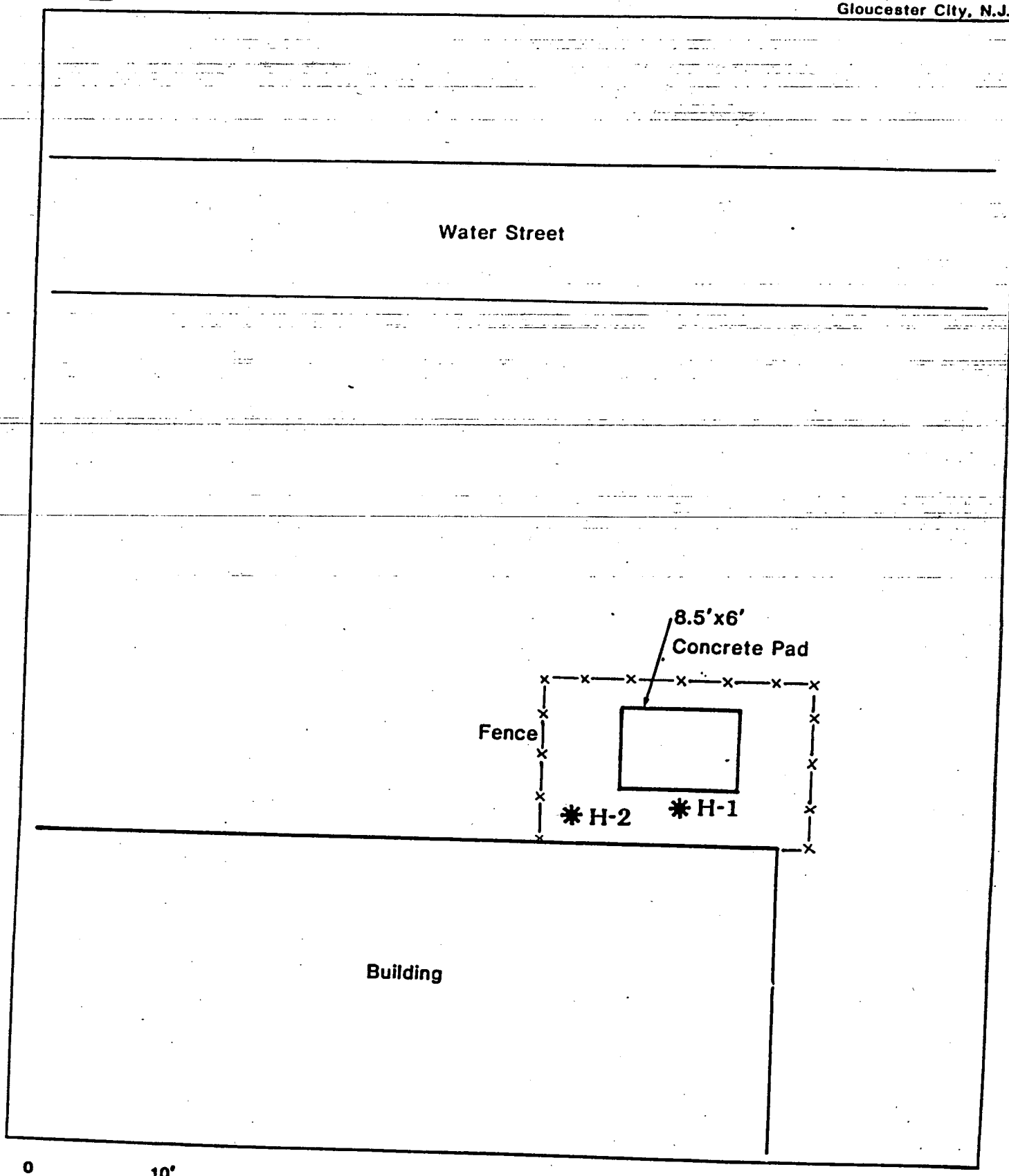
November 18, 1985
BCM No. 00-4399-25

Figure 1
PCB Sampling Locations At Area G

ATTACHMENT S-8

BCM

GAF CORPORATION
Gloucester City, N.J.



November 18, 1985

BCM No. 00-4399-25

Figure 2

PCB Sampling Locations At Area H

ATTACHMENT S-9

APPENDIX G
ABANDON/REMOVAL OF UNDERGROUND STORAGE TANKS

ATTACHMENT S-10

Let's protect our earth

For State Use Only	
Date Rec'd.	
Auth	
Routing	
UST NO.	

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029
TRENTON, NEW JERSEY 08625
ATTN: BUST Program
(609) 984-3156

STANDARD REPORTING FORM
for the:
Installation/Abandon/Remove/Sale-Transfer/Substantial Modification
Circle Only One — Use One Form Per Activity

(More than one tank can be listed per tank activity)

Answer questions 1 through 5 and others as applicable.

Company name and address: (as it appears on registration questionnaire)

GAF Building Materials Corporation
1361 Alps Road
Wayne, NJ 07470

2. Facility name and location: (if different from above)

GAF Building Materials Corporation
Charles and Water Streets
Gloucester City, NJ 08030

3. Contact person for this activity: Fred Bright

Telephone Number: (201) 628 - 3507

4. The identification number of the affected tank as it appears in Question Number 12 on the Registration Questionnaire:
A1 (10,000 gallon); A2 (1,000 gallon); A3 (550 gallon)

Registration Number (if known): UST - 0058430

ATTACHMENT S-11

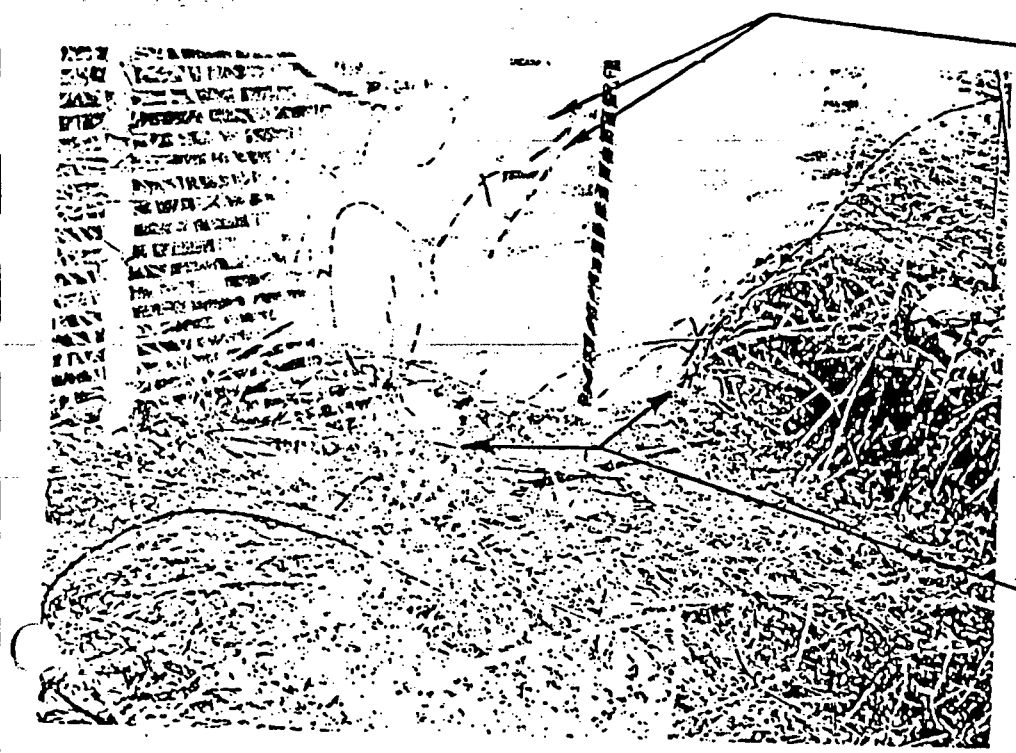
GAF BUILDING MATERIALS CORPORATION

GLOUCESTER CITY, NEW JERSEY PLANT

UST NO. 0058430

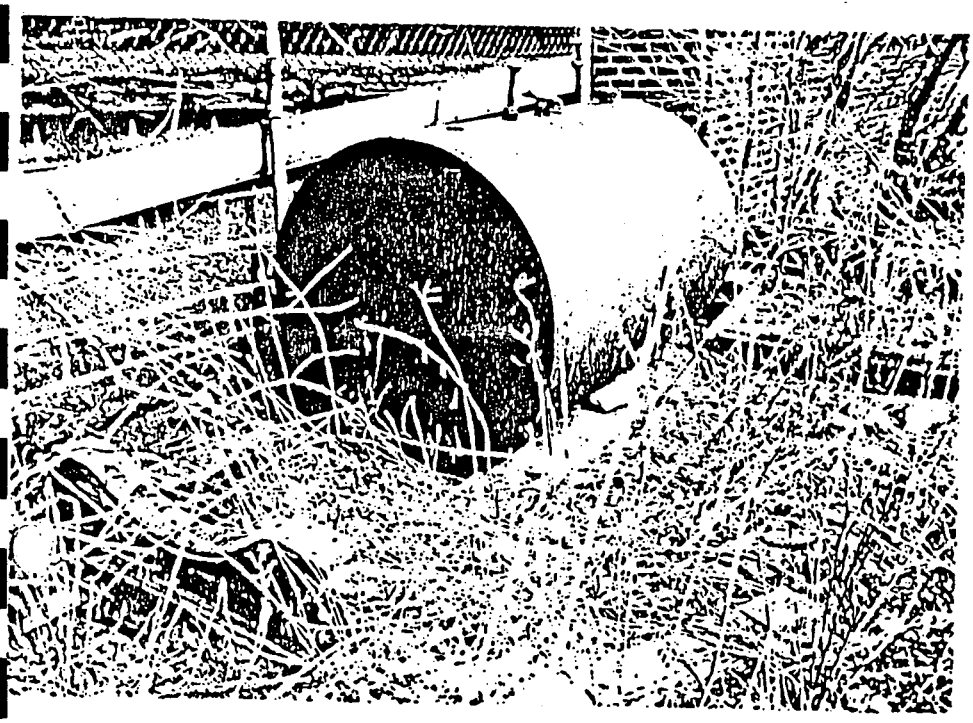
PREVIOUSLY REGISTERED UNDERGROUND TANK NO. A3

50 GALLON NO. 2 FUEL OIL STORAGE TANK



PIPES PREVIOUSLY CONNECTED TO TANK.

LOW SPOT IN GROUND WHERE TANK ORIGINALLY SAT



TANK AS PRESENTLY STORED — AFTER REMOVAL FROM LOW SPOT.

ATTACHMENT S-12

N.J. Lic. #3414

(609) 456-3743

JORIC INC.

General & Electrical Contractors

R. Gonzales
807 Cherry Street
Gloucester City, NJ 08030

March 21, 1990

To: F. Bright
GAF Corporation
Wayne, N.J. 07470

From: R. Gonzales
Joric Inc.
Gloucester, N.J. 08030

Subj: GLOUCESTER CITY PLANT
UNDERGROUND STORAGE TANKS

In response to your query dated March 7, 1990:

Tanks A1 and A2 which were abandoned in place had been emptied prior to the start of the abandonment process.

The abandonment process entailed; Exposing the upper surface of the tank, Ventilating the tank, Testing for combustible fumes, Burning the top out of each tank and filling the tank completely with gravel.

The area above the tanks was subsequently filled with gravel and brought up to grade.

The tanks contained no liquids and showed only negligible beads of condensation on the inner surface probably caused by ventilating the tanks prior to testing. This condensation evaporated during the burning process.

The work was performed and completed circa, December 15, 1988.

Respectfully submitted,

R Gonzales

President, Joric Inc.

Sworn to and subscribed before me this 22nd day of March, 1990, person being Ricardo A., Gonzales

Doris E. Pulaski

DORIS E. PULASKI
Notary Public of New Jersey
My Commission Expires Nov. 18, 1992

ATTACHMENT S-13

GAF BUILDING MATERIALS CORPORATION
Gloucester City, New Jersey Plant
UST. No. 0058430

Underground Tank Status

Tank No.	A1	A2	A3
Tank Size (gallons)	10,000	1,000	550
Tank Age (Years)*	12	37	17
Material Stored	Kerosene	Gasoline	No. 2 Fuel
Date Last Used	1972	1985	1979
Abandon and Filled	Dec.15,1988	Dec.15,1988	----
Removed	----	----	Dec.1988

Notes:

1) Plant ceased operation in 1983

2) Tanks A1 and A2 filled and A3 removed as part of a project to address environmental permits, registrations, etc. for this site.

ATTACHMENT S-14

ATTACHMENT T

HANNOCH WEISMAN
A PROFESSIONAL CORPORATION
COUNSELLORS AT LAW

50 WEST STATE STREET
SUITE 1400
P.O. BOX 1298
TRENTON, NJ 08607-1298
(609) 392-2100
FACSIMILE - (609) 392-7956

90 NASSAU STREET
P.O. BOX 1248
PRINCETON, NJ 08542-1248
(609) 924-2108
FACSIMILE - (609) 683-7735

4 BECKER FARM ROAD
ROSELAND, NEW JERSEY 07068-3788
(201) 535-5300
FACSIMILE
(201) 994-7198
N. Y. TELEPHONE
(212) 732-3262

PLEASE REPLY TO:
P.O. BOX 1040
NEWARK, NJ 07101-9819

SUITE 600
1150 SEVENTEENTH STREET, N.W.
WASHINGTON, D.C. 20036
(202) 296-3432

OF COUNSEL
RICHARD J. HUGHES
JOSEPH A. WEISMAN

WRITER'S DIRECT LINE:
(201) 535-5321

FILE #
11192-894E

October 1, 1990

Richard DeWan, Supervisor
Department of Environmental Protection ("DEP")
Division of Hazardous Waste Management
Bureau of Environmental Evaluation
and Cleanup Responsibility Assessment ("BEECRA")
CN 028
Trenton, NJ 08625-0028

Re: **GAF Building Materials Corporation ("GAF")**
ECRA Case #90263

Dear Mr. DeWan:

We have received NJDEP's Site Inspection Report regarding the referenced matter. The enclosed information responds to a number of items in the Site Inspection Report. In addition, an amended GIS is enclosed. Any actions to be taken by GAF pursuant to this letter are subject to the outcome of the pending appeal in In Re Applicability of ECRA to GAF Building Materials Corporation's Facilities in Gloucester City, New Jersey, Dkt. No. A-4116-89T1.

Narrative Description

The narrative description states that GAF operated at the facility from 1967 until mid to late 1984. This is incorrect. In fact, GAF's operations at the site ceased in the latter half of 1983.

ATTACHMENT T-1

Deficiencies Noted

1. We dispute NJDEP's assertion that GAF has not completed the GIS. As previously explained on numerous occasions, the GIS was submitted only in response to NJDEP's March 5, 1990 demand. The filing was made under protest and with a reservation of rights. Since there has been no transaction which triggers ECRA, it is impossible for GAF to describe such a transaction on the GIS.

2. NJDEP has asserted that it has identified a number of additional areas of environmental concern (AECs) at the site. Comments regarding these areas were provided with NJDEP's draft conditional sampling plan approval. Therefore, GAF's responses regarding these issues will be included in the responses to comments currently being prepared by GAF's consultants.

3. NJDEP has asserted that GAF has not documented the decontamination/decommissioning activities already conducted at the site. While GAF is willing to provide information relevant to ECRA compliance, we note that such documentation does not appear to be required under the ECRA regulations, and that a number of the examples cited by NJDEP do not appear to be relevant to ECRA compliance issues.

   NJDEP also states that a decontamination/decommissioning plan ("DDP") has not been submitted. As noted in the SES, GAF is not proposing any additional DDP activities at this time. While GAF is willing to review this matter with NJDEP, we do not believe any additional activities are required at this time.

Actions Required on the Part of the Applicant

1. For the reasons explained above, we do not believe there is any basis for NJDEP's demand that an amended GIS be submitted to the agency. An amended GIS is enclosed, however, which elaborates upon our position regarding the ECRA "trigger." The certification is included. As previously, this submission is made under protest and with a reservation of rights.

ATTACHMENT I-2

Due to this and the pending appeal, it is clearly improper for NJDEP to assert that it will refer this matter to enforcement and that it reserves its right to assess penalties from the original due date.

Please note that we have included Sanders M. Chattman, of this office, as the authorized agent, and a phone number for the part-time security guard at the facilities on the amended GIS form. As we previously explained, there is no other telephone number for these Facilities. This information was previously provided to NJDEP in our March 21, 1990 and April 12, 1990 letters. In addition, both the original and amended GIS forms note, in item 1.G., that no previous ECRA submissions have been made for the Facilities. While we believe this is an accurate response with respect to the Facilities as a whole, we wish to clarify that a request for Letter of Non-applicability was made in October 1985 regarding portions of the Facilities. As you are probably aware, it is this request that led to GAF's appeal and the decision in In Re the Applicability of ECRA to Two GAF Warehouses Located in Gloucester City, New Jersey, Dkt. No. A-4401-87T2.

2. GAF's response to this issue is set forth in Deficiencies Noted, section 2.

3. GAF's response to NJDEP's request for a comprehensive DDP will be included in the responses to comments currently being prepared by GAF's consultants. However, if NJDEP believes that additional areas, other than those noted in its letter, should be addressed in a DDP, it should provide GAF with that information. GAF's response to this request is also subject to the comments in Deficiencies Noted, section 3, of this letter. Furthermore, NJDEP's request for various types of documentation can be fulfilled to the extent such documents are available from diligent inquiry and to the extent such activities required preparation and maintenance of the requested documentation at the time the activities were undertaken. We believe this approach is consistent with N.J.A.C. 7:26B-3.2.

4. NJDEP's proposed schedule will be addressed in the responses to comments currently being prepared by GAF's consultants.

ATTACHMENT T-3

HANNOCH WEISMAN

A PROFESSIONAL CORPORATION

5. GAF agrees with NJDEP's suggested approach, subject to 4, above, to the extent that it does alleviate duplication of work efforts.

Should you have any comments or questions regarding this letter or the enclosures, please contact Sanders Chattman or me.

Very truly yours,

HANNOCH WEISMAN

By: Julie A. Parker

JAP:mld
Enclosures

cc: Michael Kenney, Case Manager

ATTACHMENT T-4

ECRA-001
12/87

FOR DEP USE ONLY

Date Rec'd. _____

Notice No. _____

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
INDUSTRIAL SITE EVALUATION ELEMENT
CN 028, TRENTON, N.J. 08625

ENVIRONMENTAL CLEANUP RESPONSIBILITY ACT (ECRA)

INITIAL NOTICE

AMENDED GENERAL INFORMATION SUBMISSION (GIS)

This is the first part of a two-part application form. This information must be submitted within 5 days following any applicable situation as specified at N.J. A. C. 7:26B-1.5 or any triggering event as specified at N.J. A. C. 7:26B-1.6. Please refer to the instructions and N.J.A.C. 7:26B-3.2 before filling out this form. Answer all questions. Should you encounter any problems in completing this form, we recommend that you discuss the matter with a representative from the Element. Submitting insufficient data may cause processing delays and possible postponement of your transaction. Please call (609) 633-7141 between the hours of 8:30 a.m. and 4:30 p.m. to request assistance.

PLEASE TYPE OR PRINT

Date October 1, 1990

1. A. Industrial Establishment

Name GAF Building Materials Corp. Telephone # (609) 456-2398

Street Address Charles & Water Streets

City of Town Gloucester City, State NJ Zip Code 08030

Municipality N/A County Camden

B. Tax Block Number(s) See Attachment 1 Tax Lot Number(s) See Attachment 1

C. Standard Industrial Classification (SIC) Number 2661

D. Current Owner(s) (Property)

Name GAF Building Materials Corp. Telephone # (201)628-3000

Firm Same

Street Address 1361 Alps Road

Municipality Wayne, State NJ Zip Code 07470

E. Current Business Operator(s) of Industrial Establishment

Name GAF Building Materials Corp. Telephone # (201) 628-3000

Firm Same

Street Address 1361 Alps Road

Municipality Wayne, State NJ Zip Code 07470

F. Current Owner(s) (Business, if different from operator(s))

Name GAF Building Materials Corp. Telephone # (201)628-3000

Firm Same

Street Address 1361 Alps Road

Municipality Wayne, State NJ Zip Code 07470

G. Have there been any previous ECRA submissions by this Industrial Establishment or another Industrial Establishment which occupied the same tax block and lot number?

____ Yes X No

If Yes, Name of Industrial Establishment N/A

ECRA Case No. N/A Date Submitted N/A

Current Status N/A

2. Describe the transaction in terms of the action which initiates the ECRA review. (See N.J.A.C. 7:26B-1.5&1.6)

See Attachment 2.

3. Is a cessation of operations involved at this location? ____ Yes X No. See Attachment 3.

If Yes, give the date of public release of the decision to close the facility. Date ____/____/None

Is a copy of the public release enclosed? ____ Yes X No

If No, state the reason No public notice has been located.

4. If the transaction initiating an ECRA review is an agreement of sale or execution of an option to purchase, fill in the date of execution of that instrument plus provide one (1) copy of the document. Date N/A

A. Is a sale involved? ____ Yes X No (If no, skip 4B, C and D.)

B. Date of Agreement/Letter of Intent/Notifications of Option to Purchase ____/____/____ N/A

C. Is a copy of the agreement of sale or option to purchase enclosed? ____ Yes ____ No N/A

If No, state the reason N/A

D. List other parties (purchasers) to the transaction: N/A

NAME	STREET ADDRESS & MUNICIPALITY	PHONE NO.

5. Date proposed for closure of operations or transfer of title N/A

6. Authorized agent designated to work with the Department

Name Sanders M. Chattman Telephone # (201) 535-5321

Firm Hannoch Weisman

Street Address 4 Becker Farm Road

Municipality Roseland, State NJ Zip Code 07068

ATTACHMENT I-7

ECRA-001
12/87

CERTIFICATIONS:

A. The following certification shall be signed by the highest ranking individual at the site with overall responsibility for that site or activity. Where there is no individual at the site with overall responsibility for that site or activity, this certification shall be signed by the individual having responsibility for the overall operation of the site or activity.

I certify under penalty of law that the information provided in this document is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of N.J.S.A. 13:1K-6 et seq., I am personally liable for the penalties set forth at N.J.S.A. 13:1K-13

Typed/Printed Name Donald W. La Palme Title Vice President-Operations

Signature Donald W La Palme Date 9/28/90

Sworn to and Subscribed Before Me
on this 28
Date of September 19 90

Roseann Nastasi
Notary

Roseann Nastasi
Notary Public of New Jersey
My Commission Expires 4/04/1994

B. The following certification shall be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
3. For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate, or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of N.J.S.A. 13:1K-6 et seq., I am personally liable for the penalties set forth at N.J.S.A. 13:1K-13

Typed/Printed Name Donald W. La Palme Title Vice President-Operations

Signature Donald W La Palme Date 9/28/90

Sworn to and Subscribed Before Me
on this 28
Date of September 19 90

Roseann Nastasi
Notary

Roseann Nastasi
Notary Public of New Jersey
My Commission Expires 4/04/1994

ATTACHMENT T-8

ATTACHMENT 1

GAF Property - Gloucester City

ITEM 1B

	Block No.	Lot No.	Acres
Main Plant	110	2A & 3	4.5
Pier	110	3A, 4, 5 & 20	4.9
Powerhouse	111	1	1.8
Water St. Warehouses	116A	14A & 14F	8.5
Charles St. Warehouse	120A	3	4.3

ATTACHMENT T-9

ATTACHMENT 2

This amended GIS is being filed on behalf of GAF solely as a result of NJDEP's demand in its September 14, 1990 site inspection report that GAF describe the "transaction that triggered the requirement for ECRA compliance at the industrial establishment." As noted in the original GIS and the numerous correspondence from Hannoch Weisman, dated March 14, April 12, April 26, May 9, and May 23, 1990, there is no transaction which requires ECRA compliance. The original GIS was submitted solely as a result of NJDEP's March 5, 1990 letter, and an appeal regarding this precise issue is pending (In Re Applicability of ECRA to GAF Building Materials Corporation's Facilities Located in Gloucester City, New Jersey, Dkt. No. A-4116-89T1).

ATTACHMENT T-10

ATTACHMENT 3

A cessation of operations occurred at the Industrial Establishment prior to the effective date of ECRA.

ATTACHMENT U

REVISED SAMPLING PLAN PROPOSAL FOR THE GAF GLOUCESTER CITY NEW JERSEY FACILITIES

Prepared for:

GAF BUILDING MATERIALS CORPORATION
WAYNE, NEW JERSEY

Prepared by:

Environmental Science & Engineering, Inc.
Plymouth Meeting, Pennsylvania

PROJECT # 4902058
January 1991

ATTACHMENT U-1

1.0 INTRODUCTION

Environmental Science & Engineering, Inc. (ESE) was retained by the GAF Building Materials Corporation to develop a sampling and analysis plan for its Gloucester City, New Jersey facilities (Figure 1). This plan has been developed in conformance with the requirements of the Environmental Clean-up Responsibility Act (ECRA) as specified in N.J.A.C. 7:26B-3.2(c)11.

On March 14, 1990 the GAF Building Materials Corporation (GAF) submitted an Initial Notice in the form of the General Information Submission (GIS) to the New Jersey Department of Environmental Protection (NJDEP) for their Gloucester City, New Jersey facilities. In April 1990 the GAF Building Materials Corporation submitted the SES form to NJDEP. One portion of the SES was a Sampling Plan Proposal which was designed to determine the presence of and delineate any contamination which is (or has) emanating from the facilities.

On September 13, 1990, NJDEP issued a Draft Sampling Plan Approval Letter (SPA) to GAF which contained additional areas of concern noted by the Department during its June 14, 1990 site inspection. On October 12, 1990, the GAF Building Materials Corporation responded to NJDEP's conditional approval letter and requested a meeting with representatives of the Department. A meeting was held on November 27, 1990 to discuss the potential additional areas of environmental concern. At that time, NJDEP requested that GAF submit a Revised Sampling Plan (RSP) addressing the additional areas noted in NJDEP's September correspondence in the manner discussed during the meeting.

This Revised Sampling Plan proposes surface and subsurface soil sampling along with the installation and sampling of four groundwater monitoring wells. Based on the results of this sampling program, a cleanup plan will be developed, if necessary.

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Appendices A-F provide additional information requested by NJDEP in its October 12, 1990 letter, its September 14, 1990 site inspection report, during the November 27, 1990 meeting, and during the case manager's December 6, 1990 site visit.

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2.0 SITE DESCRIPTION

The GAF facilities are located along the Delaware River in Gloucester City, Camden County, New Jersey. The facilities are located in a heavily industrialized area; a chemical manufacturer and oil storage facility are adjacent to the site. The facilities lie within a flat-lying tidal marsh area.

2.1 GEOLOGY

The facilities are situated near the western boundary of the Atlantic Coastal Plain physiographic province. The province is composed of a thick wedge of unconsolidated sediment overlying older consolidated bedrock. The unconsolidated sediment formations range in age from Holocene to Cretaceous and consist of clay, silt, sand, and gravel of both marine and non-marine origins. These sediments are approximately 250 feet thick at the site and thicken eastward toward the Atlantic Ocean. The underlying bedrock material is Cambrian to pre-Cambrian in age and is called the Wissahickon Schist. The Raritan and Magothy formations are immediately below the site. These formations are predominantly continental in origin and were deposited largely by the actions of streams. The Raritan formation is composed of light-colored quartzose sand, clay, and some gravel. The Magothy formation consists of dark grey or black clay, commonly lignitic, alternating with white micaceous fine sand. In the Gloucester City vicinity, it is difficult to distinguish between these two formations. Both formations dip at a relatively high angle to the southeast.

2.2 HYDROGEOLOGY

The Raritan and Magothy formations contain productive aquifers. However, the threat of salt water intrusion has significantly reduced the use of these aquifers as a potable water source. Water yields up to 1,400 gallons per minute (gpm) can still be obtained from these aquifers in the Gloucester City area, but the usefulness of this water is limited.

ATTACHMENT U-4

In the vicinity of the GAF facilities, two water-bearing zones (aquifers) have been identified in the Magothy and Raritan formations. These two zones are separated hydraulically by clay beds. Coefficients of transmissivity for the lower zone have been reported to be 42,000 gallons per day per foot (gpd/ft) and for the upper zone 52,000 gpd/ft. Both zones have had wells that yielded over 1,000 gpd.

The movement of groundwater in the two aquifers is influenced by industrial pumping on both sides of the Delaware River. The recharge for the aquifers prior to industrial development was mainly from precipitation on outcrop areas; currently most of the recharge appears to be coming from the Delaware River.

4.0 SAMPLING LOCATIONS

4.1 ABOVE GROUND STORAGE VESSELS WITH PERMEABLE GROUND COVER

Four above ground petroleum storage tanks are located in Area A at the Gloucester City facilities. Two of the tanks (a vertical 400,000 gallon #6 fuel oil and a horizontal 1,000 gallon kerosene) are situated within a concrete diked area on permeable ground cover. The supply and return lines to these tanks are housed in a concrete pipe trench. An oil-water separator of approximately 100 gallon capacity is located directly outside of the containment dike.

Facility personnel indicated that there had been one reported overfill of the large tank. The fuel oil was contained within the dike and collected in a tile french drain located on the south side of the tank. The fuel oil, contaminated soil and tile drain area were remediated immediately following the release.

In order to assess the potential impact to the soil within the dike area, four shallow soil samples will be collected for laboratory analysis. One sample will be collected on the south side of the 400,000 gallon tank in the area of the overfill. The remaining three samples will be collected in areas exhibiting elevated HNU readings, areas exhibiting ground staining, areas exhibiting stressed vegetation, or low lying areas within the dike.

The samples will be collected from the 0-6 inch surface interval or the 0-6 inch interval beneath any backfill material and submitted to the laboratory for base neutral +15 (BN+15) and total petroleum hydrocarbon analyses (TPH).

One additional soil sample will be collected from the soil directly beneath the outlet on the oil-water separator. This sample will be collected from the 0-6 inch surface interval and also analyzed for BN+15 and TPH.

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No sampling is proposed for the supply and return lines which serviced these tanks since all the lines are contained within a concrete piping trench.

Two 8,000-gallon above ground diesel fuel tanks are also located in Area A (Figure 1). The tanks are located over permeable ground cover. There have been no known release of petroleum product from these tanks. However, in order to assess the potential impacts to the surrounding soils resulting from filling operations, soil sampling will be conducted.

GAF proposes to collect a minimum of seven samples from the soils beneath the two tanks to assess any potential impact to the environment. One sample will be collected at the point where the ends of the aboveground tanks meet. Samples will also be collected at the end of each tank (2) and along the midline of each tank (4).

The samples will be collected from the 0-6 inch sampling interval. If elevated HNU readings are registered at any of the sampling locations, additional soil samples will be collected from the 18-24 inch interval, or deeper. Soil logs will be maintained for each sampling location noting soil types and the presence of any organic vapors.

All soil samples will be submitted to a New Jersey certified laboratory and analyzed for BN+15 and TPH.

A detailed description of the soil sampling protocols which will be used during this investigation is found in Section 5.0 of this plan. Table 1 summarizes the sample collection strategy for this site.

4.2 UNDERGROUND STORAGE VESSELS

Two underground petroleum storage tanks are present in Area B (Figure 1). A 1,000-gallon steel tank was previously used to store gasoline and a 10,000 gallon steel tank had been used to store kerosene. In December 1988, the top section of

TABLE 1. SAMPLE COLLECTION SUMMARY
GAF – Gloucester City, NJ Facility

Site Location	Media Sampled	Minimum Number of Samples	Depth	Analysis
Aboveground Storage Tanks (A)	Soil	7	0-6"	BN+15, TPH
Underground Storage Tanks (B)	Soil	4	10-12"	VO+15, xylene
		6	10-12"	VO+15, xylene, naphthalene, TPH
	Water	2		VO+15, BN+15, MTBE, TBA, Pb, pH, TDS
Fill Area (C)	Soil	5	6-12"	PP+40 minus pesticides including PCBs
	Soil	5	6-12"	Asbestos
	Water	6		PP+40
PCB Transformers (D)	Soil	7	below backfill	PCB, TPH
Concrete Trench	Soil	2	below trench	TPH, BN+15
French Drain	Soil	3	30-36"	TPH, BN+15
Railroad Siding	Soil	1	below structure	BN+15
Storage Tank – Area C	Soil	2	0-6"	TPH, BN+15
Pier/Pipeline	Soil	1	0-6"	TPH, BN+15

Source: ESE, 1991.

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each tank was cut off, the tanks were filled with gravel, and the area around the tanks was backfilled, in accordance with applicable regulatory requirements.

In order to evaluate the subsurface soil adjacent to the tanks, soil sampling and analysis will be conducted. Four soil borings will be conducted around the 1,000-gallon tank and six borings will be conducted around the 10,000-gallon tank. The borings will be located within two feet of the tanks with one boring placed at each end and additional borings located along the length of the tank on both sides.

At each boring location, continuous split spoon samples will be collected to a depth equal to one foot below the tank inverts. A detailed soil log, including HNU readings, will be maintained by the site geologist for each boring. The soil samples will be collected from a 6-inch interval from the first foot of soil below the level of the tank invert from each borehole. The samples collected from the boreholes adjacent to the gasoline tank will be analyzed for volatile organics +15 (VO+15) and xylene. The samples collected from the boreholes adjacent to the kerosene tank will be analyzed for VO+15, xylene, naphthalene and TPH.

If groundwater is encountered prior to reaching the desired sampling depth intervals, GAF will collect the samples from the 0-6 inch interval above the water table. A detailed description of the sampling protocols to be utilized for sample collection at this Area are presented in Section 5.0 of this plan. Table 1 summarizes the sample collection strategy for these facilities.

4.3 FILL AREA

Portions of Area C (Figure 1) were utilized for the disposal of metal, glass, plastic, and other impurities removed from the process stream during the initial steps in the base felt manufacturing process. In addition, asbestos containing material may have been periodically disposed of in the fill area. In order to assess the potential impacts to the environment resulting from these disposal practices, subsurface soil and groundwater quality will be evaluated.

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Prior to any sampling activities, GAF will perform a magnetometer survey of the fill area using a Bison magnetometer. Anomalous readings (if any) will be recorded and used as the basis for test pit locations (maximum of 5 locations). In the event that the results of the magnetometer survey are inconclusive, GAF will excavate five test pits at the locations identified in Figure 1. At each location, a backhoe will be used to excavate down to the bottom of the fill. The site geologist will record all pertinent information during excavation including: total depth of fill material, depth to groundwater, type and description of fill material, and HNU readings.

If the site geologist detects visually discolored soil, elevated HNU readings, or a sheen on the water table at any pit location, a representative sample of the material will be collected for analysis for priority pollutant +40 (PP+40) minus pesticides, but including PCBs. A maximum of five soil samples will be collected for analysis, one from each pit. In addition, one sample will be collected and analyzed for asbestos containing materials (ACMs) utilizing EPA approved methodologies. The samples will be collected by boring into the sidewall and selecting the 6-12 inch increment for analysis.

In order to assess potential impacts to groundwater quality resulting from the former disposal practices in this area, three monitoring wells will be installed and sampled. GAF will review ECRA case files from adjacent facilities prior to well installation to assist in determining groundwater flow direction. (A letter to Mr. Ken Smith, Records Custodian, was submitted to NJDEP on December 21, 1990, requesting an appointment to review the files.)

The wells will be installed in the approximate locations identified in Figure 1. Locations may be changed based on the results of the file review.

GAF proposes to install one monitoring well downgradient of the decommissioned kerosene and leaded gasoline underground storage tanks located in Area B (Figure 1).

All of the newly installed monitoring wells will be permitted and constructed in accordance with NJDEP specifications. The wells will be screened across the water table to account for seasonal fluctuations. All of the wells will be properly developed immediately after installation.

GAF proposes to collect two rounds of groundwater samples from the four wells. The two rounds of sampling will be conducted with a minimum of 30 days between events. The groundwater samples from the fill area wells will be analyzed for PP+40. The samples collected from the well in Area B will be analyzed for VO+15, BN+15, methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), lead, pH and total dissolved solids.

Prior to each round of sampling, groundwater level measurements will be collected to aid in the evaluation of groundwater flow. In addition, a round of groundwater elevations will be collected during high and low tide cycles of the Delaware River. The groundwater elevations will be used to generate two groundwater contour maps which will be submitted to NJDEP.

Aside from the proposed wells noted above, GAF agrees to install a monitoring well at any location(s) where soil saturated with product is encountered during the soil sampling program.

A detailed description of groundwater sampling protocols is presented in Section 5.0 of this plan. Table 1 summarizes the sample collection strategy for this area.

4.4 PCB TRANSFORMERS

Area D encompasses the location of PCB transformers which are either currently in use or were previously in operation. One minor spill is known to have occurred in this Area since 1978. Facility records indicate that the spill was remediated and contaminated soil excavated and disposed of at regulated landfills. A November 1985 sampling investigation indicated the presence of PCBs in the soils at

ATTACHMENT U-11

concentrations above 5 parts per million (ppm). The location of samples collected during the 1985 investigation are presented in Figure 1. In April 1986 additional contaminated soils were excavated from the site and transported to an off-site regulated landfill. GAF proposes to collect three confirmatory soil samples in order to document the concentration of PCBs at the former spill location.

Four soil samples are proposed for the soil adjacent to the transformer still in operation. The 1985 sampling event indicated the presence of PCB in the soil at a concentration of 6.4 ppm. Although this contaminated soil was subsequently removed in April 1986, a confirmatory sample was not collected at that time.

All soil samples from these two areas will be collected from the 0-6 inch sampling interval below the level of fill (if any). The samples will be analyzed for PCBs and total petroleum hydrocarbons. It is anticipated that hand augers will be used to auger through the backfill to the desired depth. Subsurface soil sampling techniques are discussed in detail in Section 5.0 of this plan. Table 1 summarizes the sample collection strategy for this area.

4.5 CONCRETE TRENCH FOR PIPELINE

GAF proposes to visually inspect the concrete trench which is located between the aboveground storage tanks within the diked area and the Power Plant. The purpose of the inspection is to determine the presence of any staining and to assess the structural integrity of the trench. Soil samples will be collected at locations where the integrity of the trench is questionable. Sampling locations will be biased towards holes, cracks, and/or seams where the trench does not appear to be intact. The samples are to be collected from the 0-6 inch interval below the bottom of the trench. If field observations indicate that the top six inches are contaminated, GAF will continue to vertically delineate the extent of contamination. Soil samples will also be collected below any visually noted contamination layer to attempt to establish a "clean" zone. If groundwater is encountered, this sample will be collected from the 0-6 inch interval above the water table.

11-12

All soil samples collected from this area will be sent to a NJ certified laboratory and analyzed for total petroleum hydrocarbons and BN+15.

In addition to the soil sampling and the development of detailed soil boring logs, photographs will be taken to document the integrity of the trench.

4.6 FRENCH DRAIN

The only material ever discharged to the french drain was rainwater. At the request of NJDEP, GAF proposes to collect a minimum of three soil samples from areas adjacent to and beneath the french drain. The soil samples will be collected a minimum of 36 inches below grade. The samples will be analyzed for total petroleum hydrocarbons and BN+15.

4.7 RAILROAD SIDING

GAF proposes to conduct a visual inspection of the railroad siding unloading hopper and photo-document the integrity of the structure. At areas where the integrity appears to be in doubt, soil samples will be collected from the 0-6 inch interval below the bottom of the structure. The samples will be analyzed for BN+15.

4.8 STORAGE TANK IN AREA C

NJDEP has incorrectly labeled this tank as an underground storage tank. GAF has explained to NJDEP that this tank was never below ground and as such there was never any excavation conducted. Since there was never an excavation, post-excavation sampling was not necessary.

GAF proposes to collect two soil samples from the 0-6 inch interval in the area where the tank was situated. The samples will be analyzed for total petroleum hydrocarbons and BN+15.

4.9 PIER/PIPELINE

GAF will conduct a visual inspection of the pipeline. Photographs will be taken to verify that no spills had occurred. At any obvious areas of staining, samples will be collected from the 0-6 inch interval and submitted to the laboratory for total petroleum hydrocarbon and BN+15 analyses.

In addition, as discussed at the November 27, 1990 meeting between NJDEP and GAF representatives, GAF will prepare a written statement indicating that the pipeline will not be used again without first conducting a precision (leak detection) test.

4.10 DELAWARE RIVER SAMPLING

At the November 27, 1990 meeting, mention was made by the NJDEP Technical Coordinator, that the facility personnel had stated that a spill had once occurred on the pier. GAF conditionally agreed, pending the outcome of discussion with such personnel, to collect one sample at the loading area where the spill supposedly took place.

After the meeting, GAF discussed this issue with facility personnel, who stated that no such spill had ever occurred. After such further investigation, GAF has determined that there was never any spill on the pier or loading area. Therefore, GAF proposes to conduct a visual inspection including photodocumentation of the pier and look for obvious areas of staining on the pier or bulkhead. If there is no staining observed, sampling will not be proposed.

4.11 DATA PRESENTATION

Upon completion of all sampling activity and receipt of laboratory data, the site map (Figure 1) will be updated to display the analytical results of all samples with contaminant concentrations above ECRA limits. The revised site map and all analytical data, in tabular form, will be submitted to the NJDEP in triplicate for review.

ATTACHMENT U-14

GAF BUILDING MATERIALS CORPORATION ("BMC")
GLOUCESTER CITY PLANT

HISTORICAL PCB INFORMATION

Past PCB Spill

In April of 1978, the plant initiated a project to remove and replace a transformer that had ceased to operate. This transformer was one of the units installed along the exterior wall of the Power House (Bldg. #11). It was also known to contain PCB contaminated oil.

After removing the old unit, the old and the new transformer were set side-by-side in a staging area in front of the power house toward the street. Apparently, during the maneuvering of one of the transformers, they bumped together causing a release of PCB oil from the old transformer.The spill was contained and reported to the EPA by phone and follow-up letter dated April 17, 1978. (Copy of the letter attached)

The soil in the area of the spill was excavated and removed from the site for proper disposal.

During a site review by an outside consultant (BCM) in 1986, soil samples of the old spill location were taken to verify proper cleanup. Based on the results of this sampling, another soil excavation was performed. The excavated soil was removed from the site for proper disposal. (See Manifest CWMA 236255, dated 4/29/86 and NJA 0205958, 5/27/86)

PCB Transformer Repair

In July of 1985, the repair of a leaking transformer bushing was made. The PCB contaminated oil in the transformer was also removed and replaced at this time. The oil and other materials were removed from the site for proper disposal. (See Manifest NJA 0027695, dated 8/09/85)

PCB Transformer Removal & Replacement

In August 1985, a project for the removal and replacement of a PCB transformer was implemented. The PCB transformer was drained and the carcass and the oil were removed from the site for proper disposal. (See Manifest NJA 0027698, dated 9/12/85)

PCB Capacitor Elimination

In order to comply with the Federal regulatory requirements for PCBs, a project was implemented to remove and dispose of all PCB capacitors. (See Manifest PAB 4922735, dated 9/23/88)

GAF BUILDING MATERIALS CORPORATION ("BMC")
GLOUCESTER CITY PLANT

TRANSFORMER STATUS (Oct.1990)

	MANUFACTURER	SERIAL #	LOCATION	PCB CONTENT	NOTES
1.	NIAGARA	44308	FRONT OF PWRHSE.- TOWARD STREET	37 PPM	2
2.	GENERAL ELECTRIC	C856726	FRONT OF PWRHSE.- NEXT TO BLDG.	4 PPM	4
3.	KUHLMAN	B40174	FRONT OF PWRHSE.- NEXT TO BLDG.	NONE	2
4.	KUHLMAN	B40173	FRONT OF PWRHSE.- NEXT TO BLDG.	NONE	2
5.	MOLONEY	1376316	FRONT OF PWRHSE.- HANGING ON WALL	8 PPM	3,4
6.	GENERAL ELECTRIC	5006806	FRONT OF PWRHSE.- ON GRD.EMPTY	13 PPM	3,4
7.	MOLONEY	44752	FRONT OF PWRHSE.- HANGING ON WALL (N)	NONE	3,4
8.	MOLONEY	45370	FRONT OF PWRHSE.- HANGING ON WALL (S)	NONE	3,4
* 9.	ITE	38-49906-A	IN BLDG.4 - TRANS.VAULT AREA	ASKAREL	
10.	ITE	38-49906-B	IN BLDG.4 - TRANS.VAULT AREA	ASKAREL	
+ 11.	WESTINGHOUSE	3919222	IN BLDG.7 - TRANS.VAULT ROOM	64 PPM	2
12.	WESTINGHOUSE	(NO PLATE)	IN BLDG.7 - TRANS.VAULT ROOM	NONE	2
13.	ALLIS CHALMERS	1762178	IN BLDG.7 - TRANS.VAULT ROOM	NONE	3,4
14.	KUHLMAN	961699	IN BLDG.7 - TRANS.VAULT ROOM	NONE	3,4
15.	MFG.NOT KNOWN	GAF-X 3074	IN STORAGE - BLDG.2	7 PPM	3,4
16.	WESTINGHOUSE	YAR-75071	OUTSIDE BLDG.16	151 PPM	2
* 17.	WESTINGHOUSE	YAR-75081	OUTSIDE BLDG.21	639 PPM	2

NOTES :

1) Transformer status audited October 1990.
2) PCB concentration from BURLINGTON TESTING CO. report of Sept.8,1982
3) No analytical results found on file for these seven (7) transformers.
4) Sampled and analyzed Nov. 1990.

* Three(3) PCB transformers (>500 PPM)

\+ Two (2) PCB Contaminated Trans. (>50 PPM; <500 PPM).

Wayne L. NV.

GAF CORPORATION
Charles & Water Streets
Gloucester City NJ 08030
609 456 1200

April 17, 1978

Mr. A. Farro:
EPA - Office of Hazardous Materials
1474 Prospect Street
P. O. Box 2809
Trenton, N. J. 08625

Dear Mr. Farro:

This will confirm my telephone conversation with you today and will answer the questions you ask as follows:

1. Cause - Bumped one transformer into another causing a spill onto the ground which was immediately diked off.

2. Procedure of Cleanup - Material stored in coded drums including work clothes and tools. Earthen area completely scooped out one (1) foot below surface penetration area.

3. All contaminated material including transformer shipped to Chemtrol Pollution Service, Model City, N. Y.

If further information is desired, please contact us.

Yours very truly,

E. J. Flood

E. J. FLOOD
Plant Manager

EJF/mgw
CC: Messrs. Faneuf, Holloway, VanCleve, Wright

ATTACHMENT U-17

NO.	VENDOR CODE	REQUISITIONER	APP. CARD	DELIVERY TO OR NOTIFY	BLDG.
217166	38845	E. Van Cleve			

EXPENDITURE FOR	JOB NO.	ACCT. NO.	P.C. NO. MC OR AFE APP.
☐ EXPENSE ☐ CAPITAL		3-04/4565	

TERMS	SHIP VIA	DELIVERY REQUIRED - DESTINATION	F.O.B. POINT	DATE
Net 30	your truck		del.	4/14/78

GAF Corporation

SHIP TO

Charles & Water Sts.
Gloucester City, N.J.
08030

65168
PURCHASE ORDER

Gloucester Iron & Metal
Brick & Stinsman Sts.
Gloucester City, N.J.
08030

INVOICE
IN TRIPLICATE
TO

THIS PURCHASE IS: ☐ Subject to sales tax ☐ For resale-not subject to sales tax ☐ To be used in R & D work-not subject to sales tax
☐ To be used in manufacturing operations - not subject to sales tax.

QUANTITY	CODE	DESCRIPTION	PRICE	AMOUNT
		use of Special truck to take waste material to chematrol Pollution Service model City NY-North of Niagara Falls East of Lewistown -Including Mileage-		$766.00
		plus operators expense (travel) plus tolls-		266.30
		Total Invoice		$1032.30

DIRECT CORRESPONDENCE TO

FOR DIRECTOR OF PURCHASING

BY

MEDIATELY UPON SHIPMENT SEND INVOICE IN TRIPLICATE TO ADDRESS INDICATED ABOVE, GIVING OUR ORDER NO. SEPARATE INVOICE FOR EACH SHIPMENT. MUST ACCOMPANY EACH SHIPMENT. QUANTITIES MUST

ATTACHMENT U-18

REQ. NO.	VENDOR CODE	REQUISITIONER	APP. CARD	DELIVERY TO OR NOTIFY	DATE
17185	Now	E. Van Cleve			

EXPENDITURE FOR	JOB NO.	ACCT. NO.	P.C. NO. MC OR AFE APP.
☐ EXPENSE ☐ CAPITAL		4565	

TERMS	SHIP VIA	DELIVERY REQUIRED - DESTINATION	F.O.B. POINT	DATE
Net 30	best way		ship pt.	4/14/70

GAF Corporation

SHIP TO
Charles & Water Sts.
Gloucester City, N.J.
08030

62570
PURCHASE ORDER

Chemitrol Pollution Service
P.O. Box 200
Model City, N.Y. 14107
Phone-716-754-0231

INVOICE
IN TRIPLICATE
TO

THIS PURCHASE IS: ☐ Subject to sales tax ☐ For resale-not subject to sales tax ☐ To be used in R & D work-not subject to sales tax ☐ To be used in manufacturing operations - not subject to sales tax.

QUANTITY	CODE	DESCRIPTION	PRICE	AMOUNT
18		Disposal of Drumed Solid-2122A;		35.00/Drum
7		Disposal of Drumed Liquid 2122B		75.00/Drum
2		600KVA transformers for disposal		$5.50 Cu ft.
		Confirmed: Att: Richard Dougherty		
		Disposal of Cloth & Tools-Lowent		

DIRECT CORRESPONDENCE TO

FOR DIRECTOR OF PURCHASING

BY

IATELY UPON SHIPMENT SEND INVOICE IN TRIPLICATE TO ADDRESS INDICATED ABOVE, GIVING OUR ORDER NO. NDER SEPARATE INVOICE FOR EACH SHIPMENT. PACKING SLIP MUST ACCOMPANY EACH SHIPMENT. QUANTITIES MUST PEAR ON PACKING SLIP, INVOICES, B/LS, SHIPPING LABELS, PACKAGES AND CORRESPONDENCE MUST SHOW OUR ORDER ER.

REQUISITIONER

Copies Nos. 6 and 7 sent to NJDEP by Hayley on 4/

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N J D 0 4 3 2 7 2 6 0 4 5 — Manifest Document No.
2. Page 1 of ___ Pages — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
SAFETY CORPORATION
CHARLES & WATER STREETS
BRIDGETON, NJ 08302
4. Generator's Phone (609) 455-3300

A. State Manifest Document Number: 2GWMA 236250
B. State Generator's ID:

5. Transporter 1 Company Name: SJ TRANSPORTATION
6. US EPA ID Number: N J D 0 4 7 1 7 7 1 6
C. State Transporter's ID:
D. Transporter's Phone:

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459
10. US EPA ID Number: A L D 0 0 0 6 2 2 4 6 4
G. State Facility's ID:
H. Facility's Phone: 205/652-9721

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE [illegible] CWM Profile Number [illegible]	[illegible]	DRUM	12	Y	
b. CWM Profile Number				Y	
c. CWM Profile Number					
d. CWM Profile Number					

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above
a. b.

15. Special Handling Instructions and Additional Information
I CERTIFY THAT NO ASBESTOS HAS BEEN ADDED TO THE ABOVE WASTE WHICH WOULD CAUSE IT TO BE CONSIDERED PER RCRA SECTION 3001

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: [illegible] — Signature: [illegible] — Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Bruce Nichols — Signature: [illegible] — Month Day Year: 04 29 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Month Day Year

FACILITY

19. Discrepancy Indication Space
ATTACHMENT U20

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: — Signature: — Month Day Year

EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete.

VHW-001 (REV. 9-84)

State of New Jersey
Department of Environmental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [illegible] — Manifest Document No.
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.*

3. Generator's Name and Mailing Address
GAF CORPORATION
CHARLES & WATER STREETS, GLOUCESTER CITY, N.J. 08030

4. Generator's Phone (609) 456-[illegible]

A. State Manifest Document Number NJA0205958

B. State Gen. ID

5. Transporter 1 Company Name
S-[illegible] TRANSPORTATION CO.

6. US EPA ID Number [illegible]

C. State Transporter 1 ID [illegible]

7. Transporter 2 Company Name

8. US EPA ID Number

D. Transporter's Phone 609-769-2741

9. Designated Facility Name and Site Address
PPM, INC.
1875 FORGE STREET
TUCKER GEORGIA 30084

10. US EPA ID Number [illegible]

E. State Transporter 2 ID

F. Transporter's Phone

G. State Facility's ID

H. Facility's Phone 404-934-0902

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE POLYCHLORINATED BIPHENYLS (PCB CONTAMINATED SOIL) UBM-E UN-2315	011	BM	06000	P	X-387
b.					
c.					X-387
d.					

J. Additional Descriptions for Materials Listed Above

a. SOLID

b.

c.

d.

Handling codes for Wastes Listed Above

a. b. c. d.

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable state laws and regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: [illegible] — Signature: [illegible] — Date: Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Date: Month Day Year

19. Discrepancy Indication Space

ATTACHMENT U-21

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name — Signature — Date: Month Day Year

NJA0205958

A Form 8700-22 (Rev. 4-85) Previous edition obsolete

PPM INC
1875 FORGE STREET
TUCKER, GEORGIA 30084
(404) 934-0902
TELEX NO. 543-129

RECEIVED
1987 FEB -5 PM 1:54
ENG. DEPT.-BLDG. MAT'LS.
WAYNE, NJ

January 26, 1987

Max Sandler
Greylag Technical Services
PO Box 239
Ewan, NJ 08025

RE: PPM Job Control Number: 1291-0603

Dear Mr. Sandler:

This is to certify that the following material received from your company on manifest number NJA0205958 was properly disposed of on November 15, 1986 according to all appropriate Federal, State and Local regulations.

Generator	Description of Material
GAF Corporation	11 Drums Debris

If you have any questions concerning the disposal of your material, please feel free to contact me in our Tucker, Georgia office at (404)934-0902.

Sincerely,

PPM, INC.

Lorraine Gardner

Lorraine Gardner
Recordkeeper

ATTACHMENT U-22

10 CENTRAL AVENUE
KANSAS CITY, KANSAS 66118
(913) 621-4206
TELEX NO. 434-607

4105 WHITAKER AVENUE
PHILADELPHIA, PENNSYLVANIA 19124
(215) 425-5144
TELEX NO. 71-4972670

TORONTO STAR BUILDING
SUITE 801A
ONE YONGE
TORONTO, ONTARIO M5E-1E5
(416) 364-1919
TELEX NO. 065-242-00

State of New Jersey
Department of Enviromental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N J D 0 4 3 2 9 2 5 9 6 — Manifest Document No. 0 0 0 0 1

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.*

3. Generator's Name and Mailing Address: GAF Corporation, 1361 Alps Rd, Wayne NJ 07470

4. Generator's Phone: (201) 628-3000

A. State Manifest Document Number: NJA0027695

B. State Gen. ID: [illegible]

5. Transporter 1 Company Name: EASTERN HIGH VOLTAGE, INC.

6. US EPA ID Number: N J D 9 8 0 5 2 6 7 6 8

C. State Transporter's ID: NJSHA58349-[illegible]

7. Transporter 2 Company Name:

8. US EPA ID Number:

D. Transporter's Phone: 609-890-8300

9. Designated Facility Name and Site Address: EASTERN HIGH VOLTAGE, INC., 17A Marlen Drive, Robbinsville, N.J. 08691

10. US EPA ID Number: N J D 9 8 0 5 2 6 7 6 8

E. State Transporter's ID:

F. Transporter's Phone:

G. State Facility's ID:

H. Facility's Phone: 609-890-8300

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Polychlorinated Biphenyls (Solids) ORM-E UN2315					X727
b. Polychlorinated Biphenyls (Liquids) ORM-E UN2315					X727
c.					
d.					

J. Additional Descriptions for Materials Listed Above: a. c. b. d.

K. Handling codes for Wastes Listed Above: a. S01 c. b. S01 d.

15. Special Handling Instructions and Additional Information

For temporary Storage Only - EHV Reference #185-0161.005

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations, and all applicable State laws and regulations.

Printed/Typed Name: [illegible] Signature: [illegible] Date: Month 09 Day 09 Year 85

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] Signature: [illegible] Date: Month 09 Day 09 Year 85

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date: Month Day Year

19. Discrepancy Indication Space: POLYCHLORINATED BYPHENYLS (LIQUIDS) 2005.5 POUNDS GROSS; POLYCHLORINATED BYPHENYLS (SOLIDS) 9.0 lbs NET

ATTACHMENT U-23

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: W.W. WILSON, V.P. OPERATIONS Signature: [illegible] Date: Month Day Year

State of New Jersey
Department of Enviromental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N J D 0 4 3 2 9 2 6 9 6 — Manifest Document No. 2 7 6 9 8
2. Page 1 of
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
GAF CORP.
1361 Alps Road Wayne NJ 07470
4. Generator's Phone (201) 628 3000

A. State Manifest Document Number NJA0027698
B. State Gen. ID
C. State Generator's Site Address
Gloucester NJ 08030

5. Transporter 1 Company Name
Eastern High Voltage, Inc.
6. US EPA ID Number N J D 9 8 0 5 2 6 7 6 8
C. State Transporter's ID
NJSWAS8349-

7. Transporter 2 Company Name
8. US EPA ID Number
D. Transporter's Phone
609-890-8300

9. Designated Facility Name and Site Address
EASTERN HIGH VOLTAGE, INC.
17A Marlen Drive
Robbinsville, N.J. 08691
10. US EPA ID Number N J D 9 8 0 5 2 6 7 5 8
E. State Transporter's ID
F. Transporter's Phone
G. State Facility's ID
H. Facility's Phone

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit W/Vol	I. Waste No.
a. Polychlorinated Biphenyls [Solids] ORM-E UN2315	001	DM	00008	P	X727
b. Polychlorinated Biphenyls [Liquids] ORM-E UN2315	001	DM	00040	G	X727
c. POLYCHLORINATED BIPHENYLS [SOLIDS] ORM-E UN2315	901	TP	01000	P	X727
d.					

J. Additional Descriptions for Materials Listed Above
a. Soil drags
b. As Kerel a Karosene
100 KVA TRANS. CARCASS

K. Handling codes for Wastes Listed Above
a. S01 c.
b. S01 d.

15. Special Handling Instructions and Additional Information
For temporary Storage Only - EHV Reference #185-0161.007

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations, and all applicable State laws and regulations.

Printed/Typed Name: John F. Wright Supt. Pwr Plt.
Signature: John F Wright
Date: Month 09 Day 12 Year 85

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: RUSSELL SORBELLO
Signature: Russell Sorbello
Date: Month 09 Day 12 Year 85

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: W.W. WILSON, V.P. OPERATIONS
Signature: W.W. Wilson
Date: Month 09 Day 24 Year 85

GENERATOR TRANSPORTER FACILITY

Form 8700-22 (3-84)

3 – TSD MAIL TO – GENERATOR

ATTACHMENT D-4

NJA0027698

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES
Bureau of Waste Management
P. O. Box 2063
Harrisburg, PA 17120

10527

ER-SWM-51:REV. 6/87

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form approved.
OMB No. 2050-0039
Expires 9-30-88

In case of an emergency or spill immediately call the National Response Center (800) 424-8802 and the PA DER (717) 787-4343

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N.J.D.043292606 — Manifest Document No. 0.0001

2. Page 1 of

Information in the shaded areas is not required by Federal law but is required by State law.

3. Generator's Name and Mailing Address: GAF 1361 ALPS Rd WAYNE, NJ 07470

4. Generator's Phone (201) 628-3596

A. State Manifest Document Number: PAB 4922735

B. State Gen. ID: CHARLES & WATER ST GLOUSTER, N.J

5. Transporter 1 Company Name: S&S TRANSPORTATION CO WOODSTOWN, N.J

6. US EPA ID Number: N.J.D.071629976

C. State Trans. ID: PA-AH 0.01.5

7. Transporter 2 Company Name

8. US EPA ID Number

D. Transporter's Phone (609) 7692741

9. Designated Facility Name and Site Address: GENERAL ELECTRIC CO 1040 E ERIE AVE PHILA PA 19124

10. US EPA ID Number: P.A.D.0.435.8.3.8.48

E. State Trans. ID: PA-AH

F. Transporter's Phone ( )

G. State Facility's ID: Not Required

H. Facility's Phone ( )

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. HAZARDOUS SUBSTANCE ORM-E NA9188 NOS RQ (POLYCHLORINATED BIPHENYLS)	0.0.1	C.W	4.3.5	43	
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code)

Haz. Code / Physical State

a. THIS WASTE IS NOT A HAZARDOUS WASTE ACCORDING

b.

c.

d.

K. Handling Codes for Wastes Listed Above

a. TO P.A LAW

b.

c.

d.

15. Special Handling Instructions and Additional Information

CLEAN UP & CONTAIN ANY SPILLS IMMEDIATELY AND NOTIFY DESIGNATED FACILITY IN BOX 9 PREVENT ENTRANCE TO DRAINS & WATERWAYS

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Eric E. Gaspey | Signature: Eric E. Gaspey | Month Day Year: 09 23 88

18. Transporter 2 Acknowledgement of Receipt of Materials

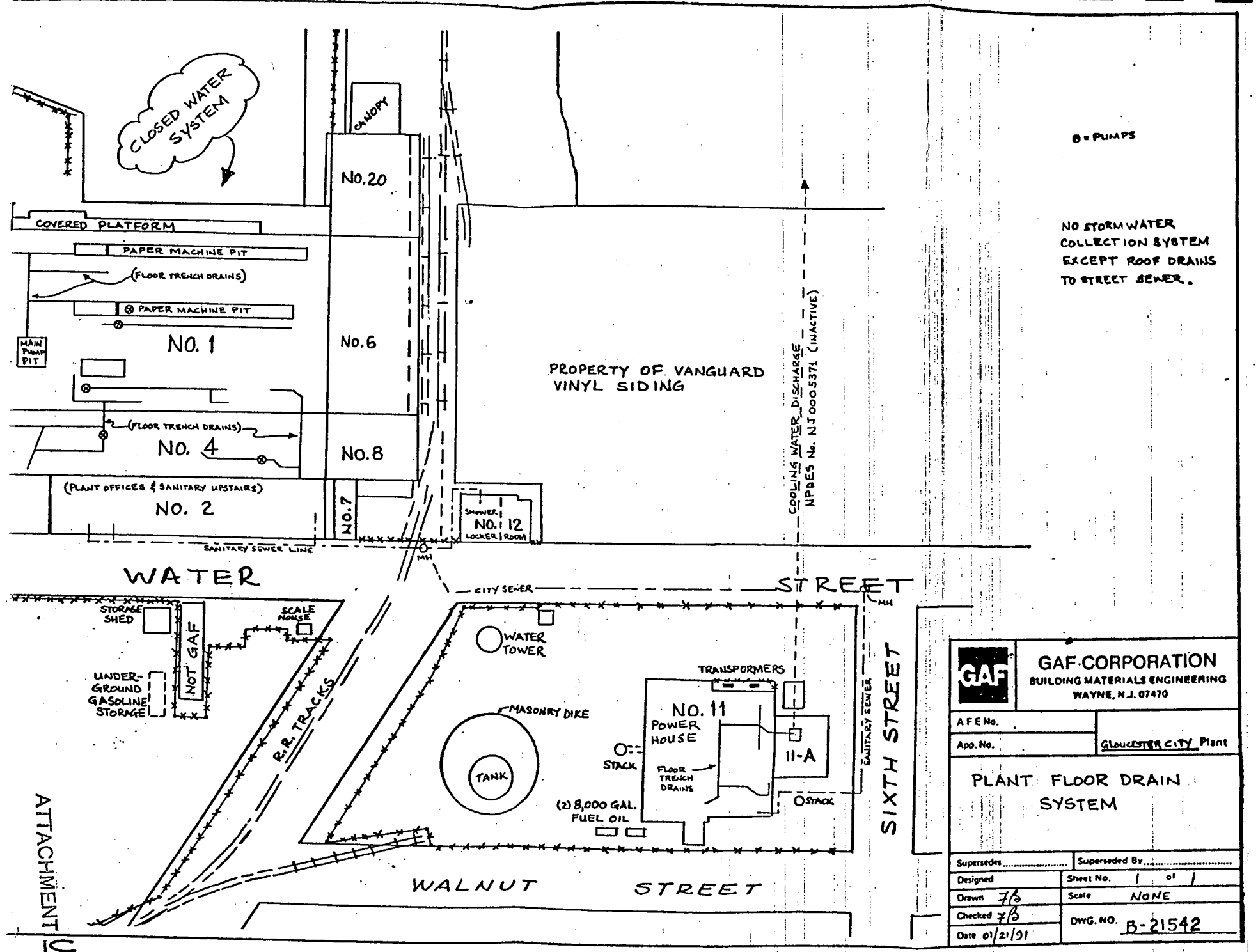
Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

ATTACHMENT U-25

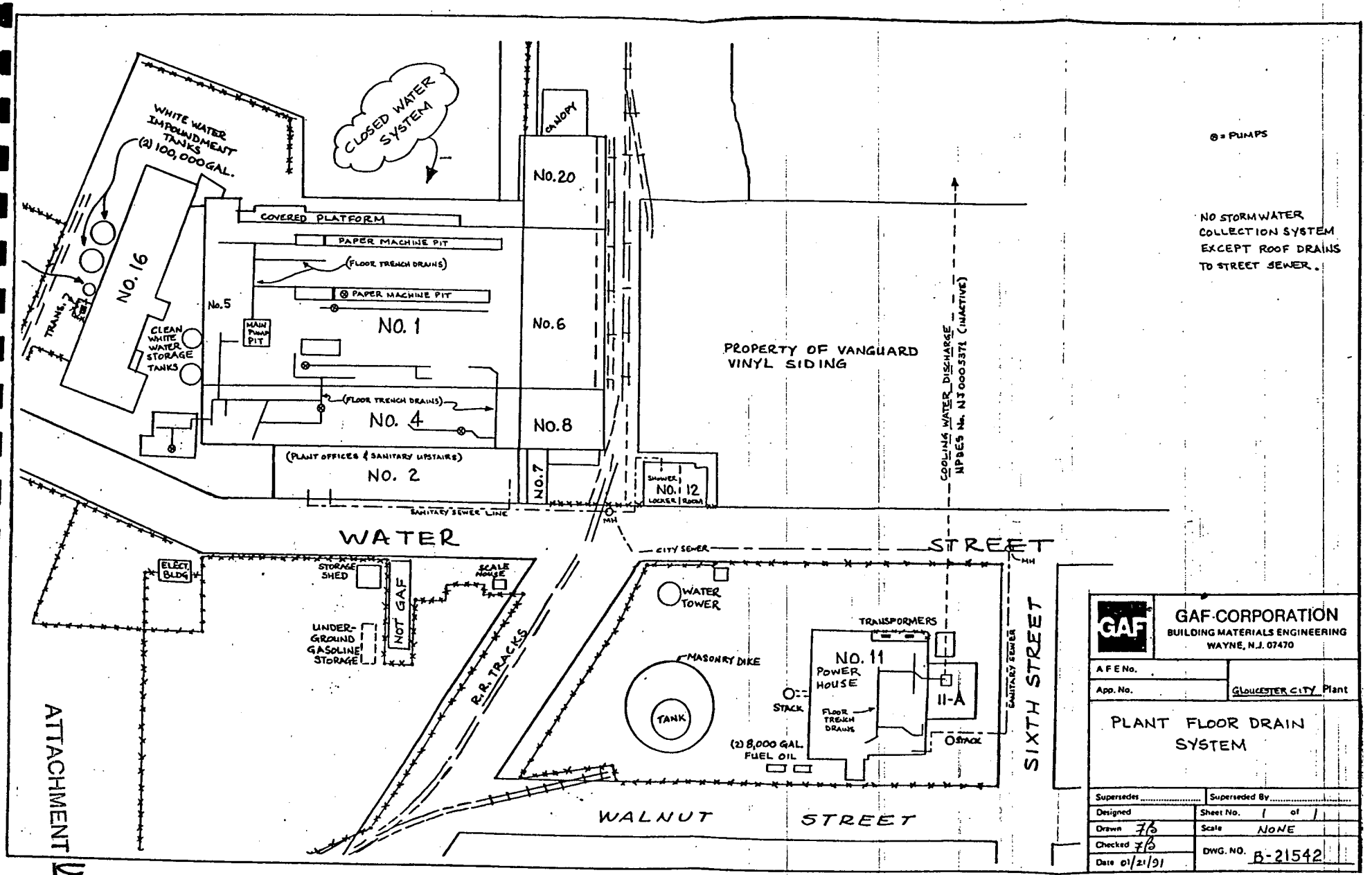
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: KENNETH W SMITH | Signature: Kenneth W Smith | Month Day Year: 09 23 88



ATTACHMENT U-26

ATTACHMENT C



GAF CORPORATION
BUILDING MATERIALS ENGINEERING
WAYNE, N.J. 07470

A F E No.	
App. No.	Gloucester City Plant

PLANT FLOOR DRAIN SYSTEM

Supersedes	Superseded By
Designed	Sheet No. 1 of 1
Drawn 7/6	Scale NONE
Checked 7/6	DWG. NO. B-21542
Date 01/21/91	

ATTACHMENT C

GAF BUILDING MATERIALS CORPORATION ("BMC")
GLOUCESTER CITY PLANT

AREAS USED BY CONTRACTORS

DESCRIPTION OF ACTIVITIES

LISBON CONTRACTORS, INC.

Lisbon Contractors, Inc. used a portion of the property on the corner of 6th and Water Streets for an equipment and materials storage site during their construction of the Gloucester City Sewage Pump Station for the Camden County Municipal Utilities Authority. This pump station was constructed on the lot immediately north of the Gloucester City Plant, directly across the street from the Power House (Bldg.11).

Lisbon Contractors used this space from approximately May of 1988 until March of 1990.

CARBRO CONSTRUCTION CORPORATION

Carbro Construction Corporation used a portion of the property on the corner of Charles and Water Streets soley for the purpose of a field construction office. Carbro Construction was one of the construction contractors that was installing the underground sewer pipes that were part of the pump station project mentioned above.

Carbro Construction used this space from approximately July of 1988 until November of 1990.

ATTACHMENT D

ATTACHMENT U-2

GAF BUILDING MATERIALS CORPORATION ("BMC")
GLOUCESTER CITY PLANT

ADDITIONAL SITE HISTORY

During World War I, the Pusey & Jones Company erected a large shipbuilding facility at this Gloucester City, N.J. location; covering 85 acres of a 179 acre tract. This operation was also known as Pennsylvania Shipbuilding Company. The existing pier was built at this time to accommodate the shipbuilding operation. The following buildings were part of the original site development and are now located on the portion of the site owned by BMC:

ORIGINAL USE	PRESENT DESCRIPTION(USE)
The main plant operation	Bldgs. 1,2,4,6,7, & 8 (mill)
The plant offices	Bldgs. 17 & 18 (misc. storage)
The powerhouse	Bldg. 11 (powerhouse)
The production office	Bldg. 12 (locker room)

Apparently after the war ended, Pusey & Jones were unable to sustain the shipbuilding operation; the property went into receivership, was subdivided and auctioned in 1924.

It is believed that Lang Mills had an existing paper mill operation adjoining the Pusey & Jones property. Lang Mills purchased a portion of the Pusey & Jones property to expand their operation. Lang Mills converted the building use by installing equipment used in the manufacture of paper. This is believed to have taken place prior to 1930.

During the 1930's (approx. 1935) Lang Mills was acquired by The Ruberoid Company and continued to be operated as a paper mill. The operation was known as Ruberoid, Lang Mills Division.

The plant was still operated as a paper mill when Ruberoid merged with General Aniline & Film Corporation in 1967. The operation continued as a paper mill until it was closed in 1983.

ATTACHMENT E

ATTACHMENT U-2

GAF BUILDING MATERIALS CORPORATION ("BMC")
GLOUCESTER CITY PLANT

ADDITIONAL SITE HISTORY

During World War I, the Pusey & Jones Company erected a large shipbuilding facility at this Gloucester City, N.J. location; covering 85 acres of a 179 acre tract. This operation was also known as Pennsylvania Shipbuilding Company. The existing pier was built at this time to accommodate the shipbuilding operation. The following buildings were part of the original site development and are now located on the portion of the site owned by BMC:

ORIGINAL USE	PRESENT DESCRIPTION(USE)
The main plant operation	Bldgs. 1,2,4,6,7, & 8 (mill)
The plant offices	Bldgs. 17 & 18 (misc. storage)
The powerhouse	Bldg. 11 (powerhouse)
The production office	Bldg. 12 (locker room)

Apparently after the war ended, Pusey & Jones were unable to sustain the shipbuilding operation; the property went into receivership, was subdivided and auctioned in 1924.

It is believed that Lang Mills had an existing paper mill operation adjoining the Pusey & Jones property. Lang Mills purchased a portion of the Pusey & Jones property to expand their operation. Lang Mills converted the building use by installing equipment used in the manufacture of paper. This is believed to have taken place prior to 1930.

During the 1930's (approx. 1935) Lang Mills was acquired by The Ruberoid Company and continued to be operated as a paper mill. The operation was known as Ruberoid, Lang Mills Division.

The plant was still operated as a paper mill when Ruberoid merged with General Aniline & Film Corporation in 1967. The operation continued as a paper mill until it was closed in 1983.

ATTACHMENT U-30

ATTACHMENT E

ATTACHMENT F

TILE DRAIN AND OIL/WATER SEPARATOR

GAF personnel was unable to verify the location and condition of the tile drain area due to heavy accumulation of snow and ice.

This inspection will be conducted in the future and submitted to NJDEP at that time.

WELL CONSTRUCTION SUMMARY

Well No. MW-1

Project	GAF Corporation	Project No.	2055401
Location	Gloucester City, New Jersey	Elevation and Datum	11.21 MSL
Drilling Agency	Environmental Drilling, Inc.	Start Date 26-Sep-91	Comp Date 26-Sep-91
Drilling Equipment	Mobile Drill B-57	Driller	John Muller
Size and Type of Bit	8 inch ID Hollow Stem Auger	Inspector	Frank Lawson

Method of Installation - Boring was advanced with a 8 inch inner diameter hollow stem auger to a depth of 20 feet. A PVC well was installed inside the augers. The well consisted of 15 feet of 4 inch 0.020 inch slot PVC screen with a 6 feet 7 inch riser. Gravel pack was placed in as the augers were removed to one foot above the screen. Two feet of bentonite pellets was set above the gravel pack. The remaining space was filled with cement grout. A stick-up protective steel casing with a locking cap was set above this.

Method of Well Development -
The well was pumped continuously for one hour and ten minutes with a centrifugal pump. Approximately 120 gallons of water was purged from the well during the development time. The well was allowed to recharge and the steel cover and locking cap were replaced.

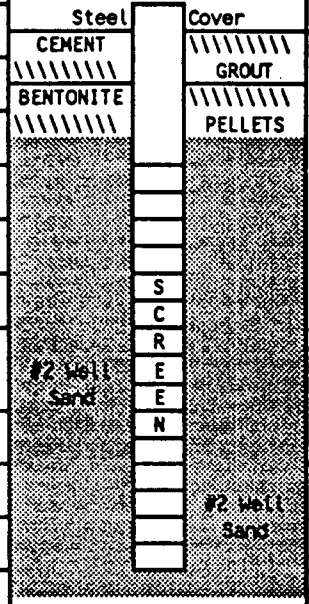
Type of Casing PVC Schedule 40	Diameter 4 inch	Type of Backfill Material Cement Grout	
Type of Screen PVC Schedule 40	Diameter 4 inch	Type of Seal Material Bentonite Pellets	
Borehole Diameter Approximately 10 inches		Type of Filter Material #2 Well Sand	

Top of Casing	Elevation 11.21 MSL	Depth 1.78ft
Top of Seal	Elevation 7.43 MSL	Depth 2ft BGS
Top of Filter	Elevation 5.43 MSL	Depth 4ft BGS
Top of Screen	Elevation 4.43 MSL	Depth 5ft BGS
Bottom of Boring	Elevation - 12.05 MSL	Depth 21.48ft TIC
Screen Length 15 feet		
Slot Size 0.020 inch		

GROUNDWATER ELEVATIONS

Elevation	DTW	Date
4.37 MSL	6.84ft	26-Sep-91
4.76 MSL	6.45ft	30-Sep-91
4.41 MSL	6.80ft	15-Oct-91

Well Details



Soil Classification	Depth
Dark brown to black organic rich SAND	5
Black fine SAND	10
Dark brown silty fine SAND	15
Black organic rich silty SAND	20
Black SILT, some fine sand, trace clay	

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ATTACHMENT U-32 LESI

LOG OF BORING NO: MW-1

Project Name	GAF Corporation	Project No.	2055401
Boring Location	Gloucester City, New Jersey	Elevation and Datum	-
Drilling Company	Environmental Drilling, Inc.	Date Started 9/26/91	Date Finished 9/26/91
Drilling Equipment	Mobile Drill B-57		
Size and Type of Bit	8 inch Hollow Stem Auger	Compl. Depth (ft) 22	Rock Depth N/A
Casing	N/A	No. Samples : Dist. 5	Core N/A
Casing Hammer	Weight N/A / Drop N/A	Water Level : First 5 ft.	Compl. 6.84
Sampling Device	2 inch OD Split Spoons	Driller John Muller	
Sampler Hammer	Weight 140 lbs / Drop 30 in.	Inspector Frank Lawson	

Env. Sample	Depth (feet)	No.	Type	Recov (inches)	Blows/ 6 inch	PID (ppm)	DESCRIPTION	REMARKS
	1	1	SS	13	1 7 8 0/100	0	Dark brown to black organic rich fine SAND (Loose) (Dry) (Fill)	Fill consists of plastic, metal and wood
	2							Refusal at 2 feet. Move and redrill 5 feet north.
	3							
	4							
	5							
	6	2	SS	4	4 15 18 14	0	Black fine SAND (Wet) (Fill)	Concrete and wood pieces observed in sampler.
	7							
	8							
	9							
	10							

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ATTACHMENT U-33

ESI

Job No. 2055401

Date 9/26/91

LOG OF BORING NO: MW-1

Env. Sample	Depth (feet)	No.	Type	Recov (inches)	Blows/ 6 inch	PID (ppm)	DESCRIPTION	REMARKS
	10							
	11	3	SS	24	1 0	1	Dark brown silty fine SAND (wet)	More silt at bottom of profile. Layers of perched water approx. 4 inches apart.
	12				1 0			
	13							
	14							
	15							
	16	4	SS	14	1 2	0.2	0-0.3 Black organic rich silty SAND (Wet to Moist) 0.3-1.2 Black SILT, some fine sand, trace clay (Moist) (Plastic)	
	17				1 2			
	18							
	19							
	20							

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ATTACHMENT U-34

ESI

Job No. 2055401							LOG OF BORING NO: MW-1	
Date 9/26/91								Sheet 3 of 3
Env. Sample	Depth (feet)	No.	Type	Recov (inches)	Blows/ 6 inch	PID (ppm)	DESCRIPTION	REMARKS
	20							
	21	5	SS	22	1 1 1 1	0 0	0-0.1 Black fine SAND, some silt (Wet) 0.1-1.8 Black SILT, trace fine sand (Moist) (Plastic)	Shoe contained fine sand, trace gravel
	22							
	23							Monitoring Well Installed
	24							
	25							
	26							
	27							
	28							
	29							
	30							

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ATTACHMENT U-35

ESI

LOG OF BORING NO: MW-2

Project Name	GAF Corporation	Project No.	2055401
Boring Location	Gloucester City, New Jersey	Elevation and Datum	
Drilling Company	Environmental Drilling, Inc.	Date Started 9/26/91	Date Finished 9/26/91
Drilling Equipment	Mobile Drill B-57		
Size and Type of Bit	8 inch Hollow Stem Auger	Compl.Depth (ft) 21.3	Rock Depth N/A
Casing	N/A	No.Samples : Dist. 5	Core N/A
Casing Hammer	Weight N/A / Drop N/A	Water Level : First 5.4ft	Compl. 8.44
Sampling Device	2 inch OD Split Spoons	Driller John Muller	
Sampler Hammer	Weight 140 lbs / Drop 30 in.	Inspector Frank Lawson	

Env. Sample	Depth (feet)	No.	Type	Recov (inches)	Blows/ 6 inch	PID (ppm)	DESCRIPTION	REMARKS
	1	1	SS	4	5 3	0	Black organic rich fine SAND (Moist)	
	2				4 2			
	3						Fill: White silty CLAY	
	4						Fill: Dark black SILT (Dry)	
	5							
	6	2	SS	24	4 5	0	0-0.4 White fibrous material, trace silt (Moist) (Fill) 0.4-1.4 Dark to light brown m-f SAND, trace silt (Wet)(Fill) 1.4-2.0 Dark Brown to black m-f SAND, trace silt (Moist)	Silty sand layer at 0.6 to 0.7 ft. in sampler.
	7				8 5			
	8							
	9							
	10							

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ATTACHMENT U-36

ESI

Job No. 2055401							LOG OF BORING NO: MW-2	
Date 9/26/91								Sheet 2 of 3
Env. Sample	Depth (feet)	No.	Type	Recov (inches)	Blows/ 6 inch	PID (ppm)	DESCRIPTION	REMARKS
	10							
	11	3	SS	24	3 1 2 2	0	0-0.9 Brown to black SILT, some fine sand (Moist) 0.9-1.1 Dark brown to black c-m SAND, some gravel (Wet) 1.1-2.0 Dark brown to black SILT, some fine sand (Moist to Dry)	Cross bedding observed. Organic wood and plant debris mixed within soil profile. (Very wet at bottom)
	12							
	13							
	14							
	15							
	16	4	SS	22	4 3 2 2	0	0-0.9 Dark gray c-f SAND, trace gravel (Wet) 0.9-1.8 White to gray medium SAND, trace gravel (Wet)	
	17							
	18							
	19							
	20							

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ATTACHMENT V-37

ESI

Job No. 2055401							LOG OF BORING NO: MW-2	
Date 9/26/91								Sheet 3 of 3
Env. Sample	Depth (feet)	No.	Type	Recov (inches)	Blows/ 6 inch	PID (ppm)	DESCRIPTION	REMARKS
	20							
	21	5	SS	16	7 79 100/4	0	0-0.3 Gray silty CLAY (Moist) (Plastic) 0.3-1.3 White to gray fine SAND, trace silt (Moist)	
	22							Monitoring Well Installed
	23							
	24							
	25							
	26							
	27							
	28							
	29							
	30							

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ATTACHMENT U-38

ESI

WELL CONSTRUCTION SUMMARY

Well No. MW-2

Project	GAF Corporation	Project No.	2055401
Location	Gloucester City, New Jersey	Elevation and Datum	11.83 MSL
Drilling Agency	Environmental Drilling, Inc.	Start Date 26-Sep-91	Comp Date 26-Sep-91
Drilling Equipment	Mobile Drill B-57	Driller	John Muller
Size and Type of Bit	8 inch ID Hollow Stem Auger	Inspector	Frank Lawson

Method of Installation - Boring was advanced with a 8 inch inner diameter hollow stem auger to a depth of 20 feet. A PVC well was installed inside the augers. The well consisted of 15 feet of 4 inch 0.020 inch slot PVC screen with a 7 feet 3 inch riser. Gravel pack was placed in as the augers were removed to one foot above the screen. Two feet of bentonite pellets was set above the gravel pack. The remaining space was filled with cement grout. A stick-up protective steel casing with a locking cap was set above this.

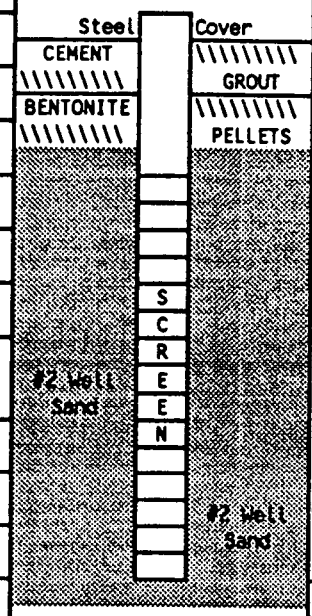
Method of Well Development -
The well was pumped continuously for one hour and forty minutes with a centrifugal pump. Approximately 150 gallons of water was purged from the well during the development time. The well was allowed to recharge and the steel cover and locking cap were replaced.

Type of Casing PVC Schedule 40	Diameter 4 inch	Type of Backfill Material Cement Grout	
Type of Screen PVC Schedule 40	Diameter 4 inch	Type of Seal Material Bentonite Pellets	
Borehole Diameter Approximately 10 inches		Type of Filter Material #2 Well Sand	

Top of Casing	Elevation 11.83 MSL	Depth 2.41ft
Top of Seal	Elevation 7.42 MSL	Depth 2ft BGS
Top of Filter	Elevation 5.42 MSL	Depth 4ft BGS
Top of Screen	Elevation 4.42 MSL	Depth 5ft BGS
Bottom of Boring	Elevation - 12.08 MSL	Depth 21.5ft TIC
Screen Length 15 feet		
Slot Size 0.020 inch		

GROUNDWATER ELEVATIONS

Elevation	DTW	Date
3.39 MSL	8.44ft	26-Sep-91
3.28 MSL	8.55ft	30-Sep-91
2.79 MSL	9.04ft	15-Oct-91



Soil Classification	Depth
Black organic rich fine SAND	
White fill material Light brown to black m-f SAND, trace silt	5
Brown to black SILT, some f. sand Dark brown to black c-m SAND, some gravel	10
Dark gray c-f SAND, trace gravel	15
White to gray med. SAND, tr, gravel	20

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ATTACHMENT U-39

ESI

LOG OF BORING NO: MW-3

Project Name	GAF Corporation	Project No.	2055401
Boring Location	Gloucester City, New Jersey	Elevation and Datum	
Drilling Company	Environmental Drilling, Inc.	Date Started 9/27/91	Date Finished 9/27/91
Drilling Equipment	Mobile Drill B-57		
Size and Type of Bit	8 inch Hollow Stem Auger	Compl.Depth (ft) 22	Rock Depth N/A
Casing	N/A	No.Samples : Dist. 5	Core N/A
Casing Hammer	Weight N/A / Drop N/A	Water Level : First 6ft.	Compl. 8.28
Sampling Device	2 inch OD Split Spoons	Driller John Muller	
Sampler Hammer	Weight 40 lbs. / Drop 30 in.	Inspector Frank Lawson	

Env. Sample	Depth (feet)	No.	Type	Recov (inches)	Blows/ 6 inch	PID (ppm)	DESCRIPTION	REMARKS
					2	0	0-0.4 Black organic rich fine SAND and SILT (Dry)	
	1	1	SS	17	4	0	0.4-0.6 Black organic rich m-f SAND, trace silt (Fill)	
					4	0	0.6-1.4 Fill: Dark black SILT (Dry)	
	2				2			
	3							
	4							
	5							
					5	0	0-0.2 Dark brown to black SILT and fine SAND, wood pieces (Moist)(Fill)	
	6	2	SS	6	5	0	0.2-0.5 Black fine SAND, trace silt (Moist)(Fill)	Piece of metal and c-f sand in shoe (Wet) Water encountered at 6 feet
					6			
	7				4			
	8							
	9							
	10							

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ATTACHMENT U-40

ESI

Job No. 2055401							LOG OF BORING NO: MW-3	
Date 9/27/91								Sheet 2 of 3
Env. Sample	Depth (feet)	No.	Type	Recov (inches)	Blows/ 6 inch	PID (ppm)	DESCRIPTION	REMARKS
	10							
	11	3	SS	24	1 1 1 0	0 0 0 0	0-0.4 Black silty fine SAND(Moist) 0.4-0.9 Black silty fine SAND, trace gravel (Moist) 0.9-1.4 Black SILT, trace clay, trace fine sand (Moist) 1.4-2.0 Black fine SAND, some silt, trace gravel (Wet)	Gravel fraction: Wet
	12							
	13							
	14							
	15							
	16	4	SS	16	3 1 4 5	0 0 0	0-1.0 Gray silty SAND, trace gravel (Moist to Wet) 1.0-1.2 Gray SILT and CLAY (Moist) 1.2-1.3 Gray silty fine SAND (Wet)	
	17							
	18							
	19							
	20							

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ATTACHMENT U-41

ESI

Job No. 2055401

Date 9/27/91

LOG OF BORING NO: MW-3

Env. Sample	Depth (feet)	No.	Type	Recov (inches)	Blows/ 6 inch	PID (ppm)	DESCRIPTION	REMARKS
	20					0 0	0-0.2 Gray silty SAND, trace clay (Moist to Wet) 0.2-0.3 Dark brown to light brown fine SAND and GRAVEL, trace silt (Wet)	
	21	5	SS	10	60 100/4	0	0.3-0.8 White medium SAND, trace silt (Wet)	
	22							Monitoring Well Installed
	23							
	24							
	25							
	26							
	27							
	28							
	29							
	30							

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ATTACHMENT U-42

ESI

WELL CONSTRUCTION SUMMARY

Well No. MW-3

Project	GAF Corporation	Project No.	2055401
Location	Gloucester City, New Jersey	Elevation and Datum	12.07 MSL
Drilling Agency	Environmental Drilling, Inc.	Start Date 27-Sep-91	Comp Date 30-Sep-91
Drilling Equipment	Mobile Drill B-57	Driller	John Muller
Size and Type of Bit	8 inch ID Hollow Stem Auger	Inspector	Frank Lawson

Method of Installation - Boring was advanced with a 8 inch inner diameter hollow stem auger to a depth of 20 feet. A PVC well was installed inside the augers. The well consisted of 15 feet of 4 inch 0.020 inch slot PVC screen with a 7 feet 3 inch riser. Gravel pack was placed in as the augers were removed to one foot above the screen. One foot of bentonite pellets was set above the gravel pack. The remaining space was filled with cement grout. A stick-up protective steel casing with a locking cap was set above this.

Method of Well Development -

The well was pumped with a centrifugal pump for one hour and thirty minutes on 27-Sep-91 and forty-five minutes on 30-Sep-91. Approximately 45 gallons of water was purged from the well during the development time. The well was allowed to recharge and the steel cover and locking cap were replaced.

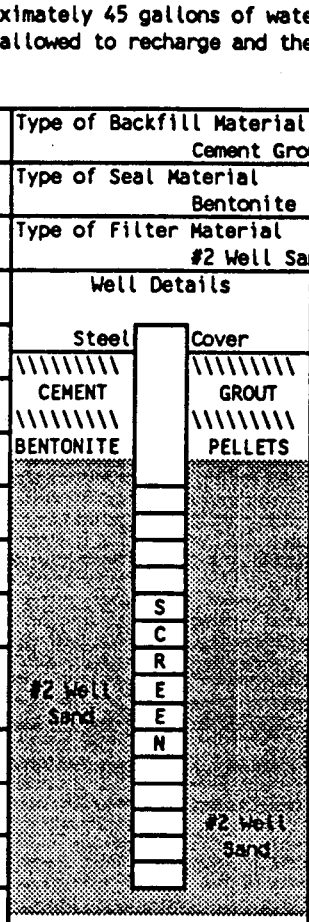
Type of Casing PVC Schedule 40	Diameter 4 inch	Type of Backfill Material Cement Grout	
Type of Screen PVC Schedule 40	Diameter 4 inch	Type of Seal Material Bentonite Pellets	
Borehole Diameter Approximately 10 inches		Type of Filter Material #2 Well Sand	

Top of Casing	Elevation 12.07 MSL	Depth 2.18ft
Top of Seal	Elevation 6.89 MSL	Depth 3ft BGS
Top of Filter	Elevation 5.89 MSL	Depth 4ft BGS
Top of Screen	Elevation 4.89 MSL	Depth 5ft BGS
Bottom of Boring	Elevation 11.61 MSL	Depth 21.5ft TIC
Screen Length 15 feet		
Slot Size 0.020 inch		

GROUNDWATER ELEVATIONS

Elevation	DTW	Date
3.79 MSL	8.28ft	27-Sep-91
3.85 MSL	8.22ft	30-Sep-91
2.41 MSL	9.66ft	15-Oct-91

Well Details



Soil Classification	Depth
Black fine organic rich SAND and SILT	
Dark black SILT	
Dark brown to black SILT and fine SAND	5
Black fine SAND, trace silt	
Black silty SAND, trace gravel	10
Black fine SAND, some silt, trace gravel	
	15
Gray silty SAND, trace gravel	
Gray SILT and CLAY	
Gray silty fine SAND	20

LANGAN ENVIRONMENTAL SERVICES, INC.

River Drive Center II, Elmwood Park, New Jersey 07407

ESI

ATTACHMENT U-43

LOG OF BORING NO: MW-4

Project Name	GAF Corporation	Project No.	2055401
Boring Location	Gloucester City, New Jersey	Elevation and Datum	
Drilling Company	Environmental Drilling, Inc.	Date Started 9/26/91	Date Finished 9/27/91
Drilling Equipment	Mobile Drill B-57		
Size and Type of Bit	8 inch Hollow Stem Auger	Compl.Depth (ft) 37	Rock Depth N/A
Casing	N/A	No.Samples : Dist. 9	Core N/A
Casing Hammer	Weight N/A / Drop N/A	Water Level : First 26ft	Compl. 26.1
Sampling Device	2 inch OD Split Spoons	Driller John Muller	
Sampler Hammer	Weight 140 lbs / Drop 30 in.	Inspector Frank Lawson	

Env. Sample	Depth (feet)	No.	Type	Recov (inches)	Blows/ 6 inch	PID (ppm)	DESCRIPTION	REMARKS
	1	1	SS	18	17 23	0.5	0-0.1 Light brown m-f SAND, trace silt, trace gravel(Moist)(Fill 0.1-1.5 Black m-f SAND, some silt, trace gravel (Dry)(Fill)	Dark black crushed asphalt 1 inch size road gravel in top section
	2				13 8			
	3							
	4							
	5							
	6	2	SS	18	5 4	5	0-0.8 Light brown m-f SAND, trace gravel (Moist-Dry) 0.8-1.1 Dk brown to black m-f SAND, trace gravel (Moist-Dry) 1.1-1.2 Black m-f SAND, trace silt, trace gravel (Moist-Dry) 1.2-1.5 Gray fine SAND, some silt tr.clay, tr.gravel (Wet-Moist)	
	7				2 5			
	8							
	9							
	10							

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ATTACHMENT U-44

Job No. 2055401

Date 9/27/91

LOG OF BORING NO: MW-4

Env. Sample	Depth (feet)	No.	Type	Recov (inches)	Blows/ 6 inch	PID (ppm)	DESCRIPTION	REMARKS
	10							
	11	3	SS	24	11 48	3 2	0-0.3 Gray fine SAND and SILT, trace clay (Moist-Dry) 0.3-1.3 Gray and Lt. red brown SILT and CLAY, trace fine sand (Dry)	
	12				79 86	0	1.3-2.0 Red brown to white fine SAND, trace silt (Dry)	Sand and gravel in shoe
	13							
	14							
	15							
	16	4	SS	18	23 44	2 0	0-0.5 Gray brown silty CLAY, trace fine sand (Moist-Dry) 0.5-1.5 Red brown m-f SAND, some gravel (Moist-Dry)	
	17				24 27			
	18							
	19							
	20							

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ESI

ATTACHMENT U-45

Job No. 2055401							LOG OF BORING NO: MW-4	
Date 9/27/91								Sheet 3 of 4
Env. Sample	Depth (feet)	No.	Type	Recov (inches)	Blows/ 6 inch	PID (ppm)	DESCRIPTION	REMARKS
	20							
	21	5	SS	16	22 60 100/5	0 0 0	0-0.4 White medium SAND and GRAVEL (Moist-Dry) 0.4--1.1 White and Red brown m-f SAND,tr. gravel (Moist-Dry) 1.1-1.3 Dark brown m-f SAND (Moist-Dry)	
	22							
	23							
	24							
	25							
	26	6	SS	13	59 106 100/4	0 0	0-0.8 Light brown fine SAND, some silt, trace gravel (Moist) 0.8-1.1 White and Brown m-f SAND, some coarse sand, trace gravel (Moist to Wet)	Note: Install well on 26-Sep-91, screened from 5-25 feet. Water at 26.1 feet from top of inner casing. Allow to sit for 24 hrs. Water level doesn't rise. Redrill on 27-Sep-91 to 35 feet.
	27							
	28	7	SS	13	19 70 100/5	0	White c-m SAND, trace gravel (Wet)	
	29							
	30							

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ESI

ATTACHMENT U-46

Job No. 2055401

Date 9/27/91

LOG OF BORING NO: MW-4

Env. Sample	Depth (feet)	No.	Type	Recov (inches)	Blows/ 6 inch	PID (ppm)	DESCRIPTION	REMARKS
	30							
	31	8	SS	7	70 100/5	0	White c-m SAND, some gravel (Wet)	
	32							
	33							
	34							
	35							
		9	SS	5	100/5		White c-m SAND, trace gravel (Wet)	
	36							Monitoring Well Installed
	37							
	38							
	39							
	40							

LANGAN ENVIRONMENTAL SERVICES, INC.

River Drive Center II, Elmwood Park, New Jersey 07407

ESI

ATTACHMENT U-47

WELL CONSTRUCTION SUMMARY

Well No. MW-4

Project	GAF Corporation	Project No.	2055401
Location	Gloucester City, New Jersey	Elevation and Datum	9.19 MSL
Drilling Agency	Environmental Drilling, Inc.	Start Date 27-Sep-91	Comp Date 27-Sep-91
Drilling Equipment	Mobile Drill B-57	Driller	John Muller
Size and Type of Bit	8 inch ID Hollow Stem Auger	Inspector	Frank Lawson

Method of Installation - Boring was advanced with a 8 inch inner diameter hollow stem auger to a depth of 35 feet. A PVC well was installed inside the augers. The well consisted of 20 feet of 4 inch 0.020 inch slot PVC screen with a 17 feet 3 inch riser. Gravel pack was placed in as the augers were removed to one foot above the screen. One foot of bentonite pellets was set above the gravel pack. The remaining space was filled with cement grout. A stick-up protective steel casing with a loc cap was set above this.

Method of Well Development -
The well was pumped continuously for one hour with a submersible pump. Approximately 600 gallons of water was purged from the well during the development time. The well was allowed to recharge and the steel cover and locking cap were replaced.

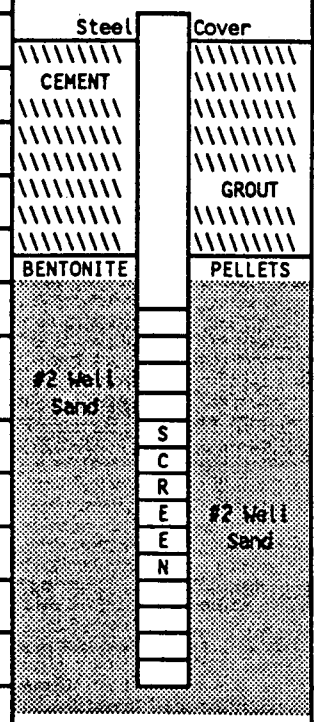
Type of Casing PVC Schedule 40	Diameter 4 inch	Type of Backfill Material Cement Grout	
Type of Screen PVC Schedule 40	Diameter 4 inch	Type of Seal Material Bentonite Pellets	
Borehole Diameter Approximately 10 inches		Type of Filter Material #2 Well Sand	

Top of Casing	Elevation 9.19 MSL	Depth 1.92ft
Top of Seal	Elevation - 5.73 MSL	Depth 13ft BGS
Top of Filter	Elevation - 6.73 MSL	Depth 14ft BGS
Top of Screen	Elevation - 7.73 MSL	Depth 15ft BGS
Bottom of Boring	Elevation - 28.91 MSL	Depth 36.18ft TIC
Screen Length 20 feet		
Slot Size 0.020 inch		

GROUNDWATER ELEVATIONS

Elevation	DTW	Date
-16.91 MSL	26.1ft	27-Sep-91
-17.21 MSL	26.4ft	15-Oct-91

Well Details



Soil Classification	Depth
Light brown m-f SAND trace silt, trace gravel	
Light brown to black m-f SAND, trace gravel	9
Gray SAND and SILT, trace clay	
Red-brown m-f SAND, some gravel	18
White and red-brown m-f SAND, trace gravel	
White and brown m-f SAND, some coarse SAND, trace gravel	27
White m-c SAND, some gravel	35

LANGAN ENVIRONMENTAL SERVICES, INC.
River Drive Center II, Elmwood Park, New Jersey 07407

ESI

ATTACHMENT U-48

ATTACHMENT V

Environmental
Science &
Engineering, Inc.
A CILCORP Company

JUL 1 10 35 AM '91
BUREAU OF
INDUSTRIAL SITE
EVALUATION

June 27, 1991

Dr. Arnold Gray, Case Manager
NJDEP
Division of Hazardous Waste Management
Industrial Site Evaluation Element
401 East State Street, Fifth floor
Trenton, NJ 08665

RE: GAF Building Materials Corporation, Gloucester City, ECRA Case #90263; Review of aerial photographs.

Dear Dr. Gray;

Environmental Science & Engineering, Inc. (ESE) has completed its review of historical aerial photographs for the GAF facilities in Gloucester, NJ. This was done in response to a request by NJDEP for such a review. ESE reviewed aerial photographs from the years 1946, 1957, 1965, 1975, 1978 and 1985.

The 1946 photograph shows an area directly south of the Water Street warehouse that appears to be an area of fill. The photograph shows a random distribution of lighter colored material in this area. It is not possible to identify the fill material in this photograph.

The 1957 photograph again shows fill material in the area south of the Water Street warehouse. This area is bordered by the West Jersey and Seashore Railroad Company tracks to the south and east, and by Water Street to the west. In this photograph the material is light colored and more widespread than in the 1946 photograph. Directly east of Building 16, and east of Water Street, there is stockpiled material, arranged in an orderly fashion.

In 1965 the area south of the warehouse shows no evidence of the light colored material. The area east of Building 16 is the same as in the 1957 photograph.

In 1975 the area south of the warehouse has organized piles of material. The organization is apparent from the parallel placement of rows of this material. The area east of Building 16 appears to be used primarily for parking.

The 1978 photograph gives an incomplete view of the facility. The area east of Building 16 appears to have a pile of light colored material that extends to the south,

ATTACHMENT V-1

5219 Militia Hill Road Plymouth Meeting, PA 19462 Phone (215) 941-9700 Fax (215) 941-9707
Formerly known as Hunter/ESE.

off the photograph.

In 1985 the pile of light colored material east of Building 16 is no longer present. There appears to be some dark colored material, stockpiled south of the warehouse.

Also enclosed with this report are maps detailing the four Areas of Environmental Concern (AECs) at the Gloucester facilities. These are submitted in response to a request from NJDEP for the same. All are now at an appropriate scale of one inch equals 50 feet with the exception of the maps detailing Area D. The scale for these maps is undetermined, though greater than one inch equals 50 feet. This is due to the "enlarged view" provided in the original print. Both Area D maps are designated as "enlarged view" in their title blocks.

Should you have any questions regarding this matter, please feel free to contact me.

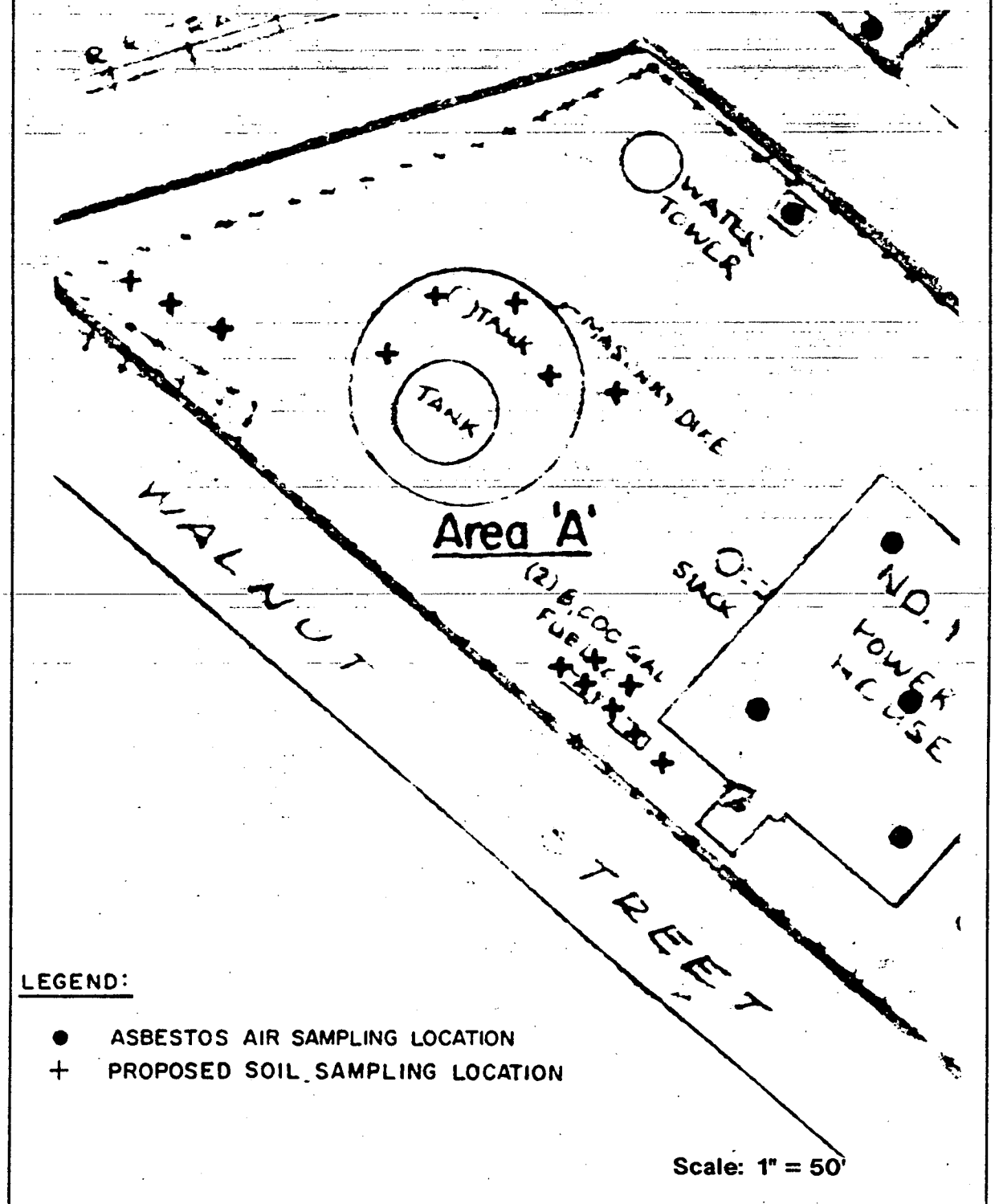
Sincerely,

Joseph F. Bannon

Joseph F. Bannon
Geologist

cc: Fred Bright, GAF
Julie Parker, Esq.

ATTACHMENT V-2

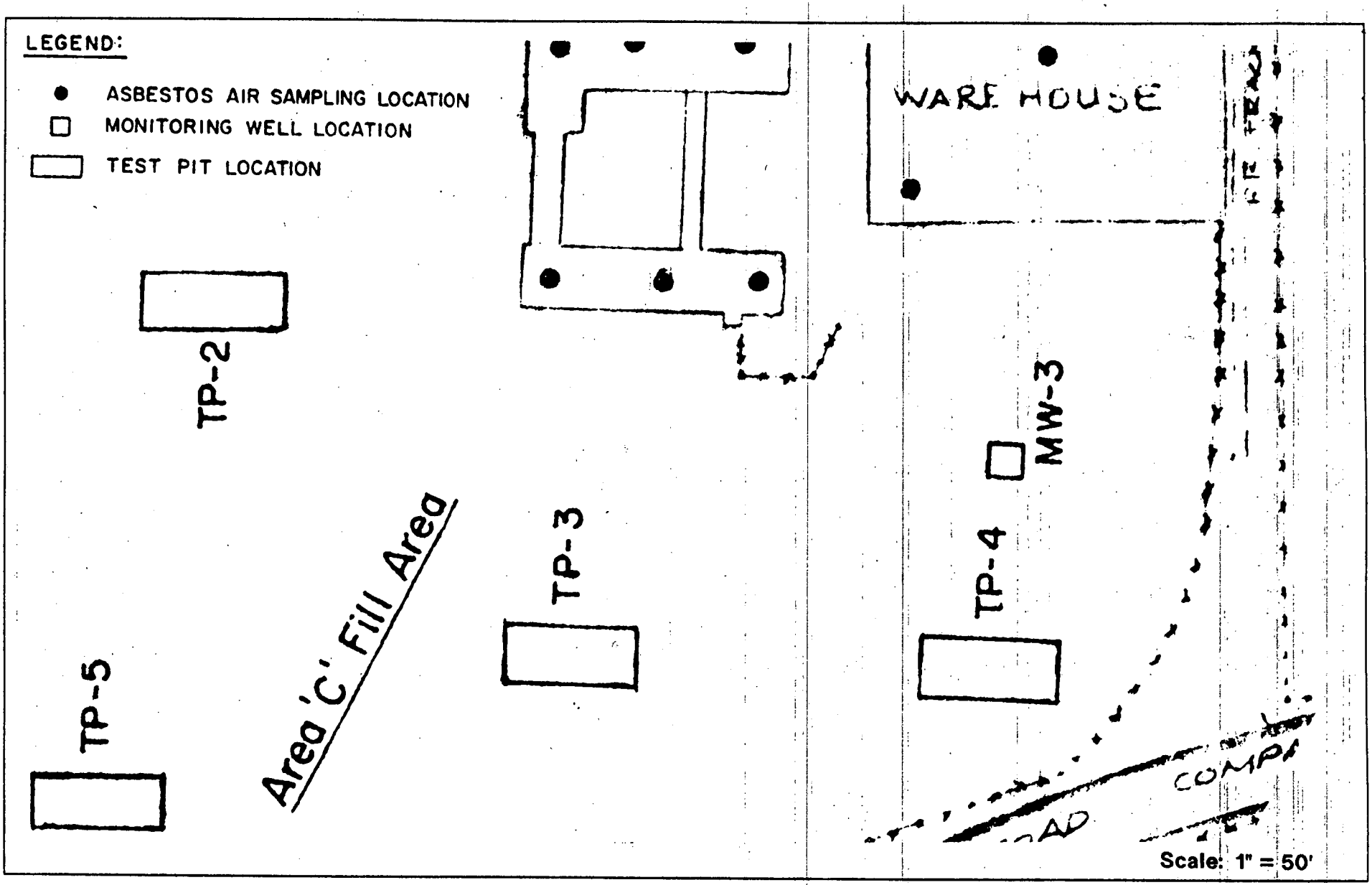


Area A – Above ground storage vessel

Source: ESE, 1991

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

ATTACHMENT V-3

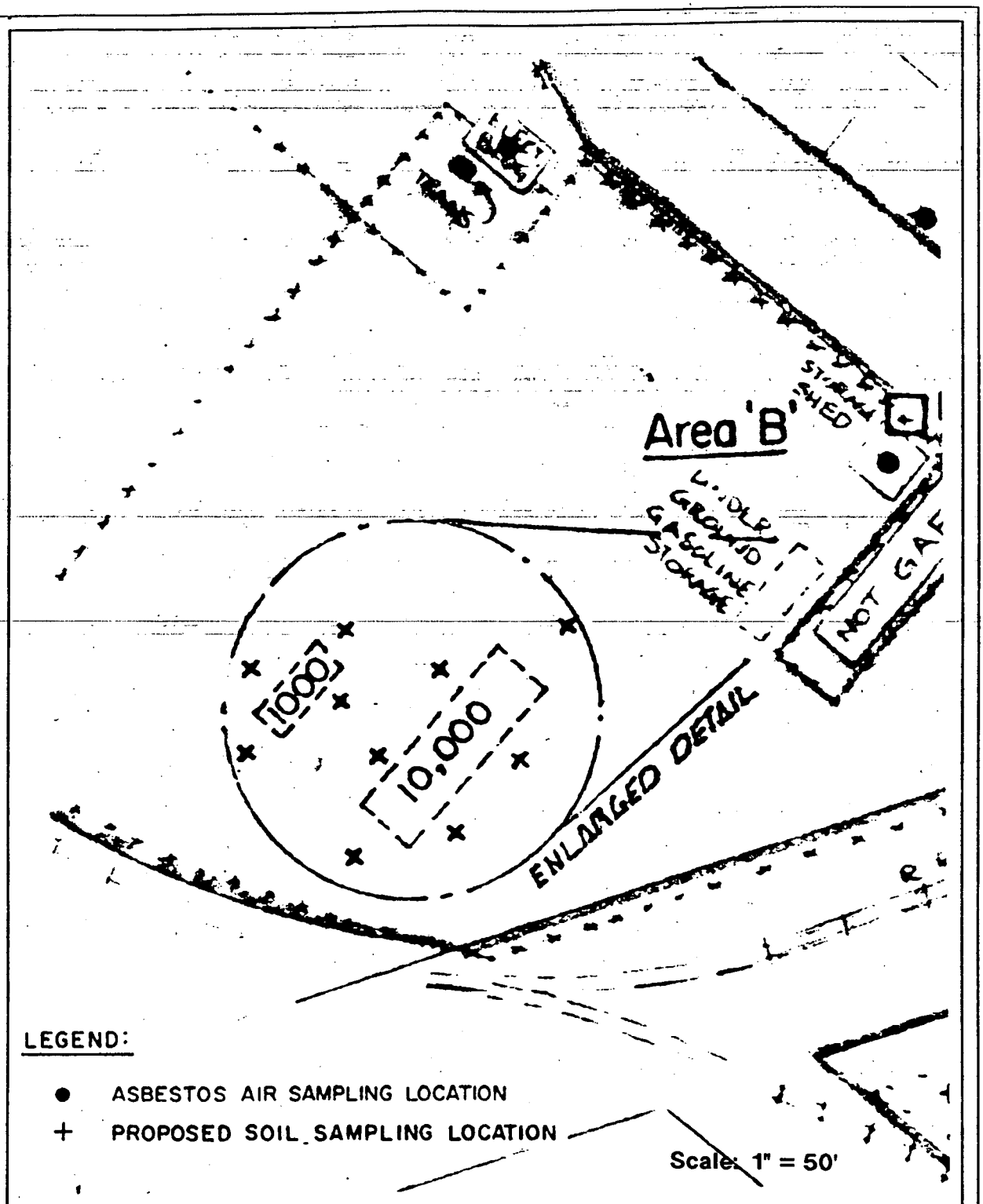


Area C – Fill area

Source: ESE, 1991

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

ATTACHMENT V-4



Area B – Underground storage vessel

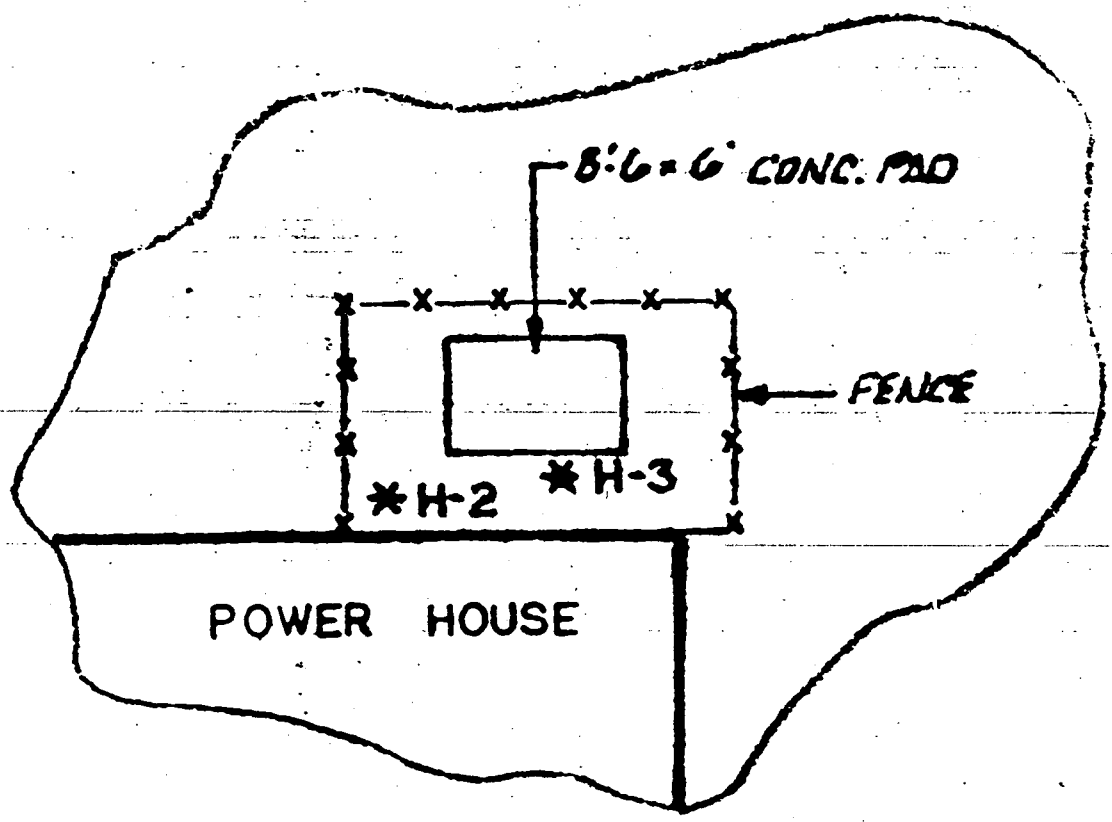
Source: ESE, 1991

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

ATTACHMENT V-5

LEGEND:

* PREVIOUS PCB SAMPLING LOCATION



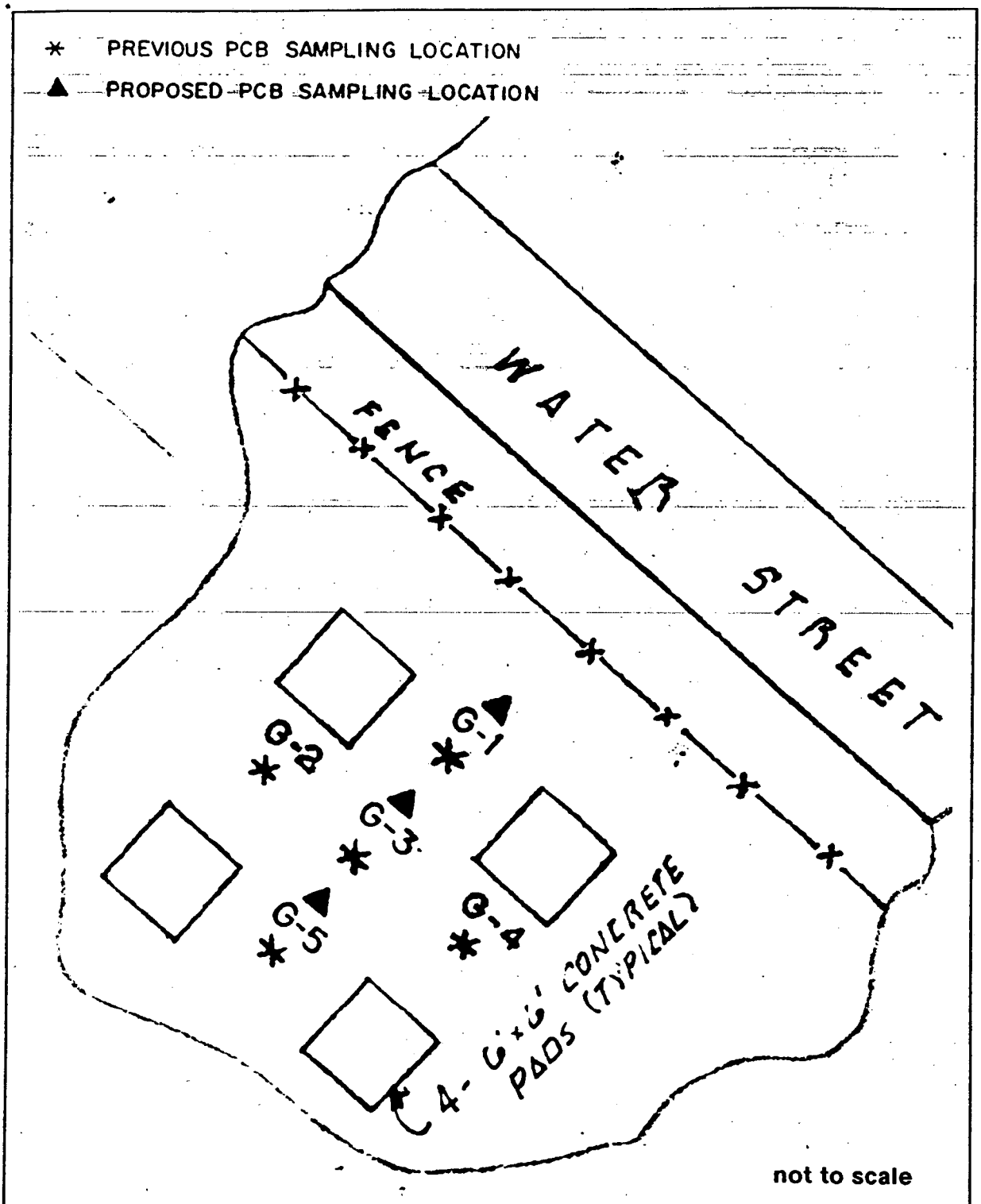
not to scale

Area D – PCB transformers
(enlarged view)

page 2 of 2 ESE, 1991

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

ATTACHMENT V-6



Area D – PCB transformers

(enlarged view)

page 1 of 2 ESE, 1991

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

ATTACHMENT V-7

ATTACHMENT W

Delist

A4

State of New Jersey
Department of Environmental Protection and Energy
Environmental Regulation
Hazardous Waste Regulation Element
CN 028
Trenton, NJ 08625-0028

Scott A. Weiner
Commissioner

Frank Coolic
Administrato

SEP 09 1991

Mr. Fred Bright
GAF Building Materials Corporation
1361 Alps Road
Wayne, NJ 07470-3689

RE: Delisting of GAF Building Materials Corporation, Gloucester City, New Jersey (EPA ID No. NJD 043 292 606 - New Jersey Facility No. 0414A2HW01), from Treatment, Storage and Disposal Status

Dear Mr. Bright:

The Bureau of Hazardous Waste Engineering (hereinafter "the Bureau") has conducted a review of its file on GAF Building Materials Corporation (hereinafter "GAF") and has concluded that the company does not operate a hazardous waste facility.

GAF submitted a Notification of Hazardous Waste Activity Form to the United States Environmental Protection Agency (USEPA) on August 12, 1980. This notification was for the treatment/storage/disposal of waste classified as hazardous. An incomplete Part A permit application was submitted to the USEPA on November 19, 1980. On July 10, 1981, GAF then requested that further processing of the Part A permit application be discontinued by the USEPA because GAF does not generate, treat, store or dispose of any waste classified as hazardous in excess of the small quantity generator exclusion limit.

An inspection of the site on January 9, 1990 by representatives of the Bureau and of the Department's Southern Bureau of Field Operations revealed that GAF only generates hazardous waste. The hazardous waste generated is spent solvents from degreasing parts and equipment in a shop area at GAF. Furthermore, GAF ceased its manufacturing operations (base felt) on December 31, 1983 and removed all hazardous waste from its clean out project in September of 1986.

Based upon the review by the Bureau, and the site inspection performed by representatives of the Department, the Bureau has determined that GAF does not treat, store, or dispose of hazardous waste. GAF which is identified by the USEPA identification number NJD 043 292 606 is no longer included in the Department's list of Treatment, Storage or Disposal facilities.

This written acknowledgement of the exclusion of the subject company from the hazardous waste facility requirements under N.J.A.C. 7:26-1 et seq. is based expressly on the review of the aforementioned correspondence and site inspection. This letter makes no claim as to the extent and physical conditions of the actual hazardous waste activities occurring at the site mentioned above. To operate a hazardous waste facility without prior approval from the DEP is a violation of the Solid Waste Management Act N.J.S.A. 13:1 et seq.

GAF shall comply with each of the following requirements in accordance with N.J.A.C. 7:26-9.3(a) regarding the accumulation of hazardous for ninety (90) days or less:

1. All such waste is, within 90 days or less, shipped off-site to an authorized facility or placed in an on-site authorized facility, as defined at N.J.A.C. 7:26-1.4.

2. The waste is placed in containers which meet the standards of N.J.A.C. 7:26-7.2 and are managed in accordance with N.J.A.C. 7:26-9.4(d).

3. The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container. While being accumulated on-site, each container shall be clearly labeled or marked with the words "Hazardous Waste" and labeled in accordance with 49 CFR 172.304.

4. The generator complies with the requirements for owners and operators of N.J.A.C. 7:26-9.6 and 9.7 concerning preparedness and prevention, contingency plans and emergency procedures as well as N.J.A.C. 7:26-9.4(g) concerning personnel training.

GAF may also accumulate hazardous waste in accordance with N.J.A.C. 7:26-9.3(d) regarding the accumulation of hazardous without permit, if:

1. The quantity of waste in each accumulation area is less than 55 gallons of hazardous waste or less than one quart of acutely hazardous waste listed in N.J.A.C. 7:26-8.15(e);

2. The waste is placed in containers which meet the standards of N.J.A.C. 7:26-7.2 and are managed in accordance with N.J.A.C. 7:26-9.4(d)2, 9.4(d)3, and 9.4(d)4i;

3. The accumulation area is at or near any point of generation where wastes initially accumulate in a process, which is under the control of the operator of the process generating the waste;

4. The generator marks the containers with the words "Hazardous Waste";

5. The generator marks the container with the date that the quantity of waste reaches the volume indicated in (d)1 above; and

6. Within three days after the quantity of waste reaches the volume identified in (d)1 above the generator complies with one of the following;

ATTACHMENT W-2

AI

i. Places the container in an accumulation area in accordance with N.J.A.C. 7:26-9.3(a) above; or

ii. Places the container in an on-site authorized facility, as defined at N.J.A.C. 7:26-1.4; or

iii. Transports the container to an off-site authorized commercial hazardous waste facility in accordance with N.J.A.C. 7:26-7.

If you have any questions, please contact Anthony Drummings of my staff at (609) 292-9880.

Very truly yours,

Thomas Sherman, Chief
Bureau of Hazardous Waste Engineering

EP51/dbm/slw

c: Ellen Doering, USEPA Region II
Thomas Downey, SBFO
Phil Cole, MIS

DOCUMENT: GAF
FOLDER: DBMMCB

ATTACHMENT W-3

ATTACHMENT X

ASBESTOS SURVEY REPORT

GAF BUILDING MATERIALS CORPORATION

GLOUCESTER CITY, NEW JERSEY PLANT

OCTOBER 1991

ATTACHMENT X1

RESOURCE MANAGEMENT, INC.

GAF BCM
GLOUCESTER CITY, NEW JERSEY

ATTACHMENT X-2

1 MILFORD ROAD
BERLIN • NJ • 08009
609-768-4115
800-447-1764
FAX 609-768-5499

CORPORATE OFFICE
335 W. BALTIMORE AVE. • MEDIA • PA 19063
215-565-8890 / 800-888-8890
FAX 215-891-0398

2400 ALPINE COURT
FINKSBURG • MD • 21048
301-833-5443

GAF BMC
Gloucester City, New Jersey

SUMMARY OF FINDINGS:

	TOTAL QUANTITY	
SQUARE FEET BLDG.	221,962.00	(FOOTAGE SURVEYED +/-)
S.F. ACM ROOFING	137,755.00	(+/-)
S.F. ACM SIDING	24,964.00	(+/-)
L.F. ACM PIPE COVER ...	19,491.00	(+/-)
S.F. ACM TRANSITE BOARD	11,752.00	(+/-)
S.F. ACM FLAT	14,642.00	(+/-)
S.F. ACM FLOORING	4,300.00	(+/-)
S.F. APPROX ACM DEBRIS .	14,270.00	(+/-)

ATTACHMENT X-3

GAF BMC
Gloucester City, New Jersey

TABLE "A" CONTINUED

Sample	Description	BLDG	Friable	%	ACM Type
27	Bulk @ VAT Cafeteria	6	No	0	
	Mastic		No	2	Chryso
28	Bulk @ Office VAT	1	No	1	Chryso
29	Bulk @ Pipe Cover 6"	1	Yes	95	Amos
30	Bulk @ Office VAT	6	No	0	
31	Bulk @ VAT 9 X 9	2	No	15	Chryso
	Brown/Green				
32	Bulk @ Flooring Sheet Goods	2	No	15	Chryso
	Orange Flower				
33	Bulk @ Flooring Sheet Goods	2	No	20	Chryso
	Square Pattern				
34	Bulk @ Pyro Fab	2	Yes	0	
35	Bulk @ Vessel (Turbine Deck)	11	Yes	40	Chryso
	Large				
36	Bulk @ Boiler (Turbine Deck)	11	Yes	35	Amos
				20	Chryso
37	Bulk @ Pipe - 24"	11	Yes	35	Chryso
	Turbine Deck			15	Crocod
38	Bulk @ Duct/Blower	11	Yes	15	Chryso
	Turbine Deck				
39	Bulk @ Boiler 3 @ Top	11	Yes	25	Chryso
				5	Amos
40	Bulk @ Boiler 4 @ Grout	11	Yes	0	
41	Core @ Roof	11	No	0	
42	Bulk @ Brick	17	No	0	
	Look-A-Like Siding				
43	Bulk @ White Brick Blr		No	0	
44	Bulk @ Red Brick Blr	11	No	0	

Amos = Amosite Asbestos
Chryso = Chrysolite Asbestos
Crocod = Crocodilite Asbestos

ATTACHMENT X-4

ENVIRONMENTAL HAZARDS SERVICES, INC.

2316 MEETINGHOUSE ROAD • BOOTHWYN, PA 19061
215 • 485 • 4500 FAX 215 • 485 • 2277

ASBESTOS ANALYSIS REPORT

CLIENT:	Resource Management Inc. 335 W. Baltimore Avenue Media, PA 19063
LOCATION:	GAF BMC Gloucester City, NJ
PROJECT NUMBER:	9-91-2563
DATE OF REPORT:	September 25, 1991
REPORT PREPARED BY:	Jack R. Carney, President
ANALYSIS CONDUCTED BY:	Lisa M. Lewis

ATTACHMENT X-5

Environmental Hazards Services, Inc.

PROJECT NUMBER: 9-91-2563

EXECUTIVE SUMMARY

Environmental Hazards Services, Inc. was contracted by Resource Management, Inc. to provide analytical services for suspect asbestos samples collected from GAF BMC located at Gloucester City, NJ, on September 20, 1991. These samples were collected by Resource Management, Inc. and submitted for analysis.

METHODS

Sample analysis was performed following EPA Method 600-M4-82-020, December 1982 utilizing Polarized Light Microscopy in Environmental Hazards Services' laboratory located in Philadelphia, Pennsylvania.

ATTACHMENT X-6

Environmental Hazards Services, Inc.

RESULTS

CLIENT: Resource Management, Inc.

LOCATION: GAF BMC
Gloucester City, NJ

PROJECT NUMBER: 9-91-2563

SAMPLE #	LOCATION	% ASBESTOS	OTHER MATERIALS
2565-1	Building #16 - builk bags debris	None Detected	30% Synthetic 3% Fiberglass 10% Cellulose 10% Vermiculite 47% Binder
2565-2	Building #16 - build digestor cover	None Detected	20% Synthetic 35% Fiberglass 5% Cellulose 38% Binder 2% Rust
2565-3	Building #16 - builk digestor cover	None Detected	40% Mineral Wool 3% Cellulose 1% Synthetic 56% Binder
2565-4	Building #16 bulk blt up roof at door	10% Chrysotile	15% Fiberglass 25% Cellulose 10% Tar 50% Binder
2565-5	Bulk woven cloth courtyard	<1% Chrysotile	85% Synthetic 5% Cellulose 10% Binder
2565-6	Building #4 bulk transite	94% Chrysotile	1% Fiberglass 5% Binder
2565-7	Building #1 bulk lg. steam steam lines at roof	20% Chrysotile	40% Mineral Wool 20% Cellulose 20% Binder
2565-8	Building #8 bulk at roof saw tooth 4	10% Chrysotile	25% Cellulose 5% Fiberglass 60% Tar

ANALYST: Lisa M. Lewis
Lisa M. Lewis

ATTACHMENT X-7

Environmental Hazards Services, Inc.

RESULTS

CLIENT: Resource Management, Inc.

LOCATION: GAF BMC
Gloucester City, NJ

PROJECT NUMBER: 9-91-2563

SAMPLE #	LOCATION	% ASBESTOS	OTHER MATERIALS
2563-9	Building #1 bulk at roof saw tooth 5	None Detected	25% Fiberglass 10% Cellulose 50% Tar 15% Binder
2563-10	Building #1 bulk trans end saw tooth 4	85% Chrysotile	15% Binder
2563-11	Building #1 core at roof saw tooth 4	None Detected	30% Cellulose 15% Fiberglass 55% Tar
2563-12	Building #1 bulk at roof saw tooth 3	15% Chrysotile	20% Fiberglass 20% Cellulose 45% Tar
2563-13	Building #1 core at roof saw tooth 1	2% Chrysotile	2% Synthetic 35% Cellulose 4% Fiberglass 35% Tar 22% Binder
2563-14	Building #1 bulk wall flash saw tooth 2	10% Chrysotile	10% Fiberglass 20% Cellulose 2% Synthetic 48% Tar 10% Binder
2563-15	Building #5 core at roof	5% Chrysotile	30% Cellulose 10% Fiberglass 30% Tar 25% Binder
2563-16	Building #5	None Detected	30% Cellulose 2% Synthetic 8% Fiberglass 50% Tar 10% Binder

ANALYST: Lisa M. Lewis

ATTACHMENT X-8

Environmental Hazards Services, Inc.

RESULTS

CLIENT: Resource Management, Inc.

LOCATION: GAF BMC
Gloucester City, NJ

PROJECT NUMBER: 9-91-2563

SAMPLE #	LOCATION	% ASBESTOS	OTHER MATERIALS
2563-17	Building #5 bulk at roof	None Detected	25% Cellulose 5% Synthetic 15% Fiberglass 55% Tar
2563-18	Building #5 bulk at ceiling elec. room	None Detected	20% Cellulose 2% Synthetic 20% Fiberglass 5% Vermiculite 53% Binder
2563-19	Building #1 bulk at flooring	15% Chrysotile	25% Cellulose 15% Fiberglass 20% Binder 25% Tile
2563-20	Building #1 bulk at pipe (paper 10")	None Detected	65% Cellulose 2% Synthetic 5% Tar 28% Binder
2563-20B	Building #1 bulk at pipe 12"	45% Chrysotile 10% Amosite	45% Binder
2563-21	Building #1 bulk at light adj. samp #20 mill dust	None Detected	10% Fiberglass 10% Synthetic 50% Cellulose 20% Binder 10% Tar
2563-22	Building #1 bulk at pipe	None Detected	85% Cellulose 5% Fiberglass 5% Binder 5% Tar

ANALYST: Lisa M. Lewis
Lisa M. Lewis

ATTACHMENT X-9

Environmental Hazards Services, Inc.

RESULTS

CLIENT: Resource Management, Inc.

LOCATION: GAF BMC
Gloucester City, NJ

PROJECT NUMBER: 9-91-2563

SAMPLE #	LOCATION	% ASBESTOS	OTHER MATERIALS
2563-23	Building #1 bulk at pipe 2 layers	15% Chrysotile	1% Fiberglass 45% Cellulose 5% Synthetic 10% Paint 20% Binder 4% Tar
2563-24	Building #6 bulk at flooring	30% Chrysotile	20% Cellulsoe 20% Fiberglass 30% Tile
2563-25	Building #6 bulk at ceil tile (2x1)	None Detected	78% Cellulose 2% Synthetic 20% Paint
2563-26	Building #1 bulk at duct	None Detected	25% Mineral Wool 5% Fiberglass 30% Binder 20% Mica Chips 20% Tar Pieces
2563-27	Tar - building #6 bulk at vat cafeteria	2% Chrysotile	3% Cellulose 1% Synthetic 94% Tar
	Tile	None Detected	1% Cellulose 5% Wollastonite <1% Synthetic 94% Tile
2563-28	Building #1 bulk at office vat	1% Cellulose	2% Cellulose 1% Synthetic 25% Tar 71% Tile
2563-29	Building #1 bulk at pipe cov. <6"	95% Amosite	5% Binder

ANALYST: Lisa M. Lewis

ATTACHMENT X-10

Environmental Hazards Services, Inc.

RESULTS

CLIENT: Resource Management, Inc.

LOCATION: GAF BMC
Gloucester City, NJ

PROJECT NUMBER: 9-91-2563

SAMPLE #	LOCATION	% ASBESTOS	OTHER MATERIALS
2563-30	Building #6 bulk at office vat	None Detected	30% Cellulose 1% Synthetic 69% Tile
2563-31	Building #2 bulk at vat 9x9 brown/green	15% Chrysotile	2% Animal Hair 5% Cellulose 2% Synthetic 1% Fiberglass 55% Binder 20% Tar
2563-32	Building #2 bulk at flooring sheet goods orange flower	15% Chrysotile	2% Synthetic 10% Cellulose 20% Plastic 48% Sponge 5% Binder
2563-33	Building #2 bulk at flooring sheet goods square pattern	20% Chrysotile	10% Cellulose 1% Synthetic 25% Tile 44% Sponge
2563-34	Building #2 bulk at pyro fab	None Detected	2% Cellulose 2% Mineral Wool 96% Binder
2563-35	Building #11 bulk at vessel (turbine deck) large	40% Chrysotile	25% Cellulose 2% Synthetic 33% Binder
2563-36	Building #11 bulk at boiler (turbine deck)	35% Amosite 20% Chrysotile	2% Cellulose 38% Binder 5% Tar
2563-37	Building #11 bulk at pipe 24" turbine deck	35% Chrysotile 15% Crocodilite	25% Mineral Wool 10% Cellulose 15% Binder

ANALYST: Lisa M. Lewis

Lisa M. Lewis

ATTACHMENT X-11

Environmental Hazards Services, Inc.

RESULTS

CLIENT: Resource Management, Inc.

LOCATION: GAF BMC
Gloucester City, NJ

PROJECT NUMBER: 9-91-2563

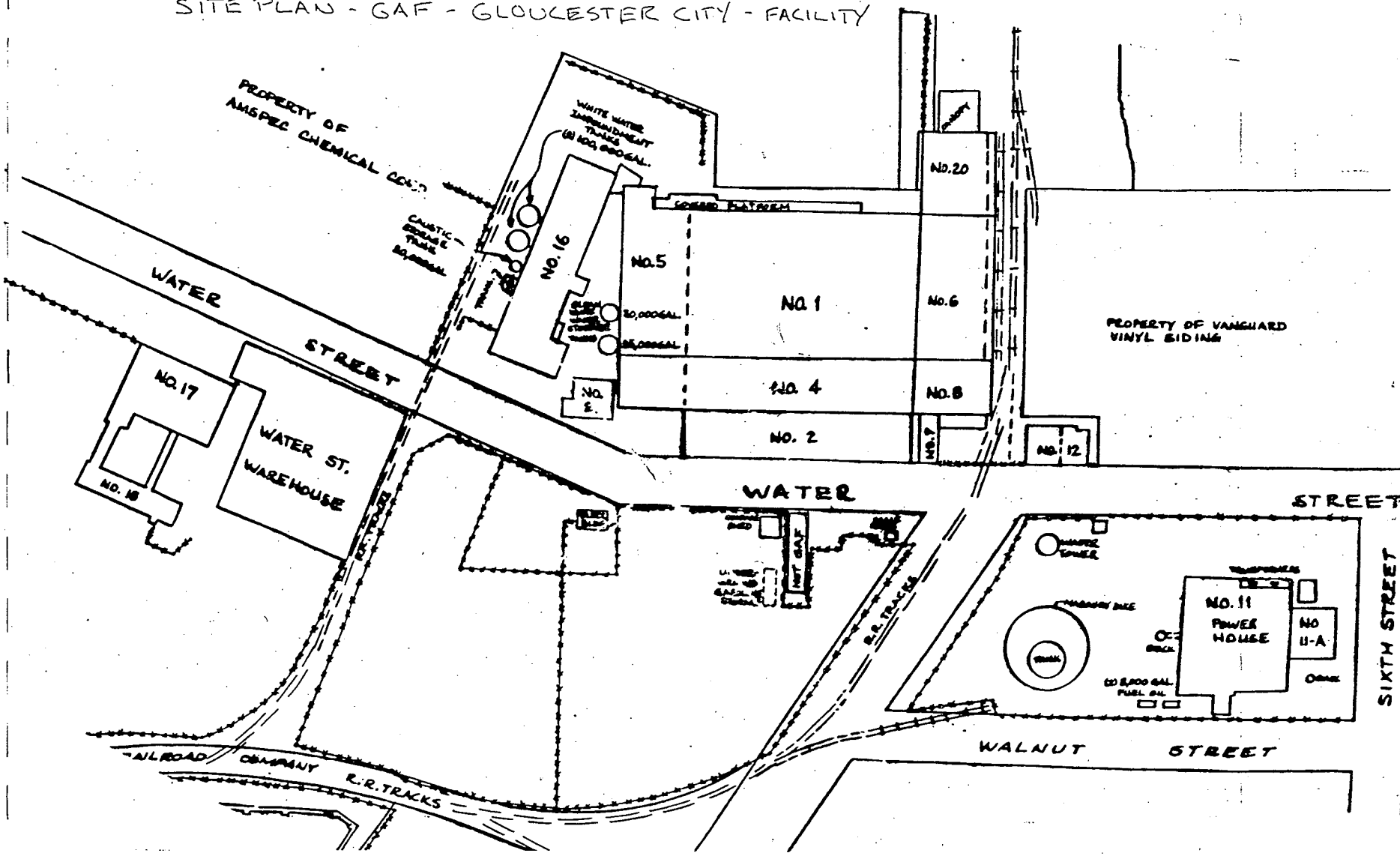
SAMPLE #	LOCATION	% ASBESTOS	OTHER MATERIALS
2563-38	Building #11 bulk at duct blower turbine deck	15% Chrysotile	35% Mineral Wool 50% Binder
2563-39	Building #11 bulk at boiler 4 at top	25% Chrysotile 5% Amosite	30% Mineral Wool 40% Binder
2563-40	Building #11 bulk at boiler 3 at grout	None Detected	1% Cellulose 99% Binder
2563-41	Building #11 core at roof	10% Chrysotile	15% Cellulose 3% Fiberglass 2% Synthetic 65% Tar 5% Binder
2563-42	Building #17 bulk at brick look alike siding	None Detected	35% Cellulose 5% Synthetic 45% Tar 15% Binder
2563-43	Bulk at white brick blr	None Detected	1% Cellulose <1% Fiberglass 99% Binder
2563-44	Building #11 bulk at red brick blr	None Detected	5% Cellulose 95% Binder

ANALYST: Lisa M. Lewis

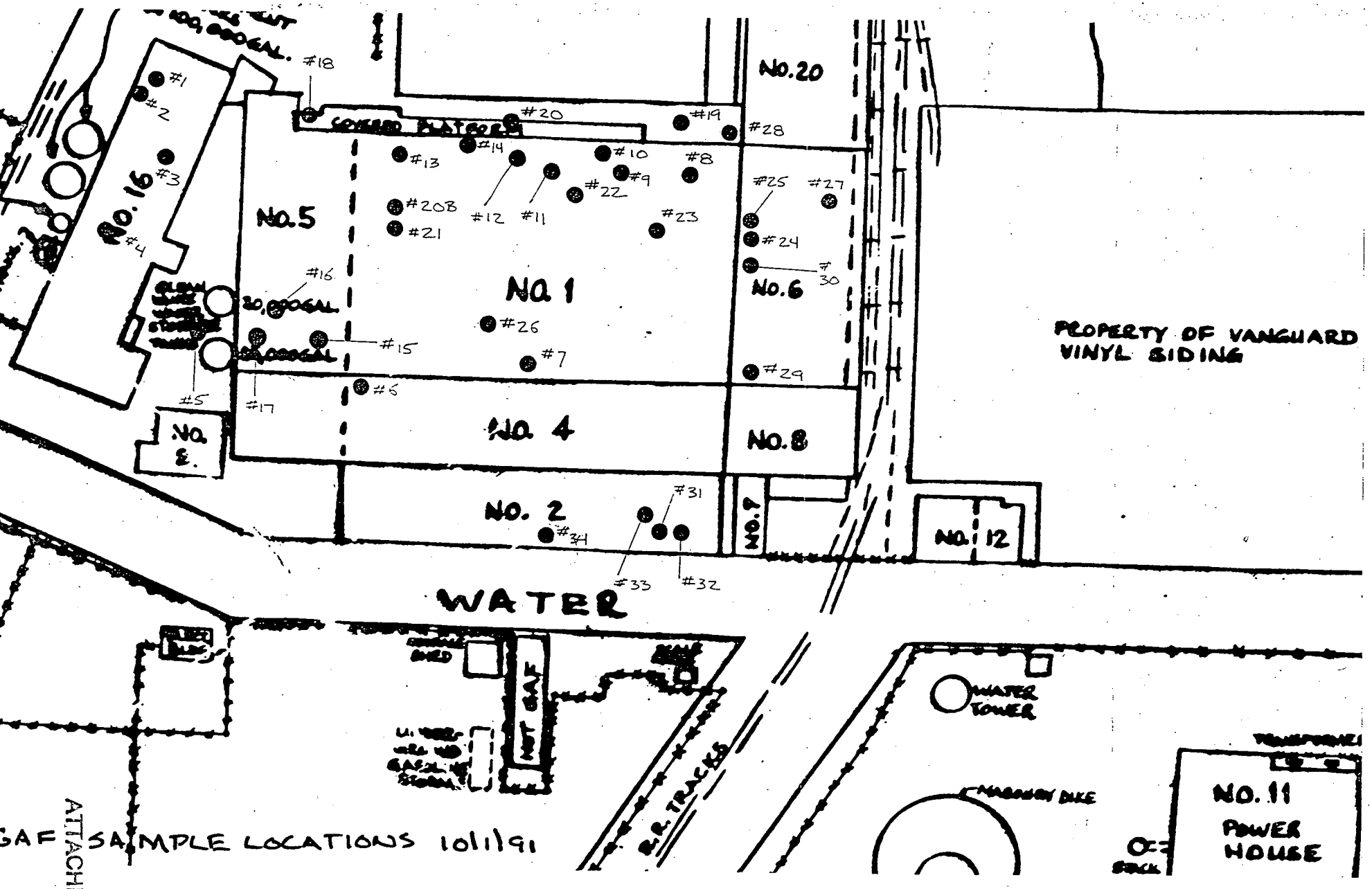
Lisa M. Lewis

ATTACHMENT X-12

SITE PLAN - GAF - GLOUCESTER CITY - FACILITY

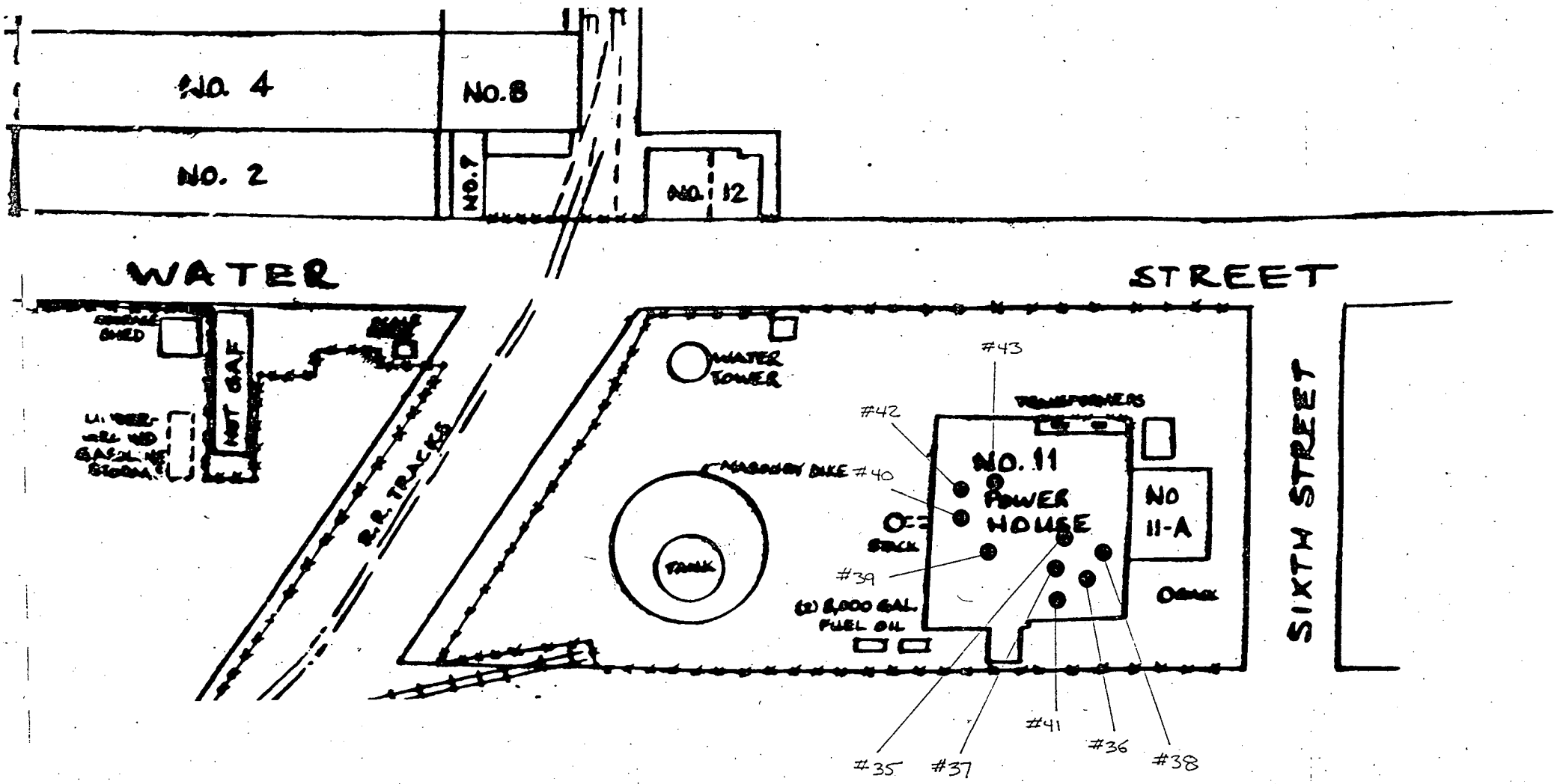


ATTACHMENT X-13



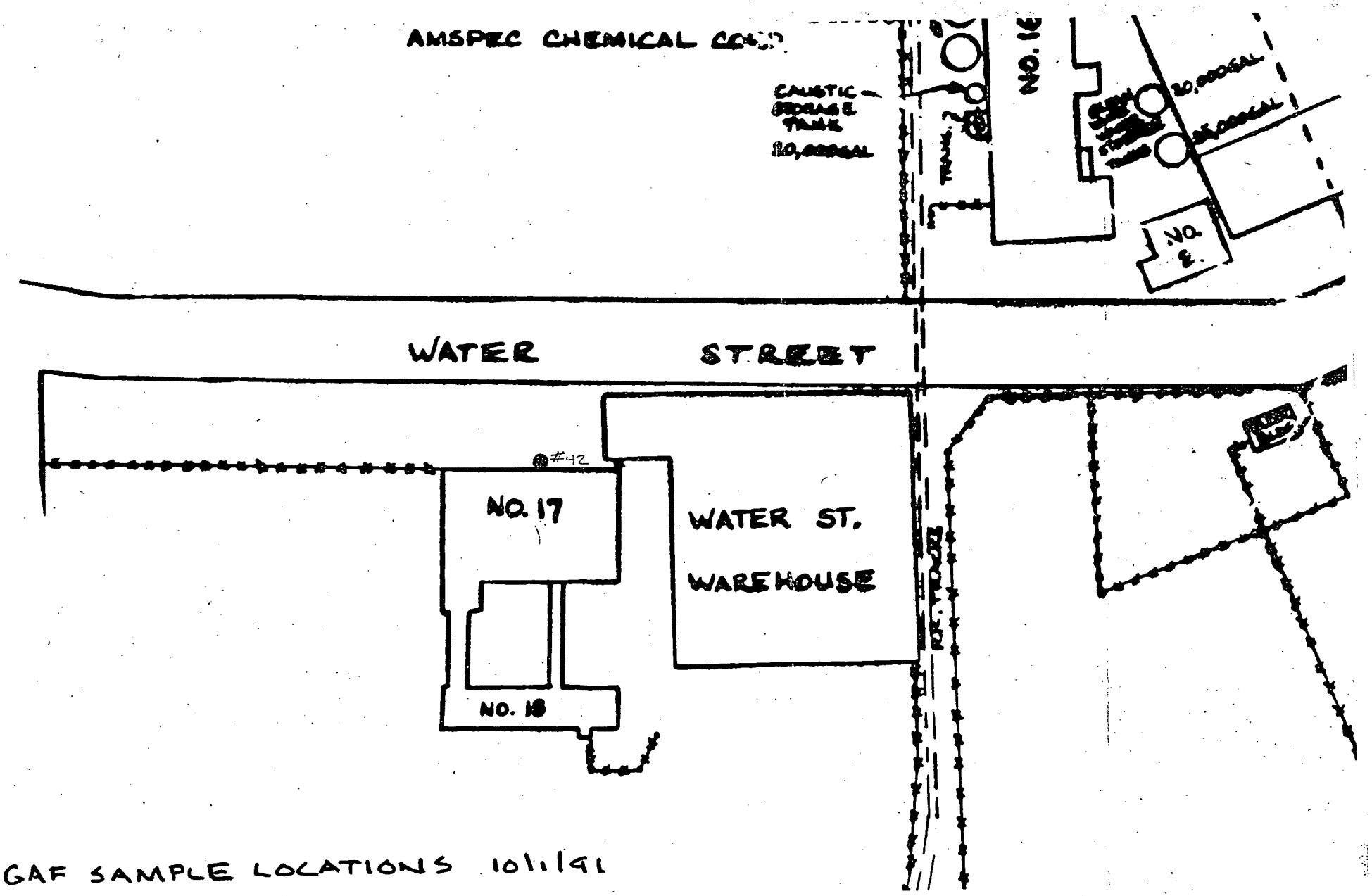
GAF SAMPLE LOCATIONS 10/1/91

ATTACHMENT K-14



GAF SAMPLE LOCATIONS 10/1/91

ATTACHMENT X-15



GAF SAMPLE LOCATIONS 10/1/91

ATTACHMENT X-16

ATTACHMENT Y

ECRA Sampling Results Report
and Proposed Cleanup Plan
GAF Building Materials Corporation Facility
Gloucester City, New Jersey
ECRA Case No. 90263

Cy P 11/91

Prepared by:

Langan Environmental Services, Inc.
River Drive Center 2
Elmwood Park, New Jersey

22 November 1991
2055401

ATTACHMENT Y-1

LESI

1.0 INTRODUCTION

This sampling plan results report and proposed cleanup plan was prepared by Langan Environmental Services, Inc. (LESI) to assist GAF Building Materials Corporation (GAF) located in Wayne, New Jersey in complying with the Environmental Cleanup and Responsibility Act (ECRA) for its Gloucester City facility (Figure 1 - Site Location Map).

This report presents the results of LESI's implementation of the approved revised sampling plan submitted to the New Jersey Department of Environmental Protection and Energy (NJDEPE) by Environmental Science & Engineering Inc. of Plymouth Meeting, Pennsylvania in January 1991. The sampling plan was conditionally approved by the NJDEPE on May 22, 1991.

The objective of the investigation performed at the GAF Gloucester City facility was to evaluate the nature and extent of contamination (if any) in the eight (8) areas of concern identified in the sampling plan and located on the Site Plan (Figure 2). Additionally, four monitoring wells (MW-1 through MW-4) were installed in Areas B and C to evaluate ground water quality conditions.

2.0 HISTORICAL SITE INFORMATION AND SITE CONDITIONS

The GAF Building Materials facility located at the intersection of Charles and Water Streets in Gloucester City, New Jersey was operated by GAF Building Materials Corporation from 1967 until the facility shutdown in 1983.

Prior occupants of the site included the Pusey and Jones Shipyard during World War I and the Lang Paper Mills. In 1935 Lang Paper was acquired by the Ruberoid Company. The plant was still operated as a paper mill when Ruberoid merged with GAF Building Materials Corporation.

The facility is located in a heavily industrialized area occupied by chemical manufacturing, wastewater treatment and oil storage facilities.

Roofing and flooring grade felt materials were manufactured at the GAF facility using defibered wood and mixed papers (office waste paper, waste and kraft corrugated paper and wood flour).

A portion of the site (now known as Area C) was used as a fill area to dispose of metal, glass, plastic and other impurities removed from the process stream during the initial steps in the base felt manufacturing process. In addition, other plant debris, including scrap finished products which contained bound asbestos was periodically disposed of in the fill area.

Prior cleanup activities at the site have included the removal and disposal of transformers and PCB contaminated soil adjacent to the power plant, the abandonment of the two underground storage tanks located in Area B and soil remediation activities due to a #6 fuel oil spillage within the tank dike in Area A.

3.0 TECHNICAL OVERVIEW

3.1 General

The ECRA sampling conducted by LESI at the GAF facility in Gloucester City, New Jersey was performed in accordance with the NJDEPE-approved revised sampling plan dated January 1991 and in a manner consistent with NJDEPE protocols (NJDEPE Remedial Investigation Guide, March 1990).

Eight areas of potential environmental concern were investigated by LESI during the period of September 26 - October 2, 1991. The number of samples collected from each area and the associated analytical parameters are summarized in Table 1. In addition, four monitoring wells (MW-1 through MW-4) were installed in Areas B and C to evaluate ground water quality conditions.

All samples were analyzed by Bridgeport Environmental, Inc. of Bridgeport, New Jersey (NJDEPE Certification No. 08555) in accordance with the methodologies referenced in the sampling plan. The complete laboratory data reports are included in Appendix A.

Table 2 presents NJDEPE action levels for the analyzed compounds for industrial properties similar to the GAF Building Materials facility. The conclusions presented in this report are based on a comparison of the actual contaminant levels found at the GAF site with the NJDEPE action levels.

To facilitate the review of the data generated during the ECRA sampling program, the laboratory data generated during the soil sampling activities are summarized in Tables 3 through 8.

The water level data and the analytical results from the first round of ground water sampling activities conducted on October 15, 1991 have been included in Tables 9 and 10 respectively. The ground water flow direction in the surficial water table aquifer has been depicted on Figure 4.

This ECRA Sampling Results Reports presents the findings of the soil investigative activities and the first round of ground water sampling activities. The results of the well search has been included in Appendix B. The results of the second round of ground water sampling activities will be included as an addendum in January 1992.

4.0 ENVIRONMENTAL SETTING

4.1 Physiography

The GAF site is located on the east side of the Delaware River on the western edge of the New Jersey Coastal Plain. The Coastal Plain Province is a wedge of unconsolidated sediments which increases in thickness from less than 50 feet near the Delaware River, to greater than 4,000 feet in southeastern New Jersey. These sediments are underlain by granitoid gneiss bedrock.

Topographic relief at the site is minimal. Elevations generally range between 5 and 10 feet above mean sea level. Surface water drainage is generally controlled by a series of stormwater catch basins that discharge to the combined sewer system. The majority of the site is covered by grass with large portions covered by buildings.

4.2 Soils

The following descriptions of the soil and fill materials encountered at the site are based upon observations made during the drilling of LESI-supervised soil borings, monitoring wells and test pit excavations, completed during the ECRA-related investigation (September 26 to October 2, 1991). These materials include imported fill, tidal marsh deposits and non-marine, recent alluvium (referred to collectively, as Quaternary

deposits). Soil boring, monitoring well construction and test pit excavation geologic logs detailing subsurface conditions are included in Appendix C.

Surficial Fill: The artificially placed fill materials extend to depths ranging from 3 to greater than 6 feet below the existing grade. The amount and type of fill material varies between different areas of the site. In the areas surrounding the former powerhouse, it consists of coal fragments and powder, and gravel with low to moderate amounts of soil. In the same area, there is an underlying soil fill which consists of red-brown, fine to coarse sand and gravel. In Area C (fill area) the fill material generally consists of a 6-inch to 12-inch layer of miscellaneous debris intermingled within high organic content soil, which is underlain by one or more of the following fill layers: a black silt to fine sand material; a red-brown soil which contains high volume percentages of glass and metal; a layer of wood and burnt wood material with low to moderate amounts of silt-fine sand; and a layer of white material. Between these layers, various amounts of fill material consisting of wood, metal, bricks and plastics exist. The underlying native soil in this area consisted of fine to coarse sands with silt and gravel.

Tidal Marsh Deposits: Native tidal marsh deposits, which consist of clay-silt to silty-sand, were encountered below the fill in all areas where the overlying unit was penetrated. These deposits extend to depths of at least 20 feet below grade with local thicknesses of approximately 15 feet. Occasional fine sand and fine gravel lenses were also encountered within this unit. The tidal deposits vary in color from gray to brown, depending on the amount of organic matter present.

Alluvium: Soil consisting predominantly of varying amounts of fine sand and gravel, was encountered throughout the boring for monitoring well MW-4 and in several borings in Area C at a depth of approximately 20-22 feet below grade; i.e., below the tidal marsh deposits. Color varies from light brown to off-white. The thickness and lateral extent of this unit cannot be determined from available soil boring data, but is believed to be a river bank deposit.

Figure 3 details the stratigraphy at the monitoring well locations.

4.3 Geology

Based upon a review of available geologic literature, the following geologic units are expected to underlie the Quaternary deposits at the site:

Surficial Soils: At Area C the fill has been placed on a former tidal flat (marsh) between Big Timber Creek and the Delaware River. Monitoring wells 1, 2 and 3 are screened in the organic-rich silt of that marsh. (Monitoring well certification forms are included in Appendix D.) At monitoring wells MW-2 and 3, alluvial deposits underlie the organic silts and clays, at a depth of 20-22 feet. The soil at monitoring well MW-4 contains no tidal marsh deposits. It consists of alluvial deposits, most likely deposits from the former bank of the Delaware River.

Coastal Plain Sediments: Cretaceous deposits of the Raritan Formation and Potomac Group (PMR Group) underlie the surficial soils at the site. These deposits consist of unconsolidated sediments with horizontal and vertical facies changes. The Raritan Formation consists of fluvial-marginal marine-derived sediments in alternating beds or lenses of white, gray or red clay and white to reddish brown, coarse to fine grained sand with occasionally gravel layers. The thickness of this unit is reported to be approximately 50 to 100 feet in the site area. Lithologically similar sediments with a maximum thickness of 50 feet and representative of the Potomac Group may underlie the Raritan Formation at the site.

Consolidated Bedrock: Underlying the Coastal Plain sediments are consolidated metamorphosed rocks of lower Paleozoic and Precambrian age. These units are often referred to as basement rocks and probably occur 50 to 150 feet below the surface at the site.

4.4 Hydrogeology

There are two hydrogeologic systems below the site. These are tidal marsh deposits, and the underlying river bank and/or Cretaceous PMR Group. In wells MW-1, 2 and 3 screened in the tidal marsh deposits, ground water was encountered within and just below the surficial fill material at depths ranging from 5 to 7 feet below grade. Corresponding elevations of the water table generally vary from 2.4 to approximately 4.5 feet above Mean Sea Level (MSL). Well MW-4 does not intersect the tidal marsh

deposits. Ground water was encountered at 25 to 27 feet below grade with an elevation of (-)17 feet MSL (Table 9).

This disparity in ground water elevations over a relatively short horizontal distance, and in a zone very close to the significant hydraulic control of the Delaware River can be explained by the lateral facies change which is evident in the respective well logs of wells MW-1, 2 and 3, as compared to the log of well MW-4. The relatively finer-grained sediments of the tidal marsh deposits store enough water to produce at low yields in the three wells. This unit is underlain by a coarse-grained sand with a sharp contact. That lower stratum is equivalent to the first water-bearing zone encountered in well MW-4, where the tidal marsh deposits are absent. The distinction made between the two facies as separate hydrogeologic units is supported by both the hydraulic conductivity and storage capacity differences demonstrated by the monitoring wells in the two units. Monitoring wells in the tidal marsh produce water at approximately one-two gallons per minute, and have a maximum total yield of less than 30 gallons. In contrast, well MW-4, screened in the lower sand unit, produced water at 10 gpm with no appreciable drawdown.

Shallow ground water flow in the tidal deposits is predominantly to the north/northwest toward the Delaware River (Figure 4). Ground water flow in the lower water-bearing unit (well MW-4) in the area of the former 10,000 gallon underground kerosene and 1,000 gallon underground gasoline tank can not be determined from this investigation.

According to published references, the aerial distribution of the Magothy Formation, which represents the upper water bearing unit of the regional Coastal Plain Aquifer System, is limited to the area east of the site. The middle aquifer unit, probably within the Raritan Formation, is expected to underlie the shallow water table aquifer and tidal marsh deposits at the site. The thickness of this unit varies as a result of former exposure in the area. A leaky aquitard consisting of red to white clay approximately 20 feet has been reported to exist between the middle and lower aquifer units in the site area. The lower water bearing unit, found within the Potomac Group, is reported to be 30 to 35 feet in thickness near the site. No soil boring or monitoring well data concerning the Potomac-Raritan-Magothy Aquifer System were obtained during the LESI investigations.

Due to the high pumping rates from water supply wells in the region, a regional cone of depression, with potentiometric levels below 80 feet Mean Sea Level, and probably 30 to 40 feet below Mean Sea Level at the site, is present within the upper member of the Coastal Plain Aquifer System (Magothy). Ground water within all members of this Coastal Plain Aquifer System flows in an eastward direction, away from the Delaware River as a result of excessive pumping east of the river. None of the wells on the site extended into the Coastal Plain Aquifer System; they are all installed in the shallow water table aquifer, which is connected hydraulically to the Delaware River.

The underlying basement rock is not reported to have any continuous water supply aquifers. However, where this rock is highly fractured at its contact with overlying Coastal Plain sediments, local aquifer conditions may be present.

Based on the water table measurements and site stratigraphy, it is concluded that the shallow ground water flow onsite occurs within the shallow water table aquifer which is not part of the regional Coastal Plain Aquifer System. It is expected that shallow ground water in the shallow water aquifer is discharged to the Delaware River to the north/northwest.

5.0 ENVIRONMENTAL SAMPLING

5.1 Area A - Above Ground Storage Tank Area

5.1.1 General

Four above ground petroleum storage tanks are located in Area A. Two of the tanks (a vertical 40,000 gallon #6 fuel oil and a horizontal 1,000 gallon kerosene) are located within the concrete diked area on permeable ground cover. The supply and return lines to these tanks are housed in a concrete pipe trench. An oil water separator of 100 gallon capacity is located directly outside the containment dike.

Facility personnel have indicated that there had been one reported overfill of the large aboveground tank. The #6 fuel oil was contained within the dike and collected in a tile french drain located on the south side of the tank. The fuel

oil, contaminated soil and the tile drain area were remediated following the release.

Four shallow soil samples were collected from within the dike area (from locations S-9 through S-11) at depths of 0 to 6 inch in areas exhibiting ground staining and distressed vegetation and analyzed for base neutral +15 compounds and total petroleum hydrocarbons. An additional soil sample (location S-8) was collected from the 0 to 6 inch interval beneath the outlet on the oil-water separator and analyzed for base neutral +15 compounds and total petroleum hydrocarbons.

Seven soil samples (locations S-1 through S-7) were collected from the 0 to 6 inch sample interval beneath the two 8,000 gallon above ground diesel fuel tanks located north of the concrete diked area and analyzed for base neutral +15 compounds and total petroleum hydrocarbons.

No elevated PID readings were registered at any of the sample locations in Area A - Above Ground Storage Tank Area.

5.1.2 Results

The analytical results of the soil samples collected from the above ground storage tank area are summarized in Table 3 and depicted on Figure 2, Details B and C.

Elevated levels of total petroleum hydrocarbons (above the NJDEPE action levels of 10,000 mg/kg) were detected at locations S-11 (38,200 mg/kg), S-3 (15,300 mg/kg) and S-7 (11,000 mg/kg). The soil samples were collected in areas of heavy soil staining, and contamination may therefore be due to surficial spillage.

Additionally, carcinogenic base neutral compounds above the NJDEPE action levels of 10 mg/kg were detected at location S-12 (19,100 mg/kg). No petroleum hydrocarbons were detected at this sample location.

5.2 Area B - Underground Storage Tank Area

5.2.1 General

Two abandoned underground storage tanks of capacities 1,000 and 10,000 gallons are present in Area B. The 1,000 gallon and 10,000 gallon steel USTs were previously used to store gasoline and kerosene, respectively. In December 1988, the top sections of each tank were cut off and the tanks were filled with gravel. (Refer to SES Submission to the NJDEPE; copies of the referenced forms are included in Appendix E.)

In order to evaluate the subsurface soils adjacent to the tanks to evaluate the possibility of any past leakages of the two tanks, four soil borings (locations B-7 through B-10) were drilled around the 1,000 gallon tank. Four (4) soil samples were collected from the soil borings drilled around the 1,000 gallon gasoline tank and analyzed for volatile organic compounds +15 and xylene. Additionally, six (6) soil samples (locations B-1 through B-6) were collected from the soil borings drilled around the 10,000 gallon kerosene tank and analyzed for volatile organics +15, xylenes, naphthalene and total petroleum hydrocarbons.

No elevated PID readings were registered at any of the soil borings in Area B - Underground Storage Tank Area,

5.2.2 Results

The analytical results of the soil samples collected from the underground storage tank area are summarized in Table 4 and depicted on Figure 2 Detail D.

Total petroleum hydrocarbon concentrations ranged from 60 mg/kg at location B-3 to 3,310 mg/kg at location B-1, with no readings above the NJDEPE action levels of 10,000 mg/kg.

Total volatile organic concentrations ranged from ND to 1,622 ug/kg at location B-7. At no locations did the concentrations of total volatile organics exceed the NJDEPE action levels of 10,000 ug/kg.

5.3 Area C - Fill Area

5.3.1 General

According to GAF personnel, portions of Area C were utilized for the disposal of metal, glass, plastic and other impurities removed from the process stream during the initial steps on the base felt manufacturing process. Additionally, other debris including scrap materials containing bound asbestos were periodically disposed of in the fill area. In order to assess the potential impacts to the environment resulting from this area, subsurficial soil and ground water quality conditions were evaluated in the area.

Prior to the initiation of soil and ground water investigative activities in Area C, the entire area was cleared of the dense vegetation present.

On October 1, 1991 a magnetometer survey was conducted across Area C to identify any possible anomalous areas. This survey was conducted so that the test pit excavations could be biased toward areas where ferrous objects may have been buried. The survey was performed using an RFL Industries, Inc., Model DM22 differential magnetometer. To conduct the survey, the magnetometer was used in its differential (two probe) mode. In this operational mode, ferrous objects can be detected due to their disturbance of the earth's ambient magnetic field. Because of the amount of disturbance noted during the recording of the background measurements, the survey was conducted in a less sensitive range of $\pm$ 10,000 gamma which is equivalent to $\pm$ 0.1 Oersted. It was also necessary to elevate the probe to a height of 24-inches above the ground surface to eliminate background noise.

The actual field survey was conducted by walking along transect lines spaced 25 feet apart. These transect lines ran in a west to east direction beginning at the fence defining the northern boundary of the fill area and ending at the fence defining the southern boundary of the fill areas. In the areas

surrounding monitoring well MW-2 the transect lines were run in a north to south direction (Figure 5).

Five test pits (TP-1A through TP-5A) were excavated using a backhoe in areas indicating anomalous readings. The test pits were excavated to the bottom of the fill material. One soil sample was collected from each of the test pits and analyzed for priority pollutant compounds +40 (minus pesticides but including PCBs) and asbestos. The samples were collected by boring into the sidewalls of the excavations and selecting the 6 to 12 inch increment for analysis.

Additionally, two surficial samples (S-13 and S-14) were collected at the original location of the 500 gallon above ground storage tank. According to plant personnel, the storage tank was moved to its present location (adjacent to building 17) in early 1989.

No elevated PID readings were registered at any of the sample locations in Area C.

5.3.2 Results

Figure 5 illustrates the results of the magnetometer survey. The results of the survey were inconclusive as wide areas of the site exhibited anomalous readings ranging from ± 1,000 to ± 1,500 gammas. These anomalous readings could have been caused by several factors including: surficial metal debris and the 6 to 12 inch subsurface layer of metal debris which exists throughout much of the fill area. Because of the number of anomalies, only readings of ± 2,000 or more were recorded. Based on these relatively low anomalies it is not believed that underground storage tanks and/or large metal objects exist in this area. Assuming a tank or drum is located one to two meters below the ground surface, it would exhibit much higher readings, ranging from ± 10,000 to ± 30,000 gammas.

The highest recorded reading was + 6,000 gammas, which was detected at three locations. Test pits 2A and 1A were dug at two of the anomalies, with the third anomaly identified as a stainless steel "segment" found at the surface on 2 October 1991. During the test pit excavations, a metal plate

approximately 1-inch thick and four feet by eight feet was found in test pit 2A. The source for the anomalous measurement at test pit 1A was not determined although the test pit did not exhibit anomalous readings after excavation.

Some trends of anomalous readings were found as large areas exhibited readings of ± 2,000 to ± 4,000 gammas. Test pit 3A was excavated at one of these areas. At a depth of approximately 12 inches below the surface, a 6 to 12 inch layer of metal, glass and soil was found. This layer may account for the anomalous readings across this area.

Test pit 4A was excavated in an area where an anomaly of + 3,000 gammas was recorded. This test pit had miscellaneous fill material including metal debris in the upper 12 to 18 inches.

The analytical results of the soil samples collected from the test pits and beneath the 500 gallon aboveground storage tanks are summarized in Table 5 and depicted on Figure 2. The photodocumentation of the fill layers in Area C is depicted in Appendix F.

Total volatile organic compounds in the soils collected from the test pits ranged from ND to 14 ug/kg at location TP-3A. At no locations did the concentrations of volatile organic compounds exceed the NJDEPE action level of 10,000 ug/kg.

Total semi-volatile organic concentrations ranged from ND to 5,050 ug/kg. At no locations did the concentrations of semi-volatile organics exceed the NJDEPE action level of 10,000 ug/kg.

Eleven metals (antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc, beryllium and selenium) were detected in the test pits. The metals detected and their respective ranges and concentrations are as follows:

1. Antimony concentrations ranged from ND to 45.9 mg/kg (at TP-5A). The NJDEPE action level of 10 mg/kg was exceeded only at location TP-5A.

2. Arsenic concentrations measured at concentrations below the NJDEPE action levels of 20 mg/kg ranged from ND to 18.5 mg/kg (at TP-1A).
3. Cadmium concentrations ranged from ND to 3.44 mg/kg at TP-3A. The NJDEPE action level of 3 mg/kg was exceeded only at TP-3A.
4. Chromium was detected in all the sampling locations at concentrations ranging from 9.98 mg/kg at TP-1A to 30.1 kg/kg at TP-4A. At no sampling locations did the chromium levels exceed the NJDEPE action level of 100 mg/kg.
5. Copper was detected at all the sampling locations with concentrations ranging from 31.8 mg/kg at TP-4A to 918 mg/kg at TP-3A. Copper concentrations above the NJDEPE action level of 170 mg/kg were detected at locations TP-2A (214 mg/kg) and TP-3A (918 mg/kg).
6. Lead was detected in all the samples collected but at concentrations below the NJDEPE action level of 1,000 mg/kg.
7. Mercury concentrations ranged from ND to 3.43 mg/kg (at TP-3A). Mercury above the NJDEPE action level of 1 mg/kg was only detected at location TP-3A.
8. Nickel was detected at all the sampling locations with concentrations ranging from 19.7 mg/kg at TP-1A to 102 mg/kg at TP-4A. Nickel above the NJDEPE action level of 100 mg/kg was only detected at TP-4A.
9. Zinc was detected in all the sampling locations with concentrations ranging from 133 mg/kg at TP-1A to 1,240 mg/kg at TP-3A. Zinc concentrations above the NJDEPE action level of 350 mg/kg were detected at locations TP-2A (353 mg/kg), TP-3A (1,240 mg/kg) and TP-5A (490 mg/kg).
10. Beryllium was only detected in TP-1A (1.13 mg/kg), at a concentration marginally above NJDEPE action level of 1 mg/kg.
11. Selenium concentrations ranged from ND to 4.69 mg/kg (at TP-1A). Selenium above the NJDEPE action level of 4 mg/kg was only detected at TP-1A (4.69 mg/kg).

PCBs were only detected at location TP-2A (0.95 mg/kg) at a concentration below the NJDEPE action level of 5 mg/kg.

Cyanide was detected at locations TP-2A (2.44 mg/kg), TP-3A (1.59 mg/kg) and TP-5A (7.69 mg/kg), but at concentrations below the NJDEPE action levels of 12 mg/kg.

Asbestos levels in the soils in the fill area ranged from 10-15% and was mainly comprised of amosite and chrysotile.

In the former above ground storage tank area, total petroleum hydrocarbon concentrations ranged from 633 mg/kg at S-14 to 1,020 mg/kg at S-13. These concentrations are below the NJDEPE action levels of 10,000 mg/kg.

No semi-volatile organic compounds were detected in any of the samples collected from the former above ground storage tank area.

5.4 Area D - PCB Transformer Area

5.4.1 General

Area D, located west of the powerhouse, includes the location of (refer Figure 2, Detail A):

a. old PCB spill area, and
b. PCB transformers currently in use.

Facility records indicate (refer Appendix G for historical PCB information) that one minor spill occurred in an area adjacent to the concrete pads and Water Street. The spill was remediated and the PCB contaminated soil was excavated and disposed. A November 1985 sampling investigation subsequently indicated the presence of PCBs in the soils at concentrations above the NJDEPE action level of 5 mg/kg. In April 1986 PCB contaminated soil was again excavated from the area and disposed.

The 1985 sampling event also indicated the presence of PCBs in the soil adjacent to the transformer still in operation at a concentration of 6.4 mg/kg. Contaminated soils were subsequently excavated from the area in April 1986.

To confirm the soil cleanup at the location of the old spill, three soil samples (HA-1 through HA-3) were collected from the area using hand augers from below the fill and analyzed for total petroleum hydrocarbons and PCBs.

To verify soil cleanup in the area of the existing transformer, four soil samples (HA-4, HA-5, S-15 and S-16) were collected and analyzed for PCBs. Additionally, eight wipe samples (W-1 through W-8) were collected from the concrete surfaces adjacent to the existing transformer and analyzed for PCBs.

No elevated PID readings were registered at any of the sample locations in Area D.

5.4.2 Results

The analytical results of soil and wipe samples collected from the PCB transformer area are summarized in Table 6 and depicted on Figure 2 Detail A. Total petroleum hydrocarbons in the former transformer area were detected below the NJDEPE action level of 10,000 mg/kg and ranged from 48.5 mg/kg at HA-3 to 74.8 mg/kg at HA-1.

PCB concentrations in the old spill area ranged from 0.58 mg/kg at HA-3 to 7.6 mg/kg at HA-2. PCB concentrations above the NJDEPE action level 5 mg/kg were only detected at HA-2.

Total petroleum hydrocarbon concentrations in the existing transformer area were detected below the NJDEPE action level of 10,000 mg/kg and ranged from 46 mg/kg at HA-5 to 455 mg/kg at S-15.

PCBs were only detected at location S-15 (0.31 mg/kg) in the existing transformer area at a concentration below the NJDEPE action level of 5 mg/kg. The concentrations of PCBs from wipe samples collected from the concrete surfaces around the existing transformer ranged from 1.54 mg/kg at W-2 to 4 mg/kg at W-4 and did not exceed the NJDEPE action level of 5 mg/kg.

5.5 Concrete Trench for Pipeline

5.5.1 General

The concrete trench located between the aboveground storage tanks within the diked area and the power plant was inspected to determine the presence of any staining and to assess the structural integrity of the trench. Additionally, two samples were collected from test pits (TP-3 and TP-4) excavated adjacent to the concrete trench to verify trench integrity. The samples were analyzed for total petroleum hydrocarbons and base neutral +15 compounds.

No elevated PID readings were registered at any of the sample locations in the concrete trench area.

5.5.2 Results

The photo documentation of the concrete trench is depicted in Appendix F. Based on LESI's visual inspection of the trench, there were no areas of staining to indicate prior leaks or discharges from the oil pipelines within the trench. In addition, there were no cracks or fissures in the concrete to indicate degradation in the structural integrity of the trench.

Total petroleum hydrocarbons were only detected in TP-3 (57 mg/kg) at a concentration below the NJDEPE action level of 10,000 mg/kg.

No base neutral compounds were detected in any of the samples collected from the test pits excavated adjacent to the concrete trench.

5.6 French Drain

5.6.1 General

Three soil samples were collected from the area and analyzed for total petroleum hydrocarbons and base neutral compounds +15. One of the soil samples (HA-7) was collected from within the french drain using hand augers

while the two other samples (TP-1 and TP-2) were collected from test pits excavated adjacent to the french drain.

No elevated PID readings were registered at any of the sample locations in the French Drain Area.

5.6.2 Results

The analytical results of the soil samples collected from and adjacent to the french drain are summarized in Table 7. Total petroleum hydrocarbons were only detected in TP-2 (55.3 mg/kg) and HA-7 (86 mg/kg), but at concentrations below the NJDEPE action levels of 10,000 mg/kg. No base neutral compounds were detected in any of the samples collected. The photodocumentation of the french drain is depicted in Appendix E.

5.7 Railroad Siding Unloading Hopper

No soil samples were collected from beneath the railroad siding unloading hopper because: (i) the LESI inspection indicated that the hopper (depicted in Appendix F) was filled with assorted trash; (ii) Underlying the hopper was a concrete lined room which had approximately one foot of standing water and housed the conveyors which transported the coal to the power house; (iii) The collection of a soil sample for environmental analysis would have necessitated using a drill rig to collect an unrepresentative soil sample from a depth of approximately 20-22 feet below grade (below the foundation level of the concrete lined room).

5.8 Pier/Pipeline

5.8.1 General

The pier/pipeline was visually inspected to verify if any spills had occurred. The soil sample locations were selected based on visual observations and were located at pipeline intersections and bends in the pipeline. Six soil samples were collected at specific locations as indicated on Figure 2 and tested for total petroleum hydrocarbons. In addition, two of the samples were also tested for base neutral +15 compounds.

No elevated PID readings were detected at any of the sample locations in the pier/pipeline area.

5.8.2 Results

The photo documentation of the pier/pipeline and bulkhead is depicted in Appendix F. Based on LESI's visual inspection, no staining was observed on the pier or bulkhead to indicate past spillage.

The analytical results of the soil samples collected from the pier/pipeline are summarized in Table 7.

Total petroleum hydrocarbon concentrations ranged from 41.8 mg/kg at HA-6 to 5,480 mg/kg at S-17. At no locations did the total petroleum hydrocarbon concentrations exceed the NJDEPE action level of 10,000 mg/kg.

Total base neutral compounds were only detected at location S-20 (2.84 mg/kg) but at concentrations below the NJDEPE action level of 10 mg/kg.

5.9 Ground Water

5.9.1 General

Monitoring wells MW-1, 2 and 3 were installed in Area C to assess potential impacts to the ground water resulting from the former disposal practices while monitoring well MW-4 was installed in Area B adjacent to the decommissioned kerosene and gasoline USTs to assess potential impact to the ground water resulting from use of the former USTs.

The first round of ground water samples was collected on October 15, 1991. Wells MW-1, 2 and 3 were analyzed for priority pollutant compounds +40 (minus pesticides but including PCBs), total dissolved solids and pH, while, well MW-4 was analyzed for volatile organics +15, base neutrals +15, Methyl Tertiary Butyl Ether (MTBE), Tertiary Butyl Alcohol (TBA), total dissolved solids and pH. The samples for metal analyses were filtered in the field according to NJDEPE sampling protocol prior to analyses.

5.9.2 Results

The monitoring well construction and certification forms have been included in Appendices C and D respectively.

The water level data and the analytical results from the first round of ground water sampling activities have been summarized in Tables 9 and 10, while, the ground water flow directions in the surficial water table aquifer has been depicted on Figure 4.

As previously described in Section 4.4, wells MW-1, 2 and 3 are screened in the surficial water table aquifer, while well MW-4 is located in an area that does not intersect the surficial fill and tidal marsh deposits.

The October 1991 sampling episode did not identify the presence of any volatile organic or semi-volatile organic compounds above method detection levels. No PCBs, phenol or lead were detected in the ground water. Cyanide was detected in the ground water at wells MW-1 (0.01 mg/l) and MW-2 (0.04 mg/l) but at concentrations below the NJDEPE action level of 0.2 mg/l.

Total dissolved solid concentrations in the ground water ranged from 75 mg/l at MW-2 to 445 mg/l at MW-3, while pH values ranged from 6.5 at MW-1 to 6.8 at MW-3. Five metals (antimony, arsenic, chromium, copper and zinc) were detected in the ground water in Area C. The metals detected and their respective ranges and concentrations are as follows:

1. Antimony was only detected in MW-2 (0.012 mg/l). The NJDEPE does not have an action level for antimony.

2. Arsenic concentrations ranged from 0.005 mg/l at MW-3 to 0.034 mg/l at MW-2. None of the concentrations detected in the ground water exceeded the NJDEPE action level of 0.05 mg/l.

3. Chromium was only detected in MW-3 (0.01 mg/l) at a concentration below the NJDEPE action level of 0.05 mg/l.

4. Copper concentrations ranged from 0.02 mg/l at MW-1 to 0.09 mg/l at MW-2. None of the concentrations detected exceeded the NJDEPE action level of 1 mg/l.

5. Zinc concentrations ranged from 0.03 mg/l at MW-1 to 0.05 mg/l at MW-3. None of the concentrations detected exceeded the NJDEPE action level of 5 mg/l.

6.0 RESULTS OF THE WELL SEARCH

A one-half mile paper well search and a 5-mile computerized well search was conducted through the NJDEPE, Bureau of Water Allocation. The results of the well search have been included in Appendix B.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The conclusions presented are based on a comparison of the actual contaminant levels found at the GAF site with the NJDEPE action levels, while, the recommendations are based on LESI's experience performed involving site remediation on similar industrial properties.

7.1 Area A - Above Ground Storage Tank Area

a. Based on the soil investigative activities, visual inspection and analytical results of the soil sample collected from the oil-water separator area, LESI believes that the oil-water separator poses no threat to human health or the environment and hence recommends no additional sampling activities in this area.

b. Petroleum hydrocarbons and carcinogenic base neutral compounds were detected at concentrations above NJDEPE action levels at locations S-11 and S-12 within the tank dike area in Area A.

Soil will be excavated to a depth of 3 feet at locations S-11 and S-12 to remove the petroleum hydrocarbon and carcinogenic base neutral contaminated soil. Post-excavation samples will be collected and analyzed for total petroleum hydrocarbons and base neutral +15 compounds to verify that soil has been

excavated to depths where such concentrations are below the NJDEPE action levels.

c. Petroleum hydrocarbons were also detected at concentrations above the NJDEPE action levels at locations S-3 and S-7 in the two 8,000 gallon aboveground storage tank area.

The two 8,000 gallon aboveground storage tanks will be removed and disposed off-site at an NJDEPE-approved facility. Soil will be excavated to a depth of 3 feet at locations S-3 and S-7 to remove the petroleum hydrocarbon contaminated soil. Post-excavation soil samples will be collected and analyzed for total petroleum hydrocarbons to verify that soil has been excavated to depths where such concentrations are below the NJDEPE action levels.

7.2 Area B - Underground Storage Tank Area

Based on the analytical results of the soil and ground water samples which did not identify the presence of any volatile organic, semi-volatile or petroleum hydrocarbon components above NJDEPE action levels, LESI recommends no additional sampling activities in this area.

7.3 Area C - Fill Area

Eight (8) metals with concentrations above NJDEPE action levels and asbestos were found in the soil in Area C. The results of the first round of ground water sampling conducted on October 15, 1991 indicates that ground water has not been impacted by this area.

Area C will be grubbed and reseeded to prevent erosion of the existing soil cover.

7.4 Area D - PCB Transformer Area

PCB concentrations above the NJDEPE action level of 5 mg/kg were only detected at location HA-2 at a concentration of 7.6 mg/kg. PCB contaminated soil will be excavated in the vicinity of location HA-2. Post-excavation soil samples will be collected for PCBs

to verify that soil has been excavated to depths where such concentrations are below the NJDEPE action levels.

7.5 Concrete Trench for Pipeline

Based on the soil investigative activities, visual inspection and photodocumentation and analytical results of the soil samples collected, LESI believes that the concrete trench poses no threat to human health or the environment and hence recommends no additional sampling activities.

7.6 French Drain

Based on the soil investigative activities and analytical results of the soil samples collected from the french drain, LESI believes that the area poses no threat to human health or the environment and recommends no additional sampling activities in the area.

7.7 Railroad Siding Unloading Hopper

Based on the visual inspection of the unloading hopper, LESI believes that the area poses no threat to human health or the environment and recommends no sampling activities in this area.

7.8 Pier/Pipeline

The LESI visual inspection of the pier and the pipeline indicated the absence of any staining to indicate past spillage. In addition, at no locations did the total petroleum hydrocarbon and base neutral compounds exceed the NJDEPE action levels. No additional sampling is proposed in this area.

7.9 Ground Water

The results of the first round of ground water sampling conducted in the former underground storage tank area (well MW-4) and the fill area (wells MW-1 through MW-3) indicates that the ground water has not been impacted.

If the results of the second round of ground water sampling (wells sampled on November 18, 1991) validates the results of the first sampling episode, LESI proposes to seal the four (4) wells using a certified well driller.

8.0 PROPOSED CLEANUP PLAN

8.1 Introduction

This proposed Cleanup Plan has been prepared in accordance with the regulations promulgated pursuant to the Environmental Cleanup Responsibility Act (NJAC 7:26B) and the NJDEPE Cleanup Plan Guide dated August 13, 1990. This document has been prepared on behalf of GAF Building Materials Corporation (GAF) to address the remediation of the soils issues outstanding on completion of the soil sampling activities.

Based on the results of the ECRA sampling activities performed to date, LESI has developed this proposed cleanup plan to remediate:

1. Area A - Aboveground Storage Tank Area
2. Area C - Fill Area
3. Area D - PCB Transformer Area
4. In addition, if the results of the second round of ground water sampling activities from wells MW-1 through MW-4 indicates the absence of any contaminants present in the ground water above NJDEPE action levels, LESI recommends the immediate sealing of the four (4) wells by a licensed well driller.

The proposed cleanup plan described herein includes a description of the locations, types and quantities of materials to be remediated at the site, and details the methods and operations that will be used. A cost estimate and an estimated time schedule for cleanup has also been provided.

8.2 Summary of Environmental Concerns and Proposed Remedial Actions

8.2.1 General

Based on the results of the ECRA sampling performed to-date, remediation/cleanup activities are proposed at the following areas:

1. Area A - Aboveground Storage Tank Area
2. Area C - Fill Area
3. Area D - PCB Transformer Area
4. LESI will evaluate whether additional ground water monitoring or any remedial actions are warranted to address ground water upon receipt of the results of the second round of ground water sampling activities.

8.2.2 Proposed Cleanup Levels

It is the objective of this Cleanup Plan to either, (i) reduce levels of contaminants at the site to levels established by the NJDEPE (refer to Table 2), in a manner consistent with the present state-of-the-art in site remediation; or (ii) prevent the direct exposure to receptors and impede the mobility of soil contaminants to a level that will not pose an unacceptable risk to human health or the environment and in accordance with future site development activites.

8.2.3 Area A - Aboveground Storage Tank Area

8.2.3.1 General

Petroleum hydrocarbons and carcinogenic base neutral compounds were detected at concentrations above NJDEPE action levels at locations S-11 and S-12 (refer to Figure 2, Detail C) within the tank dike area. Additionally, petroleum hydrocarbons were also detected at concentrations above the NJDEPE action levels at locations S-3 and S-7 in the two 8,000 gallon aboveground storage tank area (refer Figure 2 Detail B).

8.2.3.2 Proposed Remedial Action

LESI proposes to excavate soil to a depth of 3 feet at locations S-11 and S-12 to remove the petroleum hydrocarbon and carcinogenic base neutral contaminated soil. Approximately 6 cubic yards of soil will be excavated and stockpiled on plastic sheeting. Four soil samples will be collected from the base of the excavations and analyzed for total

petroleum hydrocarbons and base neutral +15 compounds (refer to Table 11) to ensure that the soil has been excavated to concentrations below the NJDEPE action levels listed in Table 2.

The two 8,000 gallon aboveground storage tanks will be emptied, cleaned, cut up and disposed off-site according to NJDEPE procedures. Petroleum hydrocarbon contaminated soil will be excavated to a depth of 3 feet at locations S-3 and S-7. Approximately 6 cubic yards of soil will be excavated and stockpiled on plastic sheeting. Four soil samples will be collected from the base of the excavations and analyzed for total petroleum hydrocarbons (refer to Table 11) to ensure that the soil has been excavated to concentrations below the NJDEPE action levels listed in Table 2. The excavations will be backfilled with clean certified fill following completion of all soil cleanup activities.

8.2.4 Area C - Fill Area

8.2.4.1 General

Eight (8) metals with concentrations above NJDEPE action levels and asbestos were found in the soil in Area C (refer Figure 2). However, the results of the first round of ground water sampling activities (Monitoring wells MW-1 through MW-3) have indicated that the ground water has not been impacted by the former disposal practices in the area.

8.2.4.2 Proposed Remedial Action

LESI proposes to grub and reseed Area C to prevent erosion of the existing soil cover. This will protect against potential surficial contact with the materials in the fill area, as well as controlling potential air emissions, thereby eliminating these potential exposure pathways.

8.2.5 Area D - PCB Transformer Area

8.2.5.1 General

PCB concentrations above the NJDEPE action level of 5 mg/kg were only detected at HA-2 (7.6 mg/kg at a depth of 2.5 to 3 feet below grade).

8.2.5.2 Proposed Remedial Action

LESI proposed to excavate soil to a depth of 5 feet at location HA-2 to remove the PCB contaminated soil. Approximately 5 cubic yards of PCB contaminated soil will be excavated and placed in DOT approved drums for disposal. Four soil samples will be collected from the base of the excavations and analyzed for PCBs to demonstrate soil cleanup (refer to Table 11) to concentrations below the NJDEPE action levels listed in Table 2. The excavation will be backfilled with clean certified fill following completion of all soil cleanup activities.

8.2.6 Ground Water Monitoring Wells

The results of the first round of ground water sampling activities conducted on October 15, 1991 suggests the absence of any ground water contamination in wells MW-1 through MW-4, indicating that Area C and Area B have not impacted ground water. If the results of the second round of ground water samples taken on November 18, 1991, validate the results of the first sampling episode, LESI proposes to seal the four monitoring wells using a certified well driller and recommends that no further sampling or ground water remediation be undertaken.

8.3 Permits

All cleanup activities will be performed in accordance with applicable NJDEPE procedures and protocol, and necessary Township and County permit requirements.

Table 1
Sample Collection Summary
GAF Building Materials Facility
Gloucester City, New Jersey

Site Location	Media Sampled	Sample No./ Location	Sample Depth	Sampling Method	Date Collected	Analytical Parameters
1. Area A - Above Ground Storage Tank Area						
a. Within the tank dike area	Soil	120/S-9	0 to 6"	Spatula	9/30/91	BN+15, TPHC
	Soil	121/S-10	0 to 6"	Spatula	9/30/91	BN+15, TPHC
	Soil	122/S-11	0 to 6"	Spatula	9/30/91	BN+15, TPHC
	Soil	123/S-12	0 to 6"	Spatula	9/30/91	BN+15, TPHC
b. Beneath outlet on the oil-water separator	Soil	119/S-8	0 to 6"	Spatula	9/30/91	BN+15, TPHC
c. Area of the two 8,000 gallon above ground diesel fuel tanks	Soil	112/S-1	0 to 6"	Spatula	9/30/91	BN+15, TPHC
	Soil	113/S-2	0 to 6"	Spatula	9/30/91	BN+15, TPHC
	Soil	114/S-3	0 to 6"	Spatula	9/30/91	BN+15, TPHC
	Soil	115/S-4	0 to 6"	Spatula	9/30/91	BN+15, TPHC
	Soil	116/S-5	0 to 6"	Spatula	9/30/91	BN+15, TPHC
	Soil	117/S-6	0 to 6"	Spatula	9/30/91	BN+15, TPHC
	Soil	118/S-7	0 to 6"	Spatula	9/30/91	BN+15, TPHC

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Table 1 (continued)

Site Location	Media Sampled	Sample No./ Location	Sample Depth	Sampling Method	Date Collected	Analytical Parameters
2. Area B - Underground Storage Tank Area						
a. Former 1,000 gallon gasoline UST	Soil	107/B-7	66 to 72"	Split Spoon	9/30/91	VO+15, Xylene
	Soil	108/B-8	60 to 66"	Split Spoon	9/30/91	VO+15, Xylene
	Soil	109/B-9	60 to 66"	Split Spoon	9/30/91	VO+15, Xylene
	Soil	110/B-10	60 to 66"	Split Spoon	9/30/91	VO+15, Xylene
b. Former 10,000 gallon kerosene UST	Soil	101/B-1	114 to 120"	Split Spoon	9/30/91	VO+15, Xylene, Naphthalene, TPHC
	Soil	102/B-2	120 to 126"	Split Spoon	9/30/91	VO+15, Xylene, Naphthalene, TPHC
	Soil	103/B-3	120 to 126"	Split Spoon	9/30/91	VO+15, Xylene, Naphthalene, TPHC
	Soil	104/B-4	120 to 126"	Split Spoon	9/30/91	VO+15, Xylene, Naphthalene, TPHC
	Soil	105/B-5	120 to 126"	Split Spoon	9/30/91	VO+15, Xylene, Naphthalene, TPHC
	Soil	106/B-6	120 to 126"	Split Spoon	9/30/91	VO+15, Xylene, Naphthalene, TPHC
c. Monitoring Well MW-4	Ground Water	201/MW-4	NA	Bailer	10/15/91	VO+15, BN+15, MTBE, TBA, Lead, pH, TDS
3. Area C - Fill Area						
a. Test Pits	Soil	149/TP-1A	18 to 24"	Spatula	10/2/91	PP+40 (minus pest. but including PCB's) Asbestos
	Soil	151/TP-2A	12 to 18"	Spatula	10/2/91	
	Soil	148/TP-3A	12 to 18"	Spatula	10/2/91	
	Soil	147/TP-4A	18 to 24"	Spatula	10/2/91	
	Soil	150/TP-5A	36 to 42"	Spatula	10/2/91	
b. Monitoring Wells MW-1, MW-2 & MW-3	Ground Water	201/MW-1	NA	Bailer	10/15/91	PP+40 (minus pest. but including PCBs), pH, TDS
	Ground Water	202/MW-2	NA	Bailer	10/15/91	
	Ground Water	203/MW-3	NA	Bailer	10/15/91	
c. Storage Tank	Soil	124/S-13	0 to 6"	Spatula	9/30/91	BN+15, TPHC
	Soil	125/S-14	0 to 6"	Spatula	9/30/91	BN+15, TPHC

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ESI

Table 1 (continued)

Site Location	Media Sampled	Sample No./ Location	Sample Depth	Sampling Method	Date Collected	Analytical Parameters
4. Area D - PCB Transformers	Soil	127/HA-1	30 to 36"	Hand Auger	10/1/91	PCBs, TPHC
	Soil	128/HA-2	30 to 36"	Hand Auger	10/1/91	PCBs, TPHC
	Soil	129/HA-3	24 to 30"	Hand Auger	10/1/91	PCBs, TPHC
	Soil	130/HA-4	12 to 18"	Hand Auger	10/1/91	PCBs, TPHC
	Soil	132/HA-5	6 to 12"	Hand Auger	10/1/91	PCBs, TPHC
	Soil	131/S-15	0 to 6"	Spatula	10/1/91	PCBs, TPHC
	Soil	133/S-16	0 to 6"	Spatula	10/1/91	PCBs, TPHC
	Wipe Sample	154/W-1	NA	Wipe Sample	10/2/91	PCBs
	Wipe Sample	155/W-2	NA	Wipe Sample	10/2/91	PCBs
	Wipe Sample	156/W-3	NA	Wipe Sample	10/2/91	PCBs
	Wipe Sample	157/W-4	NA	Wipe Sample	10/2/91	PCBs
	Wipe Sample	158/W-5	NA	Wipe Sample	10/2/91	PCBs
	Wipe Sample	159/W-6	NA	Wipe Sample	10/2/91	PCBs
	Wipe Sample	160/W-7	NA	Wipe Sample	10/2/91	PCBs
	Wipe Sample	161/W-8	NA	Wipe Sample	10/2/91	PCBs
5. Concrete Trench	Soil	145/TP-3	36 to 42"	Spatula	10/2/91	BN+15, TPHC
	Soil	146/TP-4	30 to 36"	Spatula	10/2/91	BN+15, TPHC
6. French Drain	Soil	143/TP-1	36 to 42"	Spatula	10/2/91	BN+15, TPHC
	Soil	144/TP-2	36 to 42"	Spatula	10/2/91	BN+15, TPHC
	Soil	140/HA-7	30 to 36"	Hand Auger	10/1/91	BN+15, TPHC
7. Railroad Siding Unloading Hopper	Soil	No samples collected for environmental analysis				
8. Pier/Pipeline	Soil	134/HA-6	30 to 36"	Hand Auger	10/1/91	BN+15, TPHC
	Soil	136/S-17	0 to 6"	Spatula	10/1/91	TPHC
	Soil	135/S-18	0 to 6"	Spatula	10/1/91	TPHC
	Soil	137/S-19	0 to 6"	Spatula	10/1/91	TPHC
	Soil	138/S-20	0 to 6"	Spatula	10/1/91	BN+15, TPHC
	Soil	139/S-21	0 to 6"	Spatula	10/1/91	TPHC

Notes:

S-1 Surface soil sample location

B-7 Soil boring location

TP-1A Test pit location

HA-6 Hand auger location

ATTACHMENT Y-30 ESI

Table 2
NJDEPE Action Levels for Selected Contaminants*

Parameters	Soil (mg/kg)	Ground Water (ug/l)
Total Petroleum hydrocarbons	10,000	1000
Total Volatile Organics	10	10
Total Semi-Volatiles	100	100
Total Carcinogenic Base Neutrals	10	NA
Total PCBs	5	1
Cyanide	12	200
Antimony	10	-
Arsenic	20	50
Beryllium	1	-
Copper	170	1000
Cadmium	3	10
Chromium	100	50
Mercury	1	2
Nickel	100	-
Lead	1000	50
Selenium	4	10
Silver	5	50
Thallium	5	-
Zinc	350	5000

Notes:

* For industrial properties similar to the GAF Building Materials Facility

NA Not Applicable

\- No action levels available

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Table 3
Analytical Results - Soil*
Area A - Aboveground Storage Tank Area

	Within Tank Dike Area				Beneath Oil/Water Separator	Area of the two 8,000 gallon ASTs						
LESI Sample No./Location:	120/S-9	121/S-10	122/S-11	123/S-12	119/S-8	112/S-1	113/S-2	114/S-3	115/S-4	116/S-5	117/S-6	118/S-7
LAB I.D.:	F5419	F5420	F5421	F5422	F5418	F5411	F5412	F5413	F5414	F5415	F5416	F5417
Date Collected:	9/30/91	9/30/91	9/30/91	9/30/91	9/30/91	9/30/91	9/30/91	9/30/91	9/30/91	9/30/91	9/30/91	9/30/
Sample Depth (inches):	0-6	0-6	0-6	0-6	0-6	0-6	0-6	0-6	0-6	0-6	0-6	0-6
PID Readings (ppm):	0	0	0	0	0	0	0	0	0	0	0	0
PARAMETERS												
Total Petroleum Hydrocarbons (mg/kg)	4070	47.5	38,200	ND	1,550	6,270	8,530	15,300	4,670	1,840	2080	11,000
Base Neutral Compounds (ug/kg)												
Naphthalene	ND	ND	ND	ND	ND	620J	950J	1400J	2200J	ND	1000J	750J
2-Methylnaphthalene	ND	ND	ND	ND	ND	1200J	1900J	5100J	9800	1000J	1800J	1900J
Phenanthrene	ND	ND	ND	10,000	ND	1500J	6200	2300J	3000J	3700J	5600J	4100J
Anthracene	ND	ND	ND	2300J	ND	ND	530J	ND	ND	ND	700J	630J
Fluoranthene	ND	ND	ND	13,000	ND	1600J	5600	1800J	4300J	4200J	5400J	4600J
Pyrene	ND	ND	ND	12,000	ND	1400J	5600	2000J	4300J	3400J	4400J	4700J
Benzo(a)Anthracene**	ND	ND	ND	6800	ND	800J	2700J	4200J	1500J	1800J	2400J	2000J
bis(2-Ethylhexyl) Phthalate	6700B	10,000B	ND	3700JB	3600JB	1100JB	4600JB	7600B	10,000B	7600B	7500B	3600JB
Chrysene**	ND	ND	ND	6900	ND	1300J	4200J	4400J	3800J	2500J	3700J	3000J
Benzo(b) Fluoranthene**	ND	ND	ND	5100J	ND	830J	3300J	ND	2900J	2200J	2600J	2000J
Benzo(k) Fluoranthene**	ND	ND	ND	ND	ND	910J	ND	2300J	ND	ND	2100J	ND
Benzo(a)Pyrene**	ND	ND	ND	5400	ND	910J	3000J	1700J	1200J	1700J	2400J	2000J
Indeno(1,2,3-cd)Pyrene**	ND	ND	ND	2400J	ND	760J	2300J	2200J	1200J	1000J	1700J	1200J

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Table 3 (continued)

Benzo(g,h,i)Perylene	ND	ND	ND	2500J	ND	880J	2700J	3900J	1800J	ND	1900J	1700J
Dibenzo(a,h) Anthacene**	ND	ND	ND	1600J	ND	ND	1100J	1200J	ND	ND	990J	ND
Fluorene	ND	ND	ND	730J	1000J	ND	ND	ND	ND	ND	ND	740J
Di-n-Octyl Phthalate	ND	ND	ND	ND	ND	600J	ND	ND	ND	ND	ND	ND
Total Base Neutral Compounds (ug/kg)	ND	ND	ND	54,100	ND	ND	17400	ND	ND	ND	ND	ND
Total Carcinogenic Base Neutral Compounds (ug/kg)	ND	ND	ND	19,100	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

* - Only those compounds detected above method detection levels in at least one sample are included.

ND - Not Detected

J - Compound was detected but below method detection levels. Quantitation is approximate.

** - Carcinogenic base neutral compounds

ATTACHMENT Y-33

ESI

Table 7
Analytical Results - Soil*
Miscellaneous Areas

	Concrete Trench		French Drain			Pier/Pipeline					
LESI Sample No./Location:	145/TP-3	146/TP-4	143/TP-1	144/TP-2	140/HA-7	134/HA-6	136/S-17	135/S-18	137/S-19	138/S-20	139/S-21
LAB I.D.:	F5580	F5581	F5578	F5579	F5529	F5523	F5525	F5524	F5526	F5527	F5528
Date Collected:	10/2/91	10/2/91	10/2/91	10/2/91	10/1/91	10/1/91	10/1/91	10/1/91	10/1/91	10/1/91	10/1/91
Sample Depth (inches):	36-42	30-36	36-42	36-42	30-36	30-36	0-6	0-6	0-6	0-6	0-6
PID Readings (ppm):	0	0	0	0	0	0	0	0	0	0	0
PARAMETERS											
Total Petroleum Hydrocarbons (mg/kg)	57	ND	ND	55.3	86	41.8	5480	36.4	947	2450	1731
Base Neutral Compounds (ug/kg)							-	-	-		-
bis(2-Ethylhexyl) Phthalate	67J	67J	ND	43J	ND	100J				310J	
Di-n-Butylphthalate	ND	ND	ND	ND	40J	67J				68J	
Phenanthrene	ND	ND	ND	ND	ND	ND				150J	
Fluoranthene	ND	ND	ND	ND	ND	ND				640	
Pyrene	ND	ND	ND	ND	ND	ND				670	
Benzo(a)Anthracene**	ND	ND	ND	ND	ND	ND				400J	
Chrysene**	ND	ND	ND	ND	ND	ND				700	
Benzo(b)Fluoranthene**	ND	ND	ND	ND	ND	ND				830	
Benzo(a)Pyrene**	ND	ND	ND	ND	ND	ND				130J	
Indeno(1,2,3-cd)Pyrene**	ND	ND	ND	ND	ND	ND				290J	
Dibenzo(a,h) Anthracene**	ND	ND	ND	ND	ND	ND				110J	
Benzo(g,h,i)Perylene	ND	ND	ND	ND	ND	ND				280J	
Benzo(j) Fluoranthene**	ND	ND	ND	ND	ND	ND				140	

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LESI

Table 6
Analytical Results - Soil/Wipe Samples*
Area D - PCB Transformers

	Soil							Wipe Samples							
LESI Sample No./Location:	127/ HA-1	128/ HA-2	129/ HA-3	130/ HA-4	132/ HA-5	131/ S-15	133/ S-16	154/ W-1	155/ W-2	156/ W-3	157/ W-4	158/ W-5	159/ W-6	160/ W-7	161/ W-8
LAB I.D.:	F5516	F5517	F5518	F5519	F5521	F5520	F5522	F5589	F5590	F5591	F5592	F5593	F5594	F5595	F5596
Date Collected:	10/1/91	10/1/91	10/1/91	10/1/91	10/1/91	10/1/91	10/1/91	10/2/91	10/2/91	10/2/91	10/2/91	10/2/91	10/2/91	10/2/91	10/2/91
Sample Depth (inches):	30-36	30-36	24-30	12-18	6-12	0-6	0-6	NA	NA	NA	NA	NA	NA	NA	NA
PID Readings (ppm):	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARAMETERS															
Total Petroleum Hydrocarbons (mg/kg)	74.8	52.3	48.5	110	46	455	448	-	-	-	-	-	-	-	-
PCB's (ug/kg)															
Arochlor - 1260	1580	7600	580	ND	ND	310	ND	3600	1540	2200	4000	2200	3620	3650	4200

Notes:

* Only those compounds above method detection limits in at least one sample are included.

\- Not Analyzed

NA Not Applicable

ND Not Detected

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LESI

Table 4
Analytical Results - Soil*
Area B - Underground Storage Tank Area

	Former 1000 gallon gasoline UST				Former 10,000 gallon kerosene UST					
LESI Sample No./Location:	107/B-7	108/B-8	109/B-9	110/B-10	101/B-1	102/B-2	103/B-3	104/B-4	105/B-5	106/B-6
LAB I.D.:	F5407	F5408	F5409	F5410	F5401	F5402	F5403	F5404	F5405	F5406
Date Collected:	9/30/91	9/30/91	9/30/91	9/30/91	9/30/91	9/30/91	9/30/91	9/30/91	9/30/91	9/30/91
Sample Depth (inches):	66-72	60-66	60-66	60-66	114-120	120-126	120-126	120-126	120-126	120-126
PID Readings (ppm):	1.5	0	0	0	0	0	0	0	2	0
PARAMETERS										
Total Petroleum Hydrocarbons (mg/kg)	-	-	-	-	3310	929	60	32.4	393	253
Volatile Organic Compounds (ug/kg)										
Acetone	ND	ND	ND	ND	6.1J	140	15	8.3J	34J	ND
Methylene Chloride	30B	5.6B	9.3B	8.5B	0.98J	0.82JB	ND	ND	5.4JB	1.2J
Trichloroethene	ND	ND	ND	ND	49	ND	ND	ND	ND	1.8J
Tetrachloroethene	ND	ND	ND	ND	190	ND	ND	ND	ND	5.3J
m & p - Xylenes	960	2.6J	2.4J	ND	2.3J	ND	ND	ND	ND	ND
o - Xylene	570	1.6J	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	92	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Volatile Organic Compounds (ug/kg)	1622	ND	ND	ND	239	140	15	ND	ND	ND

Notes:

* - Only those compounds detected above method detection levels in at least one sample are included.

\- Not Analyzed

ND - Not Detected

J - Compound was detected but below method detection levels. Quantitation is approximate.

B - Compound was detected in both the sample and its associated laboratory blank. It indicates possible/probable blank contamination.

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LESI

Table 5
Analytical Results - Soil*
Area C - Fill Area

	Test Pits					Storage Tank	
LESI Sample No./Location:	149/TP-1A	151/TP-2A	148/TP-3A	147/TP-4A	150/TP-5A	124/S-13	125/S-14
LAB I.D.:	F5584	F5586	F5583	F5582	F5585	F5424	F5425
Date Collected:	10/2/91	10/2/91	10/2/91	10/2/91	10/2/91	9/30/91	9/30/91
Sample Depth (inches):	18-24	12-18	12-18	18-24	36-42	0-6	0-6
PID Readings (ppm):	0	0	0	0	0	0	0
PARAMETERS							
Total Petroleum Hydrocarbons (mg/kg)	-	-	-	-	-	1020	633
Volatile Organic Compounds (ug/kg)						-	-
Methylene Chloride	2.9J	2.7J	2.5JB	11J	3.7J		
Acetone	ND	ND	10J	ND	ND		
2-Butanone	ND	ND	14	ND	ND		
Total Volatile Organic Compounds (ug/kg)	ND	ND	14	ND	ND		
Semi-Volatile Organic Compounds (ug/kg)							
Naphthalene	ND	ND	130J	ND	ND	ND	ND
2-Methylnaphthalene	ND	ND	40J	ND	ND	ND	ND
2-Chloronaphthalene	ND	ND	80J	ND	ND	ND	ND
Acenaphthene	ND	ND	120J	ND	ND	ND	ND
Dibenzofuran	ND	ND	79J	ND	ND	ND	ND
Fluorene	ND	ND	150J	ND	ND	ND	ND
N-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	670	ND	390J	690J	ND

Table 5 (continued)

Di-n-Butylphthalate	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	ND	ND	870	ND	420J	1100J	1400J
Pyrene	ND	ND	470	ND	670J	1400J	ND
Butylbenzylphthalate	ND	ND	96J	ND	ND	ND	ND
Benzo(a)Anthracene**	ND	ND	370J	ND	260J	ND	ND
bis(2-Ethylhexyl) Phthalate	ND	ND	1000	500J	750J	2300JB	ND
Benzo(b) Fluoranthene**	ND	ND	470	ND	ND	ND	2200J
Chrysene**	ND	ND	470J	ND	330J	1000J	2200J
Benzo(k) Fluoranthene**	ND	ND	400J	ND	ND	ND	ND
Benzo(a)Pyrene**	ND	ND	530	ND	240J	720J	3000J
Indeno(1,2,3-cd)Pyrene**	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h) Anthracene**	ND	ND	ND	ND	ND	ND	1400J
Benzo(g,h,i) Perylene	ND	ND	570	ND	ND	ND	4400J
Total Semi-Volatile Organic Compounds (ug/kg)	ND	ND	5,050	ND	ND	ND	ND
Total Carcinogenic Base Neutral Compounds (ug/kg)	ND	ND	1,470	ND	ND	ND	ND
Metals (ug/kg)							
Antimony	ND	5.19	1.82	ND	45.9		
Arsenic	18.5	16.4	ND	8.15	12.6		
Cadmium	ND	ND	3.44	ND	1.93		
Chromium	9.98	12.2	18.4	30.1	16.1		
Copper	40.1	214	918	31.8	131		
Lead	9.03	73.1	823	37.3	259		
Mercury	0.17	0.89	3.43	ND	0.15		
Nickel	19.7	30.2	58.2	102	54.4		
Zinc	133	353	1240	152	490		
Beryllium	1.13	ND	ND	ND	ND		

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Table 5 (continued)

Selenium	4.69	3.70	ND	ND	0.68		
PCBs (ug/kg)						-	-
Arochlor - 1260	ND	ND	950	ND	340J		
Miscellaneous (ug/kg)						-	-
Cyanide	ND	2.44	1.59	ND	7.69		
Phenol	ND	ND	ND	ND	ND		
Asbestos (%)	ND	15***	ND	12	ND	-	-

Notes:

* - Only those compounds detected above method detection levels in at least one sample are included.

- Not Analyzed

ND - Not Detected

J - Compound was detected but below method detection levels. Quantitation is approximate.

B - Compound was detected in both the sample and its associated laboratory blank. It indicates possible/probable blank contamination.

** - Carcinogenic base neutral compounds

*** - Asbestos percentage in duplicate sample was 10%

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ESI

Table 7 (continued)

Total Base Neutral Compounds (ug/kg)	ND	ND	ND	ND	ND	ND	-	-	-	2980	-
Total Carcinogenic Base Neutral Compounds (ug/kg)	ND	ND	ND	ND	ND	ND	-	-	-	1670	-

Notes:

* Only those compounds detected above method detection levels in at least one sample are included

ND Not Detected

\- Not Analyzed

J Compound was detected but below method detection levels. Quantitation is approximate.

** Carcinogenic base neutral compounds

ATTACHMENT V-40

ESI

Table 8
Analytical Results - Field and Trip Blanks Collected During Soil Sampling Activities*

LESI Sample No.:	111/FB	126/TB	141/FB	142/TB	152/FB	153/TB
LAB I.D.:	F5423	F5426	F5530	F5531	F5587	F5588
Date Collected:	9/30/91	9/30/91	10/1/91	10/1/91	10/2/91	10/2/91
PARAMETERS						
Total Petroleum Hydrocarbons (mg/l)	ND	-	ND	-	ND	-
Volatile Organic Compounds (ug/l)						
Methylene Chloride	ND	3.4JB	-	3.8JB	0.72J	0.9JB
Semi-Volatile Compounds (ug/l)						
bis(2-Ethylhexyl) Phthalate	3.7J	-	1.6J	-	1.6J	-
PCBs (ug/l)	-	-	ND	-	ND	-
Metals (mg/l)	-	-	-	-		-
Copper					0.11	
Zinc					0.02	
Miscellaneous (mg/l)						
Cyanide	-	-	-	-	ND	
Phenol	-	-	-	-	ND	

Notes:

*	Only those compounds detected above method detection levels in at least one sample are included.
FB	Field Blank
TB	Trip Blank
-	Not Analyzed
ND	Not Detected
J	Compound was detected but below method detection levels. Quantitation is approximate.
B	Compound was detected in both the sample and its associated laboratory blank. It indicates possible/probable blank contamination.

LESI

Table 9
Water Level Data
GAF Building Materials Facility
Gloucester City, New Jersey

Monitoring Well	Reference Elevations (ft. to top of PVC casing, MSL)	Depth of Ground Water (ft. from top of PVC casing)	Ground Water Elevations (ft., MSL)
		10/15/91	10/15/91
MW-1	11.21	6.80	4.41
MW-2	11.83	9.04	2.79
MW-3	12.07	9.66	2.41
MW-4	9.19	26.4	-17.21

ATTACHMENT V-42 ESI

Table 10
Analytical Results - Ground Water*

LESI Sample No.:	201/MW-1	202/MW-2	203/MW-3	204/MW-5	205/FB	206/TB
LAB I.D.:	F5924	F5925	F5926	F5927	F5928	F5929
Date Collected:	10/15/91	10/15/91	10/15/91	10/15/91	10/15/91	10/15/91
PID Reading (ppm):	0	0	0	0	0	NA
PARAMETERS						
Volatile Organic Compounds (ug/l)						
Methylene Chloride	ND	ND	4.3J	ND	ND	ND
Semi-Volatile Compounds (ug/l)						
bis(2-Ethylhexyl) Phthalate	3.5J	3.7J	3.3J	3.1J	2.5J	-
PCBs (ug/l)	ND	ND	ND	-	ND	-
Metals (mg/l)						
Antimony	ND	0.012	ND	-	ND	-
Arsenic	0.014	0.034	0.005	-	ND	
Chromium	ND	ND	0.01	-	0.01	
Copper	0.02	0.09	0.07	-	0.06	
Lead	ND	ND	ND	ND	ND	
Zinc	0.03	0.04	0.05	-	0.03	
Miscellaneous						
Cyanide (mg/l)	0.01	0.04	ND	-	ND	-
Phenol (mg/l)	ND	ND	ND	-	ND	-
Total Dissolved Solids (mg/l)	404	75	445	173	-	-
pH (S.U.)	6.5	6.7	6.8	6.6	-	-

Notes:

*	Only those compounds detected above method detection levels in at least one sample are included.
FB	Field Blank
TB	Trip Blank
-	Not Analyzed
ND	Not Detected
J	Compound was detected but below method detection levels. Quantitation is approximate.

ATTACHMENT X-43

LESI

Table 11
Proposed Sample Collection Summary
GAF Building Materials Facility
Gloucester, City, New Jersey

Site Location	Media Sampled	Sample No./ Location	Sample Depth	Sampling Method	Analytical Parameters
1. Area A - Above Ground Storage Tank Area					
a. Within the tank dike area	Soil	S-11-1/S-11	0 to 6"	Spatula	TPHC, BN+15
	Soil	S-11-2/S-11	0 to 6"	Spatula	TPHC, BN+15
	Soil	S-12-1/S-12	0 to 6"	Spatula	TPHC, BN+15
	Soil	S-12-2/S-12	0 to 6"	Spatula	TPHC, BN+15
c. Area of the two 8,000 gallon above ground diesel fuel tanks	Soil	S-3-1/S-3	0 to 6"	Spatula	TPHC
	Soil	S-3-2/S-3	0 to 6"	Spatula	TPHC
	Soil	S-7-1/S-7	0 to 6"	Spatula	TPHC
	Soil	S-7-2/S-7	0 to 6"	Spatula	TPHC
2. Area D - PCB Transformer Area	Soil	HA-2-1/HA-2	0 to 6"	Spatula	PCBs
	Soil	HA-2-2/HA-2	0 to 6"	Spatula	PCBs
	Soil	HA-2-3/HA-2	0 to 6"	Spatula	PCBs
	Soil	HA-2-4/HA-2	0 to 6"	Spatula	PCBs

ESI

Appendix B

Results of the Well Search

ATTACHMENT Y-45 LESI

TABLE B-1
RESULTS OF PAPER WELL SEARCH - VICINITY OF GAF SITE
GLOUCESTER CITY, NEW JERSEY

No.	Owner & Address	Well ID	Date Drilled	Well Depth (ft)	Screen Interval (ft)	Static Water Level	Well Use
1	NJ Zinc Co. Water Street Gloucester City	3	5/7/58	253	223-253	64	Industrial
2	Philadelphia Dairy Products 506 Market Street Gloucester City	2	10/25/49	112	84-112	34	NA
3	Stephen Yatzus Weston & Miller Avenue Gloucester City	NA	9/17/51	94	88-94	40	Domestic
4	Atlantic Ice Mfg. Co. 5th Street Gloucester City	NA	7/20/62	242	205-240	55	Manufacturing
5	Gloucester Titanium Water Street Gloucester City	MW-6	12/2/86	10	3-8	NA	Monitoring
6	Gloucester Titanium Water Street Gloucester City	MW-7	12/3/86	10	3-8	NA	Monitoring
7	Gloucester Titanium Water Street Gloucester City	MW-8	12/1/86	13	3-13	NA	Monitoring
8	Weston, Speitel & Watermation Filmone, Cumberland	20-1	10/4/79	23.5	18.5-23.5	NA	Monitoring
9	Harshaw Chemical Co. Water Street Gloucester City	Layne #1	4/26/48	271	246-266	83	Industrial
10	Harshaw Chemical Co. Water Street Gloucester City	Layne #3	9/26/52	270	245-265	83	Abandoned
11	Harshaw Chemical Co. Water Street Gloucester City	Layne #4	3/18/53	264	235-260	77	Industrial
12	Harshaw Chemical Co. Water Street Gloucester City	Layne #2	3/22/51	251	221-251	101	Industrial

ATTACHMENT V-46 ESI

No.	Owner & Address	Well ID	Date Drilled	Well Depth (ft)	Screen Interval (ft)	Static Water Level	Well Use
13	Gloucester Titanium Water Street Gloucester City	MW-1	12/10/86	8	3-8	NA	Monitoring
14	Gloucester Titanium Water Street Gloucester City	MW-2	12/10/86	8	3-8	NA	Monitoring
15	Gloucester Titanium Water Street Gloucester City	MW-3	12/10/86	6	2-6	NA	Monitoring
16	Gloucester Titanium Water Street Gloucester City	MW-5	12/3/86	10	5-10	NA	Monitoring
17	City of Gloucester Gloucester City	39 Layne #2	6/17/61	262	221-261	99	Public Supply
18	NJ Zinc Co. Water Street Gloucester City	5	1/15/63	281	249-279	57	Industrial
19	NJ Zinc Co. Water Street Gloucester City	4	12/16/57	281	249-279	57	Industrial
20	G&W Natural Resources Gloucester City	2	7/12/54	280	245-275	78	Industrial
21	Coastal Eagle Point Oil Route 130, Westville	NA	10/29/86	65	50-65	NA	Recovery
22	Coastal Eagle Point Oil Route 130, West Deptford	146-1	10/27/86	18	3-18	NA	Monitoring
23	Coastal Eagle Point Oil Route 130, West Deptford	145-1	10/27/86	17	2-17	NA	Monitoring
24	Airco Products Co. Water Street Gloucester City	MW-3	11/14/90	12	2-12	1.5	Monitoring
25	Oram Kline 400 Cooper Street Camden	MW-2	4/27/90	25	10-25	15.42	Monitoring
26	Airco Products Co. Water Street Gloucester City	MW-1	11/14/90	12	2-12	1.5	Monitoring

No.	Owner & Address	Well ID	Date Drilled	Well Depth (ft)	Screen Interval (ft)	Static Water Level	Well Use
27	Airco Products Co. Water Street Gloucester City	MW-2	11/14/90	12	2-12	1.33	Monitoring
28	Koch Fuels, Inc. Gloucester City	MW-6	11/28/90	24.5	14.5-24.5	NA	Monitoring
29	Koch Fuels, Inc. Gloucester City	MW-7	11/29/90	28	18-28	NA	Monitoring
30	Koch Fuels, Inc. Gloucester City	MW-5	1/24/90	28	18-28	2.2	Monitoring
31	Koch Fuels, Inc. Gloucester City	MW-1	1/9/90	29	19-29	20	Monitoring
32	Koch Fuels, Inc. Gloucester City	MW-2	1/9/90	17	7-17	16	Monitoring
33	Koch Fuels, Inc. Gloucester City	MW-3	1/10/90	29	19-29	22	Monitoring
34	Koch Fuels, Inc. Gloucester City	MW-4	1/10/90	27	17-27	21	Monitoring
35	City of Gloucester City 6th Street & Jersey Avenue Gloucester City	MW-1A	7/15/91	10.5	3.5-10.5	2.89	Monitoring
36	City of Gloucester City 6th Street & Jersey Avenue Gloucester City	MW-2A	7/16/91	12.1	3.1-12.1	7.13	Monitoring
37	City of Gloucester City 6th Street & Jersey Avenue Gloucester City	MW-3A	7/12/91	9.7	2.7-9.7	5.3	Monitoring
38	City of Gloucester City 6th Street & Jersey Avenue Gloucester City	MW-4A	7/11/91	7.5	3.5-7.5	4.79	Monitoring
39	City of Gloucester City 6th Street & Jersey Avenue Gloucester City	MW-5A	7/17/91	12.8	2.8-12.8	2	Monitoring
40	City of Gloucester City 6th Street & Jersey Avenue Gloucester City	MW-1B	7/22/91	34.1	19.1-34.1	26.53	Monitoring
41	City of Gloucester City 6th Street & Jersey Avenue Gloucester City	MW-2B	7/25/91	39	24-39	25.20	Monitoring

ESI

ATTACHMENT V-48

No.	Owner & Address	Well ID	Date Drilled	Well Depth (ft)	Screen Interval (ft)	Static Water Level	Well Use
42	City of Gloucester City 6th Street & Jersey Avenue Gloucester City	MW-3B	7/23/91	24	14-24	19.91	Monitoring
43	City of Gloucester City 6th Street & Jersey Avenue Gloucester City	MW-4B	7/18/91	33.8	18.8-33.8	27.7	Monitoring
44	USGS Shore Maintenance Dept. King & Cumberland Streets Gloucester City	MW-1	10/18/89	16	5.5-15.5	8	Monitoring
45	USGS Shore Maintenance Dept. King & Cumberland Streets Gloucester City	MW-2	10/23/89	14	4-14	8	Monitoring
46	USGS Shore Maintenance Dept. King & Cumberland Streets Gloucester City	MW-3	10/23/89	14	4-14	8	Monitoring
47	Products Reseach & Chemicals 410 Jersey Avenue Gloucester City	MW-1	4/17/91	35	10-35	24	Monitoring
48	Products Research & Chemicals 410 Jersey Avenue Gloucester City	MW-2	4/17/91	35	10-35	24	Monitoring
49	Products Research & Chemicals 410 Jersey Avenue Gloucester City	MW-3	4/17/91	35	10-35	24	Monitoring

Notes:

NA - Not Applicable

Appendix E

In-Situ Abandonment Information regarding the two USTs in Area B

ATTACHMENT V-50 ESI

Let's protect our earth

For State Use Only	
Date Rec'd.	
Auth	
Routing	
UST NO.	

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029
TRENTON, NEW JERSEY 08625
ATTN: BUST Program
(609) 984-3156

STANDARD REPORTING FORM
for the:
Installation/Abandon/Remove/Sale-Transfer/Substantial Modification
Circle Only One — Use One Form Per Activity

(More than one tank can be listed per tank activity)

Answer questions 1 through 5 and others as applicable.

Company name and address: (as it appears on registration questionnaire)

GAF Building Materials Corporation
1361 Alps Road
Wayne, NJ 07470

2. Facility name and location: (if different from above)

GAF Building Materials Corporation
Charles and Water Streets
Gloucester City, NJ 08030

3. Contact person for this activity: Fred Bright

Telephone Number: (201) 628 - 3507

4. The identification number of the affected tank as it appears in Question Number 12 on the Registration Questionnaire:

A1 (10,000 gallon); A2 (1,000 gallon); A3 (550 gallon)

5. Registration Number (if known): UST - 0058430

ATTACHMENT Y-51

N.J. Lic. #3414

(609) 456-3743

JORIC INC.

General & Electrical Contractor

R. Gonzale
807 Cherry Stree
Gloucester City, NJ 0803(

March 21, 1990

To: F. Bright
GAF Corporation
Wayne, N.J. 07470

From: R. Gonzales
Joric Inc.
Gloucester, N.J. 08030

Subj: GLOUCESTER CITY PLANT
UNDERGROUND STORAGE TANKS

In response to your query dated March 7, 1990:

Tanks A1 and A2 which were abandoned in place had been emptied prior to the start of the abandonment process.

The abandonment process entailed; Exposing the upper surface of the tank, Ventilating the tank, Testing for combustible fumes, Burning the top out of each tank and filling the tank completely with gravel.

The area above the tanks was subsequently filled with gravel and brought up to grade.

The tanks contained no liquids and showed only negligible beads of condensation on the inner surface probably caused by ventilating the tanks prior to testing. This condensation evaporated during the burning process.

The work was performed and completed circa, December 15, 1988.

Respectfully submitted,

R Gonzales

President, Joric Inc.

Sworn to and subscribed before me this 22nd day of March, 1990, person being Ricardo A., Gonzales

Doris E. Pulaski

DORIS E. PULASKI
Notary Public of New Jersey
My Commission Expires Nov. 18, 1992

ATTACHMENT V-52

GAF BUILDING MATERIALS CORPORATION
Gloucester City, New Jersey Plant
UST. No. 0058430

Underground Tank Status

Tank No.	A1	A2	A3
Tank Size (gallons)	10,000	1,000	550
Tank Age (Years)*	12	37	17
Material Stored	Kerosene	Gasoline	No. 2 Fuel
Date Last Used	1972	1985	1979
Abandon and Filled	Dec.15,1988	Dec.15,1988	----
Removed	----	----	Dec.1988

Notes:

1) Plant ceased operation in 1983

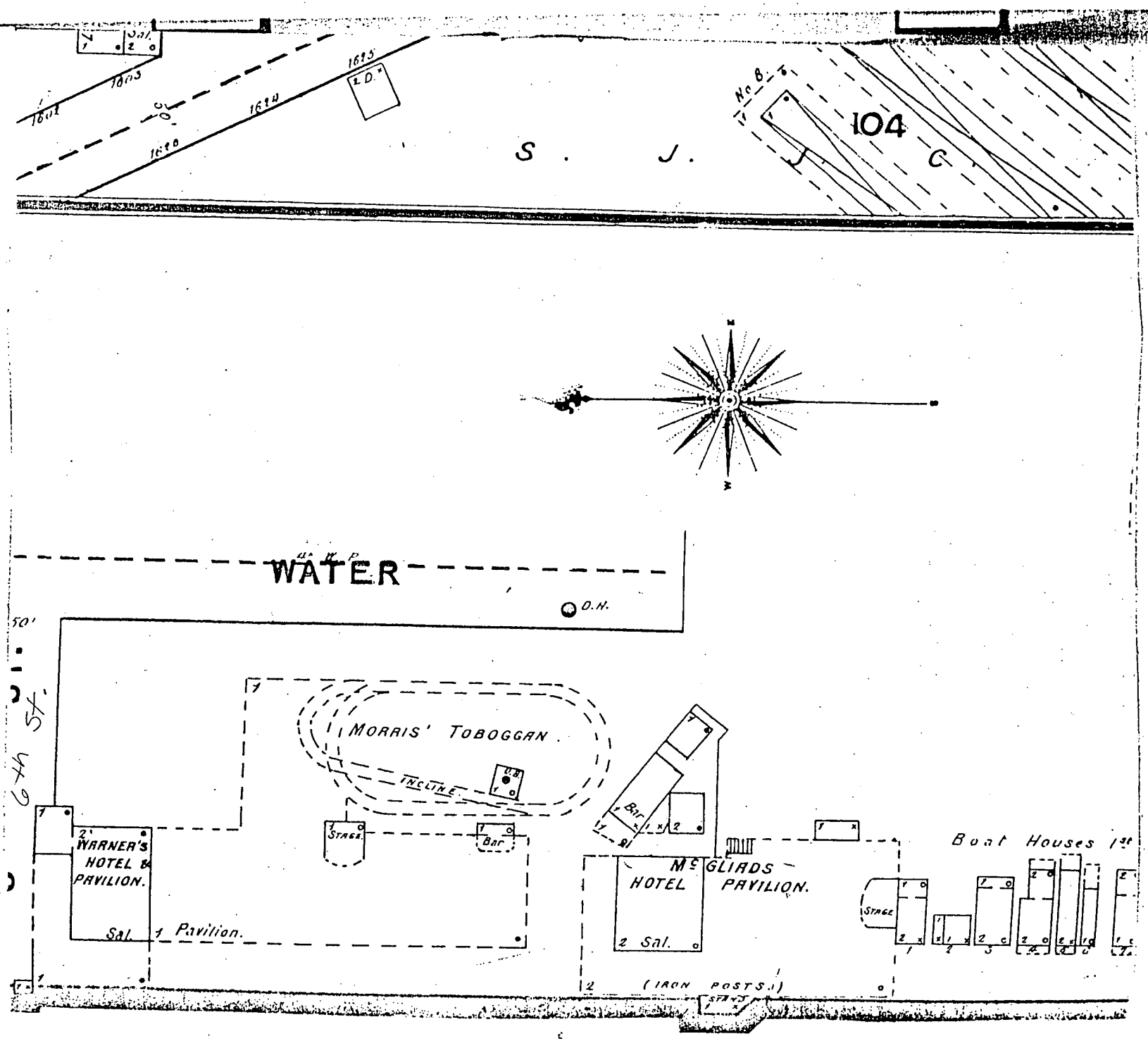
2) Tanks A1 and A2 filled and A3 removed as part of a project to address environmental permits, registrations, etc. for this site.

ATTACHMENT Y-53

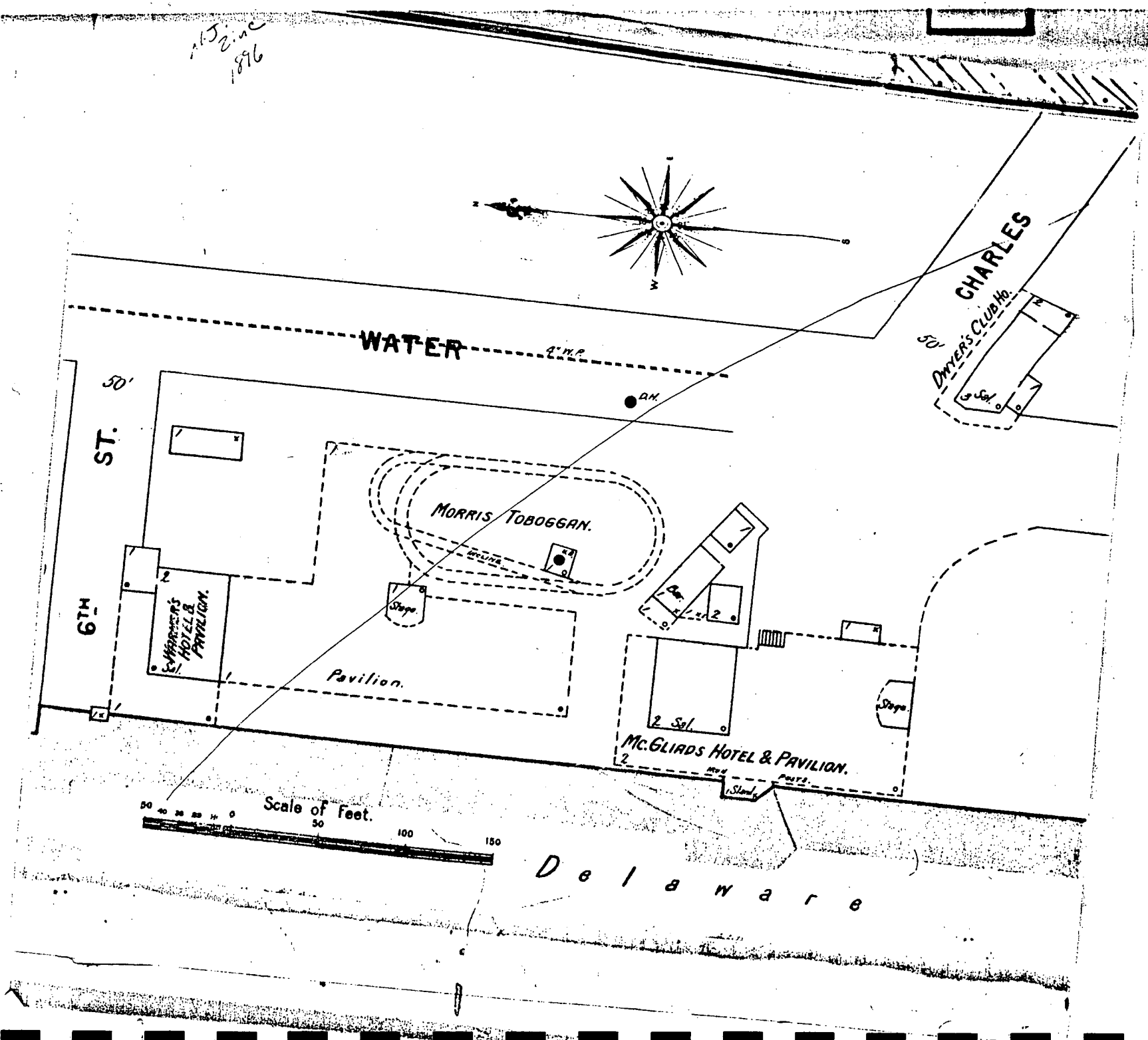
ATTACHMENT Z

ATTACHMENT 2-1

SANBORN FIRE INSURANCE MAP
1891
GLOUCESTER CITY

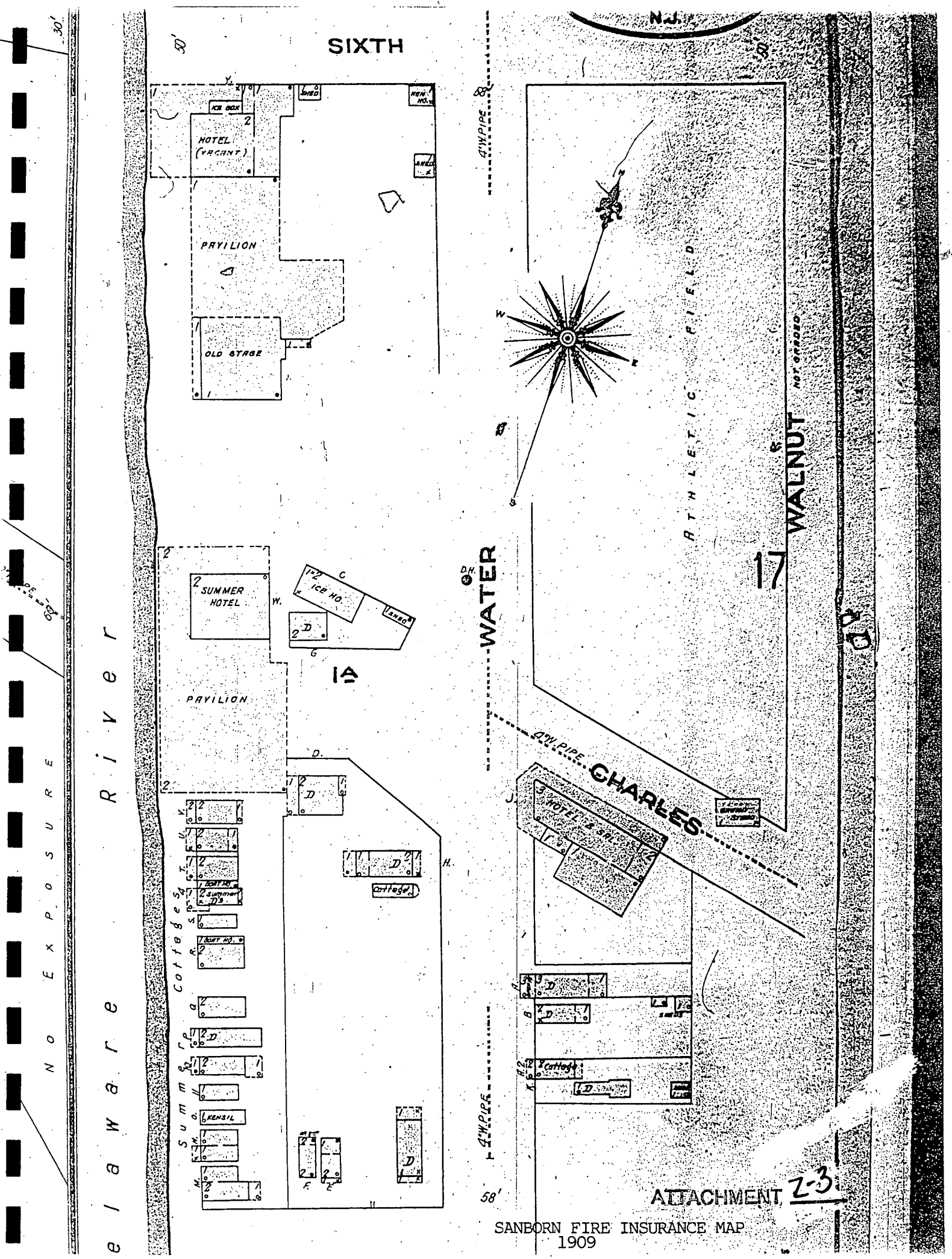


Delaware River



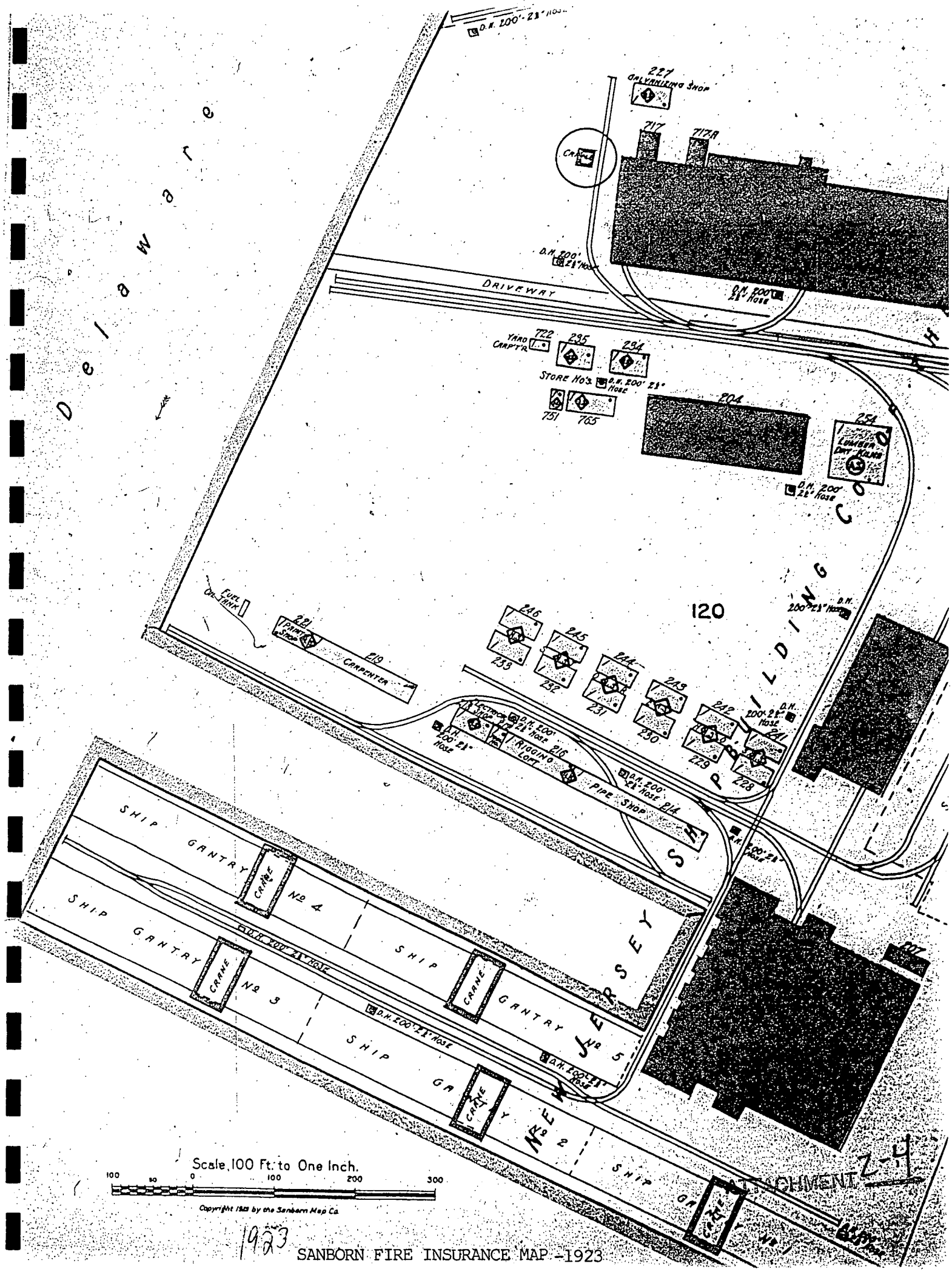
SANBORN FIRE INSURANCE MAP
1896

ATTACHMENT 2-2



ATTACHMENT Z-3

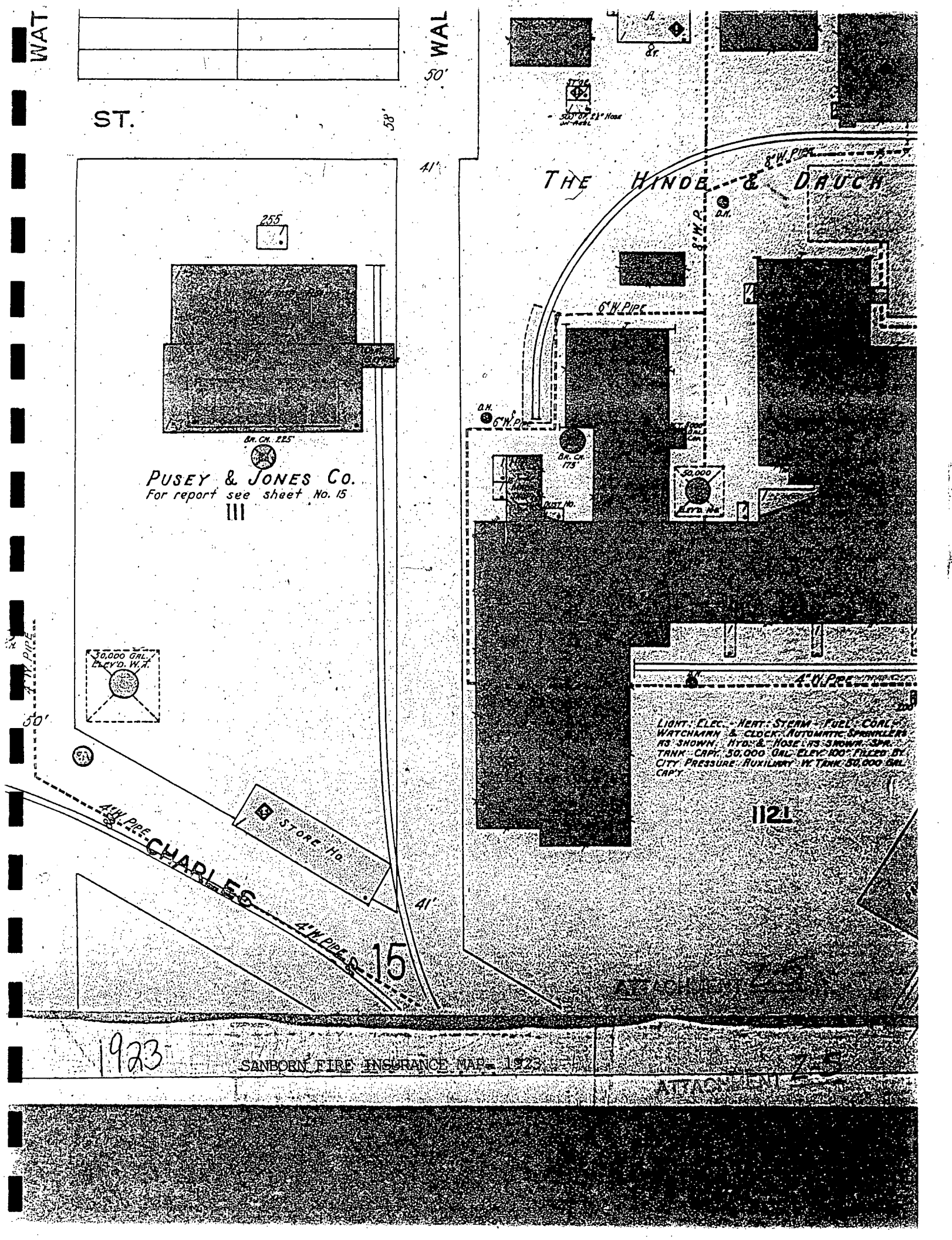
SANBORN FIRE INSURANCE MAP
1909



1923

SANBORN FIRE INSURANCE MAP -1923

ATTACHMENT 2-4


WAT
WAL
ST.
50'
58'
41'
THE HINDE & DAUCH
8" W. PIPE
8" W. P.
D.H.
6" W. PIPE
255
BR. CH. 225'
PUSEY & JONES CO.
For report see sheet No. 15
111
BR. CH. 175'
50,000
ELEV'D. No.
DUST No.
4" W. PIPE
LIGHT: ELEC. - HEAT: STEAM - FUEL: COAL - WATCHMAN & CLOCK. AUTOMATIC SPRINKLERS AS SHOWN. HYD. & HOSE AS SHOWN. SPR. TANK CAP'Y. 50,000 GAL. ELEV. 100' FILLED BY CITY PRESSURE. AUXILIARY W. TANK 50,000 GAL. CAP'Y.
112
50,000 GAL. ELEV'D. W.T.
4" W. PIPE
50'
STORE HO.
CHARLES
4" W. PIPE
15
41'
ATTACHMENT Z-5
1923
SANBORN FIRE INSURANCE MAP - 1923
ATTACHMENT Z-5

ATTACHMENT AA

STATE AND FEDERAL THREATENED AND ENDANGERED SPECIES, BY QUAD

List provided by Computerized Fish and Wildlife Information System
New Jersey Division of Fish, Game and Wildlife
20 JUN 1990

183	Columbus	Turtle, wood
		Sandpiper, upland
		Owl, barred
		Bobolink
		Sparrow, Savannah
185	New Egypt	Rattlesnake, timber
		Snake, northern pine
		Turtle, bog
		Turtle, wood
		Sparrow, grasshopper
187	Cassville	Treefrog, pine barrens
		Snake, northern pine
		Turtle, bog
		Turtle, wood
		Owl, barred
		Woodpecker, red-headed
189	Lakehurst	Treefrog, pine barrens
		Rattlesnake, timber
		Snake, corn
		Snake, northern pine
		Turtle, bog
		Owl, barred
		Sparrow, grasshopper
191	Lakewood	Treefrog, pine barrens
		Rattlesnake, timber
		Snake, northern pine
		Turtle, wood
		Heron, great blue
		Woodpecker, red-headed
193	Point Pleasant	Snake, northern pine
		Plover, piping
		Tern, least
195	Philadelphia	Sturgeon, shortnose
		Shad, American
		Falcon, peregrine
		Rail, black
197	Camden	Sturgeon, shortnose
		Shad, American
		Turtle, bog
		Turtle, wood
		Falcon, peregrine
199	Moorestown	Salamander, eastern tiger
		Salamander, eastern mud
		Turtle, bog
		Turtle, wood
		Heron, great blue
		Bittern, American
		Woodpecker, red-headed
		Sparrow, Savannah

ATTACHMENT AA-1

219	Woodbury	Sturgeon, shortnose
		Shad, American
		Turtle, bog
		Turtle, wood
		Hawk, red-shouldered
		Rail, black
		Sandpiper, upland
221	Runnemede	Treefrog, pine barrens
		Trout, brook
		Snake, northern pine
		Turtle, bog
		Rail, black
		Sparrow, Henslow's
223	Clementon	Treefrog, pine barrens
		Snake, northern pine
225	Medford Lakes	Treefrog, pine barrens
		Salamander, eastern tiger
		Rattlesnake, timber
		Snake, northern pine
		Woodpecker, red-headed
227	Indian Mills	Treefrog, pine barrens
		Snake, corn
		Snake, northern pine
		Owl, barred
		Woodpecker, red-headed
229	Chatsworth	Treefrog, pine barrens
		Rattlesnake, timber
		Snake, corn
		Snake, northern pine
		Owl, barred
231	Woodmansie	Treefrog, pine barrens
		Rattlesnake, timber
		Snake, corn
		Snake, northern pine
233	Brookville	Treefrog, pine barrens
		Rattlesnake, timber
		Snake, corn
		Snake, northern pine
235	Forked River	Treefrog, pine barrens
		Snake, corn
		Snake, northern pine
		Turtle, wood
		Osprey
		Skimmer, black
237	Barnegat Light	Turtle, bog
		Heron, great blue
		Night-heron, yellow-crowned
		Osprey
		Falcon, peregrine
		Rail, black
		Plover, piping
		Tern, roseate
		Tern, least
		Skimmer, black

Common Name: Shad, American
Scientific Name: Alosa sapidissima

NJ.HABITAT

Freshwater aquatic

Fresh and Salt water

LAND.USE

Water

Streams and Canals

Bays and Estuaries

Atlantic Ocean Coastal Waters

COMMENTS ON HABITAT ASSOCIATIONS

Dissolved oxygen levels < 3 ppm strongly reduce or eliminate spawning migration and may cause mortality *01*. Shad spawn in a current less than 0.3 to greater than 0.9 m/sec *1257*. The minimum spawning temperature for American Shad is 12 degrees C *10,12,2517*, although most spawning takes place at between 13-20 degrees C *12,10,4205*. Shad spawn in fresh or slightly brackish water *2517*, over shallow flats and riffles *4205*. They show a preference for channel areas *2522,2530*. The adults are highly tolerant of varying salinity levels, but require 2-3 days to adapt to fresh water *12*. Adults surviving the spawning run return promptly to the sea *12*.

Eggs are absent at dissolved oxygen levels less than 5 ppm *2533*. The eggs hatch more successfully in slightly brackish water (7.5 ppm, at 12 degrees C and 15 ppm at 17 degrees C). The eggs are broadcast loosely in open water *2521,10*. In Virginia , the eggs become abundant when the water reaches 12 degrees C *4205*. Hatching and survival of Shad are greatest between 15.5-26.5 C. *12*.

Common Name: Sturgeon, shortnose
Scientific Name: Acipenser brevirostrum

NJ.HABITAT

Freshwater aquatic

Fresh and Salt water

LAND.USE

Water

Streams and Canals

Bays and Estuaries

COMMENTS ON HABITAT ASSOCIATIONS

This species may require large rivers with rocky substrates for spawning 10,206,02*. They are most often found in large tidal rivers but also in brackish and salt water *10*. Captures in the Gulf of Mexico indicate that it sometimes goes to sea. *4205*. It is landlocked in some areas, e.g. Holyoke Pool, Conneticut River, Massachussetts *203*. In New Jersey, Shortnose Sturgeon are most abundant in the tidal Delaware River during most seasons, apparently very seldom appearing in saltwater. *206* This is not true in other populations, e.g. McCleave et. al. tracked Shortnose Sturgeon ultrasonically in a Maine Estuary at salinities of 12-28 0/00. Sturgeon moved freely through waters of widely differing salinities, sometimes encountering changes of 10 0/00 in less than 2 hour

Common Name: Trout, brook
Scientific Name: Salvelinus fontinalis

NJ.HABITAT

Freshwater aquatic

LAND.USE

Water

Streams and Canals

Lakes

Reservoirs

COMMENTS ON HABITAT ASSOCIATIONS

Native to all clear, cold waters of northeastern North America, including salt water; has been introduced to similar waters world wide *816,788*.

Brook Trout require high water quality (see Env.Assoc for parameters) but the physical condition of the stream is also important *03*.

Optimal brook trout riverine habitat is characterized by clear, cold, spring-fed water, a silt-free rocky substrate in riffle-run areas, an approximate 1:1 pool-riffle ratio with areas of slow, deep water, well vegetated stream banks, abundant instream cover and relativley stable water flow, thermal regimes and stream banks *832*.

Brook Trout prefer to spawn in or near aquifers *cited in 209*.

Common Name: Falcon, peregrine
Scientific Name: Falco peregrinus

NJ.HABITAT

Saltwater marsh

LAND.USE

Herbaceous Rangeland

Shrub and Brush Rangeland

Mixed Urban or Built-up Land

Cropland and Pasture

Other Agricultural Land

Mixed Rangeland

Mixed Forest Land

Nonforested Wetland

Residential

Commercial and Services

Urban or Built-up Land

Agricultural Land

Rangeland

Forest Land

Wetland

Industrial

Transportation, communications, and Utilities

Industrial and Commercial Complexes

Rangeland

Deciduous Forest Land

Evergreen Forest Land

Water

ATTACHMENT AA-6

Streams and Canals

Lakes

Reservoirs

Bays and Estuaries

Forested Wetland

Nonforested Wetland

Barren Land

Dry Salt Flats

Beaches

Bare Exposed Rock

Strip Mines, Quarries, and Gravel Pits

Transitional Areas

Mixed Barren Land

COMMENTS ON HABITAT ASSOCIATIONS

Peregrines are found in terrestrial inland, aquatic and coastal areas *8812*. They have nested in skyscrapers and church spires in cities *1080* Unique habitat also includes bridges/underpasses, utility poles, buildings, fences/hedgerows, standing snags, rocky outcrops, cliffs/ledges and islands *8812*.

Nesting sites, either natural or artificial, with sufficient prey in the vicinity, are limiting *14*.

ATTACHMENT AA-7

Common Name: Turtle, bog
Scientific Name: Clemmys muhlenbergii

NJ.HABITAT

Freshwater marsh

Bog/swamp

LAND.USE

Agricultural Land

Cropland and Pasture

Rangeland

Shrub and Brush Rangeland

Mixed Rangeland

Water

Streams and Canals

Wetland

COMMENTS ON HABITAT ASSOCIATIONS

In Pennsylvania, Bog Turtles found primarily in sphagnum bogs or wet sedge meadows in or near slow moving streams with a muddy bottom, above 610 meter elevation. The highest populations occur in shrub stage of forest succession. *3073*

In Maryland, Bog Turtles were associated with spring-fed pockets of shallow water, a bottom substrate of soft mud and rock, dominant vegetation of low grasses and sedges, and interspersed wet and dry pockets. Turtles were never encountered beyond the wet meadow transitional edge. This habitat was used for all activities, including mating, foraging, egg-laying, basking, resting, and over-wintering. *17*

ATTACHMENT AA-8

Common Name: Turtle, wood
Scientific Name: Clemmys insculpta

NJ.HABITAT

Freshwater marsh

Bog/swamp

Deciduous Forest

Agricultural

Old field

Freshwater aquatic

LAND.USE

Forest Land

Deciduous Forest Land

Water

Streams and Canals

Lakes

Wetland

Forested Wetland

Nonforested Wetland

Barren Land

Sandy Areas other than Beaches

Agricultural Land

Cropland and Pasture

Orchards, Groves, Vineyards, Nurseries, etc.

Rangeland

Herbaceous Rangeland

Shrub and Brush Rangeland

Mixed Rangeland

Transportation, communications, and Utilities

COMMENTS ON HABITAT ASSOCIATIONS

Wood Turtles have two habitat needs: aquatic habitat (usually a stream) for mating and hibernating, and terrestrial habitat for other activity *07,06,10,99*

AQUATIC HABITAT: Usually a stream; in New Jersey frequently one populated with trout *06,07*. Wood turtles require high water quality *07*. Usuall portions of streams populated by Wood Turtles have wooded banks *10*; however, streams passing through open areas, e.g. pastures, may have a muc higher density of turtles *06*. Wood turtles in Pennsylvania were found hibernating in free-flowing waterways 100-230 cm deep; most turtles hibernated on the bottom or under overhanging banks, often amongst tree roots, while some were found buried 18-30 cm deep in the stream bottom *08 New Jersey Wood Turtles hibernate in similar locations, especially amongst tree roots. They sometimes return to the same location to hibernate in successive years *05,07*.

TERRESTRIAL HABITAT: Quite varied, but not very well known *07,10,06,09,99,08*; uses forests and fields, both wet and dry, throughout the summer months. Terrestrial habitat for wood turtles should be relatively undisturbed and continuous with aquatic habitat; pasture and other agricultural lands are apparently acceptable adjacent land uses *07* Females nest in open areas, e.g. fields, embankments; usually in sandy soi *06,99*. The species may be seen foraging in plowed fields after rains *03*.

Carroll and Ehrenfeld *01*, who worked in New York State, stated: "T preferred habitats of Clemmys insculpta are the marshy and wooded borders c small streams. . . " *01, p. 118*. Ernst *08*, studying Wood Turtles in Pennsylvania, found they sometimes wandered 100-400 meters from the neares waterbody in July and August; he found none estivating in streams. Excepting one individual found aestivating in a puddle, Ernst found "All other dormant terrestrial Wood Turtles. . . in shaded forms located under vegetation, fallen logs, or flood debris near creeks." *08, p. 228*. The turtles were most active early and late in the day. Strang *12*, also working in Pennsylvania, found Wood Turtles were restricted mostly to lowland areas (upland and knob habitats were also available in the study), and only one individual was found > 22m from the lowland habitat boundary.

ATTACHMENT AA-10

Common Name: Snake, northern pine
Scientific Name: Pituophis melanoleucus

NJ.HABITAT

Coniferous Forest

Mixed Forest

Agricultural

Old field

LAND.USE

Transportation, communications, and Utilities

Agricultural Land

Cropland and Pasture

Rangeland

Herbaceous Rangeland

Forest Land

Evergreen Forest Land

Mixed Forest Land

Sandy Areas other than Beaches

Barren Land

COMMENTS ON HABITAT ASSOCIATIONS

Typically, Pine Snakes are found in open pine or mixed forest; they seem to prefer cleared fields or natural openings *03*. In New Jersey, Pine Snakes favor pitch pine and scrub oak ("pine-oak areas" *02*) over white cedar swamps and lowland pine areas *11*, although there are reported cases of Pine Snakes found in or near water *01,03*. Zappalorti and Leszczynski *03, pp. 11-12* found that Pine Snakes in New Jersey consistently were foun within 100 m. of a water source, and suggested that they were attracted to wet areas by the availability of prey animals.

Radio-tracked Pine Snakes selected habitats in pine-oak forests of the NJ Pine Barrens, and they occurred nearly equally in disturbed and undisturbed areas of the forest despite the low availability of disturbed sections (87% of random points within the study site were undisturbed, but snakes were located in undisturbed areas only 42% of the time). Hand-caught snakes were found in disturbed habitats in 98% of the captures,

indicating a bias in determining habitat preference based on locality of capture *11*. Disturbed, open areas are important in particular as nesting areas for females *07,06*. All Pine Snake nests in one Pine Barrens study occurred in large clearings with less than 10% tree cover *07*.

Most Pine Snakes captured are found at road or railroad track edges, field margins, or other open areas. They will take refuge in stump holes, rodent burrows, old foundations, concrete slabs or even under inhabited cabins *02*.

Pine snakes in the radio-tracking study spent as much time basking in partial shade as in full sun, suggesting the importance of heavy shade *11

Plant species most commonly found near Pine Snake capture sites in th NJ Pine Barrens were (from *03*):

- Pennsylvania sedge (Carex pennsylvaticus)**
- heather (Hudsonia spp.)**
- pitch pine (Pinus rigida)*
- black-jack oak (Quercus marylandica)*
- short-leaf pine (Pinus echinata)
- black oak (Quercus velutina)
- low-bush blueberry (Vaccinium vacillans)*
- bracken fern (Pteridium aquilinum)
- common hairgrass (Deschampsia flexuosa)*
- high-bush blueberry (Vaccinium corymbosum)
- sawbrier (Smilax glauca)
- Virginia pine (Pinus virginiana)
- scarlet oak (Quercus coccinea)

* = species "correlated" to nesting areas
** = species found most frequently at nesting sites

Dominant soil types at Pine Snake capture sites in NJ include:

- Lakehurst Sand, 0 to 3% slopes *06,03*
- Lakewood Sand, 0 to 5%, 5 to 10%, 10-15% slopes *03*
- Woodmansie Sand, 0 to 5% slopes *03*
- Atsion Sand *03*
- alluvial land, sandy *03*
- Muck, shallow *03*

Nest sites are usually in Lakehurst Sand *02*.

In the NJ Pine Barrens, Pine Snakes occur most frequently at elevatior of 40 to 80 feet, with a range of 35 to 154 feet *03*.

Pine Snakes hibernate in underground hibernacula. One study found that, related to random points, hibernacula had significantly more vegetation cover within 5 meters and more leaf cover on the burrow entrance Most (73%) hibernacula and summer dens were beside fallen logs.*12*

Common Name: Treefrog, pine barrens
Scientific Name: Hyla andersonii

NJ.HABITAT

Bog/swamp

Mixed Forest

Coniferous Forest

Freshwater aquatic

LAND.USE

Wetland

Forested Wetland

Mixed Forest Land

Evergreen Forest Land

Forest Land

Transportation, communications, and Utilities

Water

Streams and Canals

COMMENTS ON HABITAT ASSOCIATIONS

Like many amphibians, Pine Barrens Treefrogs use two habitats, wetland/water for breeding and upland at other seasons. Habitat in and around breeding sites has been well studied, e.g. *06,09,08,01*. Terrestrial habitat is much less well known, but see *06,11* and below.
BREEDING HABITAT:
Breeding habitat structure is similar throughout the species range, although many different plant species may be involved *06,08,01,03*. Pine Barrens Treefrogs breed in seepage bogs, small ponds and streamlets of generally permanent nature *06,09,08,01,03*.
Depths of ten breeding sites in one NJ study were mostly < 1 m, with one site < 0.1 m, and portions of one > 2 m. Another NJ source states that breeding ponds are usually < 60 cm deep *02*. Nearly all breeding sites hav a shrub or herbaceous zone, composed of various species, indicating a sub-climax, open-canopy community *06,08,01,04*, although the species is also reported in Atlantic white cedar swamps and pitch pine lowland forests *03,04,01* with less open canopy *11*. Forty sites in NJ, NC, SC, and FL had an open canopy with overstory density ranging from 0-112 trees per 100 sq.m (mean = 26/100 sq.m); the shrub understory averaged 1.6 m high with stem density of 32 stems per meter (about 50% foliage coverage)*06*.

ATTACHMENT AA-13

Sphagnum is present at most breeding sites *06,09,08,01,03,04*. Breeding waters are normally acid (4.1<pH<4.5; sometimes lower, rarely higher *06,09,03*); use of low pH breeding sites may be an adaptation to reduce amphibian competitors, none of which are as acid-tolerant *06,09,11*. Fred and Morin *06* found that pH of most ponds did not change consistently ove time; they noted that changes of 0.1 pH can be very significant to aquatic life. Plant species which have been reported in association with Pine Barrens Treefrog breeding sites in New Jersey include: Sphagnum moss; sundews (Drosera spp.); pitcher plants (Sarracenia purporea); orchids (Platanthera spp.); southern or Atlantic white cedar (Chamaecyparis thyoides); pitch pine (Pinus rigida); mountain laurel (Kalmia latifolia); high-bush blueberry (Vaccinium corymbosum); swamp azalea (Rhododendron viscosum); sheep laurel (Kalmia angustifolia); black-jack oak (Quercus marylandica); magnolia (Magnolia virginiana); greenbriar (Smilax spp.); maples (Acer spp.); Nyssa aquatica; sweet pepperbush (Clethra alnifolia) *03,01,06*.

TERRESTRIAL HABITAT:

Freda and Morin *06* and Freda and Gonzalez *10* reported the results of a radioactive isotope-tagging study of Pine Barrens Treefrogs performed in New Jersey. Tagged treefrogs (n = 8) generally remained within 70 m of the breeding pond; one individual moved 102 m away. Microhabitats of tagge animals located at midday were (% of 103 recaptures): 1) sitting on ground 33%, 6 frogs; 2) buried in leaf litter under scrub oak, 5%, 3 frogs; 3)on a scrub oak leaf, 23%, 4 frogs; 4) on a pitch pine or scrub oak branch, 39%, frogs *10*. Some frogs, not relocated, may have moved out of the study area. Calling Pine Barrens Treefrogs were frequently heard > 100m away fr the breeding site. Daily movements of 100 m were recorded. *06*.

Common Name: Sparrow, Henslow's
Scientific Name: Ammodramus henslowii

NJ.HABITAT

Saltwater marsh

Freshwater marsh

Agricultural

Old field

LAND.USE

Agricultural Land

Cropland and Pasture

Rangeland

Herbaceous Rangeland

Mixed Rangeland

Wetland

Nonforested Wetland

COMMENTS ON HABITAT ASSOCIATIONS

Henslow's Sparrow's habitat requirements have been related to: 1) moisture range; 2) Herbaceous vegetation; 3) presence of litter; 4) singing perches; 5) Standing dead vegetation. Pertinent referenc include *4506,4504,4507,02,05,01,03,07*.

1) Moisture range - Robins *4506* states that the species prefers an intermediate moisture range, avoiding wet or dry areas. Several other sources *4503,4504,03,05* note that the species prefers moist conditions such as "wet or damp" weedy fields or swales *4503*; "low-lying, damp situations" *4504*; "damp meadows" *03*; etc. Most sources also note, however, that species may also occur in drier situations, e.g. Bull *03*.

2) Herbaceous vegetation - Robins *4506* states that correct vegetation is "dominated by herbaceous plants, particularly grasses and sedges, which is dense, or at least with frequent dense patches."*4506, p.39* At his study site in Michigan, the tallest and densest vegetation was most densely populated by Henslow's Sparrows. Similar conclusions about height and density of vegetation were reached by Zimmerman *02* in Kansas, although

ATTACHMENT AA-15

Zimmerman suggested that tall dead vegetation (and litter; see #3 and #5 below) suppressed new grass growth and provided a more open substrate for the species at ground level.

Others describe the species' habitat as "Weedy prairies and meadows, and neglected grassy fields and pasturelands. . . unmowed timothy-clover hayfields" *4504*; "old weedy fields and swales" *4503*. Graber *4504* noted that breeding habitat may be irregular or uniform in height, with ground cover dense and "at least a foot or two" high.

Several sources *4504,05,01,03* note scattered shrubs may be present i breeding areas. Robins *4507* found that breeding Henslow's Sparrows entere thickets only when pursued. The species uses hedgerows and shrubby areas in migration *4504*. Zimmerman *02* found that Henslow's Sparrows in Kansa held territories containing less woody vegetation than found at random points outside of territories.

3)Presence of litter - Robins *4506* listed the presence of litter among th habitat requirements of Henslow's Sparrow. Zimmerman *02* noted that sprin burning in Michigan precluded the species' presence, and that burned areas have no litter or dead vegetation.

4)Singing perches - Robins *4506* listed singing perches as "possibly" required by Henslow's Sparrows, although he notes that available perches provided by stakes or woody vegetation were used infrequently. Clumps of dead vegetation standing above the new grass were often used early in the breeding season.

5) Standing dead vegetation - In unburned watersheds in Michigan, Zimmerman *02* found that Henslow's Sparrows established territories in areas containing more and taller dead vegetation compared to sites outside territories. Zimmerman offered several management recommendations regardin controlled burning based on his observations. (See C.MANAGEMENT).

ATTACHMENT AA-16

Common Name: Rail, black
Scientific Name: Laterallus jamaicensis

NJ.HABITAT

Saltwater marsh

Freshwater marsh

Agricultural

LAND.USE

Agricultural Land

Cropland and Pasture

Wetland

Nonforested Wetland

COMMENTS ON HABITAT ASSOCIATIONS

In New Jersey, Black Rails are essentially restricted to the salt marshes of the southern coast and the Delaware Bayshore, although there is a recent record of occurrence for a freshwater marsh in Bergen County, and, historically, possible Black Rail nesting was reported for Troy Meadows *01*.

Most of the Black Rail sites located in the 1988 survey (*11*; see SURVEYS) had at least some patches of Spartina patens mixed with Spartina alterniflora and some copses of Iva. Sites where the most Black Rails were found were near the upland edges of the marshes, which are rather dry and rarely inundated by high tides.

At the Holgate, New Jersey, marsh in the 1940's and 50's, "The best area for [Black] rails was the central, drier part where there were extensive areas of Spartina grass" *07*.

Elsewhere in the country, Black Rails are known to inhabit a wider range of habitat types, including "fresh, brackish and salt marshes, grassy swamps, wet meadows"*06*; "... occassionally wet savannah, rarely in dry grassland" *05*. There are several 19th century nesting records for marshes or wet meadows near Philadelphia *01*.

A study along the lower Colorado River in Arizona *03* found that Black Rails appeared to use the 0-4m marsh perimeter extensively. The highest density of rails occurred below a dam where ". . . vegetation is denser, more robust, and occurs in large tracts. These tracts are more heavily matted by fallen vegetation, and rails occur here in colonial-like situations." *03, p. 489*

Upland vegetation peripheral to marshes may be important as escape cover for Black Rails during periods of unusually high tides *26*; see C.ANIMAL/PLANT.

ATTACHMENT AA-17

Common Name: Sandpiper, upland
Scientific Name: Batramia longicauda

NJ.HABITAT

Agricultural

Old field

LAND.USE

Cropland and Pasture

Agricultural Land

Other Agricultural Land

Rangeland

Herbaceous Rangeland

Mixed Rangeland

COMMENTS ON HABITAT ASSOCIATIONS

In general, breeds in pastures, dry upland fields, hay meadows, cultivated fields and other extensive flat open country *528,676,432*. It sometimes occurs in fields around airports and on golf courses *528*. Upland Sandpipers are seldom found near water, but occasionally in moist meadows *432*. Clark *NJDFGW2* noted that Upland Sandpipers have nested scrub-shrub areas adjacent to grassland areas at the FAA Tech Center in Ne Jersey.

PERCENTAGE OF UPLAND SANDPIPER NESTS IN SPECIFIC LAND USE TYPES***

(adapted from White.*02*)

Pasture	38.2%
grazed	12.1
ungrazed	2.2
burned	21.0
unburned	2.9
Prairie-grassland	28.0
Idle Land (suburban fringe,stubble fields and highway right-of ways)	16.0
Hayfields	7.0
Clearings in woody growth	5.4
Tilled lands,growing grain	3.1
Airfields,shooting ranges	1.8
Marsh	0.5

ATTACHMENT AA-18

***based on 553 nest sightings from Cornell nest records and the literature

In White's Wisconsin study *02*, census routes with high Upland Sandpiper counts had high acreage in oats, hay and pasture, little area in forest, lacked rugged topography, had fence posts for song perches, and had low vegetation edge ratings (meaning the fields were large and unbroken). White noted that alfalfa, in its initial year, resembles shortgrass prairie and is favored by Upland Sandpipers.

At a North Dakota study site, 85% of nests were concealed by cover consisting of >50% grass, 12% by forbs and 3% by brush. Most nests were found in the following plant genera: Poa (48%), Stipa, Bromus, Agropyron, Medicago, Helianthus, and Symphoricarpos. Few nests were found i annually tilled cropland. Height of vegetative cover was also important in North Dakota; data there indicated that Upland Sandpipers prefer to nest in cover 15.6-30.8 cm tall and avoid cover >61.5 cm tall. These measurements were obtained when the nest was found; height at the time of nest initiatio would be less. *5295*

A two year study characterizing the habitat of the Upland Sandpiper *45,47* in New Jersey found that the birds chose sites surrounded by (within 1 km) open habitat and at those sites established use areas in the most open potions. Open land averaged 76.1% of the area within 1 km of the use area boundaries in 1983 and 66.7% in 1984. One site (Orchard Road, Linvale), however, had unbroken forest on one side which resulted in 43.4% of the area within 1 km being forested, indicating that forest adjacent to a site may not be a deterrent to use of a site. Pastures and hayfields associated with livestock were found on study sites more often than would b expected based on their proportionate frequency in New Jersey agriculture and received the most concentrated use by Upland Sanpipers, indicating that these agricultural uses may hold a high value to breeding Upland Sandpipers

For hatching success rates in various habitats and for more informatio on habitat, see C.MANAGEMENT.

Common Name: Hawk, red-shouldered
Scientific Name: Buteo lineatus

NJ.HABITAT

Deciduous Forest

Mixed Forest

LAND.USE

Evergreen Forest Land

Water

Streams and Canals

Forest Land

Deciduous Forest Land

Mixed Forest Land

Wetland

Forested Wetland

Nonforested Wetland

COMMENTS ON HABITAT ASSOCIATIONS

Red-shouldered Hawks prefer low wetland habitat for nesting *528,434*. Hawks in Maryland consistently nested in large trees in mature floodplain forest near water *4346,4081*. Nest sites in Massachusets were located in wet deciduous woods. Mature black and yellow birches, accounting for only 32% of the mature trees, were chosen 67% of the time, probably because of their architecture *4080*. A survey of 44 papers on nesting Red-shouldered Hawks revealed 40 different tree species used as nest-sites *504*.

ATTACHMENT BB

Form OWR-143
7/91

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICES

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY

DATE: 17 October 1990

GENERAL INFORMATION

PURVEYOR/FACILITY: Collingswood Water Department

FILE LOCATION: Collingswood Camden County | PW-ID #: 0412001

MAILING ADDRESS: 678 Haddon Ave. Collingswood NJ 08108

ADMIN.: Jean DeGennaro | REQUIRED LICENSES: T-2 W-3 John Meier T-3 W-4

BUSINESS TELEPHONE # Admin.: 858 0613 Licensed Operators: T 854 2332 W

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): Well #1 Highland & Hillcrest (Plant #1) 1.6 mgd; Well #2 Plant #1 1.15 mgd; Well #3 - plant #1 - 1.25 mgd; Well #4 - plant #1 - 0.094 mgd Well #5 - plant #1 - 1.44 mgd; Well #6 - Conley & Newton (Plant #2) - 1.44 mgd; Well #7 plant #2 - 1.44 mgd

Est Tot Eff Cap: 8.66 mgd

TREATMENT: source, type, capacities(mgd): All wells - Both Plants - prechlorination aeration, sedimentation, post chlorination, pressure filtration Plant #1 4.0 mgd Plant #2 1.2 mgd

Est Tot Eff Cap: 5.2 mgd

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): Standpipe (2) - N. Atlantic Ave 1.5 mg and 0.6 mg; Elevated tank Conley Ave 0.2 mg

Est Tot Cap: 2.3 mg

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): 12"Ø to 6"Ø at Collins & Mt Ephraim in Camden City; 8"Ø to 4"Ø at Park & Haddon in Haddon Twp

Est Tot Avail: 2.2 mgd

AUXILIARY POWER: location, type, capabilities: Plant #1 Two(2) diesel generators for two wells and plant. stand by diesel pump

3.0 mgd ATTACHMENT BB-1

Well # 2R, 3R, 4, 5, 6, 7, 8
is actually 2, 3, 4, 1, 5, 6, 7

Spoke to John Meier on 12/91 as private wells in area.

NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd,month,year)	Max 2.22 7-89 Min 2.09 2-89 Annual Average 2.14 mgd
BULK PURCHASES (provider,mgd)	None
BULK SALES (customer, mgd)	None
NUMBER OF SERVICES	5884 % METERED 99%
MUNICIPALITIES SERVED (est. services in each)	Haddon Twp 603, Woodlyn 909 Collingswood 4,372
	TOTAL ESTIMATED POPULATION SERVICED 21,000
CURRENT/RECENT WATER RESTRICTIONS	None
NEW CONSTRUCTION (Project Numbers)	None
DISTRIBUTION MAINS:	Sizing 2" Ø (min) to 16" Ø (max) Pressures 55 psi (min) to 60 psi (max) Hydrants/Flushing Program Yes / Yes

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
Cl2 - pH - Fe	Daily	Daily
Coliform	20 per Month	28 per month
Inorganics & Na	Every 3 years	9-87
Nitrate	Every 3 years	9-87
Trihalomethanes	Quarterly	9-90
Organics	—	—
Turbidity	—	—
Secondaries	Every 3 years	9-87
Radionuclides	Every 4 years	In process 1990
A-280	Every 6 months	6-90

NAME OF LABORATORY Westville Regional CERTIFICATION # 08136

ADDRESS Westville
P & P Lab 04479 Audubon

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES None

TREATMENT DEFICIENCIES None

No private in area

ATTACHMENT BB-2

ONDESCU

Form DWR-143
7/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICES

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY

DATE December 7, 1990

GENERAL INFORMATION

PURVEYOR/ FACILITY: Haddon Township Water Department

FILE LOCATION: Haddon Twp. / Camden County — PW-ID # 0416001

MAILING ADDRESS: Township Hall Haddon & Reeves Aves. Westmont, N.J. 08108

REQUIRED LICENSES: T-2, W-3

ADMIN.: Nicholas Laurite, Commissioner

BUSINESS TELEPHONE #: Main plant: 854-9413 Admin.: 854-1825

Charles Stevenson 629-8500

Licensed Operators: T-3 W-4

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): Well #1A, MacArthur Blvd. - .713; Well #2A, Beachwood Rd. - 1.17; Well #3A, Rose Ave. - 1.23; Well #4, MacArthur Blvd. - 1.15. All wells water lubricated.

Est Tot Eff Cap: 4.26 mgd

TREATMENT: source, type, capacities(mgd): All four wells - aeration, Sand filtration for iron removal, polyphosphate for iron sequestration, gas chlorination

Est Tot Eff Cap: 4.26 mgd

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): Standpipe - Brairwood Ave, .25 mg; Standpipe - Township garage, .75 mg; Elevated tank - MacArthur Blvd., 1.0 mg.

Est Tot Cap: 2.0 mg

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): One 8"ϕ main with Collingswood. A written agreement for this interconnection has been executed.

Est Tot Avail: unlimited

AUXILIARY POWER: location, type, capabilities: Plant, Detroit diesel generator, runs four wells (three wells in Summer) and treatment, 4.26 mgd Tested Weekly.

ATTACHMENT BB-3

Interconnected system.

One private well in area - Restaurant - O'Brady's & this well also supplies tennis club

NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd,month,year) Max 1.59 Nov. '89 Min 1.12 Feb. '89 Annual Average 1.38 mgd

BULK PURCHASES (provider,mgd) None

BULK SALES (customer, mgd) None

% METERED 100

NUMBER OF SERVICES 3808

MUNICIPALITIES SERVED (est. services in each) Haddon Twp

TOTAL ESTIMATED POPULATION SERVICED 12,000

CURRENT/RECENT WATER RESTRICTIONS 62 mgm - NJDEP/BWA

NEW CONSTRUCTION (Project Numbers) None

DISTRIBUTION MAINS: Sizing 4" ø (min) to 12" ø (max)
Pressures 42 psi (min) to 45 psi (max)
Hydrants/Flushing Program yes / 2x per yr.

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
A-280	2 x per yr.	2 x per yr. 6/13/90
Coliform	13 x per mo	13 x per mo
Inorganics, Na	1 x every 3 yrs.	1 x every 3 yrs. 3/18/88
Secondaries	1 x every 3 yrs.	not performed, due prior to 6/2/88
Trihalomethanes	4 x per yr.	4 x per yr. 6/13/90
Chlorine	Daily	Daily
Iron	Daily	Daily
Ph	Daily	Daily
Radionuclides	1 x every 4 yrs.	1 x every 4 yrs. 8/8/90

NAME OF LABORATORY P & P Lab CERTIFICATION # 04479

ADDRESS Woodlynne, N.J.

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES Well #2A no shut off valve.
*Note: Wells #2 and 3 have been sealed.

TREATMENT DEFICIENCIES None

ATTACHMENT BB-4

Form DWR-143
7/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICES

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY

DATE February 22, 199

GENERAL INFORMATION

PURVEYOR/ FACILITY: Gloucester City Water Department (Johnson Blvd. - Gloucester City)

FILE LOCATION: Gloucester City, Camden County | PW-ID #: 0414001

MAILING ADDRESS: Gloucester City City Hall Broadway + Monmouth Streets Gloucester City N.J. 08030

ADMIN.: John Williams - Director of Public Works | REQUIRED LICENSES: T - 2, W - 2

BUSINESS TELEPHONE #: Plant (609) 456-0169; Admin.: (609) 456-1250 | Licensed Operators: T - 3 John Williams, W - 4

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): Well #40 at plant 1.44 mgd (mineral oil)
Well #41 Johnson Blvd 1.44 mgd (mineral oil)
Well #42 Nicholson Road 0.79 mgd (mineral oil)
Well #43 at plant 1.44 mgd (mineral oil) Est Tot Eff Cap: 5.11 mgd

TREATMENT: source, type, capacities(mgd): Aeration, sedimentation with chlorine injection, green sand filters, chlorination, pH adjustment

Est Tot Eff Cap: 5.11 mgd

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): Steel standpipe on Paul Street 0.660mg and water tower on Broadway Ave. 0.500 mg (At the time of this inspection the steel standpipe on Paul Street was out of service for routine maintenance.) Est Tot Cap: 1.16 mg

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): Written agreement with New Jersey American Water Company (Mt. Ephraim) six inch main and a non-written agreement with Camden City Water Department

Est Tot Avail: Unknown quantity

AUXILIARY POWER: location, type, capabilities: 2 diesel generators; 1 located at the plant, and another inside well house #43.

ATTACHMENT BB-5

NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd,month,year) Max Oct. 90 1.73 mgd Min Feb. 90 1.43 mgd Annual Average 1.61 mgd

BULK PURCHASES (provider,mgd) None

BULK SALES (customer, mgd) None

NUMBER OF SERVICES 4500 % METERED 100

MUNICIPALITIES SERVED (est. services in each) Gloucester City

TOTAL ESTIMATED POPULATION SERVICED ~~13,500~~ 12,500 as of 12/9/91

CURRENT/RECENT WATER RESTRICTIONS None

NEW CONSTRUCTION (Project Numbers) None

DISTRIBUTION MAINS: Sizing 4" (min) to 16" (max)
Pressures 40 psi (min) to 60 psi (max)
Hydrants/Flushing Program semi-annual

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
Secondaries	Once every 3 years	April 1988
Coliform	15 per month	21 per month
Inorganics	Once every 3 years	April 1988
Nitrate	Once every 3 years	April 1988
Trihalomethanes	Quarterly	6/90 - 10/90 - 1/91
Organics	NA	NA
Turbidity	NA	NA
Cl_2 ph, Fe, Mn	Daily	Daily
Corrosivity	Once	November 1986
A-280	Twice a year	November 1990

NAME OF LABORATORY Rancocas Environmental Labs CERTIFICATION # 03151

ADDRESS 502 Burlington Avenue, Delanco NJ 08075

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES None

TREATMENT DEFICIENCIES None

Possibly 1 or 2 private wells in area.

ATTACHMENT BB-6

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7/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICES

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY

DATE October 11, 15, 1990

GENERAL INFORMATION

PURVEYOR/FACILITY: West Deptford Township Water Department

FILE LOCATION: West Deptford, Gloucester County — PW-ID # 0820001

MAILING ADDRESS: Grove Ave & Crown Point Rd, Thorofare, N.J. 08086

REQUIRED LICENSES: T-2, W-3

ADMIN.: Gerald Waite

BUSINESS TELEPHONE # Admin.: 845-1004

Licensed Operators: Ed Phelps T-3 W-4

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): Well #2 - Georgia Ave, not in use; Well #3 - Jessup Rd, 0.7 mgd; Well #4 - Parkville Rd, .57 mgd; Well #5 - Kings Hwy, 1.1 mgd; Well #6 - Red Bank & Oakland Ave, 0.7 mgd; Well #7 - Academy Ave, 1.0 mgd; Well #8 - Parkville Rd, 1.4 mgd. All wells water lubricated.

Est Tot Eff Cap: 5.47 mgd

TREATMENT: source, type, capacities(mgd): Gas Chlorination and iron Sequestration (Klenphos-300) at all wells.

Est Tot Eff Cap: 5.47 mgd

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): 1) Elevated tank on Mantua Grove Rd - 0.5 mg 2) Elevated tank on Red Bank & Oakland Ave - 0.5 mg 3) Elevated tank on Rt. 295 - 2.0 mg.

Est Tot Cap: 3.0 mg

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): ① City of Woodbury - 1-8" at Delaware St., 1 mgd; 1-16" at Hessian Ave, 1 mgd; 1-16" at Tatum & Oak, 1 mgd; 16" at Kings Hwy, 1 mgd. ② Woodbury Hgts - 1-6" at Rt. 45 & Griscom, 1 mgd. No written agreement for these interconnections has been executed.

Est Tot Avail: 5 mgd

AUXILIARY POWER: location, type, capabilities: Well #3 - propane powered generator. Wells #5, 6, 7 and 8 - diesel powered right angle drive generators. All generators tested monthly.

Due to Ed Phelps - there are ~ 4 industries in the area with private wells. ~ 25 domestic wells in the area.

ATTACHMENT BB-7

NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd,month,year) -Max 2.8 mgd 7/89 Min 1.9 mgd 2/89 Annual Average 2.4 mgd

BULK PURCHASES (provider,mgd) None

BULK SALES (customer, mgd) None

NUMBER OF SERVICES 5,057 % METERED 100

MUNICIPALITIES SERVED (est. services in each) West Deptford Twp

TOTAL ESTIMATED POPULATION SERVICED ~19,000

CURRENT/RECENT WATER RESTRICTIONS None

NEW CONSTRUCTION (Project Numbers) None

DISTRIBUTION MAINS: Sizing 4" ϕ (min) to 12" ϕ (max)
Pressures 45 psi (min) to 65 psi (max)
Hydrants/Flushing Program yes / 2x per yr.

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
Cl2	Daily	Daily
Coliform	22 per month	28 per month
Inorganics, Na	1x every 3 yrs.	1x every 3 yrs. 6/19/88
Nitrate	1x every 3 yrs	1x every 3 yrs. 6/19/88
Trihalomethanes	4 per Quarter	4 per Quarter 5/8/90
Secondary/corrosivity	1x every 3 yrs.	1x every 3 yrs. 6/19/88
A-280	2x per yr.	1x per yr. 5/8/90 *
Bacteriology	1x per 4 yrs.	1x per 4 yrs. 6/86

NAME OF LABORATORY Quality Control CERTIFICATION # 77648

ADDRESS Southampton, PA

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES Well #2 lacks a draw down gauge, discharge pressure gauge & flow meter; and is not protected against unauthorized entry. Well #5 lacks a sample tap & discharge pressure gauge. Electric shut off switch on wel #6 is broken.

TREATMENT DEFICIENCIES Chlorine rooms at wells # 3,4,5,6,7 & 8 lack panic type hardware. Exhaust fans in the chlorine rooms at wells # 3,7 & 8 do not work. Chlorine room at well # 4 lacks a heating device. Chlorine rooms at wells # 3, 4, 6 & 8 have only 1 cl2 cylinder connected during operation. (* Note: Respirator-air cylinder for cl2 room at well # 5 being filled at time of inspection).

ATTACHMENT BB-8

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICES

County Bu
3/26/9
CMDE

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY

DATE MARCH 9, 1990

GENERAL INFORMATION

PURVEYOR/ FACILITY: BROOKLAWN WATER DEPARTMENT

FILE LOCATION: BROOKLAWN BORO/ CAMDEN COUNTY | PW-ID #: 0407001

MAILING ADDRESS: BORO HALL, HAAKON ROAD, BROOKLAWN, NJ 08030

ADMIN.: MR. RICHARD BURR, ADMINISTRATOR | REQUIRED LICENSES: T-2 W-2

BUSINESS TELEPHONE # Admin.: 456-0030 456-2638 | Licensed Operators: William Packer T-4 456-7785 W-4

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): Well #1, submersible at Broadway & Town Center, 0.432 mgd (Water Lubricated); Well #3, Next to Plant at Broadway & Timber Boulevard, 0.432 mgd (Water Lubricated) Well #4, Timber Boulevard, 0.576 mgd (oil lubricated) Est Tot Eff Cap: 1.440 mgd

TREATMENT: source, type, capacities(mgd): Well #1, 3, 4 - Broadway & Timber Boulevard Pla
- Aeration, Hypochlorination, Green Sand Filtration, Brine softening Units, KMn
and Calciquest Sequestreating Units and Clear well

Est Tot Eff Cap: 1.440 mgd

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): Elevated Tank, Browning Road and Rt. 130, 0.400 mg

Est Tot Cap: 0.400 mg

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): 6" line at Kings Highway & Adams Ave - Connected to Bellmawe Water Dept. 0.69 mgd

Est Tot Avail: 0.69 mgd

AUXILIARY POWER: location, type, capabilities: Well 1 & 3, Timber Boulevard & Broadway Plant, Diesel Generator (0.864 mgd) Well #4, Timber Boulevard, Diesel Generator (0.576 mgd) Total capabilities = 1.440 mgd

No private wells in area

ATTACHMENT BB-9

NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd,month,year) Max 0.260 mgd 07/89 Min 0.204 mgd 12/89 Annual Average 0.236 mgd

BULK PURCHASES (provider,mgd) None

BULK SALES (customer, mgd) None

NUMBER OF SERVICES 860 % METERED 100

MUNICIPALITIES SERVED (est. services in each) BROOKLAWN

TOTAL ESTIMATED POPULATION SERVICED 2520

CURRENT/RECENT WATER RESTRICTIONS None

NEW CONSTRUCTION (Project Numbers) None

DISTRIBUTION MAINS: Sizing 6" (min) to 16" (max)
Pressures 40 PSI (min) to 58 PSI (max)
Hydrants/Flushing Program yes - once a year minimum

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
A-280	2 PER YEAR	2 PER YEAR
Coliform	3 PER Month	3 PER Month
Inorganics	EVERY 3 YEARS	Completed 12-7-88
Nitrate	EVERY 3 YEARS	Completed 12-7-88
Trihalomethanes	N/A	Completed 1-16-89
SODIUM	EVERY 3 YEARS	Completed 12-7-88
SECONDARY	EVERY 3 YEARS	Completed 12-7-88
RADIOLOGICAL	EVERY 4 YEARS	Due
Cl_2, pH, $KMnO_4$, PO_4, Brine	DAILY	DAILY

NAME OF LABORATORY Jenlabs / Val Associates CERTIFICATION # 08523/08174

ADDRESS F-3 Rt. 259 & Delsea Dr. Westville, NJ 08093 / 748 Ridge Drive Rd Mantua NJ 08

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES None

TREATMENT DEFICIENCIES Calciquest Addition in use without prior NJDEP Approval

ATTACHMENT BB-10

Form DWR-143
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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICES

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY

DATE October 19, 1990

GENERAL INFORMATION

PURVEYOR/ FACILITY: National Park Water Department

PW-ID #: 0812001

FILE LOCATION: National Park / Gloucester

MAILING ADDRESS: 7 South Grove Street, National Park

REQUIRED LICENSES: T-1 W-2

ADMIN.: Robert Dougherty, Jr

BUSINESS TELEPHONE # Admin.: (609) 845-3891

Licensed Operators: Harry T. Fouch T-2 Harry T. Fouch W-3

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): Well #5 - 1.44 MGD, water lubricated Well #6 - 1.44 MGD, water lubricated - both wells at Grove and Lakehurst Avenues

Est Tot Eff Cap: 2.88 MGD

TREATMENT: source, type, capacities(mgd): ph adjustment with caustic soda, aeration filtration and gas chlorination

Est Tot Eff Cap: 2.88 MGD

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): Standpipe - 0.19 MG, Grove and Lakehurst Avenues

Est Tot Cap: 0.19 MG

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): one (1) Six (6) inch connection with West Deptford Water Dept.

Est Tot Avail:

AUXILIARY POWER: location, type, capabilities: Right Angle Drive gasoline generator at Well #5 - exercised monthly

RECEIVED
NOV [illegible]
N.J. STATE DEPT. OF ENVIRONMENTAL PROTECTION
BUREAU OF [illegible]

ATTACHMENT BB-11

NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd,month,year) Max 0.29 mgd - July 89 Min 0.20 mgd - Feb'89 Annual Average 0.25 mgd

BULK PURCHASES (provider,mgd) None

BULK SALES (customer, mgd) None

NUMBER OF SERVICES 1050 % METERED 100

MUNICIPALITIES SERVED (est. services in each) Borough of National Park

TOTAL ESTIMATED POPULATION SERVICED 3550

CURRENT/RECENT WATER RESTRICTIONS None

NEW CONSTRUCTION (Project Numbers) None

DISTRIBUTION MAINS: Sizing Four(4) inch (min) to Ten(10) inch (max)
Pressures 37 PSI (min) to 43 PSI (max)
Hydrants/Flushing Program Yes / Yes Bi-annually

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
Cl2, PH, Fe	Daily	Daily
Coliform	Four(4) Per month	Four(4) Per Month
Inorganics - Na	Every Three(3) years	March 1988
Nitrate	Every Three(3) Years	March 1988
Trihalomethanes	N/A	N/A
Organics	N/A	N/A
Turbidity	N/A	N/A
Radionuclides	Every Four(4) Years	June 1986
A-280	Two(2) Per Year	January 1990 + May 1990
Secondary	Every Three(3) Years	April 1989
Corrosivity	Done Yearly - Reported once	March 1985

NAME OF LABORATORY N.E.T. Lab CERTIFICATION # 08153

ADDRESS 100 Grove Road, Thorofare, NJ

COMPLIANCE EVALUATION

RECEIVED
NOV 26 1990
N.J. STATE DEPT. OF ENVIRONMENTAL PROTECTION BUREAU OF SAFE DRINKING WATER

SOURCE DEFICIENCIES None

TREATMENT DEFICIENCIES None

ATTACHMENT ~~B0-12~~

Form DWR-143
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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICES

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY

DATE April 24, 25, 26, 1990

GENERAL INFORMATION

PURVEYOR/ FACILITY New Jersey American Water Company – Haddon District

FILE LOCATION Haddon Heights, Camden County

PW-ID # 0418[illegible]

MAILING ADDRESS 515 Grove St, Haddon Heights, N.J. 08035

REQUIRED LICENSES T-4 W-4

ADMIN. Les Brokaw, Manager

BUSINESS TELEPHONE # Admin.: (609) 547-1760

Licensed Operators: T-4 Ken Cassidy W-4 Bob Finnish

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): See pages 3 through 6, attached.

Pumps water-1 located

Est Tot Eff Cap: 54.05 mgd

TREATMENT: source, type, capacities(mgd): See pages 3 through 6, attached.

Est Tot Eff Cap: 54.05 mgd

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): See page 7 attached

Est Tot Cap: 19.49 mg

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): Eleven (11) interconnections,

See page 8. attached.

Est Tot Avail: Unlimited

AUXILIARY POWER: location, type, capabilities: See page 9, attached

generators tested twice weekly

Est. Tot. Avail: 17.8 mgd

ATTACHMENT ~~[illegible]~~

ATTACHMENT BB-13

NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd,month,year) --- Max 25.033 mgd 7/89 Min 18.141 mgd 2/89 Annual Average 21.484

BULK PURCHASES (provider,mgd) None

BULK SALES (customer, mgd) Mt. Ephraim - .041, Garden State Water - .023, Mt. Laurel - .019

NUMBER OF SERVICES See page 10, attached % METERED 100%

MUNICIPALITIES SERVED (est. services in each) See page 10, attached

TOTAL ESTIMATED POPULATION SERVICED ~246.4

CURRENT/RECENT WATER RESTRICTIONS None

NEW CONSTRUCTION (Project Numbers) 2 [illegible] Wells #59 & 62 at Kingston (W-01-89-3970)

DISTRIBUTION MAINS: Sizing 2" ø (min) to 20" ø (max)
Pressures 35 (min) to 80 (max)
Hydrants/Flushing Program yes/yes - annual - spring

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
Cl2, pH, Fe, Mn	Daily (in house)	Daily
Coliform	150/month	165/month 3/90
Inorganics, Na	1x every 3 yrs	1x every 3 yrs 11/87
Nitrate	1x every 3 yrs	1x every 3 yrs 11/87
Trihalomethanes	1x every 3 mo	1x every 3 mo 2/90
A-280	1x every 6 mo	1x every 6 mo 8/89
Secondaries	1x every 3 yrs	unknown
Radiological	1x every 4 yrs	1985 due 1992

NAME OF LABORATORY Bellville Reg Lab / American Water Works CERTIFICATION # 54457/[illegible]

ADDRESS 1115 S Illinois St., Belleville Ill. 62220

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES Air relief vent to well #13 and Well #39 needs screening.

TREATMENT DEFICIENCIES Gas alarms or windows are not installed at the following chlorine stations: Other Magnolia, Kingston, Columbia Lakes and Ellisburg.

ATTACHMENT

ATTACHMENT BB-14

SOURCES

1. Ashland Station: Atlantic Avenue, Ashland

   Sources: well #17 - 1.0 MGD
   well #32 - 1.1 MGD
   2.1 MGD

   Treatment: Gas chlorination (2.1 MGD)
   Polyphosphate addition for sequestration

2. Browning Lane Station: Browning Lane, Cherry Hill

   Sources: well #44 - 2.0 MGD
   well #45 - 1.2 MGD
   well #46 - 2.0 MGD
   5.2 MGD

   Treatment: - Submersible pumps
   Filtration (4 filters), Recycling of backwash water, Gas chlorination (5.2 MGD)
   - settling unit sludge to CCMUA

   Storage: Ground level 0.25 MG day tank

3. Columbia Lakes Station: Oak Avenue, Cherry Hill

   Sources: well #22 - 1.5 MGD
   well #24 - 0.8 MGD
   well #31 - 1.5 MGD
   3.8 MGD

   Treatment: Filtration (6 filters), Recycling of backwash water, pH adjustment (NaOH), Gas chlorination (3.8 MGD)
   - settling unit sludge to CCMUA

   Storage: Ground level 0.25 MG day tank

4. Egbert Station: Sylvan & Dallas Avenue, Haddon Heights

   Sources: well #18 - 0.6 MGD
   well #35 - 1.0 MGD
   1.6 MGD

   Treatment: Aeration & Filtration (2 filters, well 18 only), Recycling of backwash water, Hypochlorination (1.6 MGD), Sequestration with polyphosphate (well 35 only)
   - settling unit sludge to CCMUA

ATTACHMENT BB-15

ATTACHMENT ~~B-7~~

5. Ellisburg Station: Jefferson Avenue, Cherry Hill

Sources:
well #13 - 1.0 MGD
well #16 - 0.5 MGD
well #23 - 1.4 MGD
2.9 MGD

Treatment: Filtration (6 filters), Recycling of backwash water, pH adjustment (NaOH), Gas chlorination (2.9 MGD)
- settling unit sludge to CCMUA

Storage: Ground level 0.25 MG day tank

6. Elm Tree Station: Thomas Avenue, Voorhees Township

Sources: well #26 - .35 MGD

Treatment: Hypochlorination (.35 MGD)

7. Gibbsboro Station: Linden Avenue, Gibbsboro

Sources:
well #41 - 1.5 MGD
well #42 - 2.7 MGD
well #43 - 2.5 MGD
well #56 - 0.5 MGD
well #57 - 0.5 MGD
7.7 MGD
- submersible pumps

Treatment: Filtration (4 filters), Recycling of backwash water, Gas chlorination (7.7 MGD)

Storage: Ground level 0.25 MG day tank

Aux. Power: Diesel generator (6.0 MGD) Source & Treatment

8. Haddon Heights Station: West Atlantic Avenue, Haddon Heights

Sources:
well #11 - 0.5 MGD
well #12 - 0.6 MGD
well #14 - 1.2 MGD
well #15 - 1.2 MGD
well #20 - 1.0 MGD
well #30 - 1.2 MGD
5.7 MGD

Treatment: Filtration (4 filters), Recycling of backwash water, Gas chlorination (5.7 MGD), pH adjustment (NaOH)
- settling unit sludge to CCMUA

Aux. Power: Diesel generator (3.0 MGD) Source & Treatment

ATTACHMENT BB-16

ATTACHMENT

9. Kingston Station: Renaldo Terrace, Cherry Hill

Sources:

well #25 - 1.5 MGD
well #59 - 1.5 MGD
well #62 - 0.9 MGD
3.9 MGD

Treatment: Filtration (6 filters), Recycling of backwash water, pH adjustment (NaOH), Gas chlorination (3.9 MGD)

Storage: Ground level 0.25 MG day tank

10. Laurel Springs Station: Grand Avenue, Laurel Springs

Sources:

well #1 - 0.4 MGD
well #4 - 0.4 MGD
well #8 - 0.2 MGD
well #10 - 0.3 MGD
well #13 - 0.8 MGD
well #15 - 0.9 MGD
well #60 - 0.4 MGD
well #61 - 0.4 MGD
3.8 MGD

Treatment: Sequestration with polyphosphate, Gas chlorination (3.8 mgd)

- 800 GPM portable diesel pump on site

11. Magnolia Station: Walnut Avenue, Magnolia

Sources:

well #16 - 1.5 MGD
well #33 - 1.5 MGD
3.0 MGD

Treatment: Filtration (4 filters), Recycling of backwash water, pH adjustment (NaOH) capability, not used, Gas chlorination (3.0 MGD)
- settling unit sludge to CCMUA

Storage: Ground level 0.25 MG day tank

12. Old Orchard Station: Route 70 East, Cherry Hill

Sources:

well #36 - 1.05 MGD
well #37 - 1.8 MGD
well #38 - 2.15 MGD
well #58 - 1.5 MGD
6.5 MGD

ATTACHMENT BB-17

ATTACHMENT

Treatment: Filtration (4 filters), Recycling of backwash water, Gas chlorination (6.5 MGD) - settling unit sludge to CCMUA

Storage: Ground level 0.25 MG day tank

Aux. Power: Diesel generator (5.0 MGD) Source & Treatment

13. Otter Brook Station: Floodgate Road, Glendora

Sources:
well #29 - 1.5 MGD
well #34 - 1.5 MGD
well #39 - 2.0 MGD
5.0 MGD

Treatment: Filtration (4 filters), Recycling of backwash water, pH adjustment capability (not used), sequestration with polyphosphate, Gas chlorination (5.0 MGD)

Storage: Ground level 0.25 MG day tank

Aux. Power: Diesel generator (3.0 MGD) Source & Treatment

14. Runnemede Station: St. Clair Road, Runnemede

Sources:
well # 7 - 0.2 MGD
well #19 - 0.8 MGD
1.0 MGD

Treatment: Sequestration with polyphosphate, Hypochlorination (1.0 MGD)

15. Sommerdale Station: Hartner Avenue, Sommerdale

Source: well #14 - 0.7 MGD

Treatment: Hypochlorination (0.7 MGD)

Storage: Elevated tank (0.6 MG)

16. Voorhees Station: Evesham Road, Voorhees

Source: well #21 - 0.8 MGD

Treatment: Sequestration with polyphosphate, Gas chlorination (0.8 MGD)

Storage: Standpipe and booster station (1.59 MG)

Aux. Power: Natural gas generator (0.83.0 MGD) Source, Treatment, and booster pumps.

ATTACHMENT B6-18

ATTACHMENT

STORAGE

Tanks

1.5 MG - Marlton Rd., Voorhees
0.5 MG - West Atlantic & Old Warwick, Hi Nella
0.6 MG - Hartner Ave., Somerdale
1.0 MG - Kings Hwy & Chapel Ave, Cherry Hill
1.5 MG - Gibbsboro Marlton Rd., Voorhees
2.0 MG - Kresson Rd. & NJ Turnpike, Cherry Hill
Total - 7.7 MG - elevated storage

Standpipes with Booster Pumps

2.0 MG - Fellowship Rd., Cherry Hill
2.5 MG - Hutton Hill, Cherry Hill
0.4 MG - Rte 561, Gibbsboro
0.57 MG - Station & Crest Ave, Haddon Heights
0.47 MG - Clements Bridge Rd., Runnemede
2.0 MG - Evesham Rd., Runnemede
1.6 MG - Haddonfield Road, Voorhees Twp.
Total - 9.54 MG

Ground Level - Day Tanks

0.25 MG - Laurel Springs Station
0.25 MG - Ellisburg Station
0.25 MG - Browning Lane Station
0.25 MG - Columbia Lakes Station
0.005 MG - Elm Tree Station
0.25 MG - Kingston Station
0.25 MG - Magnolia Station
0.25 MG - Old Orchard Station
0.25 MG - Otter Brook Station
Total - 2.25 MG Ground level storage

7.7 MG - elevated storage
9.54 MG - standpipes
2.25 MG - ground level
Total Storage 19.49 MG

ATTACHMENT BB-19

ATTACHMENT ~~B7~~

INTERCONNECTIONS

Purveyor		Location	Pipe Size	Meter (Y/N)
1.	Berlin Boro Water Dept.	Route 73, Voorhees	12"	Y
2.	Clementon Water Dept.	Blackwood-Clementon Rd & Naylor Dr., Lindenwold	6"	N
3.	Clementon Water Dept.	White Horse Pike & New Freedom, Lindenwold	6"	N
4.	Garden State Water Dept.	Craig Dr. & Chews Landing Gloucester Twp.	6"	Y
5.	Haddonfield Water Dept.	Kings Hwy & Ellis St. Haddonfield	10"	N
6.	Haddonfield Water Dept.	Kings Hwy & Hopkins Rd. Haddonfield	6"	N
7.	Merchantville-Pennsauken Water Commission	Haddonfield Rd & Wynnwood Cherry Hill	6"	N
8.	Mt. Ephraim Water Dept.	Kings Highway Haddon Heights	12"	Y
9.	Mt. Laurel Twp. MUA	Fellowship Rd & Rt 73 Mt. Laurel Township	8"	Y
10.	Mt Laurel Twp MUA	Horizon Way Mt. Laurel Township	12"	Y
11.	Evesham MUA	Marlowe Road Evesham	8"	Y

ATTACHMENT BB-20

ATTACHMENT ~~BB~~

MUNICIPALITIES SERVED	NUMBER OF SERVICES
Audubon Borough	3,202
Audubon Park Borough	1
Barrington Borough	2,106
Bellmawr Borough	1,432
Cherry Hill Township	19,852
Clementon Borough	12
Gibbsboro Borough	591
Gloucester Township	5,419
Haddonfield Borough	18
Haddon Heights Borough	2,696
Haddon Township	436
Hi Nella Borough	170
Laurel Springs Borough	662
Lawnside Borough	879
Lindenwold Borough	3,327
Magnolia Borough	1,526
Maple Shade Township	22
Mt. Ephraim Borough	2
Mt. Laurel Township	595
Oaklyn Borough	1,518
Runnemede Borough	2,728
Somerdale Borough	1,732
Stratford Borough	2,199
Voorhees Township	6,810

ATTACHMENT BB21

ATTACHMENT

New Jersey American Water Company.
operates 49 wells

≈ population serviced ≈ $\boxed{153,005}$

Bulksales to MT Laurel. 1 mgd
≈ people serviced by
this is $\boxed{6,166}$

Bulksales to MT. Ephriam ≈ pop. = $\boxed{4785}$

Bulksales to Garden state water
.023 Mgd. = .37% of total capacity
= $\boxed{167}$ people serviced

$49\sqrt{164,123} = \boxed{3,349}$ people served per well

ATTACHMENT BB-22

M Desai

Form DWR-143
7/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICES

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY

DATE October 5, 1990

GENERAL INFORMATION

PURVEYOR/ FACILITY: Bellmawr Water Department

FILE LOCATION: Bellmawr Borough, Camden County | PW-ID # 0404001

MAILING ADDRESS: Borough Hall 21 E. Browning Rd. Bellmawr, N.J. 08030

ADMIN.: Mayor Petruzzi | REQUIRED LICENSES: T-2 W-2

BUSINESS TELEPHONE #: Plant: 931-5721 Admin.: 933-1313

Anthony Sansone
Licensed Operators: T-3 W-3

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): Well #3 - Princeton Ave, 1.15 mgd; Well #4 - Bell & Leaf Ave, 1.44 mgd; Well #5 - Hall & Walnut Ave, 1.44 mgd; Well #6 - Warren Ave, 1.40 mgd. All wells water lubricated.

Est Tot Eff Cap: 5.43 mgd

TREATMENT: source, type, capacities(mgd): Leaf & Bell, Plant #1 - wells 4 & 5, 2.88 mgd; Warren Ave, Plant #2 - wells 3 & 6, 2.55 mgd. Both plants aeration iron removal and gas chlorination.

Est Tot Eff Cap: 5.43 mgd

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): Elevated tank at Plant #1, 0.5 mg; Elevated tank at Plant #2, 0.2 mg

Est Tot Cap: 0.7 mg

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): 6" interconnection with Brooklawn Water Co. No written agreement exists.

Est Tot Avail: .25 mgd

AUXILIARY POWER: location, type, capabilities: Onan propane generator to power plant #1. Right angle drive propane generator for Well #4, 1.44 mgd. Detroit Diesel generator to power plant #2 and well #6, 1.40 mgd. Total: 2.84 mgd All units tested 2x/mo.

Well No. 1 is no longer working.

ATTACHMENT BB-23

NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd,month,year) Max 1.45 mgd 5/89 Min .97 mgd 12/89 Annual Average 1.30 mgd

BULK PURCHASES (provider,mgd) None

BULK SALES (customer, mgd) None

NUMBER OF SERVICES 2,815 % METERED 100

MUNICIPALITIES SERVED (est. services in each) Bellmawr Borough

TOTAL ESTIMATED POPULATION SERVICED 9,522

CURRENT/RECENT WATER RESTRICTIONS None

NEW CONSTRUCTION (Project Numbers) None

DISTRIBUTION MAINS: Sizing 4" ϕ (min) to 12" ϕ (max)
Pressures 45 psi (min) to 62 psi (max)
Hydrants/Flushing Program yes, 2x/yr.

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
A-280	2X per yr.	2X per yr. 6/1/90
Coliform	11X per mo.	12X per mo.
Inorganics, Na	1X per 3 yrs.	1X per 3 yrs. 10/19/89
Nitrate	1X per 3 yrs.	1X per 3 yrs. 10/19/89
Secondaries	1X per 3 yrs.	1X per 3 yrs. 6/1/90
Radiology	1X per 4 yrs.	1X per 4 yrs 3/2/90
Cl2, Iron	Daily	Daily

NAME OF LABORATORY Quality Control CERTIFICATION # 77166

ADDRESS Southampton, PA *Westville Reg. Labs, Westville, N.J does daily analysis.

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES None

TREATMENT DEFICIENCIES Chlorine rooms lack panic type hardware.

ATTACHMENT BB-24

Form DWR-143
7/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICES

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY

DATE May 16 and June 19, 19

GENERAL INFORMATION

PURVEYOR/ FACILITY: Camden City Water Department

FILE LOCATION: Camden City / Camden — PW-ID #: 0408001

MAILING ADDRESS: City Hall, Room 419A, Camden NJ 08101

ADMIN.: Fred Martin — REQUIRED LICENSES: T - 2, W - 4

BUSINESS TELEPHONE # (609) Admin.: 757-7350 — Fred Martin 609-757-7680 — Licensed Operators: T - 4, W - 4 A1

757-7364 Schner
Philip Scppnare de

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): See attached sheet - capacity based on wells in service at time of inspection

Est Tot Eff Cap: 26.67 mgD

TREATMENT: source, type, capacities(mgd): ① Morris-Delair Plant - Aeration, Pre-chlorination, pH adjustment (lime), Clarifier (floc), phosphate - post chlorination filtration - 18.0 mg ② Puchack Plant - Aeration - chlorination - 6.0 mg ③ Parkside Plant - Aeration, pH adjustment (lime); chlorination filtration - 3.6 mg

Est Tot Eff Cap: 27.6 mgd

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): ① North Camden Elevated Tank - Elm + Delaware - 5.0 mg; ② Elevated Tank - Locust + Kaighn Ave - 2.0 mg Whitman Park Standpipe - Rose + Whitman Ave - 0.57 mg (not in use)

Est Tot Cap: 7.0 mg

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): One (1) - Six (6) inch with Gloucester City Water Dept; Two (2) - Twelve (12) inch with N.J. American Water Company Two (2) - Six (6) inch with Collingswood Boro. Hydrant connections available with Merchantville/Pennsauken and Woodlynne Water Depts.

Est Tot Avail: Unknown

AUXILIARY POWER: location, type, capabilities: Puchack Plant - diesel generator - 565 kW powers plant; Morris-Delair Plant - diesel generator - 755 kW powers plant and wells.

ATTACHMENT BB-25

SOURCE DESCRIPTION WITH DEFICIENCIES NOTED

Morris Well # 1 -	Not in operation, used for groundwater monitoring only
Morris Well # 2 -	unable to locate, underwater
Morris Well # 3 -	mineral oil lubricated, pump capacity 1.54 MG lacks totalizing flow meter, fence gate missing lock
Morris Well # 4 -	mineral oil lubricated, pump capacity 1.93 MG lacks totalizing flow meter, well partially surrounded by illegally dumped construction debris and road cuttings
Morris Well # 6 -	mineral oil lubricated, pump capacity 0.58 MG lacks totalizing flow meter, out of service for repairs
Morris Well # 7 -	mineral oil lubricated, pump capacity 1.9 MG lacks totalizing flow meter, out of service for repairs
Morris Well # 8 -	mineral oil lubricated, pump capacity 0.64 MG lacks totalizing flow meter, fence damaged
Morris Well # 9 -	mineral oil lubricated, pump capacity 0.93 MG lacks totalizing flow meter, out of service for repairs
Morris Well # 10 -	mineral oil lubricated, pump capacity 2.2 MG lack totalizing flow meter
Morris Well # 11 -	mineral oil lubricated, pump capacity 2.92 MG totalizing flow meter not operating, fence gate missing lock
Morris Well # 12 -	mineral oil lubricated, pump capacity 2.92 MG totalizing flow meter not operating, fence gate missing lock
Morris Well # 13 -	mineral oil lubricated, pump capacity 2.96 MG totalizing flow meter not operating
Delair Well # 1 -	mineral oil lubricated, pump capacity 2.07 MG lacks totalizing flow meter, out of service for repairs
Delair Well # 2 -	mineral oil lubricated, pump capacity 0.7 MG lacks totalizing flow meter, out of service for repairs

ATTACHMENT BB-26

Delair Well # 3 -	mineral oil lubricated pump capacity 1.95 MG lacks totalizing flow meter, fence gate missing lock, pump has oil leak
Puchack Well # 1 -	mineral oil lubricated pump capacity 1.3 MG lacks totalizing flow meter
Puchack Well # 2 -	mineral oil lubricated pump capacity 2.07 MG lacks totalizing flow meter
Puchack Well # 3 -	mineral oil lubricated pump capacity 1.84 MG not in use due to high chromium levels
Puchack Well # 5 -	groundwater monitoring only well covered with steel plate
Puchack Well # 6 - Velde Avenue	not in use due to high chromium levels
Puchack Well # 7 -	groundwater monitoring only
Parkside Well # 13 -	mineral oil lubricated, pump capacity 1.38 MG, lacks totalizing flow meter
Parkside Well # 17 - Park & Vesper	mineral oil lubricated, pump capacity 2.16 MG, lacks totalizing flow meter
Parkside Well # 18 - Park Blvd (at ballfield)	mineral oil lubricated, pump capacity 1.3 MG, lacks totalizing flow
City Well # 1 - Federal St.	well capped groundwater monitoring only
City Well # 3 - Sycamore & Mt. Ephriam Ave.	well reported to be sealed unable to locate
City Well # 4 - Rose & Whitman	well capped groundwater monitoring only

ATTACHMENT BB-27

City Well # 5 - Line & Memorial	well capped groundwater monitoring only
City Well # 6 - 9th & Jackson	well covered with steel plate groundwater monitoring only
City Well # 7 - 9th Street	not in use to be refurbished
City Well # 10 - River Road	well capped groundwater monitoring only
City Well # 11 - 9th Street	mineral oil lubricated, pump capacity 1.44 MG, blowoff lacks protective cover, lacks totalizing flow meter, lacks fence around well house, well used only in emergencies, sodium hypochlorite added directly to this well
City Well # 12 - Clinton & Broadway (in schoolyard)	well capped groundwater monitoring only
City Well # 15 - 21st & Harrison	well sealed with concrete
City Well # 16 - 21st & River Road	well covered with steel plate groundwater monitoring only

Called Bob Gibson 12/91. City well #7 - water only goes to Camden Resource Recovery Facility. City well #5 - used for GW monitoring only. City well #11 - only used in emergencies. Wells 13, 17 + 18 all feed the Parkside Treatment plant. Approximately 20,000 people are serviced by the Parkside plant.

ATTACHMENT BB-28

NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd,month,year) Max 17.1 mgd - 2/89 Min 14.3 mgd - 11/89 Annual Average 15.6 mg

BULK PURCHASES (provider,mgd) None

BULK SALES (customer, mgd) New Jersey American Water Company - 1.5 mgd

NUMBER OF SERVICES 14,500 % METERED 96%

MUNICIPALITIES SERVED (est. services in each) Camden City

TOTAL ESTIMATED POPULATION SERVICED 50,000

CURRENT/RECENT WATER RESTRICTIONS None

NEW CONSTRUCTION (Project Numbers) None

DISTRIBUTION MAINS: Sizing Four(4) inch (min) to Thirty-six (36) inch (max)
Pressures 30 PSI (min) to 54 PSI (max)
Hydrants/Flushing Program Yes / Yes - Biannually

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
A-.280	Two(2) per Year	June 1989 ; December 1989
Coliform	Fifty-Five(55)/month	56 to 80 / month
Inorganics + Na	Every Three(3) Years	December 1989
Nitrate	Every Three(3) Years	December 1989
Trihalomethanes	Four(4)/plant /quarter	3/89 - 6/89 - 9/89 - 12/89
Organics	NA	NA
Turbidity	NA	NA
Secondary	Every Three(3) Years	December 1989
Radionuclides	Every Four(4) Years	December 1986
Cl_2, pH, Fe	Daily	Daily

NAME OF LABORATORY Morris-Delair WTP / NAC CERTIFICATION # 04127/03117

ADDRESS Zimmerman Ave, Camden, NJ / 4 East Stow Rd, Marlton NJ

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES see attached sheet

TREATMENT DEFICIENCIES ① Parkside Treatment plant chlorine room door lacks panic/push bar ② Rapid Sand Filters # 3, 7 and 10 at Morris-Delair Plant has leaking valves + joints ③ Morris-Delair Treatment Plant influent flow meter not working

ATTACHMENT BB-29

Form DWR-143
7/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICES

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY

DATE 4 September 1990

GENERAL INFORMATION

PURVEYOR/ FACILITY: Westville Water Department

FILE LOCATION: Westville Borough, Gloucester County — PW-ID # 0821001

MAILING ADDRESS: 114 Crown Point Road, Westville N.J. 08093 — REQUIRED LICENSES: T-2, W-2

ADMIN.: W. Packer

BUSINESS TELEPHONE # Admin. (609) 456 7785 Licensed Operators: T-4 W. Packer W-4 W. Packer

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): Well #4 - rear of Borough Hall - 1.15 mgd; Well #5 Borough parking lot 1.15 mgd; Well #6 - River Rd 1.44 mgd

Est Tot Eff Cap: 3.74 mgd

TREATMENT: source, type, capacities(mgd): Aeration, hypochlorination, Fe & Mn removal and filtration softening recirculation of filter backwash

Est Tot Eff Cap: 3.74 mgd

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): Elevated tank at Borough Hall 0.60 mg

Est Tot Cap: 0.60 mg

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): 1 - 4"Ø with Woodbury 1 - 6"Ø with Deptford. Both limited by size and pressure only. Written agreement on file

Est Tot Avail: —

AUXILIARY POWER: location, type, capabilities: Diesel generator at treatment plant. Will power two (2) wells and treatment plant 2.59 mgd.

Not an interconnected system

ATTACHMENT BB-30

NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd,month,year) Max 0.61 July 1989 Min 0.51 January 1989 Annual Average 0.57 mgd

BULK PURCHASES (provider,mgd) None

BULK SALES (customer, mgd) None

NUMBER OF SERVICES 1891 % METERED 100 %

MUNICIPALITIES SERVED (est. services in each) Westville 1537 ; Deptford 316 ; West Deptford 38

TOTAL ESTIMATED POPULATION SERVICED 7000

CURRENT/RECENT WATER RESTRICTIONS None

NEW CONSTRUCTION (Project Numbers) None

DISTRIBUTION MAINS: Sizing 4" ϕ (min) to 12" ϕ (max)
Pressures 52 psi (min) to 62 psi (max)
Hydrants/Flushing Program Yes / Yes

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
Cl2 - Fe Mn pH	Daily	Daily
Coliform	8 per Month	10 per Month
Inorganics & Na	Every 3 years	Dec 1988
Nitrate	Every 3 year	Dec 1988
Trihalomethanes	—	—
Organics	—	—
Turbidity	—	—
Radionuclides	Every 4 year	1989
Secondaries	Every 3 years	Dec 1988
A-280	Twice yearly	June 90

NAME OF LABORATORY Westville Labs / CSAS Labs CERTIFICATION # 08316 / 08523

ADDRESS Westville / Therefore

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES None

TREATMENT DEFICIENCIES None

ATTACHMENT BB-31

Form DWR-143
7/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICES

Albert Perrillo is the new superintendent

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY

DATE 1 November 1989

GENERAL INFORMATION	
PURVEYOR/ FACILITY Deptford Twp MUA	
FILE LOCATION Deptford Twp / Gloucester Co.	PW-ID # 0802001
MAILING ADDRESS P.O. Box 6 Deptford, N.J. 08096	No longer
ADMIN. Art Zulawski - Chairman	REQUIRED LICENSES T-2 W-3 ~~G. Darcopint~~ T-4 W-4 John Garnett
BUSINESS TELEPHONE # Admin. (609) 848 0200 Licensed Operators: T4 (609) 848 0200 W-4 (609) 848 0200	

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): Well #1 - Princeton Ave - 1.15 mgd; Well #2 - Princeton Ave - 1.44 mgd; Well #4 - Third Ave - 0.86 mgd; Well #5 - County House Road - 1.0 mgd; Well #6 Delsea Dr - 1.44 mgd; Well #7 - Bankridge Rd 1.44 mgd, All wells water lub. Est Tot Eff Cap: 7.33 mgd

TREATMENT: source, type, capacities(mgd): Gas chlorination at all wells - Poly-phosphate added at wells 4-5 & 6 (Corrosion control)

Est Tot Eff Cap: 7.33 mgd

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): Elevated Tank - Barnsboro Rd - 2.0 mg, Elevated Tank - Deptford Mall - 0.4 mg; Standpipe - Oak Valley 0.5 mg

Est Tot Cap: 2.9 mg

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): 6" Ø with City of Woodbury - 6" Ø with Woodbury Heights

Est Tot Avail: —

AUXILIARY POWER: location, type, capabilities: Diesel Generators at wells 6 & 7. Right angle drive at wells 4 & 5

ATTACHMENT BB-32

A few private wells in the area.

NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd,month,year) Max 3.24 mgd June 88 Min 1.78 mgd March 88 Annual Average 2.23 mgd

BULK PURCHASES (provider,mgd) None

BULK SALES (customer, mgd) None.

NUMBER OF SERVICES 5600 % METERED 99%

MUNICIPALITIES SERVED (est. services in each) All in Deptford Township

TOTAL ESTIMATED POPULATION SERVICED 23,500

CURRENT/RECENT WATER RESTRICTIONS None

NEW CONSTRUCTION (Project Numbers) None

DISTRIBUTION MAINS: Sizing 6" ø (min) to 14" ø (max)
Pressures 40 psi (min) to 60 psi (max)
Hydrants/Flushing Program Yes / Yes

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
Cl2 & pH	daily	daily
Coliform	27 per month	32 per month
Inorganics & Na	Once per 3 years	March 1988
Nitrate	Once per 3 years	March 1988
Trihalomethanes	Quarterly	August 1989
Organics	—	—
Turbidity	—	—
A 280	Twice per year	August 1989
Secondaries	Once per 3 year	March 1987
Radionuclides	Once per 4 year	In progress 1989

NAME OF LABORATORY P & P Labs CERTIFICATION # 04479

ADDRESS Woodlynne, N.J.

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES None

Called John Barnett 12/91
An interconnected system. Total people in township = 24,137 total House = 8872

TREATMENT DEFICIENCIES None Well #4 serves approximately 400 Homes. approximately 1,088 people serviced.

ATTACHMENT BB-33

Form BWR-143
7/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICES

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY

DATE 2 April 1991

GENERAL INFORMATION

PURVEYOR/FACILITY: Woodbury Water Department

FILE LOCATION: City of Woodbury Gloucester County — PW-ID #: 0822001

MAILING ADDRESS: 33 Delaware Street Woodbury N.J. 08096

ADMIN.: Fred Bayer — REQUIRED LICENSES: T-2 W-2 Ray Jack

BUSINESS TELEPHONE # Admin.: 845 1300 — Licensed Operators: T 845 1300 W 853 0892

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): Well 1A - Glassboro Sewell Rd - 1.56 mgd; Well 2A - Glassboro Sewell Rd 1.44 mgd; Well 3 - City Parking lot - 1.25 mgd (emergency use); Well 5 - Railroad Ave - 1.44 mgd; Well 6 - E. Red Bank Ave 1.32 mgd (all pumps water lubed) — Est Tot Eff Cap: 7.01 mgd

TREATMENT: source, type, capacities(mgd): Chlorination at all wells; iron removal at wells 5 - 1A & 6; aeration at well 5

Est Tot Eff Cap: 7.01 mgd

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): Ground reservoir at Grandview Avenue Woodbury Heights 1.325 mg

Est Tot Cap: 1.325 mg

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): 3-6"Ø and 1-8"Ø w West Deptford; 3-6"Ø and 1-4"Ø w Westville 2-6"Ø w Woodbury Heights; 1-6"Ø w Wenonah; 5-6"Ø and 2-8"Ø w Deptford Township. — Est Tot Avail: —

AUXILIARY POWER: location, type, capabilities: Right angle drive at well 5. Diesel generator at well 6 source and treatment. 2.76 mgd.

No private wells in area. Interconnected system.

ATTACHMENT Bb-34

NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd,month,year) Max 1.913 mgd July 90 Min 1.539 mgd Feb 90 Annual Average 1.664 mgd

BULK PURCHASES (provider,mgd) None

BULK SALES (customer, mgd) None

NUMBER OF SERVICES 4130 % METERED 100%

MUNICIPALITIES SERVED (est. services in each) Woodbury 3663 - West Deptford, Deptford Wenonah and Woodbury Heights 467

TOTAL ESTIMATED POPULATION SERVICED 11,918

CURRENT/RECENT WATER RESTRICTIONS None

NEW CONSTRUCTION (Project Numbers) Iron removal plant at Well #6 (W-07-90-4279)

DISTRIBUTION MAINS: Sizing 4"ϕ (min) to 16"ϕ (max)
Pressures 49 psi (min) to 60 psi (max)
Hydrants/Flushing Program Yes / Yes

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
Cl2 & Fe	Daily	Daily
Coliform	10 per month	1 per month
Inorganics & Na	Once per 3 years	March 91
Nitrate	Once per 3 years	March 91
Trihalomethanes	Quarterly	All 1st qtr 1990
Organics	NA	NA
Turbidity	NA	NA
A-2&C	Twice yearly	Jan 91 July 90
Secondaries	Once per 3 years	March 91
Radionuclides	Once per 4 years	Ongoing (Jan 91)

NAME OF LABORATORY Westville Labs / Rancocas Labs CERTIFICATION # 08136 / 03151

ADDRESS Westville / Rancocas

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES None

TREATMENT DEFICIENCIES None

ATTACHMENT BB-35

Form DWR-143
7/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICES

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY

DATE 21 September 1990

GENERAL INFORMATION			
PURVEYOR/ FACILITY	Woodbury Heights Water		
FILE LOCATION	Woodbury Heights Gloucester County	PW-ID #	0813001
MAILING ADDRESS	500 Elm Ave Woodbury Heights N.J. 08097		
ADMIN.	Larry Hubert	REQUIRED LICENSES	T-2 W-2
BUSINESS TELEPHONE # Admin.: 848-2935	Licensed Operators: T-2 Paul DeCosta	W-2 Paul DeCosta	

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): One well - Helen Ave - 1.44 mgd

Est Tot Eff Cap: 1.44 mgd

TREATMENT: source, type, capacities(mgd): Gas chlorination - 1.44 mgd

Est Tot Eff Cap: 1.44 mgd

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): Standpipe - Greenfield Ave 0.315 mg

Est Tot Cap: 0.315 mg

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): 1-6"Ø w Woodbury; 1-6"Ø and 1-8"Ø w Deptford Twp.; 1-6"Ø w West Deptford Twp.

Est Tot Avail:

AUXILIARY POWER: location, type, capabilities: Right angle drive for source, portable generator for chlorination.

ATTACHMENT BB-36

No private wells in area. 12/91 spoke to Paul DeCosta.

NJDEP · DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd,month,year) – Max 0.31 Dec 1999 Min 0.25 March 1999 Annual Average 0.28 mgd

BULK PURCHASES (provider,mgd) None

BULK SALES (customer, mgd) None

NUMBER OF SERVICES 1057 % METERED 100 %

MUNICIPALITIES SERVED (est. services in each) All in Borough of Woodbury Heights

TOTAL ESTIMATED POPULATION SERVICED 3910

CURRENT/RECENT WATER RESTRICTIONS None

NEW CONSTRUCTION (Project Numbers) None

DISTRIBUTION MAINS: Sizing 4" ø (min) to 12" ø (max)
Pressures 40 psi (min) to 75 psi (max)
Hydrants/Flushing Program Yes / Yes

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
Chlorine	Daily	Daily
Coliform	4 per month	4 per month
Inorganics * Na	Once per 3 year	Dec 88
Nitrate	Once per 3 year	Dec 88
Trihalomethanes	N/A	N/A
Organics	N/A	N/A
Turbidity	N/A	N/A
Secondary	Once per 3 year	Dec 88
Radionuclides	Once per 4 year	1987
A-280	Twice per year	Sept 89 May 90

NAME OF LABORATORY Westville Labs / Henderson Labs CERTIFICATION # 68136 / 15083

ADDRESS Westville / thru Jan Labs Westville

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES None

TREATMENT DEFICIENCIES None noted

ATTACHMENT BB-37

ATTACHMENT CC

Arnold Gray

NOT FOR PUBLICATION WITHOUT THE
APPROVAL OF THE COMMITTEE ON OPINIONS

SUPERIOR COURT OF NEW JERSEY
APPELLATE DIVISION
A-4116-89T1

ORIGINAL FILED
JAN 6 1992
Emilie R. Cox, Esq.
Clerk

IN RE THE APPLICABILITY OF
ECRA TO GAF BUILDING MATERIALS
CORPORATION FACILITIES LOCATED
IN GLOUCESTER CITY, NEW JERSEY

Argued December 10, 1991 - Decided JAN - 6 1992

Before Judges Pressler, Shebell and Skillman.

On appeal from New Jersey Department of Environmental Protection.

Sanders M. Chattman argued the cause for appellant (Hannoch Weisman, attorneys; Mr. Chattman and Jeffrey A. Cohen, of counsel; Julie A. Parker, on the brief and with Michael F. Rettig on the reply brief).

Rachel Jeanne Lehr, Deputy Attorney General, argued the cause for respondent Department of Environmental Protection (Robert J. Del Tufo, Attorney General, attorney; Mary C. Jacobson, Deputy Attorney General, of counsel; Rachel Jeanne Lehr, Deputy Attorney General, on the brief).

PER CURIAM

Appellant GAF Building Materials Corporation (GAF) challenges a determination by the Department of Environmental Protection (DEP) that its cleanup responsibilities under the Environmental Cleanup Responsibility Act (ECRA), N.J.S.A. 13:1K-6. et seq., were triggered by its cessation of its warehousing activities for a period of more than two years. We affirm.

ATTACHMENT CC-1

The DEP determination now appealed from derives from earlier litigation between the parties respecting the scope of GAF's industrial establishment, a matter we decided by our opinion filed in April 1989 in an appeal entitled In re the Applicability of ECRA to Two GAF Warehouses Located in Gloucester City, New Jersey, A-4401-87T2, certif. denied, 117 N.J. 168 (1989). Much of the factual background we recited therein is of continuing relevance.

In short, as we there noted, GAF is the owner of four proximate but separate parcels in Gloucester City. Its factory for the manufacture of roofing felt, which was closed in the fall of 1983, was located on one parcel. A power plant which generated steam for the factory and which was closed when the factory was closed was located on a second parcel. The warehouses which were located on the two remaining parcels continued operations after the factory closing, storing and distributing both products which had been manufactured by GAF and related products of other manufacturers until some time in 1984. One of the warehouses thereafter remained vacant and unused, and the other was leased to a tenant who operated a public warehouse for dry goods.

In 1985 GAF, intending to sell the warehouse parcels, applied to DEP for a determination of non-applicability thereto. A final decision was made by DEP in early 1988 concluding that ECRA was applicable to the warehouses despite the pre-1984 discontinuance of the factory operation. It consequently determined that ECRA cleanup provisions had to be complied with before sale. That decision was the subject of the first appeal. We affirmed the

ATTACHMENT CC-2

administrative determination that all four parcels constituted a single industrial establishment within the intendment of N.J.S.A. 13:1K-8f, and that is the law of the case. See, e.g., State v. Reldan, 100 N.J. 187 (1985); Daniel v. State, Dept. of Transp., 239 N.J. Super. 563, 581-82 (App. Div.), certif. denied, 122 N.J. 325 (1990).

There has never been any question that by reason of the Standard Industrial Classification (SIC) number assigned to GAF's factory operations, its industrial establishment is subject to ECRA cleanup requirements. See N.J.S.A. 13:1K-8f. Nor is there any question, as we noted in our original opinion, that the SIC number assigned to the manufacturing activity applied to the storage of the manufactured product, thus subjecting the warehouses to ECRA's remedial and regulatory provisions on that ground as well.[1] Id. We are aware that N.J.A.C. 7:26B-1.3, which we held to be valid in In re Adoption of N.J.A.C. 7:26B, 250 N.J. Super. 189, 249-251 (App. Div. 1991), defines an industrial establishment subject to ECRA as one "engaged in operations on or after December 31, 1983," and that the factory operations ceased prior to that time. Nevertheless, it is an ineluctable corollary of that rule that if significant operations continue on any part of the industrial establishment after December 31, 1983, the entire industrial establishment is subject to ECRA. The consequence of our original

[1]As we stated in our 1989 opinion, "Thus, it is irrelevant that the manufacturing phase stopped operations before December 31, 1983, since the warehouses continued to store hazardous materials after this date."

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holding, therefore, is the applicability of ECRA to all four of GAF's pa[illegible]

ECR[illegible] also clear as to the events which will trigger the cleanup responsibility, namely, a closing, sale or transfer of operations. N.J.S.A. 13:1K-9. "Closing" is defined by N.J.S.A. 13:1K-8b as the "cessation of all operations which involve the generation, manufacture, refining, transportation, treatment, storage, handling or disposal of hazardous substances and wastes, or any temporary cessation for a period of not less than two years...." It is undisputed that the warehouses stored and handled hazardous substances until some time in 1984. Consequently, ECRA was triggered when that activity ceased or, at the latest, two years thereafter.

GAF's challenge to DEP's determination that the cessation of storage and distribution of its manufactured product at its warehouses in 1984 triggered its ECRA responsibilities must therefore fail as a substantive matter by virtue of the holdings of our prior decision considered in light of the statutory and regulatory scheme. We note additionally that Matter of Fabritex Mills, Inc., 231 N.J. Super. 224 (App. Div. 1989), upon which GAF relies, [illegible] our view, inapposite. Unlike the nature of the storag[illegible]ribution here, which we have already held to have constit[illegible] continuation of the activity of the industrial establishment as a whole, the asserted continuation of the activity in Fabritex was held, as a matter of fact, not to have constituted "storage" within the intendment of ECRA. Id. at 231. There is,

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moreover, nothing in this record to suggest that the storage and distribution activity conducted by GAF at its warehouses was insubstantial. Our holding in Fabritex that a triggering cessation requires a "cessation of substantially all operation" is not, therefore, inconsistent with DEP's cessation conclusion here.

We next consider GAF's procedural challenges to DEP's determination, namely, its assertion that it was foreclosed by principles of res judicata, collateral estoppel and the entire controversy doctrine applicable to the first proceeding which culminated in our 1989 opinion. The first two of these are clearly inapplicable. Res judicata and collateral estoppel are preclusionary doctrines applicable to matters which were actually decided in a prior proceeding, not matters which could have been decided but were not. See, e.g., Brunetti v. Borough of New Milford, 68 N.J. 576, 587-588 (1975); Harbor Land Development Corp. Inc. v. Mirne, et al., 168 N.J. Super. 538, 541 (App. Div. 1979). The cessation question was not on the table at the time of GAF's original application. All that was then involved was the issue of whether the two warehouse complexes constituted part of the overall Gloucester City industrial establishment. There was no need for DEP to [illegible] the question of when the warehousing activity ceased [illegible] was pertinent was whether it had continued into 1984.

It is the entire controversy doctrine which applies to matters which were not raised but which should have been raised in order to avoid piecemeal and fragmented litigation. See, e.g., Cogdell v.

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Hospital Center at Orange, 116 N.J. 7, 15 (1989). Nevertheless, we are also satisfied that that preclusionary doctrine is patently inapplicable here as well. The first proceeding was an application by GAF for a non-applicability determination based on its contention that the warehouses were not part of the industrial establishment. DEP's obligation was then only to address and decide the subject of the application. It was not required to make every conceivable ruling or seek every available remedy possible against this applicant. It is true that DEP, in considering the first application, did then alert GAF that based on GAF's own disclosures, there might already have been a triggering cessation. But it was not required to act on that preliminary advisory as part of its applicability determination. In short, the two proceedings are separate and independent.

We note, moreover, that the entire controversy doctrine is an equitable one and that there are apparently no equities here favoring GAF. To the contrary, GAF does not demonstrate any prejudice resulting from the phased determinations, it was alerted from the outset that it was susceptible to a triggering determination, and the public interest implicated in its cleanup response weighs heavily against abrogation by preclusionary procedure.

The determination appealed from is affirmed.

I hereby certify that the foregoing is a true copy of the original on file in my office.

Clerk

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