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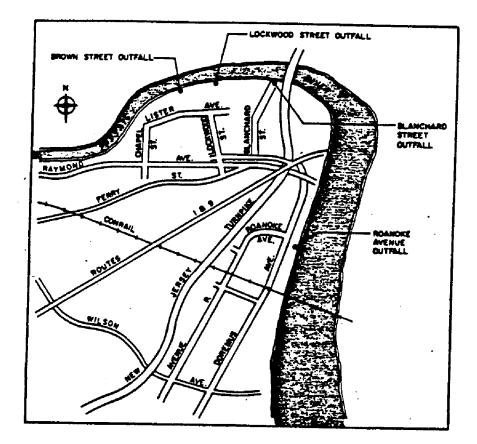
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City of Newark, New Jersey Feasibility Study

POLLUTION ABATEMENT PROGRAM



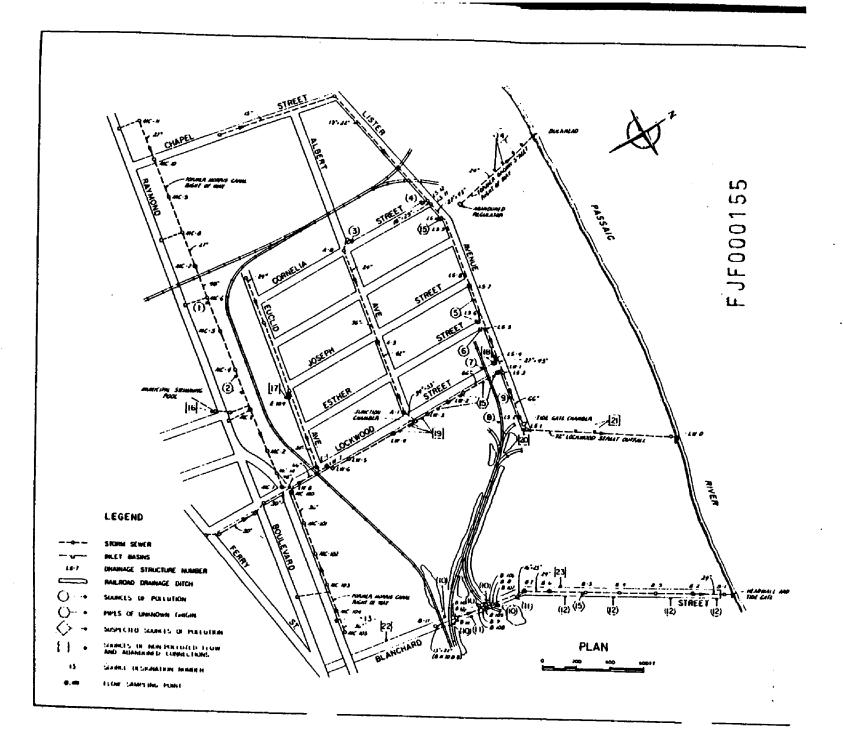
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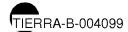
Clinton Bogert Associates Consulting Engineers September, 1978 Revised January, 1979

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Γ	NEWARK POLLUTION ABATEMENT

SOURCES OF POLLUTION IN STORM SEWER SYSTEMS ON BLANCHARD, LOCKWOOD AND BROWN STREETS

CURION BOGEN ASSOCIATES CONSIATING INCOMES

PLATE 2

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TIERRA-B-004100

IV. Blanchard Street

A. Physical Inspection Findings

Blanchard Street is served by separate storm and sanitary sewers. The 24-inch storm sewer (see Plate 2), constructed in 1917, discharges to the Passaic River. In 1970, the storm sewer was extended and the sanitary sewer was rebuilt. The sanitary sewer connects to a trunk sewer in Raymond Boulevard. The sanitary sewer is clogged by grease, tallow, paper and black oily waste. Several sanitary manholes were observed to surcharge and overflow into the street. These overflows usually occurred between 11:00 a.m. and 3:00 p.m. on weekdays. The frequency of overflow varies depending on industrial discharge rates. It does not appear to be related to rainfall events. Overflows were observed at least once a week and were noted on ten consecutive weekdays in April 1978. Intermittent overflows may have occurred during the last few years. These sanitary overflows are a major source of pollutants in the Blanchard Street storm sewer. City forces had been cleaning the Blanchard Street sanitary sewer when backups and overflows were reported. Equipment breakdowns and manpower shortages caused a suspension of cleaning operations in 1978.

Prior to cleaning, the storm sewer contained between 1.0 and 1.5 feet of primarily granular sediment mixed with black oil. The oil, which comes from the overflowing sanitary sewer, coats the inside of the pipes and manholes. Several inlets were filled with debris and sediment. The tide gate is mounted on a headwall on the river bank. The gate was being held open by sediment and debris during the first field inspection. The gate appeared to be fully operational after City personnel removed the sediment in April 1978. In subsequent inspections floating debris had lodged again under the gate indicating the need for frequent maintenance. A continuous waste

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discharge was noted. Dry weather flow rates, varying between 10,000 gpd and 100,000 gpd were estimated using depth measurements. The source of this flow appears to be groundwater. Dry weather flow was observed above manhole B-7 only when the sanitary sewer was over-flowing or the drainage ditches along the Conrail industrial spurs were flooded.

Inlets B-106, B-107, B-108, B-109, B-110 and B-111 receive flow from the railroad spurs and sidings. The ditches along these tracks drain wet lands which were observed to contribute continuous flow for up to two weeks during wet periods. Chemical spillage was observed on the tracks and in the adjacent ditches. The source of the chemicals appears to be leakage from railroad tank cars. No leaking cars were observed, however. Major spills were noted from the Atlas Refinery Inc. railroad siding. Rain washes some of this spillage through the drainage ditches and railroad ballast into the Blanchard Street storm inlets. Since no leaking cars were found on the Conrail spurs, it is not possible to link other specific industries to the spillage. Valves may not always be closed when the cars are unloaded and chemicals may drip out while the cars are standing on the spurs in a totally random pattern. The Fairmount Chemical Company, the Benjamin Moore Company, Atlas Refinery Inc, and the Fiske Brothers Refining Company all receive tank cars through this railroad spur.

Four pipes were observed along the railroad tracks west of Blanchard Street. Two of the pipes drain the Delissa Pallet storage area and are not sources of pollution. The other two are filled with earth and appear to be old railroad culverts. Railroad drainage ditches are connected to inlets B-106 and B-108 by pipes. The pipe at B-108 is clogged with earth; this causes partial flooding of the siding during rainfall events. Leaks were found in the walls and under the frames of inlet B-106 and B-107 when the ground was saturated. The sanitary sever is adjacent to inlet B-107 at an elevation lower than the leaks observed. The inlet was inspected in dry

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weather when the sanitary sewer was surcharged and no leakage was observed. During another inspection made during a rainfall event, the sanitary sewer was not surcharged but the inlets walls were leaking, implying that the leakage in inlet B-107 is not caused by sanitary sewer exfiltration. Inlet B-106 is on the opposite side of the street and has the same type of leakage, implying that the leakage is groundwater.

Two minor sources of flow were observed. Neither is believed to be a significant source of pollution. Newark Boxboard Company discharges a small volume of cooling water into the gutter adjacent to their loading dock area. A sump pump at Fairmont Chemical Company intermittently discharges groundwater into the gutter near manhole B-6. The City of Newark is aware of this discharge and had previously inspected the facility. No discharging was observed during the field inspections but water was noted along the curb. The water was clear and there was no evidence of chemical contamination. Algal growth was noted in the water along the curb.

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B. Dry Weather Sampling and Flow Rates.

Samples were obtained at the following locations:

B-2 300 feet south of the Passic River
B-6 1100 feet south of the Passic River
B-7 1300 feet south of the Passaic River

Samples were obtained at B-2 and B-6 on May 2, 1978 and at B-2, B-6 and B-7 on June 14, 1978. The May samples were taken two hours before low tide with tide water in B-2. The June samples were obtained at low tide while the Passaic River level was below the invert of the discharge pipe. Appendix A shows the results of laboratory analysis of the samples. The May samples show higher levels of pollution at B-6 than at B-2 downstream. This difference can be attributed to dilution of the pollutants by tide water at B-2. (note chloride concentrations) There was no tidal flow in the line when the June samples were taken. The pollutant concentrations at B-6 and B-7 were similar. There was a substantial increase in pollutants at B-2. This increase may result from leaching from abandoned septic tanks in the area. The sanitary sewer was not overflowing and the storm sewer was not receiving flow from the railroad drainage ditches when the samples were obtained. The flow rate during both sampling operations was estimated at 50,000 gpd.

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C. Smoke Testing

Smoke testing of the entire storm and sanitary sewer system was planned. However, the sanitary sewer was surcharged and badly clogged with grease so that smoke could not be pumped through it. The sanitary sewer could not be dye tested to observe exfiltration due to the oil and hardened grease sealing the manholes above the top of the pipe. The entire storm sewer was smoke tested at low tide. Smoke did not pass between manholes and was observed only at inlets connected to points where smoke was blown in. It appeared that there were blockages or severe misalignments in the storm sewer. No smoke entered industrial facilities and no smoke was observed at roof drains. The absence of smoke in adjacent buildings does not preclude the existance of illegal connections with water traps.

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D. Television Inspection

Illegal connections were suspected downstream of manhole B-7. Television inspection was planned for 1250 feet of 24-inch storm sewer between manholes B-1 and B-7. The line required cleaning with bucket machines prior to the television inspection. The bucket machine operation encountered obstructions in the pipe which caused the buckets to become lodged frequently. In no single section could a 24-inch tool be passed. Openings varying between 12-inch and 18inch were cleared. Most of the sediment was removed, but pieces of the 24-inch pipe were also brought out in the buckets which caused suspension of this operation. The obstructions encountered could be the result of joint misalignments, partial cave-ins and pipe fragments lodged in the line. Further cleaning operations could have caused collapse of the street.

Television inspection was attempted without further cleaning. Several attempts were made to pull the camera through various portions of the line. In every case but one, the camera went under water within 10 feet of the manhole and the skids lodged on obstructions. The first 45 feet of line downstream of manhole B-2 were visible. The pipe was cracked and a partial collapse was observed approximately 45 feet downstream of the manhole. Pieces of pipe had fallen into the line and the camera could not pass over them. An 8-inch connection was found in manhole B-5 below the sediment level during the cleaning operations. This connection was filled with sediment and was inactive. The problems encountered during cleaning and television inspections operations are described in greater detail in Appendix B. The 24-inch storm sewer is not structurally sound. This sewer was constructed in 1917 and has been subjected to very heavy truck traffic for the last several decades. A partial collapse of the street could occur as this pipe continues to deteriorate.

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- E. Conclusions and Recommendations
 - 1. The frequent overflow of sanitary sewage may be considered the most serious source of pollutants found in the storm sewer. The 2500 linear feet of sanitary sewer should be cleaned to prevent future surcharging and overflows. Contracting this work would cost approximately \$10,000. Area industries should be required to conform to discharge quality standards and cease discharging grease, tallow, paper and oil into the sanitary sewer. After cleaning, the sanitary sewer should be dye tested to determine if sewage is exfiltrating into the storm drainage system.
 - 2. Industries that receive and ship chemicals in railroad tank cards should be required to control spillage and leakage. All tank car valves should be closed prior to moving the unloaded cars back onto the Conrail spurs. Atlas Refinery should be required to clean up the spillage at its siding and prevent future spills.
 - 3. The 24-inch storm sewer, downstream of manhole B-7, should be replaced. The problems encountered during the cleaning and television work indicate that the sewer is cracked, misaligned, and partially collapsed in places. Sizing a new sewer is beyond the scope of this study, however, a 30-inch replacement was assumed for estimating purposes. The 1978 construction cost of 1300 linear feet of 30-inch storm sewer, manholes, tide gate chamber, and headwall would be approximately \$450,000. Replacing this sewer will prevent the collapse of the roadway, locate any illegal connections, and eliminate the infiltration of contaminated groundwater.

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4. The existance of illegal connections could not be verified because the condition of the storm sewer prevented internal inspection. Illegal connections may exist downstream of manhole B-7. However, because of the age and condition of the 24-inch storm sewer, its proximity to abandoned septic fields and high groundwater in the area, contaminated groundwater is also a probable source of pollutants in the storm sewer. Pollutants may also be leaching directly into the river. Further studies should be made of groundwater pollution in the entire study area.

5. The Fairmount Chemical Company should be required to redirect its sump pump discharge into an inlet.

6. The connection found in manhole B-5 should be sealed.

V. Lockwood Street Outfall

A. Physical Inspection Findings

The storm sewers in Lockwood Street, Lister Avenue, Chapel Street, Albert Avenue, Euclid Avenue and the Morris Canal Right-of-Way all drain through the Lockwood Street outfall (see Plate 2). Drainage from parts of Raymond Boulevard, Ferry Street, and the Pulaski Skyway ramp are also connected to the Lockwood Street system. Separate sanitary sewers serve the entire area. All storm manholes and inlets in the study area were inspected. The limits of tidal flow were identified and all sources of dry weather flow were isolated. Chemical spills at industrial facilities were noted. The Morris Canal storm sewer west of Lockwood Street (LW-8 to MC-11) was lamped.

(1) Lister Avenue Sewer

The manholes, inlets and pipes on Lister Avenue were coated with a black oily material. Sediment depth varied between 0.5 and 1.5 feet. The source of the oil was spillage at the B-Line Trucking Company. Tank trucks are allowed to drain while parked at this facility. Black oily chemicals flow into inlets on Lister Avenue and Esther Street. The flow into Esther Street is continuous and the curb has been broken out to facilitate it.

A continuous flow of viscous orange chemicals was observed entering an inlet on Cornelia Street. This material came from leaking drums stored on the Cellomer Corporation property. These chemicals were entering the Lister Avenue storm sewer. Intermittent spillage of black oily chemicals was noted at the Fiske Brothers Refining Company railroad siding and a very small volume of water and oil from that industry was being discharged into Esther Street. Both flows

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were entering the Lister Avenue storm sewer. A cooling water discharge pipe from Fiske Borthers was found at the inlet on the southwest corner of Lockwood Street and Lister Avenue. A 2-inch \pm connection was found entering inlet LS-10. Because of its diameter, it is improbable that this line contains wastes. It was not flowing when inspected. The only building near LS-10 is occupied by the State Produce Company. No dry weather flow was observed upstream of manhole LS-12 and no sources of pollution are suspected above that point.

(2) Morris Canal Sewers

Continuous flow was observed in the Morris Canal storm sewers east and west of Lockwood Street. The flow in the easterly line (LW-8 to MC-105) was traced to the Newark Boxboard Company. This flow was estimated at 0.16 mgd using depth measurements. The municipal swimming pool on Waydell Street was discharging an estimated 0.07 mgd into the westerly line upstream of manhole MC3. The car wash drains at the Sunoco Station on Raymond Boulevard were found to be connected to the storm sewer between manholes MC3 and MC-4. Personnel at Associated Auto Body and Trucks Inc. were observed dumping paint into the storm sewer between manholes MC-6 and MC-7. Manhole MC-7 is the limit of tidal influence and no dry weather flow was observed upstream of that point. A partial blockage was found in the invert of manhole MC-2. Sediment varying in depth between 0.5 and 1.0 feet was noted between manholes LW-8 and MC-7.

(3) Euclid Avenue Sewer

The flow in the Euclid Avenue storm sewer, estimated at 0.02 mgd, was traced to the Reddaway Manufacturing Company's cooling water discharge at inlet E-104.

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(4) Albert Avenue Sewer

Tidal flow was observed in the Albert Avenue storm sewer up to manhole A-3. A minor, intermittent flow of water and oil from Cellomer enters the Cornelia Street gutter and flows to the Albert Avenue storm sewer. However, no dry weather flow was actually observed upstream of manhole A-3.

(5) Lockwood Street Sewer

No dry weather flow was observed in the Lockwood Street storm sewer upstream of manhole LW-8. There is no indication of pollutant sources above that point. The cross-connections shown on the sewer plans were inspected and found to be sealed. A railroad drain on the south side of the Messinger Trucking and Warehouse Corporation building appeared to be connected to the Lockwood Street sanitary sewer. Major spillage of chemicals was observed at the Atlas Refinery Inc. railroad siding. The eastern portion of this siding drains into railroad drainage ditches that are connected to the Blanchard Street storm sewer system. The discharges from Newark Boxboard, the municipal swimming pool, and Reddaway Manufacturing produce a base discharge of approximately 0.25 mgd.

(6) Lister Avenue Tide Gate

There was no evidence of chemical attack or deterioration of the concrete chamber. Sediment in the invert of the chamber prevents the Lister Avenue tide gate from closing completely. The gate allows inflow during the rising tide. Assuming a five foot tidal range and an open tide gate, approximately 270,000 gallons of river water enters with each incoming tide, mixes with pollutants being discharged into the system and flows back into the river as the tide falls. A typical diurnal flow pattern at the tide gate is shown on Plate 9. If

the tide gates were to close completely, the discharge from the system of any polluted flow would be restricted to a relatively short period around low tide.

(7) Lockwood Street Outfall

An abandoned railroad drain was found connected to manhole LS-1. The last 25 feet of the 72-inch outfall was exposed and showed evidence of chemical attack. Portion of the crown had completely deteriorated. The headwall was not deteriorated and there was no evidence of chemical attack below the spring line of the pipe.

B. Dry Weather Flow Sampling and Flow Montoring

Sources of dry weather flow and limits of tidal influence were noted during the physical survey. Those sewers in which flow was observed were subdivided for sampling. The first set of samples was obtained on May 2, 1978. The second set was taken on June 14, 1978. The laboratory analysis of these samples is shown in Appendix A. Both sets of samples show high levels of pollution on Lockwood Street, Lister Avenue, Albert Avenue, and the easterly portion of the Morris Canal storm sewer. The samples in the Euclid Avenue sewer fell within water quality standards. Because of tidal action, it was not possible to confirm that all high pollutant readings were caused by discharges near the respective sampling points. A discharge of pollutants anywhere in the system within the tidal range could be mixed and carried to distant sampling points. Samples were obtained at the following locations.

LW-0	Lockwood Street Outfall at the Passaic River
LS-2	Lister Avenue upstream of the tide gate chamber
LS-4	Lister Avenue upstream of Lockwood Street
LS-7	Lister Avenue at Joseph Street
LW-1	Lockwood Street upstream of Lister Avenue
LW-4	Lockwood Street upstream of Albert Avenue
LW-7	Lockwood Street downstream of the Morris Canal
A-1	Albert Avenue at Lockwood Street
A− 3	Albert Avenue at Joseph Street
E-1	Euclid Avenue at Lockwood Street
E-104	Euclid Avenue (cooling water connection at inlet)
MC-1	Morris Canal at Lockwood Street (west side)
MC-3	Morris Canal 500 ft. west of Lockwood Street
MC-7	Morris Canal 1400 ft. west of Lockwood Street
MC-100	Morris Canal at Lockwood Street (east side)
MC-104	Morris Canal 800 ft. east of Lockwood Streat

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Euclid Avenue was eliminated from further study because of sampling results. The cooling water discharged at Reddaway Manufacturing was sampled at inlet E-104. The Morris Canal storm sewer west of Lockwood Street (LW-8 to MC-11) was eliminated on the basis of physical inspection, lamping and sampling. The intermittent sources of pollution at the Sunoco Car Wash and Associated Auto Body have been identified. The high levels of pollutants detected at manhole MC-1 in the May 2 sampling is attributed to these sources. Sediment downstream caused flow to pool at manhole MC-7 and remain there as the tide went out. Pollutants from downstream appear to have been carried into that manhole by the tide causing the contamination detected in the MC-7 sample on June 14. The 72-inch Lockwood Street Outfall was not televised because there was no evidence of pollutant sources in the line. The Benjamin Moore Company is the only industry adjacent to the outfall. Maps provided by the City of Newark show the roof drains from one building connected to the outfall. The Benjamin Moore laboratory is located in that building but there are no chemical process facilities. The plant engineer indicates that all other surface and roof drainage is pumped directly into the Passaic River. All other storm sewers in which flow was observed were scheduled for television inspection.

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C. Smoke Testing

The storm and sanitary sewers on Lockwood Street, Lister Avenue, Albert Avenue, and the easterly portion of the Morris Canal rightof-way were smoke tested. No problems were observed when the storm sewers were tested. The pipe connecting to manhole LS-1 was found to terminate in an embankment along the nearby railroad spur. This pipe may have functioned as a railroad drain before the track elevation was lowered; it serves no purpose now. The effectiveness of the smoke testing may have been reduced in the larger storm sewers. Blowers were used to force smoke into the pipes under pressure. The volume of the Lockwood Street storm sewer (66-inch) and the number of inlet openings reduced the pressure behind the smoke and may have prevented it from reaching remote connections.

Three inflow sources were detected when the sanitary sewer was smoke tested. All observed roof and area drains at Atlas Refinery Inc. were connected to the sanitary sewer. These drains are a major source of inflow and should be reconnected to the storm sewer. A cross connection was found at the intersection of Joseph Street and Lister Avenue. The storm inlet at the southwest corner of the intersection is connected to the adjacent sanitary manhole. The sanitary sewer elevation is lower than the inlet invert. Sanitary sewage could enter the storm sewer if a blockage occurred. Smoke also escaped from the site of a demolished building at the southwest corner of the Lockwood Street-Albert Avenue intersection. It appears that the building connection was not sealed. No smoke was observed escaping from plumbing vents. It is probable that all connections to the storm and sanitary sewer have line traps which would prevent the passage of smoke.

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D. Television Inspection

The following lengths of storm sewer were inspected using closed circuit television.

Lister Avenue	LS-1 to LS-3
Lister Avenue	LS-4 to LS-11
Lockwood Street	LS-3 to LW-8
Albert Avenue	A-1 to A-3
Morris Canal	LW-8 to MC-104

The inspection of the Lister Avenue line revealed an oil separator at Atlas Refinery Inc. connected to the 66-inch storm sewer approximately 120 ft. upstream of manhole LS-2. This connection is believed to be a major source of pollutants. There is a railroad siding drainage system connected to this oil separator. Tank cars containing chemicals are unloaded at the siding daily and spills are frequent. Much of the spillage is believed to pass through the separator and enter the Lister Avenue storm sewer. No other sources of flow were found during the television inspection of Lister Avenue. Significant settlement was noted between LS-4 and LS-11. The television camera went under water frequently and came out at inlets and manholes. Most lengths of pipe had settled more than 15 inches. Based upon the portions of line that could be seen and the relatively recent date of construction (1970), no illegal connections are suspected. The pollution in the line results from spillage at B-Line Trucking and Cellomer, as well as pollutants washed in by the tide. The flow from the Atlas oil separator, immediately downstream, could cause high pollutant concentrations in the Lister Avenue storm sewer.

Several connections were found in the Lockwood Street storm sewer between manholes LW-4 and LW-3. Pipes were located 34 ft., 92 ft., 104 ft., 133 ft., 143 ft. and 200 ft. downstream of manhole

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LW-4. The pipes at 92 ft. and 104 ft. are shown on old plans as connections to inlets at the intersection. These inlets were connected to the new Albert Avenue storm sewer in 1970. The pipes at 34 ft., 143 ft. and 200 ft. appear to be roof or floor drain connections to the Messinger Trucking and Warehouse Corporation building. There are no wastes eminating from this facility. The connection at 143 ft. may also be a concrete spall; the pipe could not be seen clearly. The connection at 133 ft. comes from the west side of the street in the vicinity of the Albert Avenue intersection. This pipe is not shown on the storm sewer plans, but it may be an abandoned inlet connection. These connections were not flowing when the pipe was televised.

A connection of unknown origin was observed in the Lockwood Avenue storm sewer 53 ft. downstream of manhole LW-3. Inlet connections were also observed 170 ft. and 183 ft. downstream of LW-3. The pipe at 53 ft. connected on the east side and may be from Atlas Refinery Inc. A pipe crossing broken into the crown of the 66-inch line and running perpendicular to it was noted at 201 ft. These pipes were not flowing when televised. A 2-inch \pm connection located approximately 10 ft. upstream of manhole LW-2 has been observed by City personnel. This connection comes from the east side of the street and was discharging flow when observed. This connection appeared to originate at Atlas Refinery Inc.

Three connections were noted between manholes LW-2 and LW-1 in the Lockwood street storm sewer. Pipes were observed 149 ft., 159 ft. and 215 ft. downstream of manhole LW-2. The connection at 159 ft. is believed to be from an inlet that was removed during construction of a new building at Atlas Refinery Inc. The connection at 149 ft. appeared to be a large pipe 24-inch \pm surrounded by roots. It could also be a connection crossing the 66-inch line. The connection at 215 ft. was from the westerly side of the street. It

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could not be seen clearly and may be a concrete spall. No flow was observed from any of these pipes.

No improper connections were found in the Albert Avenue storm sewer or in the Morris Canal line between manholes LW-8 and MC-104. The pollutants detected in the Albert Avenue line appear to have been carried in by tidal action. Two sources of pollutants are suspected in the Morris Canal sewer east of Lockwood Street. The limit of tidal influence is downstream of manhole MC-104. Yet, pollutants were detected in the sample obtained at that manhole. Newark Boxboard discharges the flow sampled at MC-104 and that flow is polluted. However, the concentration of pollutants downstream, at manhole MC-100, is three times greater than at MC-104. Some pollutants may settle into the sediment during the high tide periods. Flow from Newark Boxboard may flush some of this material and carry it into the Lockwood Street storm sewer.

- E. Conclusions and Recommendations
 - Several improvements are required at Atlas Refinery Inc. 1. The firm should be required to connect its oil separator to the sanitary sewer rather than to the storm sewer. The spillage at the railroad siding should be cleaned up and procedures developed to prevent future spills. Roof and area drains should be connected to the storm sewer rather than to the sanitary sewer as at present. The plant has been expanded several times over the years and complete plans of the piping systems are not available. The Lockwood Street storm sewer is located under the sidewalk in front of the Atlas plant. Connections could have been made without excavation in the street. Connections of unknown origin between manholes LW-3 and LW-1 appear to lead to drains in the Atlas plant complex. Fiske Brothers Refining Company, the industry across the street, is a less likely point of origin since they would have had to excavate the street and cross the sanitary sewer to make connections to the storm sewer. Atlas should be required to evaluate its piping and identify connections to the storm sewer. Any sanitary facilities, chemical processes, or drains that accept polluted flow should be reconnected to the sanitary sewer. Authorized discharges to the storm sewer should be made through a manhole or chamber to allow monitoring by the City.
 - 2. Piske Brothers Refining Company should be required to cease discharging oil and water into Esther Street and to prevent spills at their railroad siding. Fiske Brothers should be required to identify existing connections to the storm sever. Connections that accept pollutants should be reconnected to the sanitary sever. Connections that carry

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nonpolluted flow should be made through a chamber to facilitate monitoring by the City.

- 3. After Atlas and Fiske Brothers have evaluated their piping and reconnected lines as necessary, the remaining connections of unknown origin between LW-3 and LW-1 should be sealed as a precaution. Initially, temporary plugs should be installed. If the lines are active, a backup will be reported. If no problems occur after one month, the connections should be permanently sealed. The connections observed between LW-4 and LW-3 are believed to be roof drains from the Messinger Warehouse and abandoned inlet connections. They should not be sealed.
- 4. B-Line Trucking Company should be required to cease discharging black oily waste into Lister Avenue and Esther Street. The spillage that has already occurred should be cleaned up. This flow is believed to be the major source of black oil in the system.

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- 5. Newark Boxboard Company should be required to evaluate its internal piping. Only nonpolluted flow should be discharged into the Morris Canal storm sewer. Polluted flow should be discharged into the Blanchard Street sanitary sewer after that line is cleaned. The City should monitor the flow at manhole MC-104 to assure compliance.
- Associated Auto Body and Trucks, Inc. should be prohibited from dumping paint or other wastes into the Morris Canal storm sewer.
- 7. The car wash drains at the Sunoco Station should be reconnected to the sanitary sewer. Suitable grit removal and oil separation facilities should be provided.

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- 8. Cellomer Corporation should be required to clean up the spillage on their property and cease discharging oil into Cornelia Street. It should be noted that Cellomer was informed of this problem and cleanup operations were underway.
- 9. Sources of inflow should be eliminated. The cross connection at the intersection of Joseph Street and Lister Avenue should be sealed. The railroad siding drain on the south side of the Messinger Warehouse should be disconnected from the sanitary sever. The Atlas roof and area drains have already been discussed.
- 10. The Lister Avenue storm sewer, west of Lockwood Street should be cleaned of debris, sediment and oily wastes.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 2 290 BROADWAY NEW YORK, NY 10007-1866

FEB 1 4 2006

GENERAL NOTICE LETTER URGENT LEGAL MATTER PROMPT REPLY NECESSARY CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Robert Mullen, President The Newark Group, Inc. 20 Jackson Drive Cranford, NJ 07016

RE: Diamond Alkali Superfund Site Notice of Potential Liability for Response Actions in the Lower Passaic River Study Area, New Jersey

Dear Mr. Mullen:

The United States Environmental Protection Agency ("EPA") is charged with responding to the release and/or threatened release of hazardous substances, pollutants, and contaminants into the environment and with enforcement responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §9601 <u>et seq</u>. Accordingly, EPA is seeking your cooperation in an innovative approach to environmental remediation and restoration activities for the Lower Passaic River.

EPA has documented the release or threatened release of hazardous substances, pollutants and contaminants into the six-mile stretch of the river, known as the Passaic River Study Area, which is part of the Diamond Alkali Superfund Site ("Site") located in Newark, New Jersey. Based on the results of previous CERCLA remedial investigation activities and other environmental studies, including a reconnaissance study of the Passaic River conducted by the United States Army Corps of Engineers ("USACE"), EPA has further determined that contaminated sediments and other potential sources of hazardous substances exist along the entire 17-mile tidal reach of the Lower Passaic River. Thus, EPA has decided to expand the area of study to include the entire Lower Passaic River and its tributaries from Dundee Dam to Newark Bay ("Lower Passaic River Study Area").

By this letter, EPA is notifying The Newark Group, Inc. of its potential liability relating to the Site pursuant to Section 107(a) of CERCLA, 42 U.S.C. §9607(a). Under CERCLA, potentially responsible parties ("PRPs") include current and past owners and operators of a facility, as well as persons who arranged for the disposal or treatment of hazardous substances at the Site, or the transport of hazardous substances to the Site.

In recognition of our complementary roles, EPA has formed a partnership with USACE and the New Jersey Department of Transportation-Office of Maritime Resources ("OMR") ["the governmental partnership"] to identify and to address water quality improvement, remediation, and restoration opportunities in the 17-mile Lower Passaic River. This governmental partnership is consistent with a national Memorandum of Understanding ("MOU") executed on July 2, 2002 between EPA and USACE. This MOU calls for the two agencies to cooperate, where appropriate, on environmental remediation and restoration of degraded urban rivers and related resources. In agreeing to implement the MOU, the EPA and USACE will use their existing statutory and regulatory authorities in a coordinated manner. These authorities for EPA include CERCLA, the Clean Water Act, and the Resource Conservation and Recovery Act. The USACE's authority stems from the Water Resources Development Act ("WRDA"). WRDA allows for the use of some federal funds to pay for a portion of the USACE's approved projects related to ecosystem restoration.

For the first phase of the Lower Passaic River Restoration Project, the governmental partners are proceeding with an integrated five- to seven-year study to determine an appropriate remediation and restoration plan for the river. The study will involve investigation of environmental impacts and pollution sources, as well as evaluation of alternative actions, leading to recommendations of environmental remediation and restoration activities. The study is being conducted pursuant to CERCLA and WRDA.

Based on information that EPA evaluated during the course of its investigation of the Site, EPA believes that hazardous substances were released from the Newark Boxboard Co. facility located at 17 Blanchard Street in Newark, New Jersey, into the Lower Passaic River Study Area. Hazardous substances, pollutants and contaminants released from the facility into the river present a risk to the environment and the humans who may ingest contaminated fish and shellfish. Therefore, The Newark Group, Inc. may be potentially liable for response costs which the government may incur relating to the study of the Lower Passaic River. In addition, responsible parties may be required to pay damages for injury to, destruction of, or loss of natural resources, including the cost of assessing such damages.

EPA is aware that the financial ability of some PRPs to contribute toward the payment of response costs at the Site may be substantially limited. If you believe, and can document, that you fall within that category, please inform Ms. Reddy and Mr. Hyatt in writing at the addresses identified in this letter. You will be asked to submit financial records including federal income tax returns as well as audited financial statements to substantiate such a claim.

Please note that, because EPA has a potential claim against you, you must include EPA as a creditor if you file for bankruptcy. You are also requested to preserve and retain any documents now in your Company's or its agents' possession or control, that relate in any manner to your facility or the Site or to the liability of any person under CERCLA for response actions or response costs at or in connection with the facility or the Site, regardless of any corporate document retention policy to the contrary.

Enclosed is a list of the other PRPs who have received Notice letters. This list represents EPA's findings on the identities of PRPs to date. We are continuing efforts to locate additional PRPs who have released hazardous substances, directly or indirectly, into the Lower Passaic River Study Area. Exclusion from the list does not constitute a final determination by EPA concerning the liability of any party for the release or threat of release of hazardous substances at the Site. Be advised that notice of your potential liability at the Site may be forwarded to all parties on this list as well as to the Natural Resource Trustees.

We request that you become a "cooperating party" for the Lower Passaic River Restoration Project. As a cooperating party, you, along with many other such parties, will be expected to fund the CERCLA study. Upon completion of the study, it is expected that CERCLA and WRDA processes will be used to identify the required remediation and restoration programs, as well as the assignment of remediation and restoration costs. At this time, the commitments of the cooperating parties will apply only to the study. For those who choose not to cooperate, EPA may apply the CERCLA enforcement process, pursuant to Sections 106(a) and 107(a) of CERCLA, 42 U.S.C. §9606(a) and §9607(a) and other laws.

You may become a cooperating party by participating in the Cooperating Parties Group ("Group") that has already formed to fund the CERCLA study portion of the Lower Passaic River Restoration Project.

We strongly encourage you to contact the Group to discuss your participation. You may do so by contacting:

William H. Hyatt, Esq. Common Counsel for the Lower Passaic River Study Area Cooperating Parties Group Kirkpatrick & Lockhart LLP One Newark Center, 10th Floor Newark, New Jersey 07102 (973) 848-4045 whyatt@kl.com

Written notification should be provided to EPA and Mr. Hyatt documenting your intention to join the Group and settle with EPA no later than 30 calendar days from your receipt of this letter. The result of any agreement between EPA and your Company as part of the Group will need to be memorialized in an Administrative Order on Consent. EPA's written notification should be mailed to:

Kedari Reddy, Assistant Regional Counsel Office of Regional Counsel U.S. Environmental Protection Agency 290 Broadway - 17th Floor New York, New York 10007-1866 Pursuant to CERCLA Section 113(k), EPA must establish an administrative record that contains documents that form the basis of EPA's decision on the selection of a response action for a site. The administrative record files along with the Site file are located at EPA's Region 2 office located at 290 Broadway, New York, NY on the 18th floor. You may call the Records Center at (212) 637-4308 to make an appointment to view the administrative record and/or the Site file for the Diamond Alkali Site, Passaic River.

As you may be aware, the Superfund Small Business Liability Relief and Brownfields Revitalization Act became effective on January 11, 2002. This Act contains several exemptions and defenses to CERCLA liability, which we suggest that all parties evaluate. You may obtain a copy of the law via the Internet at http://www.epa.gov/swerosps/bf/sblrbra.htm and review EPA guidances regarding these exemptions at http://www.epa.gov/compliance/ resources/policies/cleanup/superfund.

Inquiries by counsel or inquiries of a legal nature should be directed to Ms. Reddy at (212) 637-3106. Questions of a technical nature should be directed to Elizabeth Butler, Remedial Project Manager, at (212) 637-4396.

Sincerely yours,

Ray Basso, Strategic Integration Manager Emergency and Remedial Response Division

Enclosure

cc: Christopher Hopkins, Esq. Lowenstein Sandler 65 Livingston Avenue Roseland, NJ 07068

LOWENSTEIN SANDLER PC

Attorneys at Law

CHRISTOPHER D. HOPKINS Associate Tel 973.422.6414 Fax 973.422.6415 diopkins@buensiein.com

April 29, 2003

VIA FEDERAL EXPRESS

Ms. Kedari Reddy, Assistant Regional Counsel Office of Regional Counsel - Region II US Environmental Protection Agency 290 Broadway - 17th Floor New York, NY 10007-1866

Re: Passaic River Study Area Request for Information Pursuant to 42 U.S.C. §9601, et seq.

Dear Ms. Reddy:

Enclosed please find The Newark Group, Inc.'s, formerly known as Newark Boxboard Co., ("The Newark Group") response to the United States Environmental Protection Agency's CERCLA 104(e) Request for Information regarding the Lower Passaic River Site of the Diamond Alkali Superfund Site in New Jersey.

As indicated in the enclosure, The Newark Group reserves the right to amend and supplement these answers as appropriate. Should you have any questions regarding the enclosed materials, please do not hesitate to contact me.

Very truly yours Christopher D. Hopkins

CDH:ab

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Enclosure(s)

cc: David Ascher, Esq. (w/ enc., via regular mail) Norman W. Spindel, Esq. (w/enc.) Benedict M. Kohl, Esq. (w/enc.)

BAA000006



Response of The Newark Group, Inc. to the USEPA Request for Information Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601, et seq. re: Lower Passaic River Site

INTRODUCTION

The Newark Group, Inc., formerly known as Newark Boxboard Co., ("The Newark Group" of the "Company") located at 17 Blanchard Street, Newark, New Jersey (the "Subject Facility"), submits this response to the CERCLA §104(e) request dated February 27, 2003 from the United States Environmental Protection Agency ("EPA") regarding the Lower Passaic River Site of the Diamond Alkali Superfund Site in New Jersey (the "Site"). The Newark Group reserves the right to supplement this response should any additional responsive information be discovered.

The Newark Group has endeavored to answer the questions in EPA's letter to the extent feasible in a reasonable, timely, and responsive manner based on a diligent review of available records and interviews of potentially knowledgeable current and former employees. The enclosed information is being submitted in an effort to cooperate with EPA; however, nothing in this response is intended to be, nor should it be deemed, an admission of any liability or responsibility on the part of The Newark Group concerning the Site. The Newark Group reserves all rights and defenses available to it under the law.

GENERAL OBJECTIONS

The Newark Group objects to the Request as overly broad, not reasonably relevant, unduly burdensome, and beyond the scope of authority granted EPA under CERCLA (2). Without limiting this objection, examples of the objectionable portions of EPA's Request include questions related to The Newark Group's federal permits (No. 2); its analyses performed on any waste stream (No. 6(a)(v)); the total amount of hazardous substances generated annually since The Newark Group has operated the Subject Facility (No. 7(a)); the results of sampling performed by The Newark Group or anyone else at the Subject Facility (Nos. 8(a) & 12(b)); The Newark Group's relationship with other business entiries that may have owned and/or operated the Subject Facility (No. 13(c)); and general information about The Newark Group, its corporate organization, corporate history, officers and employees (No. 14).

The Newark Group also objects to this request as beyond the scope of the authority granted in §104(e), overly broad and unduly burdensome to the extent that it seeks information or documents concerning any of its facilities other than the Subject Facility and to the extent that it attempts to impose an indefinite continuing duty to search, update and further respond to these requests.

Despite the fact that The Newark Group believes that many aspects of the request are objectionable as set forth above and below, it has made a diligent, good faith effort to answer EPA's questions, and believes its response demonstrates that The Newark Group is not a potentially responsible party with regard to any conditions in the Site.

These General Objections apply to and are incorporated by reference with respect to each of the questions that follow, unless otherwise noted, and are not waived notwithstanding the further

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responses provided by The Newark Group below. Subject to and without waiving these objections, The Newark Group responds as follows.

GENERAL SCOPE OF RESPONSE

EPA's request for information was addressed to Newark Boxboard Co. Through a series of mergers, the Subject Facility is now owned and operated by The Newark Group. In the trade however, the operator of the Subject Facility also is known by the name Newark Boxboard Co. This response is provided by The Newark Group for operations at the Subject Facility from 1968, the year the Subject Facility was acquired by a predecessor of the Newark Group, to the present.

REQUEST FOR INFORMATION

1. How long has your company operated at the facility? If your company no longer operates at this facility, during what years did your company operate at the facility?

The Subject Facility was acquired by a predecessor of the Newark Group on September 13, 1968 and is presently operated by The Newark Group.

2. (a) Does your company have or has it in the past had a permit or permits issued pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §6901, <u>et seq</u>.? If "yes", please provide the years that your company held such a permit and its EPA identification number.

The Subject Facility has a generator ID number - EPA ID# NJD000556837.

(b) Does your company have or has it in the past had a permit or permits issued pursuant to the Federal Water Pollution Control Act, 33 U.S.C. §1251, et seq.? If "yes", please provide the years that your company held such a permit.

The Subject Facility has a Sewer Connection Permit (#20402400), dated July 27, 1981 ("PVSC Permit"), for discharge of wastewater to the Passaic Valley Sewerage Commission ("PVSC"). Connection to the PVSC is the sole point of discharge from the Subject Facility. The Company has always been in compliance with its PVSC Permit.

3. Did your company receive, utilize, manufacture, discharge, release, store or dispose of any materials containing the following substances.

	Yes	No
2,3,7,8 tetrachlorodibenzo-p-dioxin		x
2.4-Dichlorophenoxy acetic acid (2,4-D)		x
2,4,5-Trichlorophenoxy acetic acid (3,4,5-T)		x
2.4,5-Trichlorophenol (2,4,5-TCP)		x
or other dioxin compounds		x

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Dichlorodiphenyl-trichloroethate (DDT)		x
Benzene		x
Ethyl benzene		X
Total Petroleum Hydrocarbons (TPH)	X	
Polyaromatic Hydrocarbons (PAH)		х
If "yes", please list specific compounds		
Toluene	X	
Xylene	×	
	· · · · · · · · · · · · · · · · · · ·	
PCBs	X	
Antimony		
Argon	×	
Arsenic	X	·····
Cadmium	×	*****
Chlorine	x	
Chromium		
Copper	×	
Iron	X	
Lead ,	a,	
Mercury	<u> </u>	
Nickel		
Silver	X	
Sulfur	X	
<u></u>		X
Titanium	X	
Vanadium		<u>x</u>
Zinc	X	
Cyanide		<u>X</u>
Acetone		<u> </u>
Acetylene	X	
Acetylene tetrabromide		x
2 butoxy ethanol		x
Bis (2-ethylhexyl) pthalate		×
Chlorodifluromethane		X
Chloropentafluoromethane		X
Chlorotrifluoronethane		x
Dibutyl phthalate		x
Dichlorodifluoromethane		x
Naphtha		x

Silver nitrate	x
Sodium bisulfide	x
Sodium hydroxide	x
Sodium nitrate	x
Tungston	X

4. (a) Provide a description of the manufacturing processes for which all hazardous substances, including but not limited to, the substances listed in response to item (3), were a product or by-product.

The Subject Facility produces recycled paperboard in various caliper ranges. The facility recycles approximately 42,000 tons per year of old newspapers, old corrugated containers and municipal curbside collection papers ("feed stock"). Grades produced are plain chip, laminating chip, partition chip and lined chip.

The Subject Facility's finished product contains de minimis concentrations of the hazardous substances identified in Question (3) due to the presence of such substances in the paper coatings and ink of the feed stock that is recycled to make paperboard. The Subject Facility's finished product has been deemed suitable for food contact as most test results for heavy metals, dioxins, PCBs, microbiological agents, and pesticides were below detectable limits. See Exhibit A.

The paperboard manufacturing process begins with the feed stock being fed into the pulper. Hor water is added to the pulper which blends and defibers the paper stock into a pulp slurry which is then extracted through ¼" holes in the bottom of the pulper. Undesirable materials (plastic, styrofoam, staples, rubber bands, etc.) found in the stock slurry are removed through centrifugal separation and mechanical screening. High density articles (such as sand, glass and staples) are removed by passing the slurry through a high density cleaner which separates them from the paper fiber. The stock slurry is then put through a fine-mesh screen (0.062" holes) to "collect" smaller sized objectionable material. These materials are then screened again to maximize the recovery of acceptable fibers. Recovered stock fiber is pumped back to the pulper and again passes through the primary screen. All rejected articles are collected and sent through a compactor for dewatering. This material is disposed of at a licensed landfill.

The stock then is thickened over a set of five screens to approximately a 4% consistency and put into the dump chest. Stock is pumped from the dump chest to a refiner to mechanically fibrillate the fibers. After refining the stock, the slurry is conveyed to the machine chest where it is passed through a 0.014" screen and then conveyed to the paper machine. The rejected stock is sent to the reject handling system described above for reprocessing. The stock is diluted with water, pumped over a "making board" and into the vat containing a rotating cylinder covered with a wire mesh. The water drains through the wire mesh and into the center of the cylinder leaving a mat of fiber on the mesh surface. As the cylinder rotates, the mat rides up and is pressed against

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felt by pressure from a couch roll. The paper sticks to the felt. The felt and web of paper continue to the next cylinder where the process is repeated.

The remainder of the process is designed to remove the water in the web of paper and to dry the paper. The web of paper passes through six presses to remove water; each press removing residual water from the web. The webs of paper are then dried and calendered through a set of five chilled iron rolls to improve the smoothness. Surface treatments, such as starch, may be added at this point. From the calender, the web of paper is fed onto a reel which winds the paper into roll form. When the paper roll reaches a design thickness, it is transferred to the winder which cuts the rolls to the customers required width. Rolls are then placed into the warehouse where they are loaded onto trucks for delivery.

Water reuse is maximized throughout the process to minimize fresh water usage. Excess (nonreusable) water is conveyed to and stored in a central collection tank, and ultimately discharged to the PVSC.

(b) During what parts of the manufacturing processes identified in the response to items (4)(a) above, were hazardous substances, including, but not limited to, the substances listed in response to item (3), generated?

See response to Question 4(a).

(i) Describe the chemical composition of these hazardous substances.

See Response to Question 4(b)(ii)

(ii) For each process, what amount of hazardous substances was generated per volume of finished product?

In response to a change in PVSC reporting requirements instituted in approximately 1997, the Company began reporting metals in its effluent (Arsenic, Cadmium, Copper, Lead, Mercury, Nickel, Zinc). From 1997 to 2002, the Subject Facility's average total daily wastewater flows ranged from 47,419 gallons to 91,332 gallons. From 1997 to 2002, annual paperboard production at the Subject Facility ranged from 73,426,000 lbs. to 79,788,000 lbs. From 1997 to 2002, the annual range of metals discharged to the PVSC (expressed as pounds of metal per pound of product) by the Subject Facility was:

Arsenic: 7×10^{9} to 2×10^{-7} Cadmium: 2×10^{-19} to 3×10^{-8} Copper: 9×10^{-8} to 6×10^{-7} Lead: from 1×10^{-8} to 4×10^{-8} Mercury: from 0 to 3×10^{-9} Nickel: from 2×10^{-9} to 2×10^{-7} Zinc: from 3.4×10^{-1} to 5.6×10^{-1} (iii) Were these hazardous substances combined with wastes from other processes? If so, wastes from what processes?

Wastewater discharges are not combined with other waste streams.

5. Describe the methods of collection, storage, treatment, and disposal of all hazardous substances, including, but not limited to the substances listed in response to item (3) and (4). Include information on the following:

(a) Identify all persons who arranged for and managed the processing, treatment, storage and disposal of hazardous substances.

Harold De Groat – VP General Manager - (deceased) Frank Emerson – VP Engineering - (deceased) Joe McAllister – Production Manager - (deceased) Bob Dinan – Production Manager - (former employee - location unknown) Ralph Morgan – Quality and Env. Manager - (former employee - location unknown) Jeff Peebles – Quality and Env. Manager - (former employee - location unknown) Mark McCabe – Quality and Env. Manager - (former employee - location unknown) Mark McCabe – Quality and Env. Manager - (former employee - location unknown) Alan Lamparella – Quality and Env. Manager - (former employee - location unknown) Patrick Fulton – Assistant Production Superintendent (presently employed at the Subject Facility)

(b) If hazardous substances were taken off-site by a hauler or transporter, provide the names and addresses of the waste haulers and the disposal site locations.

See Responses to Question 4. In addition, hazardous materials not directly resulting from the manufacturing process described in the Responses to Question 4 have been generated and disposed of off-site.

APTUS, Transformer Service, Inc. and A. Serzans disposed of PCB-containing transformers removed from the Subject Facility in 1988. APTUS disposed of the transformers at its own facility. APTUS is a licensed TSDF located at P.O. Box 935, Highway 169N, Coffeyville, KS 67337. SJ Transportation Company, a transporter, is located at P.O. Box 169, 655 Route 40, Woodstown, NJ 08098. SJ Transportation Company transported the transformers to Transformer Service, Inc., a licensed TSDF located at Regional Drive, P.O. Box 1077, Concord, NH 03301-1077. The Newark Group has no information or documents pertaining to the disposal of transformers by A. Serzans.

Waste oil from the Subject Facility was removed one time by Pat Perretti Freight Services, Inc., 73 Greenpond Road, Rockaway, NJ 07866. The waste oil was brought to RecOil, 280 East Street, York, PA 17403.

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In June 1991, in connection with an underground storage tank removal, petroleum hydrocarbon saturated soil was excavated for off-site disposal by Thermo Process Systems Inc. ("TPS"), 2070 South Orange Blossom Trail, Apopka, Florida 32703. The soil was recycled at TPS's permitted regional recycling facility in Chester, Virginia.

(c) Describe <u>all</u> storage practices employed by your company with respect to all hazardous substances from the time operations commenced until the present. Include all on-site and off-site storage activities.

> (i) If drums were stored outside, were the drums stored on the ground or were they stored on areas that had been paved with asphalt or concrete? Please provide a complete description of these storage areas.

All on-site storage is in compliance with applicable existing regulations. Sealed drums and tanks stored inside the production building are stored on a concrete floor with internal collection points leading to a central collection tank where it is re-used in the papermaking process. All outside storage is located in covered areas, and/or on concrete and asphalt pads pitched to direct run-off to a concrete condensate pit/catch basin which pumps run-off to a central collection tank where it is re-used in the papermaking process.

(ii) When drums were stored outside, were empty drums segregated from the full drums?

Yes.

(d) What processes do you use to treat your waste? What do you do with the waste after it is treated?

No treatment of wastewater; discharge to PVSC. No on-site treatment of wastes identified in Response to Question 5(b).

6. (a) For process waste waters generated at the facility which contained any hazardous substances, including, but not limited to, the substances listed in response to items (3) and (4):

(i) Where was the waste water discharged and during what years?

During the Company's ownership of the Subject Facility (1968 to present), manufacturing process wastewater has been discharged to the PVSC (sanitary sewer). The Subject Facility is in compliance with its PVSC Permit.

From 1968 to approximately 1980, the Subject Facility discharged non-contact cooling water and boiler blow down wastewater to the Morris Canal storm sewer line located on Blanchard Street at a rate of approximately 1000 gallons a day. Cooling water was drawn from a groundwater production well at the Subject Facility and was also purchased from the City of Newark. This

water was used to cool process liquids; no intermingling of the cooling and process waters occurred. The Newark Group has no information regarding the chemical composition of these waters. Upon information and belief, the Morris Canal storm sewer ultimately discharged into the Passaic River.

In approximately 1980, the Subject Facility repiped the cooling water and boiler blow down to discontinue its discharge to the Morris Canal storm sewer. These waters were discharged to the PVSC. Currently the connection to the storm sewer is sealed.

(ii) Was the waste water discharged into a sanitary sewer and if so, during what years?

See Response to Question 6(a)(i).

(iii) Was the waste water treated before being discharged to the sanitary sewer and if so how?

No,

(iv) If the waste waters were not discharged to the sanitary sewer, where were they disposed and during what years?

See Response to Question 6(a)(i)

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(v) Please provide the results of any analyses performed on any waste process streams generated at the facility.

The Newark Group performed irregular analyses of its wastewater discharge prior to recording monthly wastewater discharge sampling as required by the PVSC in 1997. Test results are contained in monthly discharge monitoring reports (*DMRs") submitted to the PVSC.

Attached hereto as Exhibit B is a summary of wastewater discharge sample results submitted to PVSC.

(b) For floor drains or other disposal drains at the facility:

(i) Did the drains connect to a sanitary sewer and if so, during what years?

Floor drains in collection areas and process areas return excess water to a central collection tank where it is re-used in the papermaking process. Excess water that is not reused is discharged to the PVSC.

(ii) If the floor drains or other disposal drains at the facility were not discharged to the sanitary sewer, where did they discharge and during what years?

See Response to Question 6(b)(i) above.

(c) (i) Did any storm sewers, catch basins or lagoons exist at any time at the facility and if so, during what years?

During The Newark Group's ownership/operation of the Subject Facility, no storm sewers, or lagoons existed at the Subject Facility. A concrete condensate pit/catch basin has existed at the Subject Facility for over thirty years. See Response to Question 5(c)(i) above.

(ii) If catch basins or lagoons existed, were they lined or unlined?

See Response to Question 5(c)(i) above.

(iii) What was stored in the lagoons?

Nor applicable. See Response to Question 6(c)(i) above.

(iv) Where was the discharge from any of these structures released and during what years? Was this discharge treated before its release and if so, how and during what years? What was the chemical composition of any waste waters released?

See Response to Question 6(c)(i) above.

(d) Please supply diagrams of any waste water collection, transport or disposal systems on the property.

The Newark Group does not have a diagram of the wastewater collection, transport or disposal system.

7. (a) For each hazardous substance, including, but not limited to, the substances listed in response to item (3) or identified in the responses to item (4) above, provide the total amount generated during the operation of the facility on an annual basis.

See Exhibit C.

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(b) Were any hazardous substances, including, but not limited to, the substances listed in response to item (3) or identified in the responses to item (4) above, disposed of in the Passaic River or discharged to the Passaic River? If yes, identify the hazardous substances, estimate the amount of material discharged to or disposed of in the Passaic River and the frequency with which this discharge or disposal occurred. Also please include any sampling of the river which you might have done after any discharge or disposal.

See Response to Question 6(a)(i) above.

8. Please identify any leaks, spills, explosions, fires, or other incidents of accidental material discharge that occurred at the facility during which or as a result of which any hazardous substances, including, but not limited to, the substances listed in response to item (3) or (4), were released on the property, into the waste water or storm drainage system at the facility or to the Passaic River. Provide any documents or information relating to these incidents, including the ultimate disposal of any contaminated materials.

In the early 1990's, a 30,000 gallon #6 heating oil underground storage tank ("#6 Oil UST") was discovered to be leaking and removed from service at the Subject Facility. This action discovered petroleum hydrocarbon saturated soils and free product on the water table. Over one thousand tons of petroleum hydrocarbon impacted soil was excavated for off-site disposal by TPS. See Response to Question 5(b). Following this removal no further remedial action was taken. See Exhibit D for the New Jersey Department of Environmental Protection's ("NJDEP") determination that no further corrective action was required in response to this discharge. No hazardous substances were released into the Subject Facility's wastewater or discharged to the Passaic River.

(a) Please provide the results of any sampling of the soil, water, air or other media after any such incident and before and after clean-up. Please provide in this information all sampling performed for or by NJDEP.

Sampling results for the #6 Oil UST corrective action are available in NJDEP's files for Case # 90-03-20-1101.

9. (a) Was your facility ever subject to flooding. If so, was the flooding due to:

(i) overflow from sanitary or storm sewer back-up and/or

Sanitary sewer back-flow has periodically occurred during The Newark Group's ownership of the Subject Facility. Upon information and belief, the back-flow results from the discharge from area industrial users which exceeds the capacity of the sewer lines in the area of the Subject Facility. However, this back-flow has been contained in the cellar of the Subject Facility, which is twenty feet deep, and outlets back to the sanitary sewer. There are no storm sewers located at the Subject Facility.

(ii) flood overflow from the Passaic River?

Upon information and belief, overflow of the Passaic River has never reached the Subject Facility which is located one half mile away.

(b) Please provide the date and duration of each flood event.

Not applicable. See Response to Question 9(a).

10. Please provide a detailed description of any civil, criminal or administrative proceedings against your company for violations of any local, State or federal laws or regulations relating to water pollution or hazardous waste generation, storage, transport or disposal. Provide copies of all pleadings and depositions or other testimony given in these proceedings.

There have been no civil, criminal or administrative proceedings against The Newark Group for violations of any local, state, or federal laws or regulations relating to water pollution or hazardous waste generation, storage, transport or disposal associated with the Subject Facility.

11. Provide a copy of each document which relates to the generation, purchase, use, handling, hauling, and/or disposal of all hazardous substances, including, but not limited to, the substances listed in response to item (3) or (4). If you are unable to provide a copy of any document, then identify the document by describing the nature of the document (e.g. letter, file memo, invoice, inventory form, billing record, hazardous waste manifest, etc.). Describe the relevant information contained therein. Identify by name and job title the person who prepared the document. If the document is not readily available, state where it is stored, maintained, or why it is unavailable.

See Exhibit E for DMRs and PCB and contaminated soil disposal manifests.

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12. (a) Did you or anyone else sample the soil, ground water, surface water, ambient air or other environmental media at the facility for purposes other than those identified in questions above?

Delect Merchandising Corporation ("Delect"), in connection with the delineation of groundwater contamination at its property located across Blanchard Street from the Subject Facility, hired Enviro-Sciences Inc. to conduct groundwater sampling at the Subject Facility in 1994. In connection with that delineation, and in an effort to confirm Enviro-Science's results, The Newark Group hired Vectre Corporation ("Vectre") to conduct limited independent soil and groundwater sampling at the Subject Facility.

(b) If so, please provide all other document pertaining to the results of these analyses.

Documentation of Enviro-Science's field work is part of the public record found in the NJDEP's files, Case # 90-03-20-1101, UST# 0106607. Vectre's sampling is attached hereto as Exhibit F.

13. (a) Has your company owned the facility at the location designed above? If so, from whom did your company purchase the property and in what year? If your company subsequently sold the property, to whom did your company sell it and in what year? Please provide copies of any deeds and documents of sale.

The Newark Group purchased the Subject Facility from R.W. Lewis on September 13, 1968. See Certificate of Ownership attached hereto as Exhibit G.

(b) If your company did not own the facility, from whom did your company rent the facility and for what years? Please provide copies of any rental agreements.

See Response to Question 13(b) above.

(c) To the extent that you know please provide the names of all parties who owned or operated the facility during the period 1940 through the present. Describe the relationship, if any, of each of those parties with your company.

1940 - 1968:	Margaret Lewis & R.W. "Dick" Lewis (no relationship to The Newark Group)
1968:	R.W. "Dick" Lewis - (no relationship to The Newark Group)
1968 - Present:	The Newark Group, formerly known as the Newark Boxboard Company

14. Answer the following questions regarding your business or company. In identifying a company that no longer exists, provide all the information requested, except for the agent for service of process. If your company did business under more than one name, list each name.

(a) State the legal name of your company.

The Newark Group, Inc.

(b) State the name and address of the president or the chairman of the board, or other presiding officers of your company.

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Robert H. Mullen President & COO

Fred G. von Zuben Chairman of the Board & CEO

Messrs. Mullen and von Zuben's business address is The Newark Group, Inc., 20 Jackson Drive Cranford, NJ 07016

(c) State the number of people employed by your company.

The Subject Facility employs 45 hourly employees and approximately 12 other employees.

(d) Identify the state of incorporation of your company and your company's agent for service of process in the state of incorporation and in New Jersey.

State of Incorporation: New Jersey

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Agent for Service of Process:

Lowenstein Sandler PC c/o Benedict M. Kohl, Esq. 65 Livingston Ave Roseland, NJ 07068

(e) Provide a copy of your company's "Certificate of Incorporation" and any amendments thereto.

See Exhibit H.

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(f) If your company is a subsidiary or affiliate of another company, or has subsidiaries or is a successor to another company, identify these related companies. For each related company, describe the relationship to your company, indicate the date and manner in which each relationship was established.

The Newark Group, Inc. is not a subsidiary or affiliate of another company and itself owns/operates the Subject Facility. The Newark Group, Inc. is the successor to Newark Group Industries, Inc., which is the successor to the Newark Boxboard Company.

(g) Identify any predecessor organization and the dates that such company became part of your company.

None which owned or operated the Subject Facility.

(h) Identify any other companies which were acquired by your company or merged with your company.

Book Covers, Inc., a New Jetsey corporation incorporated on October 19, 1960, was merged into Newark Group Industries, Inc. on May 2, 1988. BCI Newark formerly operated at the Subject Facility and is now a separate division of The Newark Group. During the time it operated at the Subject Facility, no hazardous substances, other than those contained in "over-the-counter" cleaners and similar products generally available to the consuming public and in their original packaging, were used, generated, stored, disposed or otherwise handled in its manufacturing process.

(i) Identify the date of incorporation, state of incorporation, agents for service of process in the state of incorporation and New Jersey, and nature of business activity for each company identified in the responses to items (14)(e), (f), and (g) above.

See Response to Questions 4(a) and 14(d) & (f).

(j) Identify all previous owners or parent companies, address(es), and the date change in ownership occurred.

See Responses to Questions 13 and 14 (a) - (i).

15. Provide the name, address, telephone number, title and occupation of the person(s) answering this "Request for Information: and state whether such person(s) has personal knowledge of the responses. In addition, identify each person who assisted in any way in responding to the "Request for Information" and specify the question to which each person assisted in responding. Please include the names and addresses of former employees who were contacted to respond to any of the questions.

The following individuals assisted in the preparation of the above responses:

Edward K. Mullen Vice Chairman of the Board The Newark Group, Inc. 20 Jackson Drive (908) 276-4000

David M. Ascher, Esq. Vice President, General Counsel & Secretary The Newark Group, Inc. 20 Jackson Drive Cranford, NJ 07016 (908) 276-4000

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Richard J. Theriault, Environmental Manager Haverhill Paperboard Corporation 100 South Kimball Avenue Bradford, MA 01835 (978) 373-4111

Mike Farrell, Plant Manager Newark Boxboard Co. 17 Blanchard Street Newark, NJ 07105 (973) 589-0424

Patrick Fulton, Assistant Production Superintendent Newark Boxboard Co. 17 Blanchard Street Newark, NJ 07105 (973) 589-0424

Richard Johnson, Regional Engineer Newark Boxboard Co. 17 Blanchard Street Newark, NJ 07105 (973) 589-0424

Norman W. Spindel, Esq. Christopher D. Hopkins, Esq. Lowenstein Sandler PC 65 Livingston Avenue Roseland, NJ 07068 (973) 597-2500

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CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

State of New Jersey

County of Union

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document (response to EPA Request for Information) and all documents submitted herewith, 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, and that all documents submitted herewith are complete and authentic unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I am also aware that my company is under a continuing obligation to supplement its response to EPA's Request for Information if any additional information relevant to the matters addressed in EPA's Request for Information of the company's response thereto should become known or available to the company.

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Robert H. Mullen NAME (type or print)

President and COO TITLE (type or print)

Kobust H. Mull SIGNATURE

MARY HAPOLAS HOTARY PUBLIC OF NEW JEPSEY Hy Doministion Biptime (Jan. 24, 2001)