ENVIRONMENTAL LIABILITY MANAGEMENT, INC.

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August 26, 2003

-- Via Federal Express --

Mr. Joseph J. Nowak, Case Manager
Bureau of Environmental Evaluation and Cleanup Responsibility Assessment
Division of Responsible Party Site Remediation
New Jersey Department of Environmental Protection
401 East State Street
Trenton, NJ 08625

RE: Napp Technologies, Inc., ISRA Case No. 95400
199 Main Street, Lodi, Bergen County
Response to NJDEP Letter for December 2002 Ecological Assessment Report

Dear Mr. Nowak:

On behalf of Napp Technologies, Inc. (Napp), Environmental Liability Management, Inc. (ELM) submits this letter in response to the NJDEP March 19, 2003 letter providing the NJDEP's comments on the December 30, 2002 Ecological Assessment Report on the Saddle River. Napp has collected the additional data requested by NJDEP in the March 19, 2003 letter, as summarized below, and prepared the following responses to the NJDEP comments. The NJDEP comments are presented first (in italics), followed by Napp's response.

NJDEP Comment #1

Napp has concluded that no further evaluation of volatile organic compounds (VOC) of concern (those detected in monitoring wells along the Saddle River) is warranted for the river. This is in part based on no VOC detections above screening criteria in sediment samples collected in 1996. However, no data are supplied for VOC analyses in sediments in Table 3 for any of the years in which sampling took place. The data should be supplied, or if not available, this should be identified as a data gap. Sediment screening criteria for a limited number of VOCs are available in NJDEP Guidance for Sediment Quality Evaluations, November 1998 and Jones (et al.) 1997.

Napp Response

In response to the NJDEP comments in it March 19, 2003 letter, sediment samples were collected in July 2003 and analyzed for VOCs. In response to the NJDEP comments, a detailed review of historical sediment sampling data was conducted, and it was confirmed that no

sediment samples had been collected for VOCs during the initial remedial investigation activities (completed 1995–1998). A summary of all sediment and surface water samples has been provided on the attached Table 1 for your reference.

The sediment samples collected in July 2003 for VOC analysis were collected, to the extent possible, from the same locations as the sediment samples that were collected as part of the 2002 field investigation for PCB analysis. Sediment samples were collected from two additional locations, SED-8 and SED-10. In each location, it was attempted to collect samples from two intervals (0'-6' and 6'-12'). However, no sediment samples were collected from previous sample locations, SED-1, SED-2 and SED-5, because of an inability to recover any sediment in the corer in these locations. Deeper (6"-12") samples were not collected at SED-3, SED-4 and SED-10, because the coring device could not be advanced through the coarse sands encountered in these locations. Locations of the sediment samples and a summary of detected compounds are presented on Figure 1 and Table 2.

Sediment samples were collected using a Wildco Coring device and a dedicated 24" liner for each sample location. Sediment sample locations were biased towards depositional areas, however, with the exception of sample location SED-8, true depositional sediment (fine silt) was not encountered. At nearly all sample locations the top 6-inch interval of sediment was a medium to fine sand and the 6- to 12-inch interval of sediment was a coarse to fine (predominantly coarse) sand with very little to no silt was observed. As stated above, the presence of this coarse sand prevented sample collection from the 6"-12" interval in three locations.

Chlorobenzene was the only VOC detected in the sediment samples. The highest concentration of chlorobenzene, 7.4 mg/kg, was at detected at SED-6 from the 6"-12" interval. SED-6 is located up stream of Napp and adjacent to the Hexcel property. Chlorobenzene was also detected in sediment samples SED-4 (4.5 mg/kg), SED-3 (0.76 mg/kg), and SED-10 (0.56 mg/kg). No detectable concentration of chlorobenzene was detected at SED-8, which is located downgradient of the Napp property.

Based upon the data collected during the most recent sediment sampling event and the surface water data collected previously, it has been concluded that: (1) the chlorobenzene found in sediment adjacent to the Napp property poses no threat to ecological or human receptors; and (2) the chlorobenzene found at the most upstream location adjacent to the Napp property results from a combination of ground water discharges from Napp and the Hexcel property, and down stream transport from the Hexcel property. Each conclusion is discussed below.

Chlorobenzene in Sediment and Surface Water Represents No Ecological or Human Health Risk

The NJDEP Guidance for Sediment Quality Evaluations[1] does not provide a sediment screening criteria for chlorobenzene. In the NJDEP Guidance for Sediment Quality Evaluations, however, it is stated that sediments containing low levels of photodegradable, nonpersistent, and nonpolar VOCs are not of ecological concern and further remedial investigation or remediation are not warranted. This policy is contingent upon consideration of no observable acute or chronic toxicity in the sediment, source removal and compliance with associated surface water quality standards.

The only VOC found in sediment is chlorobenzene, which was found adjacent to the Napp property at concentrations ranging from 0.56 mg/kg to 4.5 mg/kg. These concentrations are well below the criterion for human health exposure (37 mg/kg). Further, chlorobenzene is nonpersistent and nonpolar, and site-specific sediment toxicity testing has established that the sediment is not toxic.

Chlorobenzene is transformed in the subsurface and surface water via biodegradation, and by volatilization and reaction with photochemically produced hydroxyl radicals[2] in the atmosphere. Therefore, by definition, it is not a persistent chemical in the Saddle River sediments or surface water. Although the rates of biodegradation and photoxidation of chlorobenzene are not as well established as other nonchlorinated aromatic compounds, such as benzene, they are photodegradable[3]. This is further supported by the low concentration of chlorobenzene in surface water observed in the river.

Additionally, as discussed in the Ecological Assessment, site-specific sediment toxicity testing at Napp determined that the sediment is not toxic[4]. ENSR performed at NJDEP's request sediment toxicity testing and found no increase in mortality versus the control subjects. Finally, Napp is proposing source removal, which will satisfy the remaining criterion for addressing nonpersistent and nonpolar organic constituents.

Chlorobenzene Found in Sediment and Surface Water Originates from Both Napp and Hexcel

The Saddle River is the discharge point for both the shallow and deep zones of ground water from both the Hexcel and Napp sites. Shallow ground water flow is generally east to west, towards the Saddle River, while the deeper (beneath the confining layer) ground water flows

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1 NJDEP. *Guidance for Sediment Quality Evaluations*. November 1998.

2 Howard et al. *Handbook of Environmental Fate and Exposure Data for Organic Chemicals, Volumes I & 2*. Lewis Publishers, Inc., Chelsea, MI. 1989 & 1990

3 EPA. *Water-related Fate of 129 Priority Pollutants, EPA-440-14-79-0296*. 1979.

4 ENSR. *Remedial Investigation Report/Remedial Investigation Workplan Addendum*. June 1997.

more southwest. Therefore, ground water from both Napp and Hexcel discharges to the Saddle River.

Additionally, chlorobenzene is a known ground water contaminant for both sites. Chlorobenzene has been detected in Hexcel shallow monitoring wells adjacent to the Saddle River at concentrations ranging from 2,965 µg/l to 80,000 µg/l for the time period between 1988 and 1993[5]. Additionally, MW-E13, located downgradient of Hexcel and outside of any source area on the Napp property, contained 5,800 µg/l of chlorobenzene in 2002. Finally, it is apparent that the source of chlorobenzene in sediment samples for SED-6 is the Hexcel property. Based on the above, the Hexcel property, located upstream of the Napp property, is a source of chlorobenzene in both sediment and surface water.

However, sediment sample locations SED-4, SED-3, and SED-10 are adjacent to the Napp property and an identified source area, Source Area 1 (Hazardous Waste Storage Area, Drum Storage Area, Dry Well, Pavement Cracks - AOCs J, M, O1, V), within the Napp property that contains chlorobenzene. Concentrations of chlorobenzene detected in shallow wells on the Napp property ranged from 98 µg/l to 1,200 µg/l during the July 2002 sampling event. Therefore, it is concluded that, in addition to the contribution from the upstream Hexcel property, ground water from the beneath the Napp site containing chlorobenzene is also discharging to the Saddle River.

However, as discussed previously, the levels of chlorobenzene found in sediment and surface water do not represent either an ecological or human health threat, even considering the contribution from both sites. Therefore, the NJDEP criteria to eliminate VOCs as parameters of concern in sediment are met and no further evaluation of VOCs in sediment at the subject site is warranted to protect ecologically relevant species.

NJDEP Comment #2

It is noted that Napp did not use the sediment screening criteria recommended in the NJDEP Guidance for Sediment Evaluation.... No justification was provided. The NJDEP completed the review against the NJDEP's more conservative screen, and although the outcome did not change with regard to exceedances, Napp is advised to follow the recommended guidance in the future.

Napp Response to Comment #2

As noted by NJDEP, the results of the screening evaluation – that the levels of constituents found in sediments adjacent to the Napp site represent no ecological threat – are unaffected by the choice of screening criteria. However, Napp did follow NJDEP guidance which states, as

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[5] GEO Engineering. *Summary of Historical Ground Water Data, Hexcel Facility, Lodi, Bergen County, New Jersey, ISRA Case No. 86009.* July 1997.

do various sediment screening documents, that screening criteria derived by varying methods for different habitats are not equally applicable to all sites. While the most conservative screening criteria listed in the agency's 1998 document were not used directly at Napp, it is noted that the screening criteria provided in Jones *et al.*, which is referenced in the agency's March 2003 letter as a reference for use in sediments screening, were used. Given the characteristics of the Saddle River, the criteria provided in Jones *et al.* are more appropriate than the most conservative criteria used by NJDEP. In addition, the sediment screening criteria are less relevant at Napp since site-specific toxicity testing was completed on sediments, and these tests typically carry more technical weight than generalized screening criteria.

NJDEP Comment #3

Surface water data are missing for nickel in Table 2, yet is concluded (p. 17) that no further evaluation of nickel (metal of concern in proximal monitoring wells) is warranted for surface water because (it) was not detected above screening (criterion). The surface water data for nickel must be submitted to the NJDEP. Also, surface water sample depths (or height above sediment) and whether areas of known seeps/runoff were targeted should be reported.

NAPP Response to Comment #3

Surface water data for nickel is summarized in the attached Table 3. A total of 14 surface water samples were collected and analyzed for nickel. Only two samples had detectable concentrations of nickel, Sample 1 (22 μg/l) and Sample 2 (20 μg/l). These concentrations are well below the NJDEP Surface Water Quality Criterion of 516 μg/l. The laboratory data packages for these samples were previously submitted to the NJDEP with the June 1997 RIR/RAWA.

The specific surface water sampling methodology employed in 1995 through 1998 was not provided in writing by ENSR (ENSR. 1997). However, the NJDEP and the USEPA provided substantial oversight of the consultants during early site investigation activities and therefore it is reasonable to conclude that sampling was conducted in a manner acceptable to the NJDEP and consistent with NJDEP field sampling guidance at the time. ENSR's surface water sampling program was presented to and discussed with the NJDEP prior to implementation (ENSR. 1999). As part of ENSR's program, surface water samples were collected within six feet of the shoreline during a low flow period. Water depths during low flow range from a less than a foot over much of the area to a couple of feet in more limited areas. This near bank sampling program would have detected any measurable impact from seeps.

Surface water samples collected in March 2002 were collected approximately 12 feet from the riverbank with a telescopic dipper and dedicated sample collection cup (ladles) for each location. Samples were collected from the top one-foot of the water column in the center of the flow current. At the time of sampling the depth of the river ranged from one and a half to three feet in depth; the samples were collected from locations where the water depth was at least two feet.

In summary, the surface water of the Saddle River adjacent to the site has been thoroughly investigated over the last seven years and no further investigation is technically warranted to comply with the NJDEP's Technical Requirements (NJAC 7:26E).

NJDEP Comment #4

Section C2 evaluates "subsurface sediment," yet the deepest samples for which data are submitted are (from) 0.6 feet. Where the discharge of contaminated groundwater is of concern, surface (0-6") and subsurface sediment samples (6-12") and other appropriate intervals) are required to fully characterize contaminant migration. While eco-risk is judged on data from the biotic zone, complete sediment characterization is important when sediment disturbances, such as dredging or flood events, must be considered. Therefore Napp shall collect additional sediment samples including samples at an upgradient location at the 6-12" depth interval.

Napp Response to Comment #4

In response to the NJDEP March 19, 2002 letter, additional sediment sample was completed. As mentioned in Response to Comment #1 sediment samples were collected for 0-0.5' and 0.5-1.0' for VOCs. Additionally, two deeper samples (0.5-1.0') were collected at SED-6 and SED-10 for PCBs. No PCBs were detected in these samples as summarized on Table 4. As discussed previously, the difficulties encountered during the sediment sampling event support earlier conclusions regarding the absence of true depositional sediment in the river. Collection of samples deeper that 1.0-foot below the river bottom was not possible due to the coarse sand and gravel encountered. At several locations the sediment corer was driven approximately 1.5' into the riverbed however no "sediment" (sand and gravel) was retained within the sediment corer.

NJDEP's Guidance for Sediment Quality Evaluation documents that sediment chemistry alone is not regarded as providing significant information on potential biological effects. Relevant data regarding biological effects comes from toxicity tests and other analyses. As discussed above, toxicity testing determined that sediment in the Saddle River adjacent to the site was not toxic. In addition, as previously reported to NJDEP, the benthic community evaluation documented that the community structure is similar at locations upstream and downstream of the site (ENSR. 1995. Analysis of Benthic Macro invertebrates Collected in the Saddle River, report provided with Preliminary Assessment Report prepared by ENSR and dated February 1996). Benthic communities are often utilized because they integrate the effects of short-term-environmental variations such as flooding[6]. In addition, the high degree of surface water/ground water interaction during flood events substantially diminishes concentrations of chemicals in pore

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[6] EPA. *Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish, Second Edition. EPA 841-B-99-022.* 1999.

water discharging to surface water[7]. Also, the sediment scoured from adjacent to Napp during flood events will be replaced by upstream sediment due to the dynamic equilibrium of sediment transport processes[8][9]. The consistent finding of no adverse effects from the benthic community evaluation and the toxicity test results provides two strong lines of evidence that sediments adjacent to Napp are not significantly impacted by discharges from the site, over a period when numerous floods and stream disturbances have occurred.

Consistent with the above points, the concentrations of potentially site-related chemicals are generally higher in the surface (0-3 inches) than in the subsurface (3-6 inches) sediment samples collected for the Napp site investigation. These findings further support that upstream sources of contamination are of higher concern than any chemical residuals that may reach the stream via the ground water pathway.

In summary, physical, chemical and various biologically relevant investigations have documented that the sediment in the river adjacent to the subject site has not been impacted by site activities or operations. Consequently, no further sediment investigation is technically warranted to protect ecologically relevant receptors.

NJDEP Comment #5

Napp shall complete the additional sediment sampling and submit the results with the information required in items 1 through 3 above within 90 calendar days of receipt of this letter.

Napp Response to Comment #5

Additional sediment sample was completed in July 2003 to respond to the NJDEP's March 19, 2003 letter as discussed in Napp's Response to Comments #1 and #4. A complete discussion of the sample methodology and results are included in the Remedial Investigation Report Addendum/Remedial Action Workplan that will be submitted to the NJDEP in September 2003. The laboratory data reports and the electronic data deliverables (HAZSITE) will be included with the September 2003 submission.

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7 Jones, J.B. and P.J. Mulholland. *Streams and Ground Waters*. Academic Press. 2000.

8 Gordon, N.D., McMahon, T.A., and B.L. Finlayson. *Stream Hydrology, An Introduction for Ecologists*. John Wiley & Sons Ltd. 1992.

9 Waters, T.F. *Sediments In Stream Sources, Biological Effects, and Control*. American Fisheries Society. 1995.

We trust the enclosed information satisfies your request. If you have any questions or need additional information, please contact Lauren Coman at 609-683-4848.

Sincerely,

ENVIRONMENTAL LIABILITY MANAGEMENT, INC.

Lauren J. Coman, P.E.
Project Engineer

Hank Martin, P.E.
Principal

LJC:gah

c: N. Spindel
R. Loewenstein

Attachments:

Figure 1:	Saddle River Surface Water and Sediment Sample Locations and Detected Results
Table 1:	Summary of Saddle River Surface Water and Sediment Samples
Table 2:	Volatile Organic Compound Results for Saddle River Sediment Samples
Table 3:	Summary of Nickel Results for Saddle River Surface Water Samples
Table 4:	PCB Results for the March 2002 and July 2003 Saddle River Sediment Samples

Table 4
PCB Results for the March 2002 and July 2003 Saddle River Sediment Samples
Napp Technologies
Lodi, New Jersey

Sample ID Laboratory ID Sample Media Sample Date Sample Depth Units Of Measure	NJDEP VOC Sediment Screening Guidelines* mg/kg	EPA OSWER VOC Sediment Screening Guidelines** mg/kg	SED-1 341086 Sediment 03/28/02 0 - 0.5 mg/kg	SED-2 341087 Sediment 03/28/02 0 - 0.5 mg/kg	SED-3 341088 Sediment 03/28/02 0 - 0.5 mg/kg	SED-4 341089 Sediment 03/28/02 0 - 0.5 mg/kg	SED-5 341090 Sediment 03/28/02 0 - 0.5 mg/kg	SED-6 341091 Sediment 03/28/02 0 - 0.5 mg/kg	SED-6 440519 Sediment 07/02/03 0.5-1.0 mg/kg	SED-8 440523 Sediment 07/02/03 0.5-1.0 mg/kg	SED-9 341092 Sediment 03/28/02 0 - 0.5 mg/kg
PCBs											
Aroclor-1016	0.34	0.057	0.096 U	0.089 U	0.082 U	0.086 U	0.088 U	0.089 U	0.09 U	0.09 U	0.089 U
Aroclor-1221	NS	NS	0.096 U	0.089 U	0.082 U	0.086 U	0.088 U	0.089 U	0.09 U	0.09 U	0.089 U
Aroclor-1232	NS	NS	0.096 U	0.089 U	0.082 U	0.086 U	0.088 U	0.089 U	0.09 U	0.09 U	0.089 U
Aroclor-1242	NS	NS	0.096 U	0.089 U	0.082 U	0.086 U	0.088 U	0.089 U	0.09 U	0.09 U	0.089 U
Aroclor-1248	NS	NS	0.096 U	0.089 U	0.082 U	0.086 U	0.088 U	0.089 U	0.09 U	0.09 U	0.089 U
Aroclor-1254	NS	0.82	0.096 U	0.089 U	0.082 U	0.086 U	0.088 U	0.089 U	0.09 U	0.09 U	0.089 U
Aroclor-1260	NS	NS	0.096 U	0.089 U	0.082 U	0.086 U	0.088 U	0.089 U	0.09 U	0.09 U	0.089 U
Aroclor-1262	NS	NS	0.096 U	0.089 U	0.082 U	0.086 U	0.088 U	0.089 U	0.09 U	0.09 U	0.089 U
Aroclor-1268	NS	NS	0.096 U	0.089 U	0.082 U	0.086 U	0.088 U	0.089 U	0.09 U	0.09 U	0.089 U
Total PCBs	NS	NS	0.096 U	0.089 U	0.082 U	0.086 U	0.088 U	0.089 U	0.09 U	0.09 U	0.089 U

* NJDEP (1998) Guidance for Sediment Quality Evaluations, Table 3 (MacDonald et al, 1992), based on dry weight at 1% of total organic carbon
** EPA OWSER Sediment Quality Benchmarks based on Epa Tier II Chronic values (Region IV 1996), based on dry weight at 1% of total organic carbon
NS - No screening guideline value

Notes:
U = Not detected above level Indicated
J = Estimated value
NS = No standard

Table 3
Summary of Nickel Results for Saddle River Surface Water Samples
Napp Technologies
Lodi, New Jersey

Sample ID Laboratory ID Sample Media Sample Date Units of Measure	NJDEP Surface Water Quality Criteria ug/L	Sample 1 Inlet NA Water 4/21/1995 ug/L	Sample 2 Source NA Water 4/21/1995 ug/L	Sample 3 Downstream NA Water 4/21/1995 ug/L	Sample 4 Upstream NA Aqueous 4/21/1995 ug/L	Sample 5 Upstream NA Aqueous 4/21/1995 ug/L	15260 Midland/River NA Aqueous 4/21/1995 ug/L	UP-1 9505490 Aqueous 4/24/1995 ug/L
Nickel	516	22	20	10 U	10 U	10 U	10 U	40 U

Sample ID Laboratory ID Sample Media Sample Date Units of Measure	NJDEP Surface Water Quality Criteria ug/L	UP-1 9505639 Aqueous 4/25/1995 ug/L	UP-2 9505491 Aqueous 4/24/1995 ug/L	OUT-1 9505504 WATER 4/24/1995 ug/L	OUT-2 9505505 WATER 4/24/1995 ug/L	DOWN-1 9505497 Aqueous 4/24/1995 ug/L	DOWN-2 9505498 Aqueous 4/24/1995 ug/L	DOWN-2 9505640 Aqueous 4/25/1995 ug/L
Nickel	516	40 U	40 U	40 U	40 U	40 U	40 U	40 U

J = Estimated Value
U = Not detected above indicated level

Table 2
Volatile Organic Compound Results for Saddle River Sediment Samples
Napp Technologies
Lodi, New Jersey

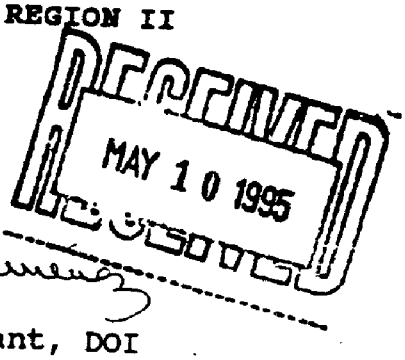
Sample Location Laboratory ID Sample Media Sample Date Sample Depth Units Of Measure	NJDEP VOC Sediment Screening Guidelines* mg/kg	EPA OSWER VOC Sediment Screening Guidelines** mg/kg	SED-3 440521 Sediment 07/02/03 0.0-0.5 mg/kg	SED-4 440520 Sediment 07/02/03 0.0-0.5 mg/kg	SED-6 440518 Sediment 07/03/03 0.0-0.5 mg/kg	SED-6 440519 Sediment 07/04/03 0.5-1.0 mg/kg	SED-8 440522 Sediment 07/05/03 0.0-0.5 mg/kg	SED-8 440523 Sediment 07/06/03 0.5-1.0 mg/kg	SED-10 440524 Sediment 07/07/03 0.0-0.5 mg/kg
Volatile Organics									
Benzene	0.34	0.057	0.16 U	0.15 U	0.16 U	0.16 U	0.15 U	0.17 U	0.18 U
Bromodichloromethane	NS	NS	0.16 U	0.15 U	0.16 U	0.16 U	0.15 U	0.17 U	0.18 U
Bromoform	NS	NS	0.63 U	0.59 U	0.65 U	0.64 U	0.61 U	0.68 U	0.72 U
Bromomethane	NS	NS	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
Carbon Tetrachloride	NS	NS	0.31 U	0.3 U	0.33 U	0.32 U	0.31 U	0.34 U	0.36 U
Chlorobenzene	NS	0.82	0.76 J	4.5	0.27 J	7.4	0.77 U	0.85 U	0.56 J
Chloroethane	NS	NS	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
2-Chloroethylvinylether	NS	NS	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
Chloroform	NS	NS	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
Chloromethane	NS	NS	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
Dibromochloromethane	NS	NS	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
1,1-Dichloroethane	NS	NS	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
1,2-Dichloroethane	NS	NS	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
1,1-Dichloroethene	NS	NS	0.31 U	0.3 U	0.33 U	0.32 U	0.31 U	0.34 U	0.36 U
cis 1,2-Dichloroethene	NS	NS	0.31 U	0.3 U	0.33 U	0.32 U	0.31 U	0.34 U	0.36 U
trans 1,2-Dichloroethene	NS	NS	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
1,2-Dichloropropane	NS	NS	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
cis-1,3-Dichloropropene	NS	NS	0.16 U	0.15 U	0.16 U	0.16 U	0.15 U	0.17 U	0.18 U
trans-1,3-Dichloropropene	NS	NS	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
Ethylbenzene	1.4	3.6	0.78 U	0.74 U	0.82	0.8 U	0.77 U	0.85 U	0.9 U
Methylene Chloride	NS	NS	0.63 U	0.59 U	0.65 U	0.64 U	0.61 U	0.68 U	0.72 U
1,1,2,2-Tetrachloroethane	NS	NS	0.47 U	0.44 U	0.49 U	0.48 U	0.46 U	0.51 U	0.54 U
Tetrachloroethene	0.45	0.53	0.16 U	0.15 U	0.16 U	0.16 U	0.15 U	0.17 U	0.18 U
Toluene	2.5	0.67	0.16 U	0.15 U	0.16 U	0.16 U	0.15 U	0.17 U	0.18 U
1,1,1-Trichloroethane	NS	0.17	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
1,1,2-Trichloroethane	NS	NS	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
Trichloroethene	1.6	1.6	0.47 U	0.44 U	0.49 U	0.48 U	0.46 U	0.51 U	0.54 U
Trichlorofluoromethane	NS	NS	0.16 U	0.15 U	0.16 U	0.16 U	0.15 U	0.17 U	0.18 U
Vinyl Chloride	NS	NS	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U
Xylene(Total)	> 0.12	0.025	0.78 U	0.74 U	0.82 U	0.8 U	0.77 U	0.85 U	0.9 U

* NJDEP (1998) Guidance for Sediment Quality Evaluations, Table 3 (MacDonald et al, 1992), based on dry weight at 1% of total organic carbon
** EPA OWSER Sediment Quality Benchmarks based on Epa Tier II Chronic values (Region IV 1996), based on dry weight at 1% of total organic carbon
NS - No screening guideline value

Notes:
U = Not detected above level indicated
J = Estimated value

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION II

POLLUTION REPORT



I. HEADING

Date: April 25, 1995

From: Christopher Jimenez, OSC

To:
J. Fox, EPA
M. Randol, EPA
K. Callahan, EPA
R. Salkie, EPA
W. Andrews, EPA
J. Daloia, EPA
B. Sprague, EPA
D. Kodama, EPA
A. Raddant, DOI
H. Shapiro, DOL-OSHA
J. Smolenski, NJDEP
S. Delikat, NJDEP
G. Allen, NJDEP
D. Karlen, EPA
ERD, Washington (E-Mail)
Database Manager

Subject: Napp Technologies, Inc. Explosion, Lodi, NJ

Polrep: One (1)

II. GENERAL BACKGROUND

OSC Name: Christopher Jimenez
Site Number: N/A
Agency: U.S. Environmental Protection Agency
Unit: Region II, ERRD-RPB
Address: 2890 Woodbridge Ave., MS-211, Edison, NJ, 08837
Telephone Number: (908) 906-6847
Party Conducting Action: Napp Technologies, Inc.
Response Authority: CERCLA
NPL Site: N/A

III. SITE INFORMATION

On April 21, 1995 at 7:50am, an explosion and subsequent fire occurred at the Napp Technology, Inc. facility located at 199 Main Street, Lodi, Bergen County, NJ. Napp manufactures chemical intermediaries primarily for the pharmaceutical and cosmetic industries. The facility stores a variety of chemicals, including many EPCRA Extremely Hazardous Substances. EPCRA Section 312/313 reporting data identify a number of EHS materials including acetone, anhydrous ammonia, hydrochloric acid, methyl alcohol, fuming nitric acid, phenol, spent sulfuric acid, and xylidine. The facility is situated in a mixed residential/commercial area, and is adjacent to the Upper Saddle River.

BBA000001

At 7:28am, April 21, 1995, a Napp employee involved in a chemical blending activity had phoned the plant engineer to report a acceleration of runaway chemical reaction which had begun on the previous day. The explosion and fire occurred approximately 20 minutes following this call. Lodi police, fire, and EMS responded to the scene immediately. EPCRA 311/312 reporting information concerning the Extremely Hazardous Substance inventory was available within ten minutes of the explosion. Nine persons were injured in the explosion and immediately hospitalized. Four persons were missing, and later confirmed as fatalities. Approximately 25 homes had been evacuated in the vicinity, as well as a nearby school of children.

Responding agencies include EPA, USCG, OSHA, FBI, NJDEP, NJ State Police and Office of Emergency Management, NJDOT, Bergen and Passaic County Health Departments, Bergen County Prosecutor's Office and Arson Squad, Lodi Police, Fire, and Emergency Medical Services.

Continuous air monitoring was conducted by seven teams for the duration of the fire. Downwind monitoring was conducted by NJDEP, Bergen and Passaic County health departments.

Immediately observable was a discharge of fluorescein, a bright green dye. Fluorescein contaminated firefighting runoff also entered the Upper Saddle River through both the storm sewer and by direct overland flow. Fluorescein contaminated runoff also entered sanitary sewer line which feeds the sewage treatment plant. Passaic Valley Sewage Commission was notified of the release. A cleanup contractor was hired by Napp Technologies to contain firefighting runoff. Evidence of firefighting runoff was very evident in the Upper Saddle River as the river exhibited a bright green coloration for the entire two mile length to the confluence of the Passaic River.

ACTIONS TAKEN:

Response and Prevention Branch responded to the incident, arriving on scene at 10:20 am. Region II TAT and ERT also responded to provide emergency support to provide air and water sampling to supplement on-going air monitoring activities. The TAGA unit, a mobile laboratory vehicle was used to sample ambient conditions downwind of the plume. No elevated levels of organic contaminants were detected at downwind street level by the TAGA unit. Air samples were drawn at three locations for off-site analysis. Air sampling was conducted for inorganics/acid gases, organics, and ketones. Water samples were drawn at seven locations for off-site analysis. Water samples were drawn for VOAs, BNAs, metals, pesticides, and PCBs.

Air monitoring and preliminary results (unvalidated data) from air sampling conducted on Friday, April 21, 1995, during the fire, did not detect air contaminants in vicinity of facility during fire. Preliminary results (unvalidated results) from runoff water and river water samples indicated elevated levels of acetone and phenolic compounds.

Fish kill appeared to be confined to the Upper Saddle River, for approximately 2 miles to the confluence with the Passaic River. No fish kill was observed in the Passaic River. Residential evacuation lifted Saturday, April 22, 1995 at 8:30 pm.

Demolition of unstable structures commenced on Saturday, April 22, 1995. The reactor vessel believed to have caused the explosion was pulled from the wreckage on Sunday, April 23, 1995, and is being retained by OSHA for their investigation. Napp attorneys appear to be cooperating with the OSHA for the retrieval of site files to aid in the investigation.

On April 24, 1995, it was agreed by all parties involved in the incident that work at the site would be concentrated on the front section of the building. This material is believed to be non-hazardous. This strategy is employed to assure the safety of the workers conducting the demolition.

Activities in the contaminated area of the building are limited to setting proposed work zones, decontamination pad, and CRZ.

During the morning of April 25, 1995, all activities were halted to allow OSHA personnel to remove records from the facility. Demolition continued on the front portion of the building during the afternoon of April 25, 1995. Demolition of the building has continually been slowed by small fire outbreaks resulting from leaking drums and lab containers mixing with other incompatible materials on site.

EPA-HQ CEPPO is leading an accident investigation pursuant to Clean Air Act 112(r) with assistance from Region II.

FUTURE ACTIONS:

NJDEP will continue as lead agency in monitoring Napp's cleanup of the site. A meeting will take place on April 26, 1995 to discuss removal strategies, site safety, and waste disposal. Participating in the meeting are EPA, NJDEP, Bergen County Hazmat, and Napp Technologies.

Release investigation continues.

Data Validation for air and water analysis is expected to be completed during the week of April 30, 1995.

INDUSTRIAL WASTE MANAGEMENT FACILITY (IWMF) WORKSHEET

1. Name: NAPP CHEMICALS INC.
   Mailing Address: P.O BOX 4900 LODI, NEW JERSEY 07644
   Location Address: 199 MAIN STREET LODI, NEW JERSEY 07644
   Facility Contact: LOREN B. ZIMMERMAN
   Telephone No.: (201) 773-3900 RCRA ID No.: NJD 001 315 272
   Facility NJPDES No.: _____ Type: ___DSW ___DGW ___SIU X None
   Receiving POTW, if any: PVSC POTW NJPDES No. NJ0021016

2. Description of Waste Source(s): GENERATED FROM PHARMACEUTICAL OPERATIONS (WASHING CENTRIFUGE CAKES) AND REACTOR CLEANING.

3. The Waste Source is:

   X Intracompany/Intrastate ___ Intercompany/Intrastate

4. Operational Units comprising the treatment works (describe):

   Unit #1: NEUTRALIZATION TANK: 5 < PH ADJUSTMENT < 10.5
   Unit #2: _____
   Unit #3: _____
   Unit #4: _____
   Unit #5: _____
   Unit #6: _____
   Unit #7: _____
   Unit #8: _____

5. Criteria (For each item indicate Yes, No, N/A, etc.):

   a. Is there an influent wastewater? YES
      Is it hazardous? YES
      If yes, list waste type. D002 (ACIDIC)

   b. Does the treatment works generate (G), store (S), or treat (T) a wastewater treatment sludge or residue? NO
      If yes, which units are involved, and what function do they perform? N/A
      Is it hazardous? N/A
      If yes, list waste type(s): N/A

   c. Is the unit a "tank" as per NJAC 7:14A-4.3? YES

6. Conclusions: Is the facility an IWMF? YES

7. Comments: THE FACILITY IS NOT A HAZARDOUS WASTE FACILITY (HWF) because it will store containerized/drummed hazardous waste for less than ninety (90) days.

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, N.Y. 10278-0090

REPLY TO
ATTENTION OF

Programs and Project Management Division

October 5, 1999

Mr. Stephen Lo Iacono Jr.
Municipal Manager
Borough of Lodi
One Memorial Drive
Lodi, New Jersey 07644

Dear Mr. Lo Iacono:

Reference is made to your letter to us of September 27, 1999 regarding the status of the Lower Saddle River Flood Protection Project. The final design memorandum and environmental documentation were completed in 1996 in cooperation with the non-Federal sponsor, the New Jersey Department of Environmental Protection. The plans and specifications were initiated, but not completed due to unresolved issues. The most significant issue was the high cost for the clean-up of contaminated soils located within the project site. The cost would be borne by the non-Federal sponsor and the State requested that we defer completion of the plans and specs and construction of the project. No further work will be scheduled until the State requests it. Enclosed is a project fact sheet, which summarizes the project features, cost, and history.

If the project were to be restarted, additional funding would be required at both the Federal and State level. The plans would also need to be updated to reflect any changed conditions that have occurred in the project area.

We acknowledge your support of the project. If we can be of further assistance, please direct any questions on this matter to the project manager, Paul Tumminello at (212) 264-0437.

Sincerely,

for Stuart Piken, P.E.
Deputy District Engineer
for Project Management

Enclosure

CF: Bernie Moore, NJDEP

BBA000026

US Army Corps
of Engineers
New York District

Lower Saddle River, Bergen County
New Jersey
Flood Protection Project

FACT SHEET September 1999

DESCRIPTION: Flooding occurs in the lower Saddle River basin area along the Saddle River and Sprout Brook in the municipalities of Garfield, Wallington, South Hackensack, Lodi, Saddle Brook, Rochelle Park, Paramus, and Fair Lawn, New Jersey.

The Saddle River basin study area has experienced significant flooding historically, including floods in May 1968, September 1971, August 1973, November 1977, May 1979, and April 1984. The November 1977 flood alone resulted in $81 million in damages (October 1995 price level). A 100-year flood event (a storm with a one-percent chance of occurring in any given year) would result in approximately $280 million in damages (October 1995 price level).

AUTHORIZATION: As a result of the recurrent overbank flooding along the Saddle River, the Congress authorized the Lower Saddle River Flood Protection Project under Section 401 (a) of the Water Resources Development Act of 1986 (Public Law 99-662).

The authorized project consists of channel modifications along 5.2 miles of the lower reaches of the Saddle River and 1.7 miles of the lower reaches of Sprout Brook. A total of 12 bridges would be modified, mostly by underpinning (increased structural reinforcement) in order to accommodate a deeper channel. In addition, fish and wildlife measures would also be included for mitigation of potential adverse environmental impacts and improvement of aquatic habitat. The project will provide protection up to a 150-year flood event with a benefit-to-cost ratio of 1.5:1.

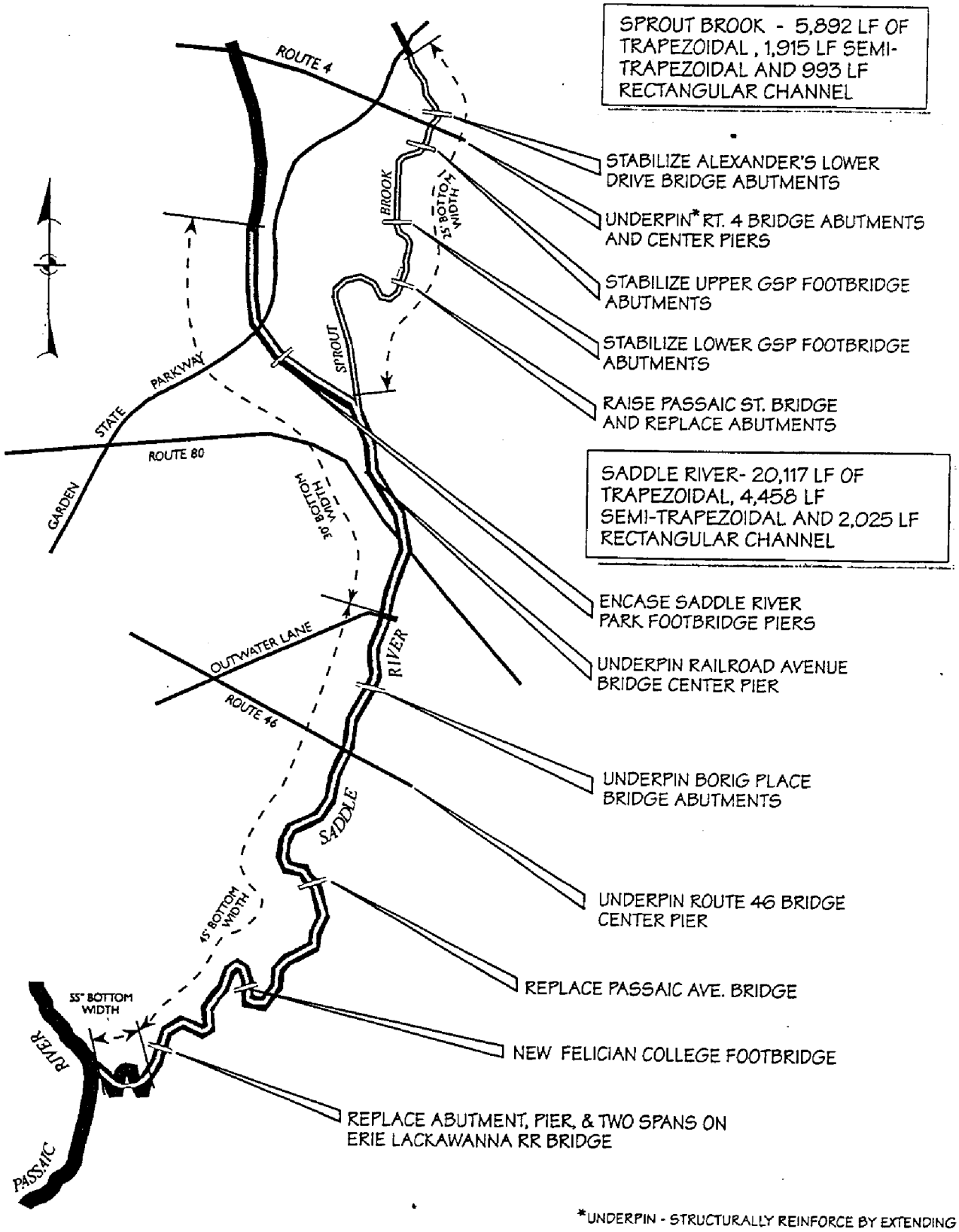
STATUS: The Final Draft General Design Memorandum (GDM), including an Environmental Assessment and various detailed engineering design appendices, was completed and distributed in July 1996. Plans and specifications for the first construction phase are on hold while the State reviews its support of the project due to the high costs of remediating contaminated sites within the construction footprint of the project. The cost of remediation or clean-up is estimated at between $28 and $36 million and is in addition to the cost of construction presented below. The remediation cost is borne by the non-Federal sponsor. Funds have been reprogrammed to other work pending a decision to continue with the project. The project would require reauthorization in the next Water Resources Development Act due to cost increases.

PROJECT COST:

Estimated Federal Cost	$68,000,000
Estimated Non-Federal Cost	$22,600,000
Total	$90,600,000

CONTACT: Mr. Paul A. Tumminello, Project Manager, U.S. Army Corps of Engineers, New York District, 26 Federal Plaza, New York, NY 10278 tel: 212-264-0437
email: paul.tumminello@usace.army.mil web: http://www.nan.usace.army.mil

LOWER SADDLE RIVER
BERGEN COUNTY, N.J.
FLOOD PROTECTION PROJECT



*UNDERPIN - STRUCTURALLY REINFORCE BY EXTENDING FOOTING DEPTH.

BOROUGH OF LODI

ONE MEMORIAL DRIVE
LODI, NEW JERSEY 07644
(973) 365-4005
FAX (973) 365-1723

GARY PAPAROZZI
MAYOR

KAREN VISCANA
DEPUTY MAYOR

JOSEPH PIPARO
COUNCILMAN

BERNADETTE McCASKEY
COUNCILWOMAN

MARC N. SCHRIEKS
COUNCILMAN

STEPHEN LO IACONO, JR.
MUNICIPAL MANAGER

DEBRA A. CANNIZZO
BOROUGH CLERK

September 27, 1999

Mr. Robert Hyatt, Chief
Real Estate Division
U.S Army Corps of Engineers
Jacob K. Javits Federal Building
New York, New York 10278

RE: LOWER SADDLE RIVER FLOOD CONTROL PROJECT

Dear Mr. Hyatt:

Recent flooding as a result of Hurricane Floyd has once again demonstrated the need for implementation of the above referenced project.

The Borough of Lodi is totally committed to the support of this program. Can you communicate to my office the status of the project, and, looking forward, where we can expect this project to go in the near future?

Hoping to hear from you on this matter, I remain,

Yours truly,

Stephen Lo Iacono, Jr.
Municipal Manager

SL/md
c. Mayor and Council
John Baldino
Ken Job
Assemblywoman R. Heck
Senator Robert Torricelli
Rep. Steve Rothman

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

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JUN - 8 2004

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

Mr. Edward J. Murray, Vice President
Purdue Pharma Technologies, Inc.
One Stamford Forum
Stamford, CT 06901-3431

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

Dear Mr. Murray:

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 et seq. 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 Purdue Pharma Technologies, Inc. (" Purdue Pharma") 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 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. This study is being conducted by EPA under the authority of CERCLA and by USACE and OMR, as local sponsor, under WRDA. EPA, USACE, and OMR are attempting to coordinate with the New Jersey Department of Environmental Protection and the Federal and State Natural Resource Trustee agencies. EPA, USACE, and OMR estimate that the study will cost approximately $20 million, with the WRDA and CERCLA shares being about $10 million each. EPA is seeking its share of the costs of the study from PRPs.

Based on information that EPA evaluated during the course of its investigation of the Site, EPA believes that hazardous substances were being released from Purdue Pharma's facility located at 199 Main Street in Lodi, 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, Purdue Pharma 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.

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

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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.

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 EPA's share of the study costs. 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 provide EPA's funding for the Lower Passaic River Restoration Project. This cooperative response is embodied in an Administrative Order on Consent ("AOC"), copy enclosed. Notice of the AOC was published in the Federal Register on May 19, 2004 with EPA accepting comments through June 18, 2004. 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. It is EPA's intent to amend the AOC at a later date to reflect the settlement negotiations. 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, which contain the documents related to the response action selected for this Site are located at EPA's Region 2 office (290 Broadway, New York, NY) on

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the 18th floor. You may call the Records Center at (212) 637-4308 to make an appointment to view the administrative record for the Diamond Alkali Site, Passaic River.

As you may be aware, on January 11, 2002, President Bush signed into law the Superfund Small Business Liability Relief and Brownfields Revitalization Act. 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.

If you wish to discuss this further please contact Ms. Elizabeth Butler, Remedial Project Manager, at (212) 637-4396 or Ms. Kedari Reddy, Assistant Regional Counsel, at (212) 637-3106. Please note that all communications from attorneys should be directed to Ms. Reddy.

Sincerely yours,

William McCabe for

George Pavlou, Director
Emergency and Remedial Response Division

Enclosures

cc: James Stewart, Esq.
Lowenstein Sandler PC

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