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August 30, 1989

Mr. Norman E. Riley
Alternative Technology Division
Toxic Substances Control Program
Department of Health Services
714/744 P Street
P.O. Box 942732
Sacramento, CA 94234-7320

SUBJECT: AUGUST 22, 1989 LETTER ON PNA CONTAMINATION IN SOILS

Dear Mr. Riley:

I thank you for responding to my letter requesting technical assistance on classifying the hazardous characteristics of PNAs in an asphalt-like substance found in soils in isolated areas of the Marketplace/Nielson Site in Emeryville, California. The question to you was narrowly directed and confined to the PNA issue for two reasons:

1. The question of the hazardous nature of PNAs was the issue of principal concern to Mr. Lowell Miller of the Alameda County Health Department.
2. You informed us that only a specific and narrowly directed request for technical assistance could be answered within the one month time frame requested.

The asphalt-like material in soil at the Marketplace/Nielson Site has been self-classified according to Title 22 California Code of Regulations Section 66680 et.seq. as non-hazardous (Aqua Terra Technologies, 1988 and ChemRisk, 1989). In addition, the appropriate sections of these reports and all relevant data have been submitted to you to confirm this classification. We have been informed that due to the volume of DHS work it may take up to one year for you to respond to this request.

The fact that you chose to raise a number of issues beyond the scope of the initial request for technical assistance on PNA characteristics prompts me to write and provide clarification on these unrelated issues. In all cases, hazardous waste and health and safety issues associated with hazardous chemicals found in site soils were managed in accordance with relevant state and federal regulations.

- Fuel hydrocarbons discovered in soils adjacent to leaking underground tanks were identified and reported to Alameda County. Tanks were removed with appropriate permits and

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contaminated soil was removed and successfully treated according to an approved plan (Woodward-Clyde Consultants, 1987).

- Asbestos containing tar paper was found in isolated areas during excavations for the foundation of one building. The certified industrial hygienist on-site immediately restricted access to this area. Subsequently, the asbestos containing waste was removed by a licensed contractor and deposited in an appropriate landfill (Cohen, Inc, 1988).
- The metals found in soils at concentrations above the TTCs were from an isolated area at the south end of the site away from the area containing the asphalt-like material. The analysis of soil samples from these two isolated and separate locations indicates that the concentrations of metals and asphaltic material are unrelated.
- All soil excavated for disposal was sampled and analyzed for metals and fuel hydrocarbons and found to be non-hazardous according to Title 22 CCR Section 66696 prior to disposal (Earth Metrics, 1988).
- The floating product from Well 5 (B5-M) has been sampled and analyzed (AquaTerra Technologies, 1988).

This material may represent the more viscous fraction of the asphalt-like material in soils near this well. The influence of the floating product on groundwater was reported in Results of the Hydrogeologic Investigation Conducted at the Marketplace/Nielsen Properties The Martin Group (McLaren, 1989), submitted to Alameda County and the Regional Water Quality Control Board, San Francisco Bay Region.

As you can see, each of the non PNA issues raised in your introductory paragraph has been otherwise appropriately and competently managed. Unfortunately, other readers of your letter less familiar with the facts might draw a different and unwarranted conclusion.

In regard to the specific subject of PNAs in soil, I summarize your findings as I understand them based on your letter.

- DHS does not currently have fixed or adopted criteria on the classification of waste containing PNAs other than hardened asphalt.
- According to DHS policy hardened asphalt which does contain PNAs in excess of those measured in the asphalt-like substance on the Marketplace/Nielsen Site are considered non-hazardous.



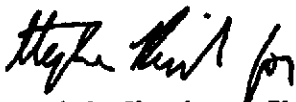
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- PNAs are relatively immobile in soil.
- Simply because a waste contains carcinogenic agents (ie. specific PNAs), does not necessarily mean the waste should be considered carcinogenic and managed as hazardous pursuant to Title 22 CCR Section 66696 (a) (6).
- The concentrations of potentially carcinogenic PNAs in the asphalt-like material in soil from boring EM-4 are less than 10 ppm and indicate that the waste would not be classified as hazardous. DHS cannot make a more definitive statement on waste classification without a thorough review of all available data and a specific risk assessment.
- The property owner has self-classified the waste as non-hazardous and remains responsible for the management of soils containing the asphalt-like material.

I believe your comments have been properly summarized. I thank you for the opportunity to clarify the other issues you raised but did not discuss. If you have further comments, do not hesitate to write or call.

Sincerely,



Patrick Sheehan, Ph.D
Supervising Toxicologist
McLaren
ChemRisk Division

cc: Walt Kaczmarek, The Martin Group
Howard Hatayama, Department of Health Services
Steven Ritchie, Regional Water Quality Control Board
Carl L. Smith, Alameda County Department of Environmental Health
Lowell Miller, Alameda County Department of Environmental Health
~~Rafat Shahid, Alameda County Department of Environmental Health~~

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REFERENCES

Aqua Terra Technologies. 1988. Classification of an Asphalt-Like Waste Material Found on The Marketplace and Nielson Sites in Emeryville, California. July 11.

ChemRisk. 1989. Correspondence from Dr. Sheehan of ChemRisk to Walter Kaczmarek of The Martin Group responding to comments from Mr. Rafat Shahid of the Alameda County Department of Environmental Health in regard to the Marketplace Site Emeryville, California. April 18.

Cohen, Inc. 1988. Correspondence from Gregory Raymond of J.M.Cohen Inc. to Mr. Steven Graziano of Devcon Construction regarding the abatement procedures for tar paper on the Marketplace/Nielsen Site.

Earth Metrics. 1988. Final Proposal to Remediate The Marketplace and Nielsen Sites in Emeryville, California. May 16.

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