PROPOSED REMEDIAL ACTION PLAN

SITE BACKGROUND AND HISTORY

The Peerless Photo Products site is located on approximately 16.2 acres in the Village of Shoreham, Suffolk County (See Figure 1). The site is bounded to the south by NYS Route 25A, to the west by Randall Road, to the north by a Long Island Power Authority (LIPA) right-of-way (containing high-voltage lines) and residential properties, and to the east by Tesla Street and residential properties. The site is located in a predominantly residential area.

The site was originally developed in 1903 when Nikola Tesla constructed a building that served as a residence and a laboratory. The original structure is part of Building 1. Mr. Tesla also constructed a radio tower on the site which was demolished in 1917 - 1918. The octagonal base of the tower formed a pit. The foundation of the former radio tower is called the Tesla Tower Base. The structure was the base of a tall tower that once existed on the property, and is approximately 90 ft in diameter. The New York State Office of Parks Recreation and Historic Preservation has concluded that the Tesla Laboratory building and the Tesla Tower Base met the criteria for inclusion in the New York State and National Register of Historic Places.

The site consists of four large buildings and a few small structures. Manufacturing and warehousing were centered in the large main plant building (Building 1) located on the northeastern corner of the property. The North Recharge Basins are located beneath the high voltage lines in the Long Island Power Authority (LIPA) right-of-way. The Tesla Tower Base is located at the southeastern corner of the site.

Peerless Photo Products Inc. began operations at the site in 1939. In 1969, Agfa-Gaevert, Inc. purchased Peerless Photo Products. From 1939 to 1979, Peerless Photo Products disposed of untreated process water into 800 foot long by 25 foot wide recharge basins, referred as the North Recharge Basins. The process water contained the metals such as silver, cadmium, lead and other compounds. In 1979, an industrial wastewater treatment plant was constructed and a State Pollution Discharge Elimination System (SPDES) permit was issued to discharge treated effluent into the North Recharge Basins. The process water discharges ceased in 1987 as manufacturing activities at the site were discontinued.. Chemical processing equipment at the plant was then either cleaned or removed from the site.

The Tesla Tower Base may have been used until 1973 for the disposal of unknown materials. The area inside the foundation walls is now level and vegetated with grass and large trees.

The site is currently vacant. The entire site is enclosed by a 6-ft high chain-link fence and is guarded 24 hours per day. Current land use of the site is industrial, although both residential and nonresidential use is possible in the future.

In 1983, the NYSDEC listed the site as a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites in New York. A Class 2 site is a site where hazardous waste presents a significant threat to the public health or the environment and action is required.

Between 1980 and 1990, several environmental investigations were conducted at the site which involved soil and groundwater sampling and analysis. The results of these investigations showed that soils in the North Recharge Basins, Tesla Tower Base and other area of potential concerns (APCs) were impacted with the metals such as cadmium and silver at concentrations above the background concentrations typical of soil in the eastern United States.

The Briarcliff Road wellfield is located approximately 1,400 feet northwest from the Tesla Tower Base. A summary of water quality data from the Briarcliff Road public supply wellfield showed that the site-related contaminants were not detected at the public supply wells. This wellfield was closed and grouted by the Suffolk County Water Authority (SCWA) and is currently inactive. However, wells could be installed in the future if the SCWA requires additional production capacity.

The NYSDEC and Agfa Corporation entered into a Consent Order on August 19, 1991. The Order obligates the responsible parties to implement a Remedial Investigation/Feasibility Study (RI/FS)only.

REMEDIAL INVESTIGATION

The purpose of the Remedial Investigation (RI) was to define the nature and extent of contamination resulting from previous activities at the site. The RI was conducted by Agfa Corporation under the NYSDEC oversight between September 30, 1993 and June 2003.

The RI included the sampling of surface and sub-surface soils, and groundwater. The main categories of contaminants that exceed site specific Soil Cleanup Objectives and Clean up levels (SCGs) are inorganics (metals). The soils in several areas of the site are contaminated with metals most notably cadmium and silver. During the RI, a total of 13 APCs of the site, and groundwater have been investigated. Metals were detected in most of the APCs. These APCs are the Former Drum Storage Area (APC-1), East Soil Storage Area (APC-5), Primary Wastewater Pump Station (APC-7), Emulsion Building Sump (APC-8), Water Meter Room Pit (APC-9), West Soil Storage Area (APC-6), Tesla Tower Base (APC-10), LIPA Right-of-Way (APC-11), North Recharge Basins (APC-12), and Class V Injection Well (APC-13). A summary of

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closed APCs which include APCs 1, 2, 3, 4, 5, 7, 8, 9, and 13 (except SW-4) respectively is provided in PRAP. These APCs were closed because contaminants were detected below SCGs or slightly above SCGs. APCs 6, 10, 11, 12 and APC -13(SW-4 only) require further action.

Soils: In APC-6, cadmium and silver were found in soil samples at concentrations above the site specific SCGs in several locations. In APC-10, both silver and cadmium were observed in subsurface soils at concentrations exceeding their respective SCGs, In APC-11, silver was observed in soils at concentrations above the SCG for the site, In APC-12, mainly silver was detected above its SCGs in soils, and in APC-13, the concentrations of cadmium exceed the SCGs.

Groundwater: Groundwater samples were collected on eight occasions from on-site and off-site monitoring wells between 1994 and 2002. In 1994, the cadmium was detected at 269 parts per billion (ppb) in MW-6 (Tesla Tower Base), and at 135 ppb in MW-2 (located downgradient and off-site) above the NYSDEC Ambient Water Quality Standards and Guidance Values for cadmium of 5 ppb. The extent to which cadmium is consistently present in groundwater at concentrations exceeding the applicable standards appears to be restricted to a small contiguous network of monitoring wells starting at MW-6, located at the southern, upgradient portion of the site, and terminating at a location downgradient of off-site monitoring well MW-2, and upgradient of off-site monitoring well MW-7S. The trends observed in groundwater quality in site monitoring wells demonstrate that conditions are improving naturally. Cadmium levels have remained stable or declined significantly in all monitoring wells from the initial sampling performed in August 1994 to December 2002. In November 2002, cadmium was detected at 7.87 ppb in MW-6, 79.8 ppb in MW-2 and 2.02 ppb in MW-7S. The presence of cadmium is limited to the upper portion of the aquifer. Data from well couplets MW-2/MW-2A, MW-7S/MW-7D, MW-10/MW-10D, and MW-11S/MW-11D demonstrate that cadmium concentrations in all deeper wells achieve the NYSDEC Ambient Water Quality Standards and Guidance Values. The Briarcliff Road wellfield is located approximately 1,400 feet northwest from the Tesla Tower Base. Results of water quality data from the Briarcliff Road public supply wellfield showed that the site-related contaminants were not detected at the public supply wells. This wellfield was closed and grouted by the Suffolk County Water Authority (SCWA) and is currently inactive. However, wells could be installed in the future if the SCWA requires additional production capacity. All homes in the area are supplied with public water, which is regularly tested to ensure that it meets New York State drinking water standards.

INTERIM REMEDIAL MEASURES

Interim Remedial Measures were performed at the site at two APCs during Remedial Investigation to address contamination.

FEASIBILITY STUDIES

Feasibility Study (FS) was conducted to evaluate a range of cleanup objectives for on-site soils, off-site soils and groundwater. These alternatives include no action, excavation, on-site reuse, off-site disposal, *In Situ* stabilization, several combinations of partial excavation and *In Situ* stabilization, capping, groundwater extraction and treatment, and monitoring and institutional control.

PROPOSED REMEDIAL ACTION

As a result of the Remedial Investigation and Feasibility Study, the NYSDEC and NYSDOH are issuing this PRAP for the following remedial elements:

1. A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Any uncertainties identified during the RI/FS would be resolved.

2. Excavation and off-site disposal of surface and subsurface soils in the West Soil Storage Area (APC-6), LIPA Right-of-Way (APC-11) that contains metals in excess of SCGs. Excavations will be backfilled with clean fill.

3. Excavation and off-site disposal of surface and subsurface soils from the North Recharge Basins (APC-12) that contains silver in excess of 300 ppm. Reuse of excavated soils from LIPA Right-of-Way (APC-11) that contain silver at concentrations above 137 ppm but below 300 ppm to backfill the subsurface portions (greater than 2 feet below grade) of North Recharge Basins (APC-12). Backfill of the remainder of APC-12 to surrounding grade using clean fill. Excavation and off-site disposal of soils containing metals at concentrations in excess of SCGs in SW-4 (APC-13).

4. Excavation of soils from Tesla Tower Base in a 20 ft diameter area, centered on the location of boring SB-6F, to a depth of approximately 30 ft using conventional shoring and excavation methods, and offsite disposal of excavated soils. *In Situ* Stabilization of soils from 30 feet bgs to 100 feet bgs.

5. Existing, inactive supply wells at the site would be permanently closed in accordance

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with NYSDEC requirements.

6. Development of a site management plan to: (a) address residual contaminated soils that may be excavated from the site including those in the closed APCs during future redevelopment. The plan would require soil characterization and, where applicable, disposal/reuse in accordance with NYSDEC regulations; and maintain surface soil cover overlying subsurface soil in the Northern Recharge Basin.

7. Imposition of an institutional control in form of an environmental easement that would: (a) require compliance with the approved site management plan, (b) limit the use and development of the areas on the property containing metals over SCGs to commercial or industrial uses only; (c) restrict use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the Suffolk County Department of Health Services; and, (d) require the property owner to complete and submit to the NYSDEC an annual certification;

8. The property owner would provide an annual certification, prepared and submitted by a Professional Engineer or environmental professional acceptable to the NYSDEC, which would certify that the institutional controls and engineering controls put in place, are unchanged from the previous certification and nothing has occurred that would impair the ability of the control to protect public health or the environment or constitute a violation or failure to comply with any operation and maintenance or soil management plan; and

9. Since the remedy results in untreated hazardous waste remaining at the site, a long term monitoring program would be instituted until such a time as concentrations of contaminants warrant discontinuation of the monitoring program.

CITIZEN PARTICIPATION

During the course of the remedial program, NYSDEC encourages two-way communication with the public. Complete copies of the PRAP and RI documents are available to the public at the document repositories listed on the cover page of the fact sheet.

The NYSDEC and NYSDOH will hold a public meeting and provide a 30-day comment period to solicit public comments on the PRAP (see cover page of this document for dates and times). Comments will be reviewed by the Department and a Responsiveness Summary will be prepared. The PRAP may be modified due to comments received from the public. When a Record of Decision (ROD), which will describe the remedy selected and why it was chosen, is ultimately signed, it will be placed in the document repositories and a notice will be sent to all parties on our contact list advising of its availability.

Upon issuance of the ROD the NYSDEC will approach the Agfa Corporation to implement the selected remedy under an Order on Consent.

Comments on the PRAP

The public is encouraged to read the PRAP and submit comments. Written comments on the PRAP should be sent to Girish Desai, P.E., the NYSDEC Project Manager for this site, at the address below. The comment period extends from February 26, 2004 through March 27, 2004.

For Further information

If you have any questions or comments concerning this investigation or site-related reports in the document repositories, feel free to contact any of the individuals listed below:

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