STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 West 4th Street, Suite 200, Los Angeles, California 90013

FACT SHEET
WASTE DISCHARGE REQUIREMENTS
FOR
MICRO MATIC USA, INC

HYDROGEN RELEASE COMPOUND INJECTION

ORDER NO. R4-2002-0030 (SERIES NO. 050)
CI-8777, FILE# 95-059

FACILITY ADDRESS
Micro Matic USA, Inc.
19791 Bahama Street
Northridge, CA 91324

FACILITY MAILING ADDRESS
Mr. Peter Muzzunigro
Micro Matic USA, Inc.
19791 Bahama Street
Northridge, California 91324

PROJECT DESCRIPTION:
The mailing address of Micro Matic USA, Inc., is 17791 Bahama Street, Northridge, Latitude: N34.233548°, Longitude: W-118.564352°. The company makes and sells beverage dispensing systems, and uses buildings at 19779, 19773, 19767, 19761, and 19755 Bahama Street for manufacturing, in addition to 19791 Bahama Street (Figures 1&2). The land and buildings are owned by Cinmark Company, L.P.. The underlying groundwater is contaminated with perchloroethene (PCE), trichloroethene (TCE), 1,1-dichloroethene (1,1-DCE), trichloroethane (TCA), trans-1,2-dichloroethene (t-1,2-DCE), chloroform, and chloromethane. As an interim corrective action, limited scale groundwater pumping and treating, with discharge to the public sewer, started in 1999, and has operated intermittently since. More than 4.3 million gallons of groundwater have been treated by the system. Groundwater monitoring has been ongoing since 1995.

The groundwater pump and treat system has had limited effectiveness. The proposed Hydrogen Releasing Compound injection is intended to remediate halogenated volatile organic compounds in groundwater, and to be the final remedial alternative for site groundwater. Other remedial techniques will be applied to the vadose zone.

As of January 2004, the detectable PCE plume in groundwater was more than 1,000 feet long and 500 feet wide. Groundwater occurs approximately 55 feet below grade. When pumping wells are not operating, the groundwater gradient is to the south at approximately 0.0014 foot/foot (Figure 2).

Site activities for the Pilot Test are expected to take approximately 6 months. If the Pilot Test is successful, injection at the Source Area and at the Reactive Barrier would follow as soon as possible.

VOLUME AND DESCRIPTION OF INJECTION:

Hydrogen Releasing Compound is capable of supporting reductive (anearobic) dechlorination when the proper microbes are present in the subsurface. It is planned for HRC to be injected at three areas. The three areas are the Source Area near the northwest corner of the facility, the

Reactive Barrier near monitoring wells JMW-7 and JMW-8, and the Pilot Test Area, near monitoring well JMW-9 and proposed monitoring well MW-11.

At all injection locations the HRC will be injected into the contaminant-bearing saturated zone (50 to 70 feet below grade) at 300 to 400 pounds per square inch through direct-push drill rods. The HRC will be injected into the 20-foot vertical interval as the drill rod is pulled out of the hole. It is estimated that 500 to 700 gallons of HRC will be injected at each injection point. The maximum rate of injection will vary from 0.5 to 1.0 gallons per minute. The HRC vendor claims that the HRC will be effective to about 10 feet horizontally from the injection points. Any potential adverse water quality impacts that may result will be localized, of short-term duration, and will not impact any existing or prospective uses of groundwater. Groundwater quality will be monitored to verify no long-term adverse impact to water quality.

Pilot Test: For the Pilot Test, near monitoring well JMW-9, HRC will be injected at 10 to 16 locations, about 20 feet apart, in two rows parallel to Nordhoff Street (Figure 3). A total of approximately 10,000 gallon (108,000 pounds) of HRC will be injected for the pilot test. This will be evenly divided among the locations. The injection will take approximately 5 days. After 3 to 6 months, it is hoped that sufficient data will have been collected to evaluate the effectiveness of the process.

Source Area: For the Source Area, near the northwest corner of the property, HRC will be injected at 30 to 40 locations, about 20 feet apart (Figure 3). The HRC will be evenly divided among the locations. Approximately 14,000 gallons (151,000 pounds) of HRC will be injected in the Source Area. The injection process will be completed in approximately 15 days.

Reactive Barrier: For the Reactive Barrier, running west to east near monitoring wells JMW-7 and JEW-2, through the Micro Matic USA parking lot, HRC will be injected at 30 to 40 locations, about 20 feet apart (Figure 3). The HRC will be evenly divided among the locations. Approximately 14,000 gallons (151,000 pounds) of HRC will be injected in the Reactive Barrier. The injection process will be completed in approximately 15 days.