PROPOSED AMENDMENT TO THE RECORD OF DECISION

Unisys Corporation
Operable Unit Number 01: On-Site Remedial Program
State Superfund Project
Lake Success, Nassau County
Site No. 130045
June 2014

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

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SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), is proposing an amendment to the Record of Decision (ROD) for Operable Unit No. 1 at the above referenced site. The disposal of hazardous wastes at this site, as more fully described in the original ROD document, has caused the contamination of various environmental media. This proposed amendment identifies new information which has lead to this proposed modification to the remedy identified in the March 1997 ROD.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

Great Neck Public Library
Attn: Ms. Laura Weir
159 Bayview Avenue
Great Neck, NY 11023
Phone: 516-466-8055

Hillside Public Library
Attn: Ms. Charlene Noll
155 Lakeville Road

New Hyde Park, NY 11040
Phone: 516-355-7850

A 30 day public comment period has been set from June 13, 2014 through July 14, 2014 to provide an opportunity for you to comment on these proposed changes. A public meeting will be held on June 26, 2014. Written comments may be sent to

Girish Desai
NYS Department of Environmental Conservation
Division of Environmental Remediation
SUNY at Stony Brook 50 Circle Road
Stony Brook, NY 11790-3409
gvdesai@gw.dec.state.ny.us

SECTION 3: SITE DESCRIPTION AND HISTORY

Site Location: The former Unisys Site is located in the Village of Lake Success and the Town of North Hempstead, Nassau County. The site is bounded by Marcus Avenue to the north, Union Turnpike to the south, Lakeville Road to the west and the Triad Office Park to the east.

Site Features: The site is approximately 94 acres in size. The former Unisys property is fully developed, with the bulk of the property comprised of the main manufacturing building, various smaller support buildings (e.g., foundry and boiler building), three recharge basins and parking lots. The smaller buildings are located south of the main building. The site was redeveloped by the current owner for commercial use. Presently, the buildings house a number of tenants. The current site owner has deeded 3.5 acres in the southeast corner of the property to the Town of North Hempstead for their use as soccer fields.

Current Zoning/Use(s): The site straddles the border of the Village of Lake Success and the Town of North Hempstead. The portion of the property in the Village of Lake Success is zoned Economic Development A (commercial). The portion of the property in the Town of North Hempstead, including the soccer fields, is zoned Industrial A. The off-site area (OU2) is mixed residential/commercial/industrial.

Past Use of the Site: The former Unisys facility was an active manufacturing facility from its start-up in 1941 until approximately 1995, when most manufacturing activities ceased, although some assembly, integration, prototype development/testing, and/or engineering and administrative activities continued at the facility through early 1999. The facility has been served by a sanitary sewer system since it was constructed in 1941. The on-site storm water collection system which received runoff from the parking lot, roofs and surrounding roads is connected to the three recharge basins located in the southwest corner of the property. Groundwater had been used for non-contact cooling purposes since the facility was constructed. The non-contact cooling water system consisted of three extraction wells and four diffusion wells which were located to the north and south of the main manufacturing building, respectively. The groundwater is no longer used for cooling purposes. In the past, the facility manufactured a wide range of defense related products. Past manufacturing processes included casting, etching,

degreasing, plating, machining and assembly. Chemicals used during manufacturing at the facility included halogenated solvents, cutting oils, paints and fuel oils and plating compounds. The facility had five drywells located off the southeastern corner of the main building. These drywells were used to dispose of water containing solvents and oils from approximately 1941 to 1978.

Operable Units: The site is divided into two Operable Units. An operable unit represents a portion of the site remedy that for technical or administrative reasons can be addressed separately to eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination.

Operable Unit 1 (OU1) consists of the 94 acre site property. A Record of Decision (ROD) was issued for OU1 in March 1997.

Operable Unit 2 (OU2) is defined as the off-site area beyond the 94 acre property where contaminants in groundwater have migrated from the site (OU1). Eleven active public supply wells are located within OU2; nine drawing from the Magothy aquifer, and two drawing from the Lloyd aquifer. Four inactive public supply wells (Magothy) are located within OU2, as are six active irrigation wells.

Geology/Hydrogeology: The site and surrounding area is underlain by unconsolidated surficial deposits with an estimated 700 foot thickness, and Precambrian bedrock below. The unconsolidated deposits are comprised of the following formations from the ground surface downward: Upper Glacial deposits (150 ft); Magothy formation (250 ft); Raritan Upper Clay unit (200 ft); Raritan Lloyd Sand unit (190 ft) and bedrock.

The groundwater flow in the area has been divided into four zones: the Upper Glacial aquifer and the upper, middle, and basal portions of the Magothy aquifer. The depth to groundwater is approximately 100 feet below ground surface (bgs). Generally, the groundwater flow direction is north/northwest. However, pumping by several public supply/irrigation wells in the area affects the groundwater flow direction.

Operable Unit (OU) Number 1 is the subject of this document.

A Proposed Remedial Action Plan will be issued for OU2 for review concurrent with this proposed ROD amendment.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, the 1997 ROD determined the site could be developed for commercial use, which also would allow industrial use. The area of the site currently used for soccer fields will be designated for restricted residential, which will also allow for active recreational use.

SECTION 5: ENFORCEMENT STATUS

The NYSDEC and the Lockheed Martin Corporation entered into a Consent Order (W1-0787-96-12) on October 29, 1997. The order obligates the responsible party to develop and implement a remedial program in accordance with the Record of Decision for OU1.

SECTION 6: REMEDIAL ACTION OBJECTIVES

The goals selected for this Operable Unit are:

- Reduce, control or eliminate to the extent practicable the contamination present within the soils on the site.
- Provide for attainment of Standards, Criteria and Guidance (SCGs) for groundwater quality to the extent practicable.
- Mitigate the impacts of contaminated groundwater to the environment.
- Prevent to the extent possible, migration of contaminants from the sediments to the surface water and groundwater.

6.1: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

The groundwater contamination originates from the former plant site (OU1) and extends over one mile into the off-site area. Groundwater migration from OU1 has resulted in a significant off-site groundwater plume. The groundwater flow direction is to the northwest. The primary site-related contaminants of concern (COCs) for the groundwater include: 1,2 DCE, TCE, PCE, and Freon 113. The groundwater plume originating from the nearby 400 Lakeville Road site (Site No. 130176), known to contain Freon 22, also extends off that site and comingles with the Unisys site groundwater plume.

The OU1 groundwater remedial system is effectively containing on-site VOCs in the Upper Magothy aquifer and is to be upgraded to ensure containment in the Basal Magothy, by the OU2 remedy. Soil Vapor Intrusion on-site is being addressed with a mitigation system.

Resources impacted/threatened: The Long Island Sole Source Aquifer has been impacted with site-related contamination resulting in impacts to nearby Public Supply Wells and Golf Course Irrigation Wells. Several of these wells have treatment systems in place so the water supplied meets acceptable drinking water quality.

6.2: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

People are not drinking the contaminated groundwater because public water suppliers have taken appropriate actions (such as treating the groundwater to remove contaminants prior to distribution or removing wells from service) to ensure that the public water supply continues to meet drinking water standards (OU1/OU2). Potential exposure to contaminated groundwater via irrigation well usage to air (via volatilization) was evaluated and no impacts were identified (OU2). It is not likely that people will come into direct contact with soil contaminants because the majority of the site (OU1) is covered with buildings and pavement and contaminated soils have been removed from the drywells. Contaminated sediments found in three recharge basins (OU1) are covered with standing water and a fence surrounds the basins preventing unauthorized access. Signs are posted around the recharge basin area, indicating that trespassing, swimming and fishing are prohibited (OU1). Volatile organic compounds in contaminated groundwater or soil may move into the soil vapor (air spaces within the soil), which in turn, may move into overlying buildings and affect indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential for soil vapor intrusion to impact indoor air has been addressed in current on-site structures by the continued operations of sub-slab depressurization systems (active and passive) and a soil vapor extraction system. Based on environmental sampling, the potential exists for people to inhale site contaminants in indoor air due to soil vapor intrusion in any future on-site building development and occupancy (OU1). Environmental sampling indicates the indoor air quality of off-site structures is not impacted by site-related contamination (OU2).

SECTION 7: PROPOSED AMENDEMENT TO THE MARCH 1997 ROD

7.1: Elements of the Original OU1 Remedy Proposed to be Changed

The March 1997 ROD relative to the continued operation, maintenance and monitoring of the selected remedy stated that:

- Based on groundwater model, it is estimated that a total of five extraction wells will be operated across the site extracting approximately 1,800 gallons per minute (gpm).

- Pumping and water quality data will be monitored to determine the effects of the selected extraction system at all depths including the Magothy aquifer. After the selected remedy becomes operational it will be evaluated to determine if additional remedial alternatives for the lower Magothy aquifer need to be implemented. This alternative will be evaluated as part of the OU2 RI/FS;

- Over time, the selected remedial alternative would be evaluated by sampling both on-site and off-site monitoring wells to determine its ability to provide hydraulic control, to meet discharge standards and to reduce on-site groundwater concentrations to the remedial action objectives;

- A deed restriction will be imposed on the portions of the site where the recharge basins are located to limit access to the basins and restrict future use of the site; and

- A Declaration of Covenants and Restrictions will be filed with the Nassau County Clerk to prohibit modifications to the site without Department approval to prevent potential future development on the basin property.

This amendment proposes to delete these elements of the March 1997 ROD and replace them with comparable, updated requirements as detailed below.

7.2: New Information Forming the Basis for the Proposed Remedy Change

In 2003 Article 27 Title 13 of the Environmental Conservation Law (ECL) was amended to require the placement of an Environmental Easement on all class 2 inactive hazardous waste disposal sites that rely on institutional controls as part of the remedy selected for the site. Further, the promulgation of the 6 NYCCR Part 375 regulations necessitated by the change in ECL, redefined operation, maintenance and monitoring activities as Site Management and set forth requirements for a Site Management Plan as the mechanism for assuring the institutional and engineering controls for a site were in place and effective to support the restrictions on the site imposed by the Environmental Easement. These new requirements are effective for all RODs issued after the ECL changes in 2003. Since a ROD is expected for OU2 of this site which will require continued site management, the OU1 ROD needs to be amended to comport with these changes.

During design of the OU1 remedy, groundwater modeling identified a concern over the five extraction wells operating at 1,800 gpm and discharging the treated water on-site causing migration of the plume. The evaluation completed at that time and incorporated into the approved remedial design called for lowering the extraction rate to 730 gpm from on-site wells, with the discharge of the treated groundwater located northeast of the site in an area beyond the plume.

In addition, in accordance with the original ROD (first bullet above), the basal (lower) Magothy aquifer was evaluated to determine if additional remedial alternatives for the lower Magothy aquifer need to be implemented. This evaluation determined that an upgrade of the current 730 gpm OU1 groundwater remediation system was needed to improve groundwater capture from the basal (lower) Magothy aquifer to ensure complete capture. Therefore, as stated above, the OU2 proposed remedy will include the installation of a new 120 gpm extraction well to collect and treat an additional volume of groundwater bringing the total system up to 850 gpm. Thus this requirement of the OU1 ROD has been satisfied.

Due to heighten concerns over vapor intrusion at sites where remedies had been selected prior to 2003, the site was evaluated as part of the State's October 2006 Vapor Intrusion Legacy effort. This effort identified a vapor intrusion potential for the former manufacturing facility and has resulted in the installation of an active sub-slab depressurization system (SSDS) in two buildings, and a passive SSDS has been installed at one building. The presence of soil gas at the site also requires an environmental easement on the entire property to cover remaining open areas, if

redeveloped, in addition to current buildings. This addition to the OU1 ROD is documented by this amendment.

7.3: Proposed Changes to the Original OU1 Remedy

The following modifications are proposed by this amended Record of Decision in place of original ROD elements noted in section 7.1:

1. Modification to the original pumping rate of 1,800 gpm identified in the Original ROD based on the design evaluation. The current system was designed to operate at 730 gpm.

2. An active sub-slab depressurization system (SSDS) was installed at two buildings and a passive SSDS is in place for another building as a result of the October 2006 Vapor Intrusion Legacy effort.

3. Environmental Easement. Imposition of an institutional control in the form of an environmental easement for the controlled property that:
    a) requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
    b) allows the use and development of the controlled property for commercial use with the exception of the area of existing soccer fields for which the use is restricted residential (which allows for active recreation), as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
    c) restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;
    d) prohibits agriculture or vegetable gardens on the controlled property; and
    e) requires compliance with the Department approved Site Management Plan.

4. Site Management Plan. A site management plan is required, which includes the following:
    a) an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the institutional and/or engineering controls for all operable units of the site remain in place and effective.

       Institutional Controls: Environmental Easement discussed in Paragraph 3 above.

       Engineering Controls: Active sub-slab depressurization systems (SSDS) were installed at two buildings and a passive SSDS has been installed at another building on the site.

       This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;

- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- provisions for the management and inspection of the identified engineering controls;
- a provision for evaluation of the potential for soil vapor intrusion for any new buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b) a Monitoring Plan to assess the performance and effectiveness of all operable units of the remedy. The plan includes, but may not be limited to:
   - monitoring of the groundwater to assess the performance and effectiveness of the remedy;
   - monitoring of the groundwater at irrigation wells that are or that become impacted by site-related groundwater contamination; and
   - a schedule of monitoring and frequency of submittals to the Department.

c) an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
   - compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
   - maintaining site access controls and Department notification;
   - providing the Department access to the site and O&M records; and
   - an O&M Plan for the on demand treatment system at irrigation well (N-8038) owned by Village of Lake Success. This irrigation well is used when needed to supply additional water for golf course irrigation.

d) periodic certification - the remedial party or site owner must provide, on such periodic basis as established by the Department, certification of:
   - institutional and/or engineering controls in accordance with Part 375-1.8(h)(3);
   - compliance with the Public Water Supply Protection and Mitigation Program; and
   - compliance with the Department approved Site Management Plan.