# ENVIRONMENTAL ASSOCIATES, INC.

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April 30, 2003

ASSESSMENT SAMPLE

Client Name Client Company Client Address

Subject: PHASE I ENVIRONMENTAL ASSESSMENT

Dover Apartments 901 Sixth Avenue

Seattle, Washington 98104

#### Ladies and Gentlemen:

Environmental Associates, Inc., has completed a Phase I Environmental Assessment of the subject property located in King County, Washington 98104. This report, prepared in accordance with the terms of our proposal dated April 3, 2003 and in a manner consistent with the intent and methodologies of ASTM E 1527-00, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," summarizes our approach to the project along with results and conclusions.

The contents of this report are confidential and are intended solely for your use and the use of your representatives. Four (4) copies of this report are being distributed to you. No other distribution or discussion of this report will take place without your prior approval in writing. Additional copies are available for a small fee.

Within the context of the limitations of the attached report of which this letter is a part, no evidence was found in the public record or observed at the subject site to suggest that the subject property has been contaminated by dangerous, hazardous, or toxic substances as defined under ASTM, CERCLA, or applicable state and federal laws and regulations.

We reviewed the original building plans for the Dover Apartments in the microfiche library at Seattle Department of Design, Construction and Land Use. The original building plans show that an "OIL TANK" was "BURIED UNDERGROUND" at the northwest corner of the Dover Apartment building. We



did not locate documents indicating that this underground storage tank for heating oil (if installed) was ever removed. We did not observe a fill port or a vent tube in the area indicated on the building plans or at any other accessible location on the subject property. Shedding some light on this issue, Mr. Dimitrov, owner, informed us that the current natural gas fired boiler was installed in 1988 or 1989. The boiler which was replaced at that time was apparently actually supplied with fuel stored in two free-standing 250 to 500 gallon capacity tanks located in the boiler room in the building's sub-basement. Mr. Dimitrov removed these empty tanks in 1990 and they were sold for scrap metal.

A single non-CERCLA condition of potential environmental significance observed in the course of our site visit consisted of the presence of suspect asbestos containing building materials including vinyl flooring and plaster. We noted that the suspect asbestos containing building materials were in "good" condition according to AHERA guidelines. In the current use and good condition, these materials present no threat to public health or to the environment and no action would be required at this time under state, federal, or local laws or regulations.

Additional discussions along with common sense recommendations for future management are offered for your consideration in the Conclusions/Recommendations section of the attached report.

We appreciate the opportunity to be of service on this assignment. If you have any questions or if we may be of additional service, please do not hesitate to contact us.

Respectfully submitted, ENVIRONMENTAL ASSOCIATES, INC.

Don W. Spencer, M.Sc., P.G., R.E.A. Principal

EPA-Certified Asbestos Inspector/Management Planner I.D. # AM 48151

EPA/HUD Certified Lead Inspector (Licensed)

Registered Site Assessor/Licensed UST Supervisor State Certification #947458636

License: 604 (Washington)
License: 11464 (Oregon)
License: 876 (California)
License: 5195 (Illinois)
License: 0327 (Mississippi)

# PHASE "1" ENVIRONMENTAL ASSESSMENT

### Dover Apartments 901 Sixth Avenue Seattle, Washington 98104

Prepared for:

Client Name Client Address

Questions regarding this investigation, the conclusions reached and the recommendations given should be addressed to one of the following undersigned.

Wally Hurst Environmental Scientist EPA-Certified Building Inspector I.D. # J&J020930-BIR-02

Don W. Spencer, M.Sc., P.G., R.E.A. Principal

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Reference Job Number: ASSESSMENT SAMPLE April 30, 2003

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### METHODOLOGY/SCOPE OF WORK

Our study approach consisted of completing a series of investigative tasks intended to satisfy the level of effort often referred to as "due diligence" by the "innocent purchaser" in the context of the Superfund Amendment and Reauthorization Act of 1986 (SARA), and nearly identical requirements set forth in the Model Toxics Control Act (MTCA), Chapter 70.105 D (Section 040) RCW pertaining to standards of liability. The objective of a Phase I Assessment is to minimize potential future liability for environmental problems by demonstrating that at the time of acquisition or refinancing, the owner, buyer, or lender had no knowledge or reason to know that any hazardous substance had been released or disposed of on, in, or at the property.

In an effort to evaluate condition and previous uses of the property in a manner consistent with good commercial and customary practice and in general accordance with methods outlined under ASTM E 1527-00 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," our scope of work for this study included:

- Review of chronology of ownership and site history using the resources of the King County Assessor's Office, Washington State Archives, business directories from several time periods, and aerial photography from several time periods as primary resources. This included an attempt to identify possible former industries or uses presenting some potential for generating waste which may have included dangerous or hazardous substances as defined by state and federal laws and regulations.
- Acquisition and review of available reports and other documentation pertaining to the subject site or nearby sites.
- Review of Washington Department of Ecology (WDOE) and Seattle/King County Department of Public Health documents regarding current and abandoned landfills.
- Review of the current EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), the EPA National Priority List (NPL), the CERCLIS NFRAP (No Further Remediation Action Planned) List, the EPA Resource Conservation and Recovery Act (RCRA) Notifiers, RCRA Corrective Action Report (CORRACTS), and Emergency Response Notification System (ERNS) lists of sites which are potentially contaminated or which produce hazardous substances as a normal part of their commercial operation in the vicinity of the site.
- Review of the current Washington Department of Ecology (WDOE) listing of underground storage tanks (USTs) along with the WDOE's Leaking Underground Storage Tank (LUST) listing for WDOE-documented leaking USTs in the vicinity of the subject property.

- Review of the current WDOE Confirmed and Suspected Contaminated Sites (CSCS) list of
  potentially contaminated sites which have been the subject of hazardous waste investigation
  and/or cleanup activity in conjunction with the Washington Model Toxics Control Act
  (MTCA) Chapter 173-340 WAC.
- Risk evaluation for naturally occurring radon.
- A reconnaissance of the subject property (including buildings) and neighboring areas to look for evidence of potential contamination in the form of soil stains, odors, asbestos, lead-based paint (LBP), vegetation stress, discarded drums, discolored water, careless manufacturing or industrial practices, etc.
- Preparation of a summary report which documents the audit process and findings.

### **FINDINGS**

#### **GENERAL DESCRIPTION**

The subject property includes a rectangular parcel covering approximately 7,200 square feet of land. Improvements to the property include a five (5) story, masonry building enclosing approximately 39,378 square feet of space. The building was reportedly erected in 1907 although the building permit was issued in 1903. Additional improvements include sparse sidewalk landscaping on the south and east sides. Currently the property is unoccupied and under renovation. The approximate location of the site is shown on the Vicinity Map, Plate 1, and the Topographic Map, Plate 2, appended herewith.

The building is located in the downtown business core of Seattle, Washington. Photographs reflecting the character of the subject property are provided with this report as Plate 3.

A brief description of land use on nearby parcels is provided below. Plate 4, Site Plan, depicts the setting of the subject property and land use for adjacent sites. In this area of Seattle the streets are oriented at a 45° angle to the cardinal points of the compass. In order to simplify the descriptions in this report we have chosen to identify the location of the main entrance to the Dover Apartments on Sixth Avenue as the east side of the building.

**North:** The Madison Renaissance Hotel is adjacent to the north. Madison Street is farther north.

**South:** Marion Street forms the south boundary of the subject property. Bank of America

Fifth Avenue Plaza is across Marion Street.

**East:** Sixth Avenue is to the east. Interstate Highway 5 is farther east.

West: A T-shaped building is across a paved alley to the west. Tenants in this building

include ABC Legal Messengers and CDI Couriers.

According to the King County Department of Assessments, the subject property is zoned DOC1-450, a commercial designation.

#### **GEOLOGIC SETTING**

Physiographically, the site is situated on a gently rolling elevated plain which formed during the last period of continental glaciation that ended approximately 13,500 years ago. Published geologic maps for the site vicinity (Liesch, et al., 1963) suggest that much of the material underlying the subject site has been modified extensively by excavation, filling, or construction. Manmade processes have greatly modified or obscured the original geology. Materials which underlie the site may include imported fill material and glacial till (a dense, heterogeneous mixture of silt, sand, and gravel).

Topographically, the site slopes gently from the northeast toward the southwest approximately 213 feet above sea level. Based upon inference from topography and local drainage patterns, it appears that shallow-seated groundwater (if present) in the vicinity of the subject property may flow in a southwesterly direction.

Although no site specific information has been developed by our firm with respect to depth to groundwater at this site, our experience in the area suggests that "perched" groundwater (if present) beneath the site may lie at a depth of greater than 37 feet. Mr. Vassil Dimitrov, owner, reports that an elevator pit was drilled recently for a planned hydraulic elevator in the renovated Dover Apartments. The drillers reached a depth of 33 feet and did not encounter groundwater.

With respect to surface water resources, Elliott Bay of Puget Sound is located approximately one half of a mile to the southwest. Lake Union is approximately 1.5 miles to the north.

### **DEVELOPMENT HISTORY AND LAND USE**

Sources reviewed for information on site and area development and land use included the resources of the Bellevue Public Library, King County Assessor's Office, Washington State Archives, and aerial photographs of the subject property and surrounding area from several time periods.

Aerial photographs of the area were reviewed for the years 1936, 1946, 1956, 1960, 1969, 1974, 1977, 1980, 1985, 1990, 1992, 1995, and 1999. The following paragraphs provide an interpretive summary of our observations in each photo. The time intervals between the various historic aerial photographs selected for this particular project are, in our opinion, entirely adequate for the intended purpose which was to permit a general assessment of overall development and land use in the vicinity of the subject property.

- 1936 The Dover Apartment building occupies the subject property. Five buildings, which include the Hotel Burlington, two residences, an apartment building and a mixed use building, are to the north. Madison Street is farther north. Marion Street is adjacent to the south. A parking lots is across Marion Street. Sixth Avenue forms the east boundary of the subject property. Central School is across 6<sup>th</sup> Avenue. An alley separates the subject property from a parking lot to the west. Fifth Avenue is farther west. A gasoline station is located to the northwest. A gasoline station is located to the southwest across Marion Street.
- 1946 The subject property and the properties to the north, south, and east appear the same as in 1936. A gasoline station has been constructed to the west across the alley.
- The subject property and the properties to the north and south appear the same as in 1946. Central School has been torn down and the area to the east is in use as a parking lot. The gasoline station to the west has been removed and replaced by the office building now present.
- 1960 The subject property and the surrounding properties appear the same as in 1956.
- The subject property and the properties to the south and west appear the same as in 1960. Two of the buildings to the north have been removed. Interstate Highway 5 has been paved to the east across 6<sup>th</sup> Avenue. The gasoline station to the northwest has been replaced by the College Club building now present.
- 1974 The subject property and the surrounding properties appear the same as in 1969.
- 1977 The subject property and the surrounding properties appear the same as in 1974.
- 1980 The subject property properties to the east and west appear the same as in 1977. Two additional buildings have been removed from the property to the north. The parking lot to the south and the gasoline station to the southwest have been replaced by the Bank of America Fifth Avenue Plaza skyscraper.
- 1985 The subject property and the properties to the south, east, and west appear the same as in 1980. The remaining building adjacent to the north has been removed and the Madison Renaissance Hotel, a high rise building, has been constructed.

- 1990 The subject property and the surrounding properties appear the same as in 1985.
- 1992 The subject property and the surrounding properties appear the same as in 1990.
- 1995 The subject property and the surrounding properties appear the same as in 1992.
- 1999 The subject property and the surrounding properties appear the same as in 1995.

#### PROPERTY CONVEYANCE/OWNERSHIP DATA

From the file resources of the King County Assessor's Office, resources of the Bellevue Public Library, and the following limited history of ownership spanning a period of 66 years has been established:

INSTRUMENT	OWNER	DATE OF PURCHASE
Deed	The Dover Apartments, Inc.	7-26-94
unknown	Vassil and Iskra Dimitrov	circa 1990
Deed	James and Katherine Colee, Patrick and Diane Colee	4-26-79
QCD	Zenji, Eiko, Dean, Brian, and Karl Shibayama, Kimiko Momada	12-29-76
Deed	Zenji Shibayama	11-7-46
unknown	Harry Crosby	5-27-41
unknown	New York Life Insurance Company	7-27-37

According to resources available at the Bellevue Public Library, Washington State Archives, Seattle Department of Design, Construction and Land Use, and the King County Department of Assessments, a residence was constructed on the subject property prior to 1888. This residence was removed in 1903. A foundation permit and a construction permit for the Dover Apartments were issued in 1903. In 1904 a permit was issued to "erect partitions in apartments." We conclude that the apartment building was constructed in 1903-04, however, King County Department of Assessments documents give the construction date as 1907.

Original building plans show that an "OIL TANK" was "BURIED UNDERGROUND" at the northwest corner of the Dover Apartment building. We did not locate documents indicating that this underground storage tank for heating oil (if installed) was ever removed. We did not observe a fill port or vent tube in the area indicated on the building plans or at any other accessible location on the subject property. Mr. Dimitrov, owner, informed us that the current natural gas fired boiler was installed in 1988 or 1989. The boiler which was replaced at that time was apparently supplied with fuel stored in two 250 to 500 gallon capacity above-ground tanks located in the boiler room in the

building's sub-basement. Mr. Dimitrov removed these empty tanks in 1990 and they were sold for scrap metal. The microfiche copy of the original basement building plan provided to us by Seattle Department of Design, Construction and Land Use is barely legible. We enhanced the building outline, tank outline, and tank label. We have included this enhanced copy and other pertinent historic documents in Appendix B to this report. We reviewed Sanborn Fire Insurance Maps dated 1888, 1893, 1905, and 1916 updated to 1951.

In addition to historic documents, we have included a single sheet copy of a document entitled Compliance and LAC Conditions Record dated May 7, 1994, and provided to us by Mr. Dimitrov.

#### SITE RECONNAISSANCE

An environmental scientist/EPA-certified Asbestos Building Inspector from our firm visited the property on April 22, 2003 to review on-site conditions and land use practices in the surrounding area. Mr. Vassil Dimitrov, owner, provided access to the building and grounds. The representative areas reviewed during our site visit included the south, east, and west sides of the building, east entry, south entry, apartment units 107, 502, 404, 304, 305, 203, and 4, fifth floor electrical room, basement maintenance shop, basement laundry room, and sub-basement boiler room.

The subject property includes a 1903-04 vintage, five story, masonry building. The roof is flat and clad by a built-up roofing system. The property has sparse perimeter landscaping on the south and east sides. Currently the building is unoccupied and under renovation. Typical building materials and/or conditions observed during our site reconnaissance included:

- Floors are wood or concrete covered with carpet, 12 inch square vinyl tiles, 9 inch square vinyl tiles, sheet vinyl, or ceramic tiles.
- Interior walls throughout the building are painted sheetrock or painted plaster on lath.
- Ceilings are painted drywall or painted plaster.
- Incandescent and fluorescent light fixtures were noted throughout the building.
- A natural gas fired hot water boiler provides heating.
- Mr. Dimitrov informed us that rock wool insulation was blown in attic crawl spaces and walls in 1996..

According to Mr. Dimitrov, no hazardous waste is generated on the property. In addition, he stated that there are no above ground or underground fuel storage tanks on the property. Although archived documents suggest that an underground storage tank for heating oil may have been installed on the

northwest corner of the building, no obvious, visually discernable evidence to suggest the presence of underground fuel storage tanks (i.e., vent lines, filler caps, etc.) was noted on the property. Similarly, no water wells or groundwater monitoring wells were noted on the property. At the time of our visit, no stains, odors, or unusual vegetation conditions that might otherwise indicate the potential presence of hazardous materials were observed on the subject property.

#### **CHECK FOR PCB-CONTAINING MATERIALS**

Prior to 1979, polychlorinated biphenyls (PCBs) were widely used in electrical equipment such as transformers, capacitors, switches, fluorescent lights (ballasts) and voltage regulators owing to their excellent cooling properties. In 1976, the EPA initiated regulation of PCBs through issues pursuant to the Toxic Substances Control Act (TSCA). These regulations generally control the use, manufacturing, storage, documentation, and disposal of PCBs. EPA eventually banned PCB use in 1978, and adoption of amendments to TSCA under Public Law 94-469 in 1979 prohibited any further manufacturing of PCBs in the United States.

# Light Fixtures

Mr. Dimitrov informed us that the fluorescent light fixtures were installed in 1996 as part of a Seattle City Light energy savings program. We do not suspect that the fluorescent light fixtures installed in 1996 have ballasts with PCB content.

#### Main Service Electrical Transformers

No pad-mounted or pole-mounted electrical transformers were noted on the site.

#### CHECK FOR ASBESTOS-CONTAINING MATERIALS

During reconnaissance of the property, we observed building materials to assess the potential for the presence of asbestos-containing materials (ACM). During our site review, several types of material suspected to possibly contain asbestos were observed. These materials included 9 inch square vinyl floor tiles, 12 inch square vinyl floor tile, sheet vinyl flooring, and plaster. The suspect asbestos containing materials were noted to be in good condition. No destructive sampling was conducted at the time of our site visit.

Our effort regarding identification of asbestos-containing materials within the subject building was a preliminary review and not an asbestos survey. Since no destructive sampling was authorized for this audit, materials not readily accessible such as possible asbestos-containing roofing materials and/or materials obscured behind, beneath, or within walls or existing flooring materials were not reviewed.

#### **REVIEW FOR LEAD-BASED PAINT**

Lead was formerly a common additive to many paints to improve their durability and coverage. Lead-based paint presents a special hazard to small children, who can ingest it by chewing on painted woodwork or eating flakes of paint. A number of studies showing the toxic effects of lead on humans, and on small children in particular, prompted the Consumer Product Safety Commission to mandate in 1977 that the amount of lead in most paints, including those for residential use, should not exceed 0.06 %.

A review of interior painted surfaces on the subject property was conducted to assess the potential for lead-content in surface layers of paint. Representative painted surfaces including the newel post on the first floor east stairwell, north entrance trim, and entry door trim Unit 107 were analyzed using "Lead-Check" sodium rhodizonate color reagent paint tests. These tests provide a qualitative indication as to whether lead is present in paint samples with reproducible results to a lower detection limit of 0.5 percent, a level corresponding to a threshold of concern established by HUD. None of the surfaces tested using the "Lead Check" screening method showed a reddish hue response characteristic of the sodium rhodizonate method as an indication of the likely presence of lead in painted surfaces. On that basis, we conclude that no lead was present in the surfaces tested.

Mr. Dimitrov informed us that he completed lead based paint abatement of the building in about 1995. An impervious sealant was applied to all chewable surfaces within four feet of floor level.

#### **RADON EVALUATION**

#### **Occurrence**

Radon is a naturally occurring, highly mobile, chemically inert radioactive gas created through radioactive decay of uranium and thorium. The potential for occurrence of radon varies widely and is dependent upon (1) the concentration of radioactive materials in the underlying bedrock; (2) the relative permeability of soils with respect to gases; and (3) the amount of fracturing or faulting in surficial materials (EPA, 1987).

#### **Health Risks**

The concern regarding radon and its potential effects upon humans arises from the results of studies (EPA, 1987) which suggest that approximately fifteen percent of all lung cancer mortalities in the United States may be attributable to exposure to radon.

The EPA has established a concentration of radon of four (4) picocuries per liter (pCi/l) as a maximum permissible concentration "action level." Concentrations above this value would signal a potential health threat. According to some studies, an average concentration in homes across the United States is on the order of 1.4 pCi/l.

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> Risk of Potential Exposure in the Seattle Area

The Bonneville Power Administration (BPA) recently published the results of measurements for radon made in residences throughout the region they serve which includes Washington, Oregon and Idaho. For the Seattle area in the immediate vicinity of the subject property 134 tests have been performed. The average result was 0.51 pCi/l (BPA, 1993) well below the EPA threshold of concern. The highest result was 3.30 pCi/l.

On the basis of the findings presented in the cited BPA survey, we conclude that the potential for exposure to naturally occurring radon at the subject site is low.

#### WATER SUPPLY, WASTE WATER AND SOLID WASTE MANAGEMENT

Information supplied by the King County Department of Assessments revealed that the subject property has municipal water service and sanitary sewer service.

One large solid waste dumpster located on Sixth Avenue was noted near the northeast corner of the property. The dumpster, which is maintained by Waste Management, Inc., was relatively clean and free of overflowing debris at the time of our site reconnaissance. The dumpster contained construction and renovation debris.

#### **REVIEW OF WASHINGTON DOE LISTING OF UNDERGROUND STORAGE TANKS**

Review of the current Washington Department of Ecology listing of underground storage tanks (USTs) suggests that 27 facilities with registered USTs are located within a one-quarter mile radius of the subject property. The nearest UST facility to the subject property is College Club of Seattle located at 505 Madison Street. This location is to the northwest across the alley from the subject property. This location is in an inferred cross-gradient hydrologic direction. Information regarding these USTs and their status is provided in Appendix A.

According to the most recent WDOE Leaking Underground Storage Tank (LUST) listing, 35 listed tank facilities located within an approximately one-half mile radius of the subject property have reported accidental releases or leakage to the WDOE in the past. The nearest LUST site to the subject property is Saint Francis Xavier Cabrini High School, located at 920 Terry Avenue. This site is approximately one quarter of a mile to the northeast across the excavated Interstate Highway 5 in an up-gradient hydrologic direction. Information about the LUST sites is given in Appendix A.

Considering the substantial separation distances and cross-gradient or down-gradient hydrologic positions of the listed tank sites in relation to the subject property as positive risk-mitigating factors, it is our opinion that the potential for environmental impairment of the subject property from these off-site localities is very low. The approximate locations of the WDOE-documented underground storage tanks within a one-half mile radius of the subject property are indicated on the Vicinity Map attached to this report as Plate 1.

#### **EPA & STATE RECORDS OF POTENTIALLY HAZARDOUS SITES**

# Superfund and NPL

Review of the current EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), CERCLIS NFRAP (No Further Remediation Action Planned), List, and National Priority List (NPL) listings revealed no CERCLIS, no CERCLIS NFRAP, and no NPL sites within approximately one mile of the subject property that have been designated as potentially hazardous or eligible for participation in the Superfund cleanup program.

#### **CORRACTS**

Review of the current EPA Corrective Action Report (CORRACTS) listing revealed that no CORRACTS sites are located within approximately one mile of the subject property that have been designated as having a potential release at the property under RCRA.

#### **MTCA**

The Washington Department of Ecology hazardous waste cleanup and investigation program was launched in 1989 as a part of the Model Toxics Control Act (MTCA), Chapter 173-340 WAC, in order to evaluate potential and actual hazards at sites within the state. Of the more than 1,730 sites currently on the WDOE Confirmed and Suspected Contaminated Sites (CSCS) list, 33 are located within a one mile radius of the subject property. The nearest MTCA site to the subject property is Neves Property, located at 509 Minor Avenue. This site is approximately one half of a mile to the east in a cross-gradient hydrologic direction. See Appendix A for WDOE data base information about these sites.

Acknowledging the substantial separation distances and cross-gradient of down-gradient hydrologic positions of the listed MTCA sites in relation to the subject property as positive risk-mitigating factors, it is our opinion that the potential for environmental impairment of the subject property from these off-site localities is very low.

#### RCRA/FRS/ TSDs

Review of the EPA's Facility Index System (FRS) and RCRA Notifiers listing, revealed 47 sites within a one-quarter mile radius of the subject property which are regularly monitored by EPA/WDOE for the use or generation of small amounts of hazardous substances as a normal part of their business activities. The nearest RCRA listed facility to the subject property is the U.S. Courthouse Seattle located at 1010 Fifth Avenue. The U.S. Courthouse is located approximately 300 feet to the north in a cross-gradient hydrologic direction. Neither the subject property nor any adjacent property appears on this list. The sites located within a one-quarter mile radius of the subject site are listed in Appendix A.

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We also reviewed the EPA's Treatment, Storage and Disposal (TSD) facilities listing for sites that treat, store, or dispose of potentially hazardous materials. Review of the TSD listing revealed that no TSD sites are located within a one mile radius of the subject property.

Businesses named in the FRS listing are users or generators of potentially hazardous or toxic materials as a <u>normal</u> aspect of their business practices. Listed businesses are required to closely monitor and report their use or generation of such materials to the EPA.

Based upon this information, upon the monitoring and reporting requirements imposed by the EPA, and upon the presumption that the above-mentioned user/generators exercise prudence in management of these materials to minimize liability and EPA penalties, it is our opinion that the potential for environmental impairment of the subject property from these off-site localities is very low.

**ERNS** 

Review of the EPA's Emergency Response Notification Systems (ERNS) list for the State of Washington revealed that the subject site has not reported a spill. This list has been compiled with periodic updates since October 1987.

#### **LANDFILLS**

A review of WDOE and King County Health Department documents regarding current and abandoned landfills revealed that there are no documented landfills located within a mile radius of the subject property.

## CONCLUSIONS/RECOMMENDATIONS

As discussed briefly in the executive summary offered in the cover letter to this report, at the time of this study there was no evidence in the public record or observed at the subject site to suggest that the subject property has been contaminated by dangerous, hazardous, or toxic substances as defined under ASTM, CERCLA, or applicable state and federal laws and regulations.

Historic documents indicate that original plans called for installation of an underground heating oil storage tank at the northwest corner of the subject building, however no evidence to suggest the presence of such a tank was observed during our site reconnaissance. A single non-CERCLA condition of potential environmental significance identified during our site visit was the presence of certain building materials suspected to possibly contain asbestos. Additional discussions of these topics are offered in the following individual sections.

#### FORMER USE OF HEATING OIL

As discussed earlier in the report, archived building plans indicate the original intent to install an "OIL TANK BURIED UNDERGROUND" at the northwest corner of the Dover Apartment building. We did not locate documents indicating that this underground storage tank for heating oil (if installed) was ever actually installed <u>or</u> removed. We did not observe a fill port or vent tube (features commonly associated with underground tanks) in the area indicated on the building plans or at any other accessible location on the subject property. Mr. Dimitrov, owner, informed us that the current natural gas fired boiler was installed in 1988 or 1989. The boiler which was replaced at that time was apparently supplied with fuel stored in two 250 to 500 gallon capacity tanks located in the boiler room in the building's sub-basement. Mr. Dimitrov removed these empty tanks in 1990 and they were sold for scrap metal. Whether or not the tanks described by Mr. Dimitrov were preceded by some sort of underground tank as suggested by the archive drawings (Appendix B) could not be resolved by review of the public record or by physical visual site observation.

Our research of WDOE, Seattle Department of Design, Construction and Land Use, fire marshal, and/or other readily available/reasonably ascertainable resources revealed no additional information regarding the fate of the heating oil tank. In light of our work in this regard, we do not believe that additional paper research would provide useful additional information.

Based upon our experience on a number of similar sites, residential heating oil tanks are generally not the source of large-scale contamination problems, however the presence of relatively small volumes of soil proximal to such tanks containing residual concentrations of petroleum hydrocarbons exceeding state guidelines is not uncommon. However, since the possible location of the UST for heating oil is in the alley on City of Seattle property, it may be prudent to consider conducting magnetometer, ground-penetrating radar (GPR) or other geophysical survey, to determine whether or not such a tank is present. If a tank is located by these methods, limited subsurface sampling and testing could be conducted to assess environmental quality of subsurface soils proximal to such a tank. Decision-making authority with respect to acceptance of the approach outlined above or other approaches clearly lies with the owner, lender, or other involved parties, depending upon their individual risk tolerances.

### **ASBESTOS**

Borrowing evaluation criteria adopted under the Asbestos Health Emergency Response Act (AHERA, 40 CFR Part 763), the suspected asbestos containing building materials are in "good" condition. In the current use and condition, the material poses no threat to public health or to the environment. No action would be required at this time under current state or federal regulations.

To reduce exposure to potential future liability, it may be prudent to consider implementation of a management policy whereby all maintenance, repair, or service personnel who may be engaged to work on the property are formally advised (i.e., signed acknowledgment) as to the confirmed presence of asbestos-containing materials (ACM) prior to commencement of any work associated with the ACM.

Should the owner intend to renovate, demolish, remodel, or repair any or all portions of the structure containing asbestos, please note that applicable sections of WAC 296-65 require that all projects relating to construction, demolition, repair, or maintenance where release or likely release of asbestos fibers into the air could occur must be performed by "certified asbestos workers." Additional information may be obtained through the offices of Environmental Associates, Inc., or directly from the Washington State Department of Labor and Industries, P.O. Box 207, Olympia, Washington 98504.

#### LIMITATIONS

This report has been prepared for the exclusive use of client's name. and their several representatives for specific application to this site. Our work for this project was conducted in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our proposal dated April 3, 2003. The condition of subsurface soil and/or groundwater cannot typically be determined by visual examination of surficial conditions such as those afforded by a Phase I Assessment such as performed here. Acknowledging that limitation, no warranty in that regard is made. No other warranty, expressed or implied, is made. If new information is developed in future site work which may include excavations, borings, studies, etc., Environmental Associates, Inc., must be retained to reevaluate the conclusions of this report and to provide amendments as required.

The level of effort regarding identification of potential ACM should be considered a reconnaissance, should not be confused with an asbestos survey, and should not be used as a sole informational resource for removal, construction, or abatement bidding purposes.

#### REFERENCES

#### **GENERAL**

- Bonneville Power Administration (BPA), January 1993, Radon Monitoring Results from BPA's Residential Conservation Program, Report No. 15, (with April 1993 Map).
- Environmental Protection Agency (EPA), September 1987, Radon Reference Manual EPA 520/1-87-20.
- Liesch, B.A., Price, C.E., and Walters, K.L., 1963, Geology and Groundwater Resources of Northwestern King County, Washington. Water Supply Bulletin No. 20, 58 pps., 3 plates, 9 tables, 9 figures.

Thomas Brothers Map Co., 2000, The Thomas Guide: Metropolitan Puget Sound.

U.S. Geological Survey, 1983, Seattle South, Washington 1:25,000 Quadrangle. 1 sheet.

#### **DATABASE**

The following table lists the various governmental database resources reviewed for this project, the ASTM search radius, the search radius for this project, and the date that the agency produced the listing. The 1984 date for the county landfill list should not be construed by the report user or reviewers as out-of-date. It is simply the last date of issuance of the list selected by the county government, ASTM not withstanding.

DATABASE RESOURCE INFORMATION							
Database	Source	Search Radiu ASTM	s (miles) EAI	Last Update	List Date		
NPL	U.S. EPA	1.0	1.0	June 11, 1999	June 11, 1999		
CERCLIS	U.S. EPA	0.5	1.0	June 3, 1999	June 3, 1999		
CORRACTS	U.S. EPA	1.0	1.0	August 8, 2000	August 14, 2000		
C&SCS	WDOE	1.0	1.0	December 31, 2002	January 27, 2003		
UST	WDOE	Site & adjacent	0.5	December 31, 2002	January 27, 2003		
LUST	WDOE	0.5	0.5	December 31, 2002	January 27, 2003		
State Landfill	WDOE	0.5	1.0	June 13, 1996	September 3, 1996		
County Landfill (closed)	King County	0.5	1.0	July 30, 1984	July 30, 1984		
RCRIS/FINDS <sup>1</sup>	U.S. EPA	Site & adjacent	0.5	August 8, 2000	August 14, 2000		
RCRIS/Notifiers	U.S. EPA	Site & adjacent	0.5	March 2, 2001	August 8, 2001		
RCRA TSD	U.S. EPA	0.5	1.0	August 8, 2000	August 14, 2000		
ERNS	U.S. EPA	Site only	Site only	Current	Current		

<sup>1 -</sup> The RCRIS/FINDS listing provided by the EPA Region X includes the following databases: RCRIS Large Quantity Generators; RCRIS Small Quantity Generator, Permit Compliance System (PCS); Airs Facility System (AIRS/AFS); Section Seven Tracking System (SSTS); National Compliance Database (NCDB); Enforcement Docket System (DOCKET); Contractor Listing (CONTR LIST); Criminal Docket (CRIM DOCKE); Federal Facility Information System (FFIS); Chemicals in Commerce Information System (CICIS); State Systems (STATE); PCB Activity Handler Activity Data System (PADS); Toxic Chemical Releæe Inventory System (TRIS), and; Dunn & Bradstreet (DUNS).

# APPENDIX A

**EPA And WDOE Data Base Lists** 

#### **APPENDIX B**

Regulatory & Historic Documents

#### **APPENDIX C**

**AHERA Certification Documents**