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Hanford Site Asbestos Abatement Plan

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HANFORD SITE ASBESTOS ABATEMENT PLAN

ABSTRACT

The Hanford Site Asbestos Abatement Plan (Plan) lists priorities for asbestos abatement activities to be conducted in Hanford Site facilities. The Plan is based on asbestos assessment information gathered in fiscal year 1989 that evaluated all Hanford Site facilities for the presence and condition of asbestos. Of those facilities evaluated, 414 contain asbestos-containing materials and are classified according to the potential risk of asbestos exposure to building personnel. The Plan requires that asbestos condition update reports be prepared for all affected facilities. The reporting is completed by the asbestos coordinator for each of the 414 affected facilities and transmitted to the Plan manager annually. The Plan manager uses this information to reprioritize future project lists. Currently, five facilities are determined to be Class A1, indicating a high potential for asbestos exposure. Class A1 and B1 facilities are the highest priority for asbestos abatement. Abatement of the Class A1 and B1 facilities is scheduled through fiscal year 1997. Removal of asbestos in B1 facilities will reduce the risk for further Class "A" conditions to arise.

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EXECUTIVE SUMMARY

In the past, each U.S. Department of Energy (DOE), Richland Operations Office (RL) contractor worked independently, obtaining funding and undertaking asbestos work activities only in facilities under its control. This was effective in some cases, but may not have been consistent with DOE's priority of performing abatement on facilities that presented the greatest potential health risk to building personnel. The *Hanford Site Asbestos Abatement Plan* (Plan) uses asbestos information gathered from all Hanford Site facilities, regardless of contractor, to establish priorities for asbestos abatement based on potential health risks to personnel.

The Plan is intended to provide guidelines for asbestos abatement management to ensure that the Hanford Site remains in compliance with regulatory statutes governing the control of asbestos and to minimize asbestos exposure to onsite personnel and the general public. Abatement activities are currently conducted as part of an ongoing Operations and Maintenance program or a specific project. Funding has not been available to support or sustain abatement work beyond an Operations and Maintenance activity level. This revision will allow the Plan manager to reprioritize facilities for future abatement work. Based on facility assessment standards detailed in Section 6.4, this Plan revision (WHC-EP-0390, Rev. 1) will go into effect in fiscal year (FY) 1994 (October 1993).

The Plan identifies asbestos abatement needs in the various Hanford Site facilities managed for RL by Westinghouse Hanford Company (Westinghouse Hanford), Pacific Northwest Laboratory (PNL)*, and Kaiser Engineers Hanford (KEH). In addition, the Plan prioritizes future abatement activities and provides a basis for facility management to request asbestos abatement funding accordingly.

Approximately 1,400 facilities exist on the Hanford Site; Westinghouse Hanford operates 1,240, PNL operates 100, and KEH operates 60. Of these 1,400 facilities, 414 were found to contain asbestos of various types, conditions, and quantities. These 414 facilities include facilities operated by each of the major Hanford Site contractors.

The 414 facilities determined to contain asbestos were evaluated by using criteria developed in calendar year (CY) 1993 and outlined in Section 6.4. Each facility was assigned a classification based on exposure risk. Three principal considerations were used to assign risk classifications:

1. Occupancy level
2. Accessibility to asbestos-containing material (ACM)
3. Type and condition of ACM.

Of the 414 facilities, 5 (-1%) present the greatest potential risk resulting from the presence of damaged friable asbestos that could be distributed to building occupants via heating, ventilation, and air conditioning units. These 5 facilities are categorized as facility Class A1.

*Operated for the DOE by Battelle Memorial Institute.

Asbestos abatement in the Class A1 facilities will cost approximately \$1.0 million.

The 136 Class B facilities (33%) present a moderate risk. The remaining 273 Class C facilities (66%) contain ACM, but pose little exposure risk to personnel.

Facilities were excluded from this Plan for any of the following reasons.

- The facility had no ACM.
- ACM were not identified or suspected during initial facility assessment.
- The facility was radiologically contaminated.
- The facility was overlooked during initial building assessments.

The assessment data initially gathered does not address radiologically contaminated asbestos materials located within radiation zones. In general, these areas are occupied infrequently and often require personal protective equipment. It was determined that the most efficient way to approach major Hanford Site asbestos abatement projects is through abatement actions of nonradioactively contaminated asbestos. Areas within a radiation zone (a zone requiring personal protective equipment) will be corrected or controlled on a case-by-case basis. Asbestos may be removed in radiologically controlled areas if contamination levels warrant practical abatement.

The concept of an integrated Hanford Site asbestos abatement plan began in early 1989. Westinghouse Hanford identified several goals, including inspecting facilities in FY 1989 and developing a program plan in CY 1990. The asbestos inventory of Westinghouse Hanford facilities was completed in FY 1989, but asbestos information was required from PNL and KEH to integrate a Hanford Site plan. The Westinghouse Hanford inventory involved an initial walkthrough of facilities by U.S. Environmental Protection Agency (EPA) accredited building inspectors and trained asbestos personnel under their direction. Facilities that contained asbestos or suspect ACM were noted.

Following completion of the inventory, Facility-specific assessments were conducted. These assessments documented the asbestos condition, type of asbestos, building occupancy, and accessibility of the ACM to building occupants. This information, along with the assessment information from the KEH and PNL facilities, was needed to ultimately provide a facility prioritization for future asbestos abatement work.

The asbestos assessments were performed on the RL facilities during CY 1990. Westinghouse Hanford contacted and interfaced with PNL and KEH and, with their support, have produced this integrated Plan. This revision of the Plan provides annual reporting of current asbestos conditions to the Hanford Site abatement manager for each of the 414 affected facilities. Facility abatement reprioritization will be based on this report.

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LIST OF TERMS

ACM	Asbestos-containing material
ADS	Activity data sheets
AHERA	Asbestos Hazards Emergency Response Act
ASHARA	Asbestos Schools Hazard Abatement Reauthorization Act
BFWWCAPCA	Benton, Franklin, Walla Walla County Air Pollution Control Authority
CFR	<i>Code of Federal Regulations</i>
CY	Calendar Year
DF	Damaged friable
DNF	Damaged nonfriable
DOE	U.S. Department of Energy
EM	U.S. Department of Energy Office of Environmental Restoration and Waste Management
EPA	U.S. Environmental Protection Agency
FY	Fiscal year
HVAC	Heating, ventilation, and air conditioning
HEHF	Hanford Environmental Health Foundation
KEH	Kaiser Engineers Hanford
MTA	Maintenance traffic area
ND	Nondamaged
NDF	Nondamaged friable
NESHAP	National Emission Standard for Hazardous Air Pollutants
NF	Nonfriable
O&M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
OTA	Occupant traffic area
Plan	Hanford Site Asbestos Abatement Plan
PNL	Pacific Northwest Laboratory
RL	U.S. Department of Energy, Richland Operations Office
TSCA	<i>Toxic Substances Control Act of 1976</i>
TSI	Thermal Systems Insulation
WAC	<i>Washington Administrative Code</i>
Westinghouse Hanford	Westinghouse Hanford Company
WISHA	<i>Washington Industrial Safety and Health Act</i>

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DEFINITIONS

Accredited Abatement Project Designer. Person trained to perform abatement project design in accordance with the *Toxic Substances Control Act* (40 CFR 700-799).

Accredited Inspector. Person trained to perform asbestos inspections in accordance with the *Toxic Substances Control Act* (40 CFR 700-799).

Asbestos-Containing Material (ACM). Material containing greater than or equal to 1% asbestos by weight or volume.

Damaged Friable (DF) ACM. Friable ACM that has deteriorated or sustained physical damage.

Friable Asbestos-Containing Materials. Dry ACM that can be crumbled, pulverized, or reduced to powder by hand pressure.

Maintenance Traffic Area (MTA). An area occupied two times monthly or more that is designed to encompass systems or equipment (e.g., pipe galleries, mechanical rooms, tunnels, storage spaces, tank farms).

Nonoccupied Area. An area where personnel enter less than twice monthly.

Nondamaged Friable (NDF) ACM. Friable ACM that has not deteriorated or sustained physical damage.

Occupant Traffic Area (OTA). An area that is occupied daily and is designed to be, or is being, inhabited as living space (e.g., offices, lunchrooms, shops, change rooms, administrative space).

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HANFORD SITE ASBESTOS ABATEMENT PLAN

1.0 INTRODUCTION

1.1 HISTORY OF ASBESTOS USE

Prominent use of asbestos materials in the United States began in the early 1930's. Initially, because of its heat retention and shielding properties, asbestos was used in steam equipment applications. Many more useful products were developed during the 1940s as more of the extraordinary properties of asbestos became known. Heavy use of asbestos in construction of facilities was common from 1940 to 1970. Construction uses included, but were not limited to, sprayed insulation, wrapped insulation, decorations, wall and ceiling panels, vinyl asbestos tile, glues, and cements.

The harmful effects of asbestos exposure emerged after a latency period of approximately 30 years after the introduction of asbestos to the marketplace. Realization of the harmful effects has resulted in a host of regulations to control exposure to asbestos fibers.

1.2 HISTORY OF ASBESTOS USE AT THE HANFORD SITE

The Hanford Site was established in the early 1940s to produce plutonium for nuclear weapons. Many primary and ancillary facilities supporting that mission were constructed of asbestos-containing materials (ACM) such as thermal insulation, cement-asbestos board siding, vinyl floor tile, and gasket material. Today, most facilities on the Hanford Site still contain the originally installed asbestos and asbestos from early repairs.

The Hanford Site contains approximately 1,400 facilities, located in seven areas. All of the areas contain facilities with asbestos, but asbestos is more prevalent in the 100 and 200 Areas. These areas are home to the 1940s-era production reactors, chemical processing plants, and auxiliary facilities. The 100 and 200 Area facilities also represent the largest part of Operations and Maintenance (O&M) asbestos abatement currently underway.

This study identifies 414 facilities having ACM. These facilities are classified according to the method described in Section 6.4. Five facilities are considered "Class A1," indicating the highest potential of exposure to asbestos fibers to facility occupants.

1.3 ASBESTOS REGULATIONS

The *Clean Air Act of 1970* established the U.S. Environmental Protection Agency (EPA) and gave the EPA the authority to establish minimum air quality and regulatory goals. The *Clean Air Act of 1970* also provided for State and local government involvement.

Section 112 of the *Clean Air Act of 1970*, Title 40, *Code of Federal Regulations* (CFR), Part 61, "National Emission Standard for Hazardous Air Pollutants" (NESHAP), established emission standards for hazardous pollutants. In 1973, asbestos standards were added under Section 112. The new standards applied to both existing and new asbestos sources (40 CFR 61).

In 1990, NESHAP was updated in 40 CFR 61, Subpart M. Reporting of asbestos-related projects to the local air pollution authority is required for Hanford Site projects by this standard.

In 1970, the United States Congress formed the Occupational Safety and Health Administration (OSHA) to establish and enforce health and safety regulations in the workplace. In 1986, OSHA promulgated 29 CFR Part 1926 Subpart D, "Occupational Health & Environmental Controls" (29 CFR 1926), defining final asbestos standards for general industry and construction. Compliance with OSHA regulations on the Hanford Site is required by U.S. Department of Energy (DOE) Order 5480.4, *Environmental Protection, Safety, and Health Protection Standards* (DOE 1984).

In July 1990, OSHA general industry standards were amended in 29 CFR, Part 1910.1001 (29 CFR 1910) and are applicable on the Hanford Site in maintenance situations. OSHA construction standards for asbestos work, 29 CFR 1926.58, govern asbestos projects on the Hanford Site dealing with construction forces (29 CFR 1926).

In addition, OSHA allows the States to implement safety and health programs comparable to the Federal program. The State of Washington asbestos regulations are governed by *Washington Administrative Code* (WAC) "Asbestos, Tremolite, Anthophyllite, and Actinolite" (WAC 296-62-077) and "Asbestos Removal and Encapsulation" (WAC 296-65). Compliance with the WAC regulations on the Hanford Site is required by DOE Order 5480.4 (DOE 1984), and by DOE-RL Order RLIP 5480.10, *Industrial Hygiene Program* (DOE-RL 1990). These regulations are enforced in accordance with the *Washington Industrial Safety and Health Act* (WISHA) and administered by the Washington State Department of Labor and Industries (WAC 296-155).

In January 1990, the Benton, Franklin, Walla Walla County Air Pollution Control Authority (BFWWCAPCA), a local agency representing Benton, Franklin, and Walla Walla counties, promulgated regulations regarding the removal and encapsulation of asbestos materials. The BFWWCAPCA regulation, Article 10, *Removal and Encapsulation of Asbestos Material*, outlines the local agency's guideline for implementing NESHAP (BFWWCAPCA 1990).

Specific training requirements for persons inspecting, designing, and carrying out response actions with respect to friable ACM are required. The requirements are described in the *Toxic Substance Control Act of 1976* (TSCA), Section 206, the "Asbestos Hazards Emergency Response Act of 1986 (AHERA)," and the "Asbestos Schools Hazard Abatement Reauthorization Act of 1990" (ASHARA).

Figure 1 shows a historical perspective of the regulations and cognizant agencies involved in asbestos control.

Figure 1. Historical Perspective of Asbestos Regulation.

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2.0 SCOPE

The *Hanford Site Asbestos Abatement Plan* (Plan) provides an organized, systematic, and consistent approach to managing asbestos conditions in facilities owned by the DOE at the Hanford Site. The Plan requires RL contractor participants to comply with applicable Federal, State, and local regulations in performing asbestos abatement work activities.

The Plan provides for integrated involvement with RL contractors and includes the following:

- List of facilities containing asbestos
- Facility classification based on risk to personnel from asbestos exposure
- Current priority lists for abatement work
- Annual facility condition update reporting used to update fiscal year (FY) priorities.

Implementation of this Plan will provide better management of asbestos-related work on the Hanford Site as well as tracking and reporting progress on specific asbestos abatement projects.

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3.0 ASBESTOS-CONTAINING MATERIALS

ACM may be either friable or nonfriable (NF). Friable ACM is, in general, any ACM material that can be crumbled or reduced to fibers or powder form by hand pressure. Friable ACM creates the greatest health concern because it can release asbestos fibers into the air when damaged.

The presence of ACM in a facility does not necessarily mean that there will be an exposure to personnel. For personnel to be exposed, the ACM must be accessible and damaged, released where personnel are located, or carried to occupied spaces via airflow or vibration.

ACM used in building construction are grouped into three categories:

1. Surfacing Materials--sprayed or troweled on surfaces (e.g., walls, ceilings, or structural members) for acoustical, decorative, or fire-proofing purposes, surfacing ACM includes plaster and fire-proofing insulation.
2. Thermal System Insulation--used to inhibit heat transfer or prevent condensation on pipes, boilers, tanks, ducts, and various other components on hot and cold water systems and heating, ventilation, and air conditioning (HVAC) systems, thermal system insulation includes pipe lagging, pipe wrap; block, batt, and blanket insulation; cements, muds, block or brick mortar; and a variety of other products such as gaskets and ropes.
3. Miscellaneous Materials--floor tile, ceiling tile, roofing felt, concrete pipe, outdoor cement-asbestos board siding, and fabrics are examples of other, largely NF products.

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4.0 ASBESTOS ABATEMENT METHODS

The four principal asbestos abatement methods are detailed below. All methods require detailed inspection and abatement project design, worker protection, containment, and post-abatement cleanup. Regardless of the method, worker protection is strictly enforced. All asbestos workers wear protective equipment, receive required training, and follow approved work procedures. Project work packages and historical documents are archived in accordance with regulatory standards and can be referenced for up to 75 years.

4.1 OPERATIONS AND MAINTENANCE PROGRAM

This method is the primary method of asbestos control used on the Hanford Site. The O&M program accomplishes the following:

- Provides required training to personnel [in accordance with 29 CFR 1910.1001(j)(5)(i) through (iv)]
- Cleans up previously contaminated asbestos areas
- Prevents future release by minimizing disturbance or damage of ACM
- Repairs damaged asbestos
- Monitors the condition of the ACM
- Reports ACM conditions to the Plan manager.

The O&M program will most likely have the lowest initial cost of any of the abatement alternatives. However, because the O&M costs are ongoing until the ACM is removed, it may be more expensive than immediate removal in some cases.

4.2 ENCAPSULATION

Encapsulation involves the application of a sealant to control the release of asbestos fibers into the air. The sealant is applied by a low-pressure airless sprayer or by brushing or rolling. The sealant penetrates the ACM for added cohesion or provides a protective coating over the effected surface.

Encapsulation is generally considered an inexpensive approach. It is effective if applied properly and enhances the O&M program described in Section 4.1. Unfortunately, the sealant applied under this abatement method can make the eventual removal of ACM more difficult and costly.

4.3 ENCLOSURE

There are two types of enclosure. The first type involves the construction of walls and ceilings around the friable asbestos. The walls and

ceilings are attached to the building structure and prevent the release of asbestos fibers. The second type of enclosure involves the spraying of a sealant over the ACM. This is often referred to as an encasement system because the ACM is encased behind a hard surface. In either type of enclosure, the enclosed area must be posted to notify individuals that there is friable ACM behind the enclosure.

The initial cost of the enclosure method is typically more than the encapsulation method but lower than removal. Enclosure is a quick and temporary abatement action. However, if asbestos is to be removed at a later date, the costs of removing the enclosure materials for access to the asbestos add to the actual asbestos removal costs.

4.4 REMOVAL

Removal involves physically taking the ACM out of the facility or stripping ACM from mechanical and electrical components and disposing of the waste.

Removal is permanent and it eliminates future potential exposures to building occupants. While removal typically has the highest initial cost of all abatement methods, it can be cost effective if the facility is to be maintained for an extended time.

Once removal is complete, replacement products (e.g., fiberglass and calcium silicate) are installed to restore insulative properties lost by removal of the asbestos product.

5.0 DISPOSAL OF ASBESTOS-CONTAINING MATERIAL

All nonradiological friable ACM removed from Hanford Site facilities are placed in specially designated trenches at the Hanford Central Solid Waste Landfill. The Hanford Site landfill is an active waste disposal site and meets Federal EPA guidelines, Part 61, NESHAP, Subpart M, paragraph 61.156 (40 CFR 61).

Like nonradiological friable ACM waste, all nonradiological NF ACM waste are disposed of in the Central Landfill asbestos trenches. This is not a regulatory requirement and is considered a "best management practice" because it consolidates ACM in one area.

ACM that is contaminated by radiological or hazardous materials is not regulated under Part 61, NESHAP, Subpart M. Specific regulatory requirements that exist for dealing with these contaminated wastes are not addressed in this Plan, but rather are considered on a case-by-case basis.

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6.0 ASBESTOS ABATEMENT PROGRAM FEATURES

6.1 OPERATIONS AND MAINTENANCE

O&M is an ongoing process of asbestos control. This activity is divided into three subactivities:

1. Preventative Maintenance--identifies deterioration or the need for corrective maintenance through routine, periodic inspection of the ACM.
2. Corrective Maintenance--includes regularly scheduled maintenance and repair or removal of asbestos.
3. Priority Corrective Maintenance--expedites corrective maintenance for damaged friable asbestos to ensure encapsulation, as a minimum, when conditions warrant because of damage or deterioration in a high-traffic area.

Maintenance activities that involve asbestos are controlled by job control work packages. This system informs maintenance personnel of the requirements before the start of work. Although each RL contractor may have a unique method for performing asbestos maintenance, all must comply with regulatory (Federal, State, and local) requirements.

6.2 ASBESTOS INVENTORY HISTORY

In FY 1989, an asbestos inventory was completed for all facilities at the Hanford Site. The Westinghouse Hanford Company (Westinghouse Hanford), Pacific Northwest Laboratory (PNL), and Kaiser Engineers Hanford (KEH) inspected their respective facilities and prepared pertinent facility information on the location of ACM. The type of asbestos application was noted. The inventory provided a conservative overview of ACM presence in RL facilities but did not include sampling to verify material composition. Suspect materials (e.g., insulation, gasketing material, floor tile, or wallboard) were assumed to contain asbestos.

6.3 ASBESTOS ASSESSMENT HISTORY

After the inventory was complete, the condition of asbestos in the facilities was assessed. The assessment considered the degree of damage or deterioration to the ACM. Disturbed or deteriorated ACM most likely reflects a past or present release of asbestos fibers. Therefore, the probability of future releases of asbestos fibers is related to the location and physical condition of the asbestos in the facility, as well as the proximity of the asbestos to building occupants and to sources of vibration or degradation from airflow.

*Operated for DOE by Battelle Memorial Institute.

6.4 EVALUATION AND CLASSIFICATION

The results of the asbestos assessment were evaluated, and Hanford Site facilities were classified based on potential exposure risk to personnel. As noted in Section 3.0, for ACM to pose an exposure risk, the ACM must be accessible and damaged, released where personnel are located, or carried to occupied spaces of the building via HVAC airflow. Asbestos abatement priorities can be identified by evaluating the facility classifications.

The classifications are defined as follows.

Class A1

- Building occupants are present in occupant traffic area (OTA) or maintenance traffic area (MTA).
- Damaged friable (DF) ACM is present.
- DF ACM is accessible to building occupants by direct contact or via HVAC. [DF ACM in HVAC/nonoccupied area constitutes A1 classification if HVAC is in service.]

ABATEMENT ACTION: Remove all DF ACM.

Class A2

- Building occupants are present in OTA or MTA.
- DF ACM is present.
- DF ACM is not accessible to building occupants by direct contact or via HVAC.

ABATEMENT ACTION: Remove, repair, or encapsulate DF ACM as appropriate.

CLASS B1

- Building occupants are present in OTA.
- Nondamaged friable (NDF) ACM is present.
- NDF ACM is accessible to building occupants by direct contact and is not being distributed via HVAC.

ABATEMENT ACTION: Remove all NDF ACM.

CLASS B2

- Building occupants are present in MTA.
- NDF ACM is present.
- NDF ACM is accessible to building occupants by direct contact and is not being distributed via HVAC.

ABATEMENT ACTION: Remove or encapsulate all NDF ACM.

CLASS B3

- Building occupants are present in OTA or MTA.
- NDF ACM is present.
- NDF ACM is not accessible to building occupants by direct contact or via HVAC.

ABATEMENT ACTION: Remove or encapsulate all NDF ACM.

CLASS C1

- Building occupants are present in OTA or MTA.
- Damaged nonfriable (DNF) ACM is present.
- DNF ACM is accessible or inaccessible to building occupants by direct contact or via HVAC.

ABATEMENT ACTION: Remove, repair, or encapsulate all DNF ACM.

CLASS C2

- Building occupants are present in OTA or MTA.
- Nondamaged (ND)/NF ACM is present.
- ND/NF ACM is accessible or inaccessible to building occupants by direct contact or via HVAC.

ABATEMENT ACTION: Continue annual inspections, abate accordingly as damage or deterioration occurs.

CLASS C3

- No building occupants are present.
- The ACM may be either friable or NF.
- ACM is in any location.

ABATEMENT ACTION: Follow all applicable safety guidelines to gain access. Remove, repair, or encapsulate as needed.

Figure 2 shows the process used for assigning a facility classification.

Figure 2. Facility Classification Flow Process.

29306048.1

Figure 3 shows the format used to complete the annual facility asbestos update report required by this Plan. The form will be completed by the corresponding facility asbestos coordinator annually, and is transmitted to the Plan manager for evaluation. This effort ensures that abatement will occur in facilities with the highest exposure potential. The report is to be completed and transmitted to the Plan manager by June 1 of each FY.

Figure 3. Hanford Site Asbestos Abatement Program
Facility Condition Update Report. (2 sheets)

Facility Name/Number: _____

Area: _____

Facility Asbestos Coordinator: _____

Phone: _____

Are occupants present more than twice monthly? (circle one) (Y) (N)

THERMAL SYSTEMS INSULATION (TSI): Asbestos-containing pipe, tank, vessel, and duct insulation only

Total Linear ft. (Piping only, entire facility): _____

Total ft' (tanks, vessels, duct for entire facility): _____

Total ft' (all TSI products for entire facility): _____

*Total damaged TSI: _____ linear (tanks) _____ ft'

Total linear ft. accessible (0' - 8' level, entire facility): _____

Total ft' accessible (0' - 8' level, entire facility): _____

*If damaged TSI is present, provide the following information:

- (1) Indicate the specific location of the damaged TSI. Describe location's accessibility to personnel, ventilation airstream, and the functional space that it occupies (e.g., office, shop, mechanical room).
- (2) Describe abatement method(s) required to correct the deficiency.
- (3) Indicate resource availability in your organization to complete the abatement method described. Use a separate form for each functional area with damaged TSI.

(1)

(2)

(3)

(Page 1 of 2)

Figure 3. Hanford Site Asbestos Abatement Program
Facility Condition Update Report. (2 sheets)

MISCELLANEOUS ASBESTOS-CONTAINING MATERIALS: Flooring products, transite, ceiling tiles, and other products as applicable. Complete a separate form for each product.

Type of Asbestos-containing material (ACM): _____

Facility name/number: _____

Friable? (circle one) (Y) (N)

Total ft² (entire facility): _____

*Total ft² damaged: _____

*If damaged miscellaneous ACM is present, provide the following information:

- (1) Indicate the specific location of the damaged ACM. Describe accessibility to personnel, ventilation airstream, and the functional space that it occupies (e.g., office, shop, mechanical room).
- (2) Describe abatement method(s) required to correct the deficiency.
- (3) Indicate resource availability in your organization to complete the abatement method described. Use a separate form for each functional area with damaged ACM.

(1)

(2)

(3)

NOTE: Photocopy this form, as applicable, to provide additional information of damaged ACM. Mail completed forms to B. S. Hewes, Mail Stop R2-77.

Signature: _____ Date: ____/____/____

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7.0 AREA DESCRIPTIONS

The Hanford Site is divided into seven areas (Figure 4). Each area is, or has been, dedicated to a specific mission (e.g., materials production, research and development, or waste management). The condition of facilities within each area is related to the time of construction and the mission the facilities supported. Health risks are more prevalent in older facilities that have been modified to support changing missions.

7.1 100 AREA

The 100 Area is composed of nine sites (100-B, 100-C, 100-D, 100-DR, 100-F, 100-H, 100-KE, 100-KW, and 100-N). The majority of the facilities that contain ACM were constructed in the 1940s and early 1950s.

All sites within the 100 Area have been deactivated except for 100-N Area (N Reactor site) and a few facilities at 100-B, 100-D, and 100-K Areas. The export water supply for the Hanford Site, for example, is pumped from the Columbia River at 100-B Area with backup pumping capabilities at 100-D Area. A few facilities in 100-K Area are also being used for irradiated fuel storage (100-KE and -KW), water treatment, offices, and maintenance shops.

Most work activity in the 100 Area is related to ongoing surveillance and maintenance of existing facilities. Most facilities that contain asbestos materials allow limited or no access by surveillance and maintenance personnel.

A total of 86 facilities containing asbestos were identified in the 100 Area. Table 1 shows that 62 facilities (72%) are Class C and 24 facilities (28%) are Class B. Although the potential health risk associated with exposure to asbestos fibers is lower for Class C facilities, it will remain an important management consideration to undertake abatement activities to preclude further deterioration of the asbestos. In most cases, the 100 Area is best suited for total asbestos removal because the facilities are unoccupied and are scheduled for eventual demolition.

7.2 200 AREA

The 200 Area consists of the chemical processing and reprocessing plants, waste management, waste storage, and related support facilities. The 200 Area represents the largest of all Hanford Site areas that contain ACM, and it has the greatest potential for health risks to building occupants. Because of the continual presence of building occupants and plant operations, the 200 Area is susceptible to increased releases of asbestos fibers from deterioration or disturbance of the ACM (Section 6.3). This area also contains the main steam powerhouses that serve the various 200-Area facilities via a network of asbestos-covered steam pipes. The powerhouse and steamlines require constant

Figure 4. Hanford Site Map.

abatement activity to prevent the release of friable asbestos fibers. The abatement approach used in these facilities is to manage the asbestos in place by either encapsulation or removal, as appropriate.

Approximately 215 asbestos-containing facilities have been identified in the 200 Area (200 East and 200 West). Table 1 shows that approximately 63 of the facilities in this area are Class A and B. Funding is required to actively pursue asbestos abatement in these facilities.

Table 1. Classification of Facilities by Area.

Area	Facility classifications (fiscal year 1993)								Total by area
	A1	A2	B1	B2	B3	C1	C2	C3	
100	0	0	4	6	14	0	23	39	86
200	4	0	9	29	21	0	112	40	215
300	1	0	8	23	8	0	29	15	84
400	0	0	0	0	2	0	0	0	2
600/700	0	0	1	1	4	0	7	2	15
1100	0	0	0	0	1	0	0	1	2
3000	0	0	0	4	1	0	2	3	10
Total by class	5	0	22	63	51	0	173	100	414

7.3 300 AREA

The 300 Area consists of fuel fabrication facilities for the shutdown production reactors, various research and development laboratories, and administration buildings. Most of this area is networked by steam lines from a central powerhouse.

Of the 300-Area facilities, Table 1 shows that 39 are Class B, and 44 are Class C.

7.4 400 AREA

The 400 Area principally consists of the Fast Flux Test Facility, the Fuels and Materials Examination Facility, and their respective support facilities. This area is modern in comparison to other areas; asbestos-related problems are minimal.

Only two 400-Area facilities are identified in Table 1 as Class B. These are barracks-type office facilities and lunchrooms.

7.5 600 AND 700 AREAS

The 600 and 700 Areas contain sitewide support facilities. The 700 Area could best be characterized as the Hanford Site administrative center, document publication and drawing center, and the Hanford Environmental Health Foundation (HEHF) medical center. The 600-Area facilities are scattered around the outer area of the Hanford Site. The most prominent 600-Area support facilities are the Hanford Fire Stations. The 700 Area is located within the city limits of Richland; the most prominent facilities are those occupied by HEHF.

Six 600 and 700-Area facilities are identified as Class B in Table 1. Potential exposure to asbestos fibers is minimal relative to the other outer areas. Approximately 60% of the facilities in this area are Class C.

7.6 1100 AREA

The 1100 Area serves as the Hanford Site shipping and receiving area. Only two asbestos-containing facilities were identified; one facility is Class B, and the other is Class C. The 1100 Area is insignificant compared to other outer areas, but the Class B facility should be considered for abatement to preclude the possibility of the friable asbestos fibers becoming accessible to the building occupants.

7.7 3000 AREA

The 3000 Area serves as the Hanford Site construction and fabrication services area. This area contains some of the oldest facilities on the Hanford Site. These facilities are, for the most part, still occupied and in use. Some of the older fabrication shops are vacant and are either scheduled for demolition or are being used for storage purposes.

Table 1 identifies a total of 10 facilities in the 3000 Area that contain asbestos. Of the 10 facilities, 5 (50%) are Class B.

8.0 ABATEMENT PRIORITY

After evaluating the facility classifications based on exposure risk, abatement priority was assigned to each facility. For purposes of this Plan, the facility abatement priority is synonymous with its assigned classification. For example, a Class A facility is also considered to be abatement Priority A, and a Class B facility is abatement Priority B. The assignment of abatement priorities in this manner eliminates potential confusion between facility classification and abatement priority.

A Priority A or B facility has an asbestos condition requiring immediate attention because the highest potential exists for personnel to be exposed to asbestos fibers. Part of the ongoing O&M program's objectives is to manage the Priority A and B facilities. However, the O&M abatement method selected to control the release of asbestos fibers (e.g., encapsulation or enclosure) may not be the preferred long-term solution for a particular condition. Abatement funding is required to supplement the O&M program in undertaking larger scale specific abatement work efforts to better manage and control the Priority A and B conditions. This may include removal of all friable asbestos from the facility.

The number of facilities in each priority is listed below:

<u>Abatement Priority</u>	<u>Number of Facilities</u>
A1	5
A2	0
B1	22
B2	63
B3	51
C1	0
C2	173
C3	100

Refer to Table 1 for a listing of the number of facilities by Hanford Site area.

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9.0 RECOMMENDATION FOR FUNDING

It is recommended that funding be made available to implement the Plan, prepare detailed cost estimates, and develop engineering and project plans. Project-specific work on the Priority A1 facilities is currently estimated at \$1.0 million, and will commence pending building management authorization. The next top 25 Priority B facilities by Hanford Site area are listed in Table 2. These facilities are scheduled for abatement in FY 1994, 1995, and 1996, pending funding availability.

Table 2. Hanford Site Abatement Priority B1
Facilities by Area.

100	200 East	200 West	300/400	600/700	3000
105B	2101M	271T	327	609A	
105KE	284E	271U	306W		
105KW	275E	221T	331		
165KE	202A	221U	3709A		
166KE	222B	2704S	3730		
166KW		234-5			
105N		231Z			

The Environmental Restoration and Waste Management 5-Year Plan Activity Data Sheets (ADS) will be prepared by the DOE Office of Environmental Restoration and Waste Management (EM) to request funding for asbestos abatement in EM facilities. Program offices outside EM budget sources (i.e., outside EM-40) will be responsible for funding abatement projects outlined by this Plan starting in FY 1994 for their respective facilities. Project cost estimates, engineering, and Plan management will continue to be an EM-funded responsibility for all projects; however, distribution of Hanford Site asbestos project dollars will be solely for facilities from which funding originated (i.e., EM-30 funding source for EM-30 facilities). The priority for funding will be based on this Plan and will focus on Priority A and B active facilities. Completion of the B1 facilities is projected for FY 1996; this milestone will be met provided all necessary funding is acquired and is made available in conjunction with the Plan's project priority list. Outyear funding beyond FY 1996 will be used on additional Priority B2 facilities and then to initiate work on the lower Priority B3 facilities. The Plan manager will notify each facility representative about proposed project costs and scheduling details in sufficient time to receive funding support.

The conditions within a particular facility can change, and a lower priority facility plan could be elevated if the asbestos condition is deteriorating. Management will need to consider these changing conditions and allow flexibility to substitute one facility for another.

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10.0 WORK CONTROL

It is recommended, with the exception of the O&M, that administration of asbestos abatement be managed by a central program for the entire Hanford Site. This would be consistent with findings and recommendations made in Tiger Team Finding A/CF-2, "Inadequate Asbestos Management" (DOE 1990). Abatement funding acquired from facility operating budgets will support projects prepared and managed by the Plan manager. The actual abatement work shall comply with applicable Federal, State, and local requirements and be performed in the most practical, safe, and cost-effective manner available. This abatement work may be performed by plant forces, construction forces, or subcontractors (in accordance with plant force work reviews).

Program ADS will be used to request funding for Plan projects. Funding for the O&M activities will continue to be requested and budgeted as part of the overall Hanford Site facility and support operations. The Plan funding will supplement the routine O&M work and focus on long-term management of controlling the airborne release of asbestos fibers instead of short-term solutions.

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11.0 REFERENCES

BFWPCAPCA, 1990, *Removal and Encapsulation of Asbestos*, Article 10, Benton, Franklin, Walla Walla County Air Pollution Control Authority, Richland, Washington.

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DOE, 1990, *Tiger Team Assessment of the Hanford Site*, DOE/EH-0139, "Inadequate Asbestos Management," Finding A/CF-2, U.S. Department of Energy, Washington, D.C.

DOE-RL, 1990, *Industrial Hygiene Program*, DOE-RL IP 5480.10, U.S. Department of Energy-Richland Operations Office, Richland Washington.

Toxic Substances Control Act of 1976, 15 USC 2601, et seq.

29 CFR 1910.1001, 1990, "Occupational Safety and Health Standards," *Code of Federal Regulations*, as amended.

29 CFR 1926, 1986, Subpart D, "Occupational Health and Environmental Controls," *Code of Federal Regulations*, as amended.

29 CFR 1926, 1992, "Safety and Health Requirements for Construction," *Code of Federal Regulations*, as amended.

40 CFR 61, 1973, "National Emission Standard for Hazardous Air Pollutants," *Code of Federal Regulations*.

40 CFR 61, 1990, Subpart M, "National Standards for Hazardous Air Pollutants," *Code of Federal Regulations*.

40 CFR 700-799, 1992, "Subchapter R - Toxic Substances Control Act," *Code of Federal Regulations*, as amended.

WAC 296-62-077, 1989, "Asbestos, Tremolite, Anthophyllite, and Actinolite," *Washington Administrative Code*, as amended.

WAC 296-65, 1989, "Asbestos Removal and Encapsulation," *Washington Administrative Code*, as amended.

WAC 296-155, 1990, "Washington Industrial Safety and Health Act," *Washington Administrative Code*, as amended.

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APPENDIX A

**LISTING OF HANFORD SITE FACILITIES WITH ASBESTOS-CONTAINING
MATERIAL SORTED BY HANFORD SITE AREA**

Refer to Section 6.4 for Facility Classification Procedure

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Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classifi- cation	DOE Funding Source
100 B Area			
105 B	WHC/RR-ERO	B2	EM-40
104 B1	WHC/RR-ERO	C3	EM-40
151 B	WHC/OSS-SER	C3	EM-30
181 B	WHC/OSS-SER	C3	EM-30
182 B	WHC/OSS-SER	C3	EM-30
190 B	WHC/RR-ERO	C3	EM-40
1701 BA	WHC/RR-ERO	C3	EM-40
100 C Area			
190 C	WHC/OPS-NRP	B2	EM-30
105 C	WHC/RR-ERO	C3	EM-40
183 C	WHC/RR-ERO	C3	EM-40
1702 C	WHC/RR-ERO	C3	EM-40
1713 C	WHC/RR-ERO	C3	EM-40
100 D Area			
105 D	WHC/RR-ERO	C3	EM-40
151 D	WHC/OSS-SER	C3	EM-30
181 D	WHC/OSS-SER	C3	EM-30
182 D	WHC/OSS-SER	C3	EM-30
183 D	WHC/OSS-SER	C3	EM-30
185 D	WHC/RR-ERO	C3	EM-40
189 D	WHC/RR-ERO	C3	EM-40
190 D	WHC/RR-ERO	C3	EM-40
190 DA	WHC/RR-ERO	C3	EM-40
195 D	WHC/RR-ERO	C3	EM-40
1703 D	WHC/RR-ERO	C3	EM-40
1713 D	WHC/RR-ERO	C3	EM-40
105 DR	WHC/RR-ERO	C3	EM-40
117 DR	WHC/RR-ERO	C3	EM-40

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classifi- cation	DOE Funding Source
119 DR	WHC/RR-ERO	C3	EM-40
1702 DR	WHC/RR-ERO	C3	EM-40
100 F Area			
105 F	WHC/RR-ERO	C3	EM-40
108 F	WHC/RR-ERO	C3	EM-40
1701 FA	WHC/RR-ERO	C3	EM-40
100 H Area			
105 H	WHC/RR-ERO	C3	EM-40
1713 H	WHC/RR-ERO	C3	EM-40
100 K Area			
105 KE	WHC/RR-ERO	B1	EM-40
105 KW	WHC/RR-ERO	B1	EM-40
165 KE	WHC/RR-ERO	B1	EM-40
1717 K	WHC/OPS-NRP	B1	EM-30
166 KE	WHC/RR-ERO	B3	EM-40
166 KW	WHC/RR-ERO	B3	EM-40
183 KE	WHC/OPS-NRP	B3	EM-30
183 KW	WHC/OPS-NRP	B3	EM-30
190 KE	WHC/OPS-NRP	B3	EM-30
1908 KE	WHC/OPS-NRP	B3	EM-30
1705 KE	WHC/OPS-NRP	B3	EM-30
165 KW	WHC/RR-ERO	C2	EM-40
190 KW	WHC/RR-ERO	C2	EM-40
1702 KE	WHC/RR-ERO	C2	EM-40
1702 KW	WHC/RR-ERO	C2	EM-40
1706 KE	WHC/OPS-PAL	C2	EM-30
1706 KEL	WHC/OPS-PAL	C2	EM-30
1706 KER	WHC/OPS-PAL	C2	EM-30
115 KW	WHC/RR-ERO	C3	EM-40

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classifi- cation	DOE Funding Source
115 KE	WHC/RR-ERO	C3	EM-40
117 KE	WHC/RR-ERO	C3	EM-40
117 KW	WHC/RR-ERO	C3	EM-40
167 K	WHC/RR-ERO	C3	EM-40
1713 KE	WHC/RR-ERO	C3	EM-40
1714 KW	WHC/RR-ERO	C3	EM-40
182 K	WHC/RR-ERO	C3	EM-40
1701 K	WHC/RR-ERO	C3	EM-40
100 N Area			
105 N	WHC/RR-ERO	B1	EM-40
108 N	WHC/RR-ERO	B2	EM-40
109 N	WHC/RR-ERO	B2	EM-40
182 N	WHC/RR-ERO	B2	EM-40
183 N	WHC/RR-ERO	B2	EM-40
105 NB	WHC/RR-ERO	B3	EM-40
166 N	WHC/RR-ERO	B3	EM-40
184 N	WHC/RR-ERO	B3	EM-40
184 NA	WHC/RR-ERO	B3	EM-40
1314 N	WHC/RR-ERO	B3	EM-40
1722 N	WHC/RR-ERO	B3	EM-40
1734 N	WHC/RR-ERO	B3	EM-40
163 N	WHC/RR-ERO	C2	EM-40
1712 N	WHC/RR-ERO	C2	EM-40
1714 N	WHC/RR-ERO	C2	EM-40
1120 N	WHC/RR-ERO	C2	EM-40
1513 N	KEH/ADM-FPM	C2	*
1514 N	KEH/ADM-FPM	C2	*
MO-64-17525	KEH/ADM-FPM	C2	*
MO-64-15309	KEH/ADM-FPM	C2	*

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classifi- cation	DOE Funding Source
MO-64-17524	KEH/ADM-FPM	C2	*
MO-64-15316	KEH/ADM-FPM	C2	*
MO-64-15352	KEH/ADM-FPM	C2	*
MO-64-15354	KEH/ADM-FPM	C2	*
MO-64-17351	KEH/ADM-FPM	C2	*
MO-64-15345	KEH/ADM-FPM	C2	*
MO-64-15334	KEH/ADM-FPM	C2	*
MO-64-17343	KEH/ADM-FPM	C2	*
200 East Area			
MO-931	WHC/OSS-CSS	A1	EM-30
271 B	WHC/OPS-BP	A1	EM-30
202 A	WHC/OPS-PRX	B1	EM-30
222 B	WHC/OSS-CSS	B1	EM-30
275 E	WHC/OSS-CSS	B1	EM-30
2101 M	WHC/OSS-CSS	B1	EM-30
203 A	WHC/OPS-PRX	B2	EM-30
221 B	WHC/OPS-BP	B2	EM-30
242 A	WHC/TWR-WT	B2	EM-30
293 A	WHC/OPS-PRX	B2	EM-30
212 B	WHC/OPS-BP	B2	EM-30
242 B	PNL/FAC-MAN	B2	Energy Research
242 BL	PNL/FAC-MAN	B2	Energy Research
244 CR	WHC/TWR-WT	B2	EM-30
244 AR	WHC/TWR-WT	B2	EM-30
282 E	WHC/OSS-SER	B2	EM-30
284 C	WHC/OSS-SER	B2	EM-30
291 B	WHC/OPS-BP	B2	EM-30
2704 C	WHC/OSS-SUP	B2	EM-30
2713 E	WHC/OSS-CSS	B2	EM-30

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classifi- cation	DOE Funding Source
2715 M	WHC/OSS-CSS	B2	EM-30
206 A	WHC/OPS-PRX	B3	EM-30
211 A	WHC/OPS-PRX	B3	EM-30
224 B	WHC/RR-ERO	B3	EM-40
211 B	WHC/OPS-PRX	B3	EM-30
275 EA	WHC/OSS-CSS	B3	EM-30
283 E	WHC/OSS-SER	B3	EM-30
2701 M	WHC/OSS-CSS	B3	EM-30
2715 E	WHC/OSS-CSS	B3	EM-30
2719 E	WHC/OSS-CSS	B3	EM-30
204 AR	WHC/TWR-WT	C2	EM-30
272 AW	WHC/TWR-WT	C2	EM-30
276 B	WHC/OSS-CSS	C2	EM-30
291 BA	WHC/OPS-BP	C2	EM-30
272 B	WHC/OPS-BP	C2	EM-30
292 B	WHC/OPS-BP	C2	EM-30
215 C	WHC/RR-ERO	C2	EM-40
271 CR	WHC/TWR-WT	C2	EM-30
276 C	WHC/OSS-CSS	C2	EM-30
274 E	WHC/OSS-CSS	C2	EM-30
2400 E	WHC/TWR-GF	C2	EM-30
2715 EA	WHC/OSS-CSS	C2	EM-30
2722 E	WHC/OSS-CSS	C2	EM-30
MO-19	WHC/OSS-CSS	C2	EM-30
MO-21	WHC/OSS-CSS	C2	EM-30
MO-40	WHC/OSS-CSS	C2	EM-30
MO-23	WHC/OSS-CSS	C2	EM-30
MO-29	WHC/OSS-CSS	C2	EM-30
MO-41	WHC/OSS-CSS	C2	EM-30

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classifi- cation	DOE Funding Source
MO-42	WHC/OSS-CSS	C2	EM-30
MO-43	WHC/OSS-CSS	C2	EM-30
MO-47	WHC/OSS-CSS	C2	EM-30
MO-104	WHC/OSS-CSS	C2	EM-30
MO-109	WHC/OSS-CSS	C2	EM-30
MO-114	WHC/OSS-CSS	C2	EM-30
MO-203	WHC/OSS-CSS	C2	EM-30
MO-222	WHC/OSS-CSS	C2	EM-30
MO-317	WHC/OSS-CSS	C2	EM-30
MO-322	WHC/OSS-CSS	C2	EM-30
MO-323	WHC/OSS-CSS	C2	EM-30
MO-324	WHC/OSS-CSS	C2	EM-30
MO-325	WHC/OSS-CSS	C2	EM-30
MO-327	WHC/OSS-CSS	C2	EM-30
MO-331	WHC/OSS-CSS	C2	EM-30
MO-332	WHC/OSS-CSS	C2	EM-30
MO-337	WHC/OSS-CSS	C2	EM-30
MO-347	WHC/OSS-CSS	C2	EM-30
MO-355	WHC/OSS-CSS	C2	EM-30
MO-384	WHC/OSS-CSS	C2	EM-30
MO-387	WHC/OSS-CSS	C2	EM-30
MO-392	WHC/OSS-CSS	C2	EM-30
MO-393	WHC/OSS-CSS	C2	EM-30
MO-400	WHC/OSS-CSS	C2	EM-30
MO-405	WHC/OSS-CSS	C2	EM-30
MO-407	WHC/OSS-CSS	C2	EM-30
MO-408	WHC/OSS-CSS	C2	EM-30
MO-409	WHC/OSS-CSS	C2	EM-30
MO-410	WHC/OSS-CSS	C2	EM-30

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classifi- cation	DOE Funding Source
MO-413	WHC/OSS-CSS	C2	EM-30
MO-537	WHC/OSS-CSS	C2	EM-30
MO-666	WHC/OSS-CSS	C2	EM-30
MO-705	WHC/OSS-CSS	C2	EM-30
MO-707	WHC/OSS-CSS	C2	EM-30
MO-863	WHC/OSS-CSS	C2	EM-30
MO-922	WHC/OSS-CSS	C2	EM-30
MO-927	WHC/OSS-CSS	C2	EM-30
MO-930	WHC/OSS-CSS	C2	EM-30
MO-934	WHC/OSS-CSS	C2	EM-30
MO-946	WHC/OSS-CSS	C2	EM-30
MO-996	WHC/OSS-CSS	C2	EM-30
MO-64-15318	KEH/ADM-FPM	C2	*
MO-64-15353	KEH/ADM-FPM	C2	*
MO-15346	KEH/ADM-FPM	C2	*
MO-1500	KEH/ADM-FPM	C2	*
MO-15341	KEH/ADM-FPM	C2	*
MO-2911 E	KEH/ADM-FPM	C2	*
225 B	WHC/OPS-BP	C3	EM-30
2711 B	WHC/OPS-BP	C3	EM-30
2715 B	WHC/OPS-BP	C3	EM-30
275 EB	WHC/OSS-CSS	C3	EM-30
252 E	WHC/OSS-SER	C3	EM-30
2753 EB	WHC/OSS-CSS	C3	EM-30
282 EA	WHC/OSS-SER	C3	EM-30
282 EB	WHC/OSS-SER	C3	EM-30
2701 ED	WHC/OSS-CSS	C3	EM-30
2715 EB	WHC/OSS-CSS	C3	EM-30
2716 E	WHC/OSS-CSS	C3	EM-30

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classifi- cation	DOE Funding Source
212 N	WHC/OPS-BP	C3	EM-30
212 P	WHC/OSS-CSS	C3	EM-30
X 8	WHC/OSS-CSS	C3	EM-30
MO-57 B	KEH/ADM-FPM	C3	*
MO-57 A	KEH/ADM-FPM	C3	*
MO-227	KEH/ADM-FPM	C3	*
MO-112	KEH/ADM-FPM	C3	*
MO-324 B	KEH/ADM-FPM	C3	*
MO-64-12660	KEH/ADM-FPM	C3	*
MO-64-15331	KEH/ADM-FPM	C3	*
MO-64-12673	KEH/ADM-FPM	C3	*
MO-64-15310	KEH/ADM-FPM	C3	*
MO-64-15342	KEH/ADM-FPM	C3	*
MO-64-12658	KEH/ADM-FPM	C3	*
MO-64-15329	KEH/ADM-FPM	C3	*
MO-15011	KEH/ADM-FPM	C3	*
MO-15010	KEH/ADM-FPM	C3	*
MO-19925	KEH/ADM-FPM	C3	*
MO-12658	KEH/ADM-FPM	C3	*
MO-2910 E	KEH/ADM-FPM	C3	*
200 West Area			
224 T	WHC/RR-SWD	A1	EM-30
271 T	WHC/RR-SWD	A1	EM-30
242 S	WHC/TWR-WT	B1	EM-30
2704 S	WHC/OSS-CSS	B1	EM-30
284 W	WHC/OSS-SER	B1	EM-30
2713 W	WHC/OSS-CSS	B1	EM-30
231 Z	WHC/OSS-CSS	B1	EM-30
234-5	WHC/OPS-PFP	B1	EM-30

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classification	DOE Funding Source
202-S	WHC/RR-ERO	B2	EM-40
221 T	WHC/RR-SWD	B2	EM-30
221 U	WHC/RR-ERO	B2	EM-40
222 T	WHC/OSS-CSS	B2	EM-30
224 U	WHC/OPS-PRX	B2	EM-30
222 U	WHC/OSS-CSS	B2	EM-30
224 UA	WHC/OPS-PRX	B2	EM-30
241 ZA	WHC/OPS-PFP	B2	EM-30
242 T	WHC/TWR-WT	B2	EM-30
271 U	WHC/RR-ERO	B2	EM-40
282 W	WHC/OSS-SER	B2	EM-30
283 W	WHC/OSS-SER	B2	EM-30
2704 W	WHC/OSS-CSS	B2	EM-30
2734 Z	WHC/OPS-PFP	B2	EM-30
251 W	WHC/OSS-SER	B3	EM-30
272 W	WHC/OSS-CSS	B3	EM-30
274 W	WHC/OSS-CSS	B3	EM-30
277 W	WHC/OSS-CSS	B3	EM-30
2707 W	WHC/OSS-CSS	B3	EM-30
2713 WB	WHC/OSS-CSS	B3	EM-30
2715 W	WHC/OSS-CSS	B3	EM-30
2719 W	WHC/OSS-CSS	B3	EM-30
2719 WA	WHC/OSS-CSS	B3	EM-30
2723 W	WHC/OSS-CSS	B3	EM-30
2724 W	WHC/OSS-CSS	B3	EM-30
272 WA	WHC/TWR-WT	C2	EM-30
2724 WA	WHC/OSS-CSS	C2	EM-30
232 Z	WHC/OPS-PFP	C2	EM-30
234-5 LAB	WHC/OPS-PFP	C2	EM-30

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classifi- cation	DOE Funding Source
236 Z	WHC/OPS-PFP	C2	EM-30
291 Z	WHC/OPS-PFP	C2	EM-30
2701 Z	WHC/OPS-PFP	C2	EM-30
2735 Z	WHC/OPS-PFP	C2	EM-30
MO-11	WHC/OSS-CSS	C2	EM-30
MO-15	WHC/OSS-CSS	C2	EM-30
MO-16	WHC/OSS-CSS	C2	EM-30
MO-17	WHC/OSS-CSS	C2	EM-30
MO-19	WHC/OSS-CSS	C2	EM-30
MO-21	WHC/OSS-CSS	C2	EM-30
MO-28	WHC/OSS-CSS	C2	EM-30
MO-31	WHC/OSS-CSS	C2	EM-30
MO-32	WHC/OSS-CSS	C2	EM-30
MO-37	WHC/OSS-CSS	C2	EM-30
MO-39	WHC/OSS-CSS	C2	EM-30
MO-56	WHC/OSS-CSS	C2	EM-30
MO-107	WHC/OSS-CSS	C2	EM-30
MO-202 AT/Z	WHC/OSS-CSS	C2	EM-30
MO-211	WHC/OSS-CSS	C2	EM-30
MO-223	WHC/OSS-CSS	C2	EM-30
MO-306	WHC/OSS-CSS	C2	EM-30
MO-315	WHC/OSS-CSS	C2	EM-30
MO-319	WHC/OSS-CSS	C2	EM-30
MO-320	WHC/OSS-CSS	C2	EM-30
MO-326	WHC/OSS-CSS	C2	EM-30
MO-330	WHC/OSS-CSS	C2	EM-30
MO-333	WHC/OSS-CSS	C2	EM-30
MO-371	WHC/OSS-CSS	C2	EM-30
MO-376	WHC/OSS-CSS	C2	EM-30

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classifi- cation	DOE Funding Source
MO-377	WHC/OSS-CSS	C2	EM-30
MO-406	WHC/OSS-CSS	C2	EM-30
MO-419	WHC/OSS-CSS	C2	EM-30
MO-739	WHC/OSS-CSS	C2	EM-30
MO-912	WHC/OSS-CSS	C2	EM-30
MO-924	WHC/OSS-CSS	C2	EM-30
MO-936	WHC/OSS-CSS	C2	EM-30
MO-947	WHC/OSS-CSS	C2	EM-30
MO-990	WHC/OSS-CSS	C2	EM-30
MO-64-15351	KEH/ADM-FPM	C2	*
MO-64-17537	KEH/ADM-FPM	C2	*
MO-64-15339	KEH/ADM-FPM	C2	*
W-15	KEH/ADM-FPM	C2	*
272 S	WHC/OSS-CSS	C3	EM-30
272 U	WHC/OPS-OMS	C3	EM-30
275 UR	WHC/OSS-CSS	C3	EM-30
252 W	WHC/OSS-SER	C3	EM-30
275 W	WHC/OSS-CSS	C3	EM-30
282 WA	WHC/OSS-SER	C3	EM-30
2709 W	WHC/OSS-CSS	C3	EM-30
2720 W	WHC/OSS-CSS	C3	EM-30
300 Area			
MO 933	WHC/OSS-CSS	A1	EM-30
306 E	WHC/EA-ED	B1	EM-30
306 W	PNL/FAC-MAN	B1	Energy Research
327	PNL/FAC-MAN	B1	EM-60
331	PNL/FAC-MAN	B1	Energy Research
333	WHC/OPS-NRP	B1	EM-30
384	WHC/OSS-SER	B1	EM-30

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classification	DOE Funding Source
3709 A	WHC/OSS-HFD	B1	EM-30
3730	PNL/FAC-MAN	B1	EM-60
301	WHC/OSS-CSS	B2	EM-30
303 F	WHC/OPS-NRP	B2	EM-30
303 K	WHC/OPS-NRP	B2	EM-30
304	WHC/OPS-NRP	B2	EM-30
313	WHC/OPS-NRP	B2	EM-30
318	PNL/FAC-MAN	B2	EM-60
326	PNL/FAC-MAN	B2	Energy Research
328	WHC/OSS-CSS	B2	EM-30
331 A	PNL/FAC-MAN	B2	Energy Research
331 B	PNL/FAC-MAN	B2	Energy Research
337	PNL/FAC-MAN	B2	Energy Research
3702	WHC/OSS-CSS	B2	EM-30
3703	WHC/OSS-CSS	B2	EM-30
3707 C	WHC/OSS-SER	B2	EM-30
3707 D	WHC/OSS-CSS	B2	EM-30
3712	WHC/OPS-NRP	B2	EM-30
3714	WHC/EA-TD	B2	EM-30
3716	WHC/OPS-NRP	B2	EM-30
3717 B	WHC/OSS-SER	B2	EM-30
3720	PNL/FAC-MAN	B2	Energy Research
3731	PNL/FAC-MAN	B2	Energy Research
3731 A	PNL/FAC-MAN	B2	Energy Research
3732	WHC/OSS-CSS	B2	EM-30
321 B	WHC/OSS-SER	B3	EM-30
324	PNL/FAC-MAN	B3	EM-60
325	PNL/FAC-MAN	B3	EM-60
329	PNL/FAC-MAN	B3	Energy Research

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classification	DOE Funding Source
337 HB	WHC/OSS-CSS	B3	EM-30
3760	PNL/FAC-MAN	B3	EM-60
3762	PNL/FAC-MAN	B3	Energy Research
3706	WHC/OSS-CSS	B3	EM-30
305	WHC/OSS-CSS	C2	EM-30
308	WHC/OPS-FME	C2	EM-30
309	WHC/EA-ED	C2	EM-30
321	WHC/OSS-CSS	C2	EM-30
321 C	WHC/OSS-CSS	C2	EM-30
335	WHC/EA-ED	C2	EM-30
335 A	WHC/EA-ED	C2	EM-30
338	WHC/OSS-CSS	C2	EM-30
340	WHC/RR-SWD	C2	EM-40
340 A	WHC/RR-SWD	C2	EM-40
382	WHC/OSS-SER	C2	EM-30
3705	WHC/OSS-CSS	C2	EM-30
3709	WHC/OSS-CSS	C2	EM-30
3710	WHC/OSS-CSS	C2	EM-30
3710 A	WHC/OSS-SER	C2	EM-30
3713	WHC/OSS-CSS	C2	EM-30
3717	WHC/OSS-CSS	C2	EM-30
3718 E	PNL/FAC-MAN	C2	EM-60
3718	WHC/OSS-CSS	C2	EM-30
3718 A	PNL/FAC-MAN	C2	Energy Research
3718 B	PNL/FAC-MAN	C2	Energy Research
3734 A	WHC/OSS-CSS	C2	EM-30
3745 A	PNL/FAC-MAN	C2	Energy Research
3745 B	PNL/FAC-MAN	C2	Energy Research
3746	PNL/FAC-MAN	C2	Energy Research

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classifi- cation	DOE Funding Source
<u>3746 A</u>	PNL/FAC-MAN	C2	Energy Research
3765	WHC/OSS-CSS	C2	EM-30
3802 A	WHC/OSS-CSS	C2	EM-30
MO-64-15340	KEH/ADM-FPM	C2	*
334	WHC/OPS-NRP	C3	EM-30
3701 A	WHC/OSS-CSS	C3	EM-30
3701 D	WHC/OSS-CSS	C3	EM-30
3701 L	WHC/OSS-CSS	C3	EM-30
3701 R	WHC/OSS-CSS	C3	EM-30
3701 S	WHC/OSS-CSS	C3	EM-30
3701 U	WHC/OSS-CSS	C3	EM-30
3706 A	WHC/OSS-CSS	C3	EM-30
3706	WHC/OSS-CSS	C3	EM-30
3707 B	WHC/OSS-CSS	C3	EM-30
3718 M	WHC/OSS-CSS	C3	EM-30
37180	PNL/FAC-MAN	C3	Energy Research
3790	WHC/OSS-CSS	C3	EM-30
MO-64-15347	KEH/ADM-FPM	C3	*
MO-64-15348	KEH/ADM-FPM	C3	*
400 Area			
4702	WHC/OSS-CSS	B3	EM-30
4707	WHC/OSS-CSS	B3	EM-30
600 Area			
609-A	WHC/OSS-HFD	B1	EM-30
6652 G	PNL/FAC-MAN	B2	Energy Research
6652 C	PNL/FAC-MAN	B3	Energy Research
616	WHC/RR-SWD	C2	EM-40
622 C	PNL/FAC-MAN	C2	Energy Research
622 F	PNL/FAC-MAN	C2	Energy Research

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classifi- cation	DOE Funding Source
622 R	PNL/FAC-MAN	C2	EM-60
6652 H	PNL/FAC-MAN	C2	Energy Research
6652 I	PNL/FAC-MAN	C2	Energy Research
6652 J	PNL/FAC-MAN	C2	Energy Research
622 G	WHC/OSS-CSS	C3	EM-30
700 Area			
712	WHC/OSS-CSS	B3	EM-30
747	WHC/OSS-CSS	B3	EM-30
748	WHC/OSS-CSS	B3	EM-30
703	WHC/OSS-CSS	C3	EM-30
1100 Area			
1171	WHC/OSS-SER	B3	EM-30
1170	WHC/OSS-SER	C3	EM-30
3000 Area			
1154	KEH/ADM-FPM	B2	*
1226	KEH/ADM-FPM	B2	*
1240	KEH/ADM-FPM	B2	*
1252	KEH/ADM-FPM	B2	*
1256	KEH/ADM-FPM	B3	*
1242	KEH/ADM-FPM	C2	*
1264	KEH/ADM-FPM	C2	*
1262	KEH/ADM-FPM	C3	*

Asbestos Assessment and Classification of Facilities.

Facility Number	Contractor/ Organization	Facility Classifi- cation	DOE Funding Source
1253	KEH/ADM-FPM	C3	*
1254	KEH/ADM-FPM	C3	*
ADM-FPM = Administration - Facility Property Management CSS-PRX = Operations Programs - PUREX EA-ED = Engineered Applications - Engineering Development EM = Environmental Restoration and Waste Management FAC-MAN = Facility - Management KEH = Kaiser Engineers Hanford OPS-BP = Operations Programs - B Plant OPS-FME = Operations Programs - Fuels Material Examination OPS-NRP = Operations Programs - N Reactor Plant OPS-PAL = Operations Programs - Process and Analytical Laboratories OPS-PFP = Operations Programs - Plutonium Finishing Plant OSS-CSS = Operations Support Services - Central Support Services OSS-HFD = Operations Support Services - Hanford Fire Department OSS-SER = Operations Support Services - Site Services PNL = Pacific Northwest Laboratory RR-ERO = Restoration and Remediation - Environmental Restoration Organization RR-SWD = Restoration and Remediation - Solid Waste Division TWR-GF = Tank Waste Remediation - Grout Facility TWR-WT = Tank Waste Remediation - Waste Tanks WHC = Westinghouse Hanford Company			

*Funding source for KEH is building overhead.

APPENDIX B

**LISTING OF HANFORD SITE FACILITIES WITH ASBESTOS-CONTAINING
MATERIAL SORTED BY FACILITY CLASSIFICATION**

Refer to Section 6.4 for Facility Classification Procedure

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Asbestos Assessment of Class A-1 Facilities (Page 1 of 1)

Facility number	Contractor	Area	ACM Type - ACM Condition			Accessibility occupants/HVAC
271T	WHC	200W	F	-	D	Y - HVAC
224T	WHC	200W	F	-	D	Y - HVAC
271B	WHC	200E	F	-	D	Y - HVAC
MO931	WHC	200E	F	-	D	Y - Occupants
MO933	WHC	300	F	-	D	Y - Occupants

ACM Type F = friable

ACM Condition D = damaged

Accessibility Y = yes, HVAC = heating ventilation air conditioning

Asbestos Assessment of Class A-2 Facilities (Page 1 of 1)

Facility number	Contractor	Area	ACM Type - ACM Condition	Accessibility occupants/HVAC
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NONE-----

Asbestos Assessment of Class B-1 Facilities (Page 1 of 1)

Facility number	Contractor	Area	ACM Type - ACM Condition			Accessibility occupants/HVAC
105N	WHC	100N	F	-	ND	YES
105KE	WHC	100K	F	-	ND	YES
105KW	WHC	100K	F	-	ND	YES
1717K	WHC	100K	F	-	ND	YES
202A	WHC	200E	F	-	ND	YES
222B	WHC	200E	F	-	ND	YES
275E	WHC	200E	F	-	ND	YES
2101M	WHC	200E	F	-	ND	YES
2704S	WHC	200W	F	-	ND	YES
242S	WHC	200W	F	-	ND	YES
284W	WHC	200W	F	-	ND	YES
2713W	WHC	200W	F	-	ND	YES
231Z	WHC	200W	F	-	ND	YES
234-5	WHC	200W	F	-	ND	YES
306E	WHC	300	F	-	ND	YES
306W	PNL	300	F	-	ND	YES
313	WHC	300	F	-	ND	YES
327	PNL	300	F	-	ND	YES
331	PNL	300	F	-	ND	YES
333	WHC	300	F	-	ND	YES
384	WHC	300	F	-	ND	YES
3709A	PNL	300	F	-	ND	YES
3730	PNL	300	F	-	ND	YES
609A	WHC	600	F	-	ND	YES

ACM Type F = friable

ACM Condition ND = no damage

Asbestos Assessment of Class B-2 Facilities (Page 1 of 2)

Facility number	Contractor	Area	ACM Type	-	ACM Condition	Accessibility occupants/HVAC
105B	WHC	100B	F	-	ND	YES
190C	WHC	100C	F	-	ND	YES
108N	WHC	100N	F	-	ND	YES
109N	WHC	100N	F	-	ND	YES
182N	WHC	100N	F	-	ND	YES
183N	WHC	100N	F	-	ND	YES
203A	WHC	200E	F	-	ND	YES
293A	WHC	200E	F	-	ND	YES
212B	WHC	200E	F	-	ND	YES
221B	WHC	200E	F	-	ND	YES
242A	WHC	200E	F	-	ND	YES
242B	PNL	200E	F	-	ND	YES
242BL	PNL	200E	F	-	ND	YES
244CR	WHC	200E	F	-	ND	YES
244AR	WHC	200E	F	-	ND	YES
282E	WHC	200E	F	-	ND	YES
284E	WHC	200E	F	-	ND	YES
291B	WHC	200E	F	-	ND	YES
2704C	WHC	200E	F	-	ND	YES
2713E	WHC	200E	F	-	ND	YES
2715M	WHC	200E	F	-	ND	YES
202S	WHC	200W	F	-	ND	YES
221T	WHC	200W	F	-	ND	YES
221U	WHC	200W	F	-	ND	YES
222T	WHC	200W	F	-	ND	YES
222U	WHC	200W	F	-	ND	YES
224U	WHC	200W	F	-	ND	YES
224UA	WHC	200W	F	-	ND	YES
242T	WHC	200W	F	-	ND	YES
271U	WHC	200W	F	-	ND	YES
283W	WHC	200W	F	-	ND	YES
282W	WHC	200W	F	-	ND	YES
241ZA	WHC	200W	F	-	ND	YES
2704W	WHC	200W	F	-	ND	YES
2734Z	WHC	200W	F	-	ND	YES
301	WHC	300	F	-	ND	YES
303F	WHC	300	F	-	ND	YES
303K	WHC	300	F	-	ND	YES
304	WHC	300	F	-	ND	YES
313	PNL	300	F	-	ND	YES
318	WHC	300	F	-	ND	YES
320	PNL	300	F	-	ND	YES
326	PNL	300	F	-	ND	YES
328	WHC	300	F	-	ND	YES
331A	PNL	300	F	-	ND	YES
331B	PNL	300	F	-	ND	YES
3702	WHC	300	F	-	ND	YES
3703	WHC	300	F	-	ND	YES
3707C	WHC	300	F	-	ND	YES

Asbestos Assessment of Class B-2 Facilities (Page 2 of 2)

Facility number	Contractor	Area	ACM Type	-	ACM Condition	Accessibility occupants/HVAC
3707D	WHC	300	F	-	ND	YES
3712	WHC	300	F	-	ND	YES
3714	PNL	300	F	-	ND	YES
3716	WHC	300	F	-	ND	YES
3717B	WHC	300	F	-	ND	YES
3720	PNL	300	F	-	ND	YES
3731	PNL	300	F	-	ND	YES
3731A	PNL	300	F	-	ND	YES
3732	WHC	300	F	-	ND	YES
6652G	PNL	600	F	-	ND	YES
1154	KEH	3000	F	-	ND	YES
1226	KEH	3000	F	-	ND	YES
1240	KEH	3000	F	-	ND	YES
1252	KEH	3000	F	-	ND	YES

ACM Type F = friable

ACM Condition

ND = no damage

Asbestos Assessment of Class B-3 Facilities (Page 1 of 2)

Facility number	Contractor	Area	ACM Type	-	ACM Condition	Accessibility occupants/HVAC
105NB	WHC	100N	F	-	ND	NO
166N	WHC	100N	F	-	ND	NO
184N	WHC	100N	F	-	ND	NO
184NA	WHC	100N	F	-	ND	NO
1314N	WHC	100N	F	-	ND	NO
1722N	WHC	100N	F	-	ND	NO
1734N	WHC	100N	F	-	ND	NO
166KE	WHC	100K	F	-	ND	NO
166KW	WHC	100K	F	-	ND	NO
183KE	WHC	100K	F	-	ND	NO
183KW	WHC	100K	F	-	ND	NO
190KE	WHC	100K	F	-	ND	NO
1908KE	WHC	100K	F	-	ND	NO
1705KE	WHC	100K	F	-	ND	NO
206A	WHC	200E	F	-	ND	NO
211A	WHC	200E	F	-	ND	NO
211B	WHC	200E	F	-	ND	NO
224B	WHC	200E	F	-	ND	NO
275EA	WHC	200E	F	-	ND	NO
283E	WHC	200E	F	-	ND	NO
2701M	WHC	200E	F	-	ND	NO
2715E	WHC	200E	F	-	ND	NO
2719E	WHC	200E	F	-	ND	NO
M02911E	KEH	200E	F	-	ND	NO
251W	WHC	200W	F	-	ND	NO
272W	WHC	200W	F	-	ND	NO
274W	WHC	200W	F	-	ND	NO
277W	WHC	200W	F	-	ND	NO
2707W	WHC	200W	F	-	ND	NO
2713WB	WHC	200W	F	-	ND	NO
2715W	WHC	200W	F	-	ND	NO
2719W	WHC	200W	F	-	ND	NO
2719WA	WHC	200W	F	-	ND	NO
2723W	WHC	200W	F	-	ND	NO
2724W	WHC	200W	F	-	ND	NO
321B	WHC	300	F	-	ND	NO
324	PNL	300	F	-	ND	NO
325	PNL	300	F	-	ND	NO
329	PNL	300	F	-	ND	NO
337HB	WHC	300	F	-	ND	NO
3706	WHC	300	F	-	ND	NO
3760	PNL	300	F	-	ND	NO
3762	PNL	300	F	-	ND	NO
4702	WHC	400	F	-	ND	NO

Asbestos Assessment of Class B-3 Facilities (Page 2 of 2)

Facility number	Contractor	Area	ACM Type - ACM Condition			Accessibility occupants/HVAC
4707	WHC	400	F	-	ND	NO
6652C	PNL	600	F	-	ND	NO
712	WHC	700	F	-	ND	NO
747	WHC	700	F	-	ND	NO
748	WHC	700	F	-	ND	NO
1171	WHC	1100	F	-	ND	NO
1256	KEH	300	F	-	ND	NO
ACM Type F = friable			ACM Condition ND = no damage			

Asbestos Assessment of Class C-1 Facilities (Page 1 of 1)

Facility number	Contractor	Area	ACM Type - ACM Condition	Accessibility occupants/HVAC
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NONE-----

Asbestos Assessment of Class C-2 Facilities (Page 1 of 4)

Facility number	Contractor	Area	ACM Type	-	ACM Condition	Accessibility occupants/HVAC
165KW	WHC	100K	NF	-	ND	YES
190KW	WHC	100K	NF	-	ND	YES
1702KE	WHC	100K	NF	-	ND	YES
1702KW	WHC	100K	NF	-	ND	YES
1706KE	WHC	100K	NF	-	ND	YES
1706KEL	WHC	100K	NF	-	ND	YES
1706KER	WHC	100K	NF	-	ND	YES
163N	WHC	100N	NF	-	ND	YES
1120N	WHC	100N	NF	-	ND	YES
1513N	WHC	100N	NF	-	ND	YES
1514N	WHC	100N	NF	-	ND	YES
1712N	WHC	100N	NF	-	ND	YES
1714N	WHC	100N	NF	-	ND	YES
MO-6417525	KEH	100N	NF	-	ND	YES
MO-6415309	KEH	100N	NF	-	ND	YES
MO-6417524	KEH	100N	NF	-	ND	YES
MO-6415316	KEH	100N	NF	-	ND	YES
MO-6415352	KEH	100N	NF	-	ND	YES
MO-6415354	KEH	100N	NF	-	ND	YES
MO-6417351	KEH	100N	NF	-	ND	YES
MO-6415345	KEH	100N	NF	-	ND	YES
MO-6415334	KEH	100N	NF	-	ND	YES
MO-6417343	KEH	100N	NF	-	ND	YES
204AR	WHC	200E	NF	-	ND	YES
272AW	WHC	200E	NF	-	ND	YES
272B	WHC	200E	NF	-	ND	YES
276B	WHC	200E	NF	-	ND	YES
291BA	WHC	200E	NF	-	ND	YES
292B	WHC	200E	NF	-	ND	YES
215C	WHC	200E	NF	-	ND	YES
271CR	WHC	200E	NF	-	ND	YES
276C	WHC	200E	NF	-	ND	YES
274E	WHC	200E	NF	-	ND	YES
2400E	WHC	200E	NF	-	ND	YES
2715EA	WHC	200E	NF	-	ND	YES
2722E	WHC	200E	NF	-	ND	YES
MO-19	WHC	200E	NF	-	ND	YES
MO-21	WHC	200E	NF	-	ND	YES
MO-23	WHC	200E	NF	-	ND	YES
MO-29	WHC	200E	NF	-	ND	YES
MO-40	WHC	200E	NF	-	ND	YES
MO-41	WHC	200E	NF	-	ND	YES
MO-42	WHC	200E	NF	-	ND	YES
MO-43	WHC	200E	NF	-	ND	YES
MO-47	WHC	200E	NF	-	ND	YES
MO-104	WHC	200E	NF	-	ND	YES
MO-109	WHC	200E	NF	-	ND	YES
MO-114	WHC	200E	NF	-	ND	YES

Asbestos Assessment of Class C-2 Facilities (Page 2 of 4)

Facility number	Contractor	Area	ACM Type	-	ACM Condition	Accessibility occupants/HVAC
MO-203	WHC	200E	NF	-	ND	YES
MO-222	WHC	200E	NF	-	ND	YES
MO-317	WHC	200E	NF	-	ND	YES
MO-322	WHC	200E	NF	-	ND	YES
MO-323	WHC	200E	NF	-	ND	YES
MO-324	WHC	200E	NF	-	ND	YES
MO-325	WHC	200E	NF	-	ND	YES
MO-327	WHC	200E	NF	-	ND	YES
MO-331	WHC	200E	NF	-	ND	YES
MO-332	WHC	200E	NF	-	ND	YES
MO-337	WHC	200E	NF	-	ND	YES
MO-347	WHC	200E	NF	-	ND	YES
MO-355	WHC	200E	NF	-	ND	YES
MO-384	WHC	200E	NF	-	ND	YES
MO-387	WHC	200E	NF	-	ND	YES
MO-392	WHC	200E	NF	-	ND	YES
MO-393	WHC	200E	NF	-	ND	YES
MO-400	WHC	200E	NF	-	ND	YES
MO-405	WHC	200E	NF	-	ND	YES
MO-407	WHC	200E	NF	-	ND	YES
MO-408	WHC	200E	NF	-	ND	YES
MO-409	WHC	200E	NF	-	ND	YES
MO-410	WHC	200E	NF	-	ND	YES
MO-413	WHC	200E	NF	-	ND	YES
MO-537	WHC	200E	NF	-	ND	YES
MO-666	WHC	200E	NF	-	ND	YES
MO-705	WHC	200E	NF	-	ND	YES
MO-707	WHC	200E	NF	-	ND	YES
MO-863	WHC	200E	NF	-	ND	YES
MO-922	WHC	200E	NF	-	ND	YES
MO-927	WHC	200E	NF	-	ND	YES
MO-930	WHC	200E	NF	-	ND	YES
MO-934	WHC	200E	NF	-	ND	YES
MO-946	WHC	200E	NF	-	ND	YES
MO-996	WHC	200E	NF	-	ND	YES
MO-6415318	KEH	200E	NF	-	ND	YES
MO-6415353	KEH	200E	NF	-	ND	YES
MO-15346	KEH	200E	NF	-	ND	YES
MO-15000	KEH	200E	NF	-	ND	YES
MO-15341	KEH	200E	NF	-	ND	YES
272WA	WHC	200W	NF	-	ND	YES
2724WA	WHC	200W	NF	-	ND	YES
232Z	WHC	200W	NF	-	ND	YES
234-5 LAB	WHC	200W	NF	-	ND	YES
236Z	WHC	200W	NF	-	ND	YES
291Z	WHC	200W	NF	-	ND	YES
2701Z	WHC	200W	NF	-	ND	YES

Asbestos Assessment of Class C-2 Facilities (Page 3 of 4)

Facility number	Contractor	Area	ACM Type	-	ACM Condition	Accessibility occupants/HVAC
2735Z	WHC	200W	NF	-	ND	YES
MO-11	WHC	200W	NF	-	ND	YES
MO-15	WHC	200W	NF	-	ND	YES
MO-16	WHC	200W	NF	-	ND	YES
MO-17	WHC	200W	NF	-	ND	YES
MO-19	WHC	200W	NF	-	ND	YES
MO-21	WHC	200W	NF	-	ND	YES
MO-28	WHC	200W	NF	-	ND	YES
MO-31	WHC	200W	NF	-	ND	YES
MO-32	WHC	200W	NF	-	ND	YES
MO-37	WHC	200W	NF	-	ND	YES
MO-39	WHC	200W	NF	-	ND	YES
MO-56	WHC	200W	NF	-	ND	YES
MO-107	WHC	200W	NF	-	ND	YES
MO-202	AT/2 WHC	200W	NF	-	ND	YES
MO-211	WHC	200W	NF	-	ND	YES
MO-223	WHC	200W	NF	-	ND	YES
MO-306	WHC	200W	NF	-	ND	YES
MO-315	WHC	200W	NF	-	ND	YES
MO-319	WHC	200W	NF	-	ND	YES
MO-320	WHC	200W	NF	-	ND	YES
MO-326	WHC	200W	NF	-	ND	YES
MO-330	WHC	200W	NF	-	ND	YES
MO-333	WHC	200W	NF	-	ND	YES
MO-371	WHC	200W	NF	-	ND	YES
MO-376	WHC	200W	NF	-	ND	YES
MO-377	WHC	200W	NF	-	ND	YES
MO-406	WHC	200W	NF	-	ND	YES
MO-419	WHC	200W	NF	-	ND	YES
MO-739	WHC	200W	NF	-	ND	YES
MO-912	WHC	200W	NF	-	ND	YES
MO-924	WHC	200W	NF	-	ND	YES
MO-936	WHC	200W	NF	-	ND	YES
MO-947	WHC	200W	NF	-	ND	YES
MO-990	WHC	200W	NF	-	ND	YES
MO-6415351	KEH	200W	NF	-	ND	YES
MO-6417537	KEH	200W	NF	-	ND	YES
MO-6415339	KEH	200W	NF	-	ND	YES
W-15	KEH	200W	NF	-	ND	YES
305	WHC	300	NF	-	ND	YES
308	WHC	300	NF	-	ND	YES
309	WHC	300	NF	-	ND	YES
321	WHC	300	NF	-	ND	YES
321C	WHC	300	NF	-	ND	YES
335	WHC	300	NF	-	ND	YES
335A	WHC	300	NF	-	ND	YES
338	WHC	300	NF	-	ND	YES
340	WHC	300	NF	-	ND	YES

Asbestos Assessment of Class C-2 Facilities (Page 4 of 4)

Facility number	Contractor	Area	ACM Type	-	ACM Condition	Accessibility occupants/HVAC
340A	WHC	300	NF	-	ND	YES
382	WHC	300	NF	-	ND	YES
3705	PNL	300	NF	-	ND	YES
3709	PNL	300	NF	-	ND	YES
3709A	PNL	300	NF	-	ND	YES
3710	PNL	300	NF	-	ND	YES
3710A	PNL	300	NF	-	ND	YES
3713	PNL	300	NF	-	ND	YES
3717	PNL	300	NF	-	ND	YES
3718	WHC	300	NF	-	ND	YES
3718A	WHC	300	NF	-	ND	YES
3718B	PNL	300	NF	-	ND	YES
3718E	PNL	300	NF	-	ND	YES
3734A	WHC	300	NF	-	ND	YES
3745A	PNL	300	NF	-	ND	YES
3745B	PNL	300	NF	-	ND	YES
3746	PNL	300	NF	-	ND	YES
3746A	PNL	300	NF	-	ND	YES
3765	WHC	300	NF	-	ND	YES
3802A	WHC	300	NF	-	ND	YES
MO-6415340	KEH	300	NF	-	ND	YES
616	WHC	600	NF	-	ND	YES
622C	PNL	600	NF	-	ND	YES
622F	PNL	600	NF	-	ND	YES
622R	PNL	600	NF	-	ND	YES
6652H	PNL	600	NF	-	ND	YES
6652I	PNL	600	NF	-	ND	YES
6652J	PNL	600	NF	-	ND	YES
1242	KEH	3000	NF	-	ND	YES
1264	KEH	3000	NF	-	ND	YES

NF = non-friable

ND = non-damaged

Asbestos Assessment of Class C-3 Facilities (Page 1 of 3)

Facility number	Contractor	Area	ACM Type - ACM Condition			Accessibility occupants/HVAC
104B1	WHC	100B	NF	-	ND	YES
151B	WHC	100B	NF	-	ND	YES
181B	WHC	100B	NF	-	ND	YES
182B	WHC	100B	NF	-	ND	YES
190B	WHC	100B	NF	-	ND	YES
1701BA	WHC	100B	NF	-	ND	YES
105C	WHC	100C	NF	-	ND	YES
183C	WHC	100C	NF	-	ND	YES
1702C	WHC	100C	NF	-	ND	YES
1713C	WHC	100C	NF	-	ND	YES
105D	WHC	100D	NF	-	ND	YES
151D	WHC	100D	NF	-	ND	YES
181D	WHC	100D	NF	-	ND	YES
182D	WHC	100D	NF	-	ND	YES
183D	WHC	100D	NF	-	ND	YES
185D	WHC	100D	NF	-	ND	YES
189D	WHC	100D	NF	-	ND	YES
190D	WHC	100D	NF	-	ND	YES
190DA	WHC	100D	NF	-	ND	YES
195D	WHC	100D	NF	-	ND	YES
1703D	WHC	100D	NF	-	ND	YES
1713D	WHC	100D	NF	-	ND	YES
105DR	WHC	100D	NF	-	ND	YES
117DR	WHC	100D	NF	-	ND	YES
119DR	WHC	100D	NF	-	ND	YES
1702DR	WHC	100D	NF	-	ND	YES
105F	WHC	100F	NF	-	ND	YES
108F	WHC	100F	NF	-	ND	YES
1701FA	WHC	100F	NF	-	ND	YES
105H	WHC	100H	NF	-	ND	YES
1713H	WHC	100H	NF	-	ND	YES
115KE	WHC	100K	NF	-	ND	YES
115KW	WHC	100K	NF	-	ND	YES
117KE	WHC	100K	NF	-	ND	YES
1713KE	WHC	100K	NF	-	ND	YES
117KW	WHC	100K	NF	-	ND	YES
167K	WHC	100K	NF	-	ND	YES
182K	WHC	100K	NF	-	ND	YES
1714KW	WHC	100K	NF	-	ND	YES
1120N	WHC	100N	NF	-	ND	YES
225B	WHC	200E	NF	-	ND	YES
2711B	WHC	200E	NF	-	ND	YES
2715B	WHC	200E	NF	-	ND	YES
252E	WHC	200E	NF	-	ND	YES
275EB	WHC	200E	NF	-	ND	YES
2753EB	WHC	200E	NF	-	ND	YES
282EA	WHC	200E	NF	-	ND	YES

Asbestos Assessment of Class C-3 Facilities (Page 2 of 3)

Facility number	Contractor	Area	ACM Type - ACM Condition			Accessibility occupants/HVAC
282EB	WHC	200E	NF	-	ND	YES
MO-57B	KEH	200E	NF	-	ND	YES
MO-57A	KEH	200E	NF	-	ND	YES
MO-227	KEH	200E	NF	-	ND	YES
MO-112	KEH	200E	NF	-	ND	YES
MO-324B	KEH	200E	NF	-	ND	YES
MO-15011	KEH	200E	NF	-	ND	YES
MO-15010	KEH	200E	NF	-	ND	YES
MO-19925	KEH	200E	NF	-	ND	YES
MO-12658	KEH	200E	NF	-	ND	YES
MO-29108	KEH	200E	NF	-	ND	YES
MO-6412660	KEH	200E	NF	-	ND	YES
MO-6415331	KEH	200E	NF	-	ND	YES
MO-6412673	KEH	200E	NF	-	ND	YES
MO-6415310	KEH	200E	NF	-	ND	YES
MO-6415342	KEH	200E	NF	-	ND	YES
MO-6412658	KEH	200E	NF	-	ND	YES
MO-6415329	KEH	200E	NF	-	ND	YES
MO-2911E	KEH	200E	NF	-	ND	YES
2701ED	KEH	200E	NF	-	ND	YES
2715EB	KEH	200E	NF	-	ND	YES
2716E	KEH	200E	NF	-	ND	YES
212N	KEH	200E	NF	-	ND	YES
212P	KEH	200E	NF	-	ND	YES
X8	KEH	200E	NF	-	ND	YES
272S	KEH	200W	NF	-	ND	YES
272U	KEH	200W	NF	-	ND	YES
275UR	KEH	200W	NF	-	ND	YES
252W	KEH	200W	NF	-	ND	YES
275W	KEH	200W	NF	-	ND	YES
282WA	KEH	200W	NF	-	ND	YES
2709W	KEH	200W	NF	-	ND	YES
2720W	KEH	200W	NF	-	ND	YES
334	KEH	300	NF	-	ND	YES
3701A	KEH	300	NF	-	ND	YES
3701D	KEH	300	NF	-	ND	YES
3701L	KEH	300	NF	-	ND	YES
3701R	KEH	300	NF	-	ND	YES
3701S	KEH	300	NF	-	ND	YES
3701U	KEH	300	NF	-	ND	YES
3706	KEH	300	NF	-	ND	YES
3706A	KEH	300	NF	-	ND	YES
3707B	KEH	300	NF	-	ND	YES
3718M	KEH	300	NF	-	ND	YES
37180	PNL	300	NF	-	ND	YES
3790	WHC	300	NF	-	ND	YES
MO-6415347	KEH	300	NF	-	ND	YES
MO-6415348	KEH	300	NF	-	ND	YES

Asbestos Assessment of Class C-3 Facilities (Page 3 of 3)

Facility number	Contractor	Area	ACM Type	-	ACM Condition	Accessibility occupants/HVAC
622G	WHC	600	NF	-	ND	YES
703	WHC	700	NF	-	ND	YES
1253	KEH	3000	NF	-	ND	YES
1254	KEH	3000	NF	-	ND	YES
1262	KEH	3000	NF	-	ND	YES
1170	WHC	1100	NF	-	ND	NO

NF = non-friable ND = non-damaged

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