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PROJECT # **ASBESTOS SURVEY**



PROJECT NAME

**ENVIRONMENTAL HEALTH SURVEY REPORT
(ABATEMENT) BRIDGER BUILDING
225 BRIDGER AVE-LAS VEGAS, NV
MAY 22, 1991**

DOC TYPE **RPTS**





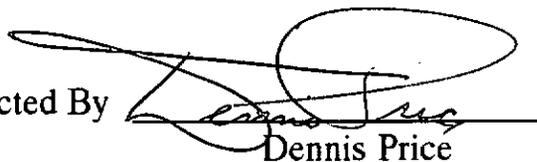
AB-HAZ ENVIRONMENTAL

Consultants in Environmental and Occupational Health

Environmental Health Survey Report

Clark County Division of Facilities Maintenance
225 Bridger Avenue
Las Vegas, Nevada

Survey Conducted By



Dennis Price

Management Contact: Mr. Gary Kennard

Project: Emergency Cleanup of
Suspected ACM/Ceiling
Tile Replacement

Site: Bridger Building
225 Bridger Avenue
Las Vegas, Nevada

Date of Report: May 22, 1991,



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On May 22, 1991, Ab-Haz Environmental Services located at 2242 Placer Creek Court in Las Vegas, Nevada was contacted by the Clark County Division of Facilities in Las Vegas, Nevada to perform emergency air monitoring and clearance sampling services at the Clark County Bridger Building located at 225 Bridger Avenue in Las Vegas, Nevada. The asbestos abatement services were performed by Excel Environmental, Inc. located at 115 East Reno Street in Las Vegas, Nevada. Excel Environmental, Inc. supplied all labor, materials, services and equipment to complete the following scope of work.

- Decontaminate above ceiling (5 foot radius at minimum) loose friable asbestos containing materials
- HEPA vacuum and wet wipe all visible debris.
- Remove and replace water damaged ceiling tile.

Final Results Indicated

1. Final airborne concentrations inside the decontamination areas after completion of the cleanup operation were below 0.01 fiber/cc, a level considered "clean" by Phase Contrast Microscopy.
2. Visual inspection by Ab-Haz Environmental Services found no visible ACM debris on the floor or below existing drop ceiling. Ab-Haz Environmental Services found services to be satisfactory.
3. Asbestos exposure to the removal workers during removal operations were below the current OSHA levels allowable for half face dual cartridge respirators.
4. Perimeter airborne concentration outside the removal areas during removal and cleanup operations were consistently below 0.01 fiber/cc.



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METHODS

Asbestos Sampling

Airborne asbestos samples were collected using calibrated equipment (via primary method) and NIOSH recommended sampling procedures. High flow sampling pumps were calibrated in the work area to collect between 9 liter per minute. Asbestos fibers were collected on mixed cellulose membrane filters with 0.8 microns pore size mounted in a 3 stage filter cassettes. Sample collections were performed in the open face position by drawing a known volume of air through the filter with a calibrated sampling pump (between 800 to 1200 liter per sampling period).

Ab-Haz Monitoring Program Consists Of

1. During decontamination activity high-flow perimeter samples were collected in hallways, offices, corridors, and containment areas.
2. Work area samples were collected representing breathing zones to determine the employee 8 hour TWA.
3. Personnel sampling pumps were placed on of the employees in decontamination areas
4. Monitoring of asbestos removal workers was performed per OSHA standard of 1926.58 for asbestos during removal operations.

ASBESTOS ANALYSIS

Airborne asbestos samples were analyzed per NIOSH method 7400 using the "A" counting rules. This method identifies total number of fibers by Phase Contrast Microscopy using 400 X magnification. This method does not distinguish between asbestos and non-asbestos fibers (ie., fiberglass, mineral wool, cellulose, etc.). All fibers with a length to diameter ratio of 3 to 1 or greater and a length of greater than 5 microns are considered to be asbestos fibers and are counted as such. The NIOSH method 7400 requires 5.5 fibers per 100 fields to be counted to be considered "detectable".



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Airborne asbestos samples were analyzed per NIOSH method 7400 using the "A" counting rules. This method identifies total number of fibers by Phase Contrast Microscopy using 400 X magnification. This method does not distinguish between asbestos and non-asbestos fibers (ie., fiberglass, mineral wool, cellulose, etc.). All fibers with a length to diameter ratio of 3 to 1 or greater and a length of greater than 5 microns are considered to be asbestos fibers and are counted as such. The NIOSH method 7400 requires 5.5 fibers per 100 fields to be counted to be considered "detectable".

STANDARDS

Occupational exposures to asbestos are evaluated by comparing them to the most recent threshold limit values (TLV-TWA) established by the Occupational Safety and Health Administration (OSHA). TLV's are time weighted average concentrations for a normal 8-hour workweek to which nearly all workers may be repeatedly exposed, day after day, without adverse effects.

TLV's are used as guides in the control of health hazards but should not be used to distinguish between safe and dangerous concentration. Both the EPA and OSHA have stated that any level of exposure to asbestos fibers involves some health risks and levels should be kept as low as practical. While TLV's allow excursions above permissible values, ceiling standards are used for predominantly fast-acting contaminants are concentrations not to be exceeded at any time.



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1. During decontamination activity high-flow perimeter samples were collected in hallways, offices, corridors, and containment areas,.
2. Work area samples were collected representing breathing zones to determine the employee 8 hour TWA.
3. Personnel sampling pumps were placed on of the employees in decontamination areas
4. Monitoring of asbestos removal workers was performed per OSHA standard of 1926.58 for asbestos during removal operations.



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RESULTS

Results of the air and personnel samples collected during the project are shown in the Air Sampling Data Tables in the Appendix.

Results indicate final airborne fiber concentrations upon completion of the clean-up operations were below 0.01 fibers per cubic centimeters of air (F/CC), a level considered "clean" by Phase Contrast Analysis using NIOSH 7400. At the request of the Owner (Clark County Division of Facilities) a visual inspection was performed. This process was repeated in all areas where cleanup operations took place.

Fiber concentrations in the perimeter areas sampled were also below 0.01 F/CC the established limit given by EPA and DOSH.

OSHA standard 1926.58 section (6) part (f) requires an employer to notify affected employees of asbestos exposure monitoring results as soon as possible following their receipt of analysis. Written results were available to employees within 24-hours.

NOTE: NIOSH method 7400 requires 5.5 fibers per field to be counted to be considered detectable



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DISCUSSION

On May 22, 1991, Ab-Haz Environmental Services mobilized all necessary materials, equipment, and project monitors to perform emergency air monitoring/clearance sampling. Initially Ab-Haz Environmental Services performed a visual inspection of the cleanup sites to determine exposure in the work areas.

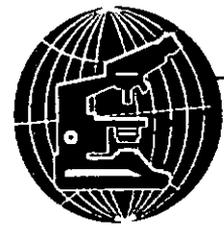
Ab-Haz Environmental Services started high flow sampling of the Northwest corner of the 10th floor(Room 1007). Excel Environmental, Inc. immediately mobilized all materials, equipment and personnel to decontamination area where leakage occurred. Excel Environmental's personnel hepa vacuumed and wet wiped surfaces which appeared contaminated. The work performed in this emergency cleanup consisted of the following: Decontamination of rooms 1007, 1008, 1001, 1020, 1024, 1014, 1015, 1016, Supreme Court area, Mr. Jim Mulcahey's office and the Women's 10th floor bathroom. After final inspection Ab-Haz Environmental found areas to be visually clear of asbestos contamination.

On-site all employees had copies of their Nevada State worker certification card, OSHA pulmonary and physical examination information.

Visual inspections were performed after all abatement activity was completed this sequence was repeated in all areas. Ab-Haz Environmental found all services complete with no visible debris and fiber density well below the occupancy standard.

Excel Environmental, Inc.(asbestos abatement contractor)performed the required OSHA personnel air sampling as required by OSHA standard 1926.58 section (6) part (f).

Excel Environmental, Inc. performed all decontamination services according to current established protocols governing the asbestos removal industry as observed by Ab-Haz Environmental's Representative on site.



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All asbestos containing materials were placed into 6-mil poly ethylene bags doubled and carried out of the building transported in accordance with 40 CFR 61.152 and dumped at EPA approved landfill (Silver State Disposal Sunrise Landfill), 7900 Vegas Valley in Las Vegas, Nevada.



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APPENDIX



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SITE: Bridger Building
225 Bridger Avenue
Las Vegas, Nevada

PROJECT: 05-91-CC-BBEC-10

ACTIVITY: Cleanup/Tile Replacement.

<u>SAMPLE#</u>	<u>Date</u>	<u>Time(min)</u> <u>VOL(L)</u>	<u>Location</u>	<u>F/CC</u>
BBEC-01	5/22/91	220/2200	Mr. Earl Hill Office, Center of Room	0.006
BBEC-02	5/22/91	176/1760	Mr. Wayne Wedlow, front of door	0.005
BBEC-03	5/22/91	160/1600	Above ceiling line, in Mr. Jim Mulcahey	0.009
BBEC-04	5/22/91	137/1370	Contractor's Administra- tion Office	0.004
BBEC-05	5/22/91	67/670	Mr. Jim Mulcahey, Office	0.007
BBEC-06	5/22/91	BLANK		



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BBEC-06	5/23/91	256/2650	Mr. Jim Mulcahey Center of Room	.0064
BBEC-07	5/23/91	189/1890	Women Bathroom, 10th Floor	0.005
BBEC-08	5/23/91	BLANK		