

**PRELIMINARY ASSESSMENT REPORT
CMX CORPORATION
YAKIMA, WASHINGTON**

**TDD F10-8804-42
PAN FWA0565PA**

This document was part of the official
Administrative Record for the Yakima
Railroad Area on October 31, 1996.
Washington State
Department of Ecology.

**Report Prepared by: Ecology and Environment, Inc.
Date: June 1988**

**Submitted to: J.E. Osborn, Regional Project Officer
Field Operations and Technical Support Branch
U.S. Environmental Protection Agency
Region X
Seattle, Washington**



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MEMORANDUM

DATE: June 27, 1988

TO: John Osborn, FIT-RPO, USEPA, Region X

THRU: Jeffrey Villnow, FIT-OM, E&E, Seattle 970

FROM: Lazar Gorelik, FIT-SM, E&E, Seattle JL

SUBJ: Preliminary Assessment Report for
CMX Corporation
Yakima, Washington

REF: TDD F10-8804-42
PAN FWA0565PA

CC: ~~William J. Hafferty~~, HWD-SM, USEPA, Region X
Andrew Hafferty, FIT-PM, E&E, Seattle

1. Introduction and Purpose of the Preliminary Assessment:

Pursuant to the U.S. Environmental Protection Agency (EPA) Contract No. 68-01-7347 and Technical Directive Document (TDD) F10-8804-42, Ecology and Environment, Inc. (E&E) conducted a Preliminary Assessment (PA) of CMX Corporation in Yakima, Washington. The PA represents the second of a three-step assessment process which begins with Site Discovery and concludes, if necessary, with a Site Inspection. The assessment process, in general, is intended to identify, compare, and rank the potential hazards associated with a particular site relative to other sites across the nation for the purpose of identifying priority sites requiring remedial responses. It does not include extensive or complete site characterization, contaminant fate determination, or quantitative risk assessment.

The CMX Corporation Site PA was conducted to identify potential public health and/or environmental hazards related to the site and, if present, evaluate the need for additional investigative action. The PA is based on data derived from available files and literature pertaining to the site (1-8). Information developed during the PA is summarized in Appendix A on EPA Form 2070-12.

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2. Information Obtained During the Preliminary Assessment:

- o Site Location and Description - The CMX Corporation Site is located at 206 West Mead Avenue, Yakima, Washington (Section 31, Township 13N, Range 19E) in the southeastern portion of the city.

The Yakima CMX facility is a branch of CMX Corporation in Seattle, Washington. It supplies photographic chemicals to local hospitals and clinics for X-ray units (1).

The operational period and technological processes of the facility are unknown. Containers contaminated with photochemicals were rinsed at the site. The wastewater was discharged to a drainfield at a rate of 180 gallons per week (1).

- o Site History/Potential Problem(s) at the Site - There is no information in EPA and Ecology files on the site history. A potential problem associated with the site is the discharge of wastewaters, containing dissolved photochemicals, beneath the ground. Using the weekly discharge rate of 180 gal/week, it can be estimated that between 1985 and present time approximately 122 tons of contaminated water have been discharged into the subsurface.
- o Physical Environment - The site is located in a mixed residential/industrial area approximately two miles west from the Yakima River (2). The river is used for fish propagation and recreation (3). The average annual precipitation for Yakima area is approximately eight inches and average annual lake evaporation is 34 inches, providing an annual precipitation deficiency of -26 inches (4,5).

The municipal water supply of the city is drawn from Naches River at a diversion point which is more than eight miles from the site (6). Ground water wells serve as a supplementary supply source. Data on well logs suggest that the depth to the water table in the site vicinity ranges from 10 to 20 feet below the ground surface (7). Geological records of the wells indicate that the formation consists of sand and gravel with minor lenses of clay. It is thought that ground water flow is southeasterly, approximately parallel to Burlington Northern Railroad, and that water movement is rapid (6).

Within a three-mile radius of the site, excluding portions of the Yakima River, the population supplied from private wells and from public wells has been estimated to be over 10,000 people (6). A public supply well serving 171 residents is approximately 0.5 miles north of the CMX Site (7).

- o Waste Types, Quantities, and Characteristics - Wastewaters generated at the site contain constituents of several photo-chemical solutions (1): a four-stage developer Kodak Company, MX 125, parts 1-4, of unknown compositions (1), and a two-stage fixer manufactured by CMX in Seattle, consisting of part 1 (ammonium thiosulfate and sodium bisulfate) and part 2 (concentrate acetic acid). The fixer also contains silver (1).

The total quantity of the spent developer and the spent fixer discharged weekly to the drain field with washwater was estimated by Ecology to be 80 ounces (approximately 2.3 kilograms) and 100 ounces (approximately 2.8 kilograms), respectively, providing the content of the waste products in the effluent of approximately 7,500 mg/l (1).

- o Pollutants, Mobilization, Pathways, and Risks - General data on geological formation in the site vicinity suggests that past disposal practices of wastewaters disposal by CMX Corporation have probably resulted in soil and ground-water contamination. This is due to a relatively large conductivity of the unsaturated zone, shallow ground water table, and large discharge rate of the facility effluent. Data on the effluent composition would be required to assess the movement of its contaminants in the subsurface. In general, the larger a solute affinity to soil, the lower its mobility in subsurface (8).

Composite rinsate samples of the fixer were tested in 1985 using the Department of Ecology Procedure for Static Acute Fish Toxicity Test (1). At concentrations of 1,000 mg/l and 100 mg/l, trout mortality was found to be ten percent and three percent, respectively.

3. Priority Assessment: High

4. Follow-Up Recommendations:

General data gathered for the CMX Site in Yakima, Washington suggest that disposal of wastewaters containing dissolved photochemicals into a drainfield has probably resulted in soil and ground water contamination. The extent and magnitude of the potential contamination are presently unknown.

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CMX Corporation
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A site inspection is recommended to determine the current status of the facility and corrective action required to avoid further contamination. This is due to a large discharge rate of the plant effluent, toxic nature of the effluents, high permeability of the unsaturated zone, shallow aquifer, and large population supplied by drinking water from the aquifer of concern.

APPENDIX A

EPA FORM 2070-12

*This document was part of the official
Administrative Record for the Yakima
Rollroad Area on October 31, 1996.
Washington State
Department of Ecology*

**EPA PRELIMINARY ASSESSMENT FORM 2070-12
FOR
CMX CORPORATION
YAKIMA, WASHINGTON**

**TDD Number: F10-8804-42
PAN Number: FWA0565PA**

**FIT Investigator: Lazar Gorelik
Report Prepared by: Lazar Gorelik
Report Date:**

**Submitted to: John Osborn, RPO
Field Operations and Technical Support Branch
U.S. Environmental Protection Agency
Region X
Seattle, WA**

This document is a part of the official
Administrative Record for the Yakima
Remedial Action completed October 31, 1996.
Washington State
Department of Ecology

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT		I. IDENTIFICATION	
EPA		01 STATE WA	02 SITE NUMBER D103507430
II. SITE NAME AND LOCATION			
01 SITE NAME (Legal, common, or descriptive name of site) CMX Corporation		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 206 West Mead Avenue	
03 CITY Yakima	04 STATE WA	05 ZIP CODE 98902	06 COUNTY Yakima
07 COUNTY 77	08 CONG DIST 04		
09 COORDINATES	LATITUDE 46°34'41"	LONGITUDE 120°30'23"	
10 DIRECTIONS TO SITE (Starting from nearest public road) From Highway 82 take the exit at Nob Hill Blvd., follow East Nob Hill Blvd. Take a left turn on South 18th Street and follow to East Mead Avenue. Take a right turn on East Mead Avenue and follow to South 2nd Avenue. The site is near 2nd Avenue on Mead Avenue.			
III. RESPONSIBLE PARTIES			
01 OWNER (If known) CMX Corporation		02 STREET (Business, mailing, residential) Unknown	
03 CITY Seattle	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
07 OPERATOR (If known and different from owner) CMX Corporation		08 STREET (Business, mailing, residential) 206 West Mead Avenue	
09 CITY Yakima	10 STATE WA	11 ZIP CODE 98902	12 TELEPHONE NUMBER (509) 575-6970
13 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL (Agency name) <input type="checkbox"/> F. OTHER: _____ <input type="checkbox"/> G. UNKNOWN (Specify)			
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) <input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: _____ <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: _____ <input type="checkbox"/> C. NONE MO/DAY/YR MO/DAY/YR			
IV. CHARACTERIZATION OF POTENTIAL HAZARD			
01 ON SITE INSPECTION BY (Check all that apply) <input checked="" type="checkbox"/> YES DATE 04/02/85 <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input checked="" type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR MO/DAY/YR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) CONTRACTOR NAME(S): _____			
02 SITE STATUS (CHECK ONE) <input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION Unknown Present UNKNOWN BEGINNING YEAR ENDING YEAR	
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED Wastewater containing spent photographic chemicals was discharged to a site drainfield.			
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION Potential of soil and ground water contamination with spent photographic chemicals.			
V. PRIORITY ASSESSMENT			
01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous conditions and Incidents) <input checked="" type="checkbox"/> A. HIGH <input type="checkbox"/> B. MEDIUM <input type="checkbox"/> C. Low <input type="checkbox"/> D. NONE (Inspection required promptly) (Inspection required) (Inspect on time available basis) (No further action needed. Complete current disposition form)			
VI. INFORMATION AVAILABLE FROM			
01 CONTACT William Glasser		02 OF (Agency/Organization) USEPA, HWD, region X	
03 TELEPHONE NUMBER 206-442-7215			
04 PERSON RESPONSIBLE FOR ASSESSMENT Lazar Gorelik		05 AGENCY EPA/FIT	
06 ORGANIZATION E&E, Inc.		07 TELEPHONE NUMBER 206-624-9537	
08 DATE 05/31/88 MO/DAY/YR			

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT		I. IDENTIFICATION	
EPA	PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS	01 STATE WA	02 SITE NUMBER D103507430
II. HAZARDOUS CONDITIONS AND INCIDENTS			
01 <input checked="" type="checkbox"/> A. GROUND-WATER CONTAMINATION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input checked="" type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: <u>>10,000</u>	04 NARRATIVE DESCRIPTION Potential of ground water contamination with photographic chemicals due to discharge of wastewaters to the drainfield.		
01 <input type="checkbox"/> B. SURFACE WATER CONTAMINATION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____	04 NARRATIVE DESCRIPTION There is no clear evidence for surface water contamination.		
01 <input type="checkbox"/> C. CONTAMINATION OF AIR	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____	04 NARRATIVE DESCRIPTION None reported, observed, or suspected.		
01 <input type="checkbox"/> D. FIRE/EXPLOSIVE CONDITIONS	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____	04 NARRATIVE DESCRIPTION None reported, observed, or suspected.		
01 <input checked="" type="checkbox"/> E. DIRECT CONTACT	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input checked="" type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____	04 NARRATIVE DESCRIPTION Low potential since the effluent is discharged below the ground surface.		
01 <input checked="" type="checkbox"/> F. CONTAMINATION OF SOIL	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input checked="" type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 AREA POTENTIALLY AFFECTED: <u>unknown</u> (Acres)	04 NARRATIVE DESCRIPTION The soil in the area of the drainfield is likely to become contaminated with photographic chemicals.		
01 <input checked="" type="checkbox"/> G. DRINKING WATER CONTAMINATION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input checked="" type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: <u>>10,000</u>	04 NARRATIVE DESCRIPTION Ground water in the area is used for drinking water supplies. Potential of ground water contamination with photographic chemicals.		
01 <input type="checkbox"/> H. WORKER EXPOSURE/INJURY	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____	04 NARRATIVE DESCRIPTION Unknown		
01 <input type="checkbox"/> I. POPULATION EXPOSURE/INJURY	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____	04 NARRATIVE DESCRIPTION Unknown		

This document was used in the
 Administration of the
 Railroad Area on January 21, 1996
 Washin State
 Department of Ecology

EPA	POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT	I. IDENTIFICATION	
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS		01 STATE WA	02 SITE NUMBER D103507430
II. HAZARDOUS CONDITIONS AND INCIDENTS (CONTINUED)			
01 <u> </u> J. DAMAGE TO FLORA	02 <u> </u> OBSERVED (DATE: _____)	POTENTIAL	ALLEGED
04 NARRATIVE DESCRIPTION None reported, observed, or suspected.			
01 <u> </u> K. DAMAGE TO FAUNA	02 <u> </u> OBSERVED (DATE: _____)	POTENTIAL	ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species) None reported, observed, or suspected.			
01 <u> </u> L. CONTAMINATION OF FOOD CHAIN	02 <u> </u> OBSERVED (DATE: _____)	POTENTIAL	ALLEGED
04 NARRATIVE DESCRIPTION None reported, observed, or suspected.			
01 <u> </u> M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums)	02 <u> </u> OBSERVED (DATE: _____)	POTENTIAL	ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____		04 NARRATIVE DESCRIPTION Unknown	
01 <u> </u> N. DAMAGE TO OFF-SITE PROPERTY	02 <u> </u> OBSERVED (DATE: _____)	POTENTIAL	ALLEGED
04 NARRATIVE DESCRIPTION Unknown			
01 <u> </u> X O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs	02 <u> </u> OBSERVED (DATE: _____)	POTENTIAL	<u> </u> X ALLEGED
04 NARRATIVE DESCRIPTION Suspected contamination of on-site septic system.			
01 <u> </u> P. ILLEGAL/UNAUTHORIZED DUMPING	02 <u> </u> OBSERVED (DATE: _____)	POTENTIAL	ALLEGED
04 NARRATIVE DESCRIPTION Unknown			
05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS Unknown			
<div style="text-align:right; font-size:small; color:gray;"> This document is a part of the official Administrative Record of the Yakima National Forest, located at: 10000 N. 2nd St. Yakima, WA 98901 </div>			
III. TOTAL POPULATION POTENTIALLY AFFECTED: _____			
IV. COMMENTS A site inspection is recommended to gather additional data for an accurate assessment.			
V. SOURCES OF INFORMATION (Cite specific references. e.g., state files, sample analysis, reports)			
Site files of EPA and Ecology. USGS Topographical Maps, Yakima East and West, revised, 1985. Site Inspection Report of Rainier Plastic Company, TDD #f10-8707-13, E&E, 1987.			

REFERENCES

1. Site File of the CMX Corporation Site, EPA, Region X and Ecology.
2. Topographic Maps, Yakima East and Yakima West, USGS, revised in 1985.
3. Washington State Department of Ecology Water Rights Listing, 1988.
4. Climates of the States: Vol. II - Western States, U.S. Department of Commerce, National Oceanographic and Atmospheric Administration, 1974.
5. Climatic Atlas of the United States, U.S. Department of Commerce, National Oceanographic and Atmospheric Administration, 1968.
6. Site Inspection Report for Rainier Plastic Company, Yakima, Washington, Ecology and Environment, TDD F10-8707-13, 1987.
7. Washington State of Ecology Well Logs.
8. Lyman, W., et al., Handbook of Chemical Property Estimation Methods, McGraw-Hill Book Company, 1982.

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Washington State
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