

135463

United States General Accounting Office

GAO

Fact Sheet for the Chairman,  
Environment, Energy, and Natural  
Resources Subcommittee, Committee on  
Government Operations, House of  
Representatives

March 1988

# HAZARDOUS WASTE

## Problems and Cleanup Efforts at an FAA Facility in Oklahoma City



135463

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Kansas City, KS 66101

March 3, 1988

The Honorable Mike Synar  
Chairman, Environment, Energy,  
and Natural Resources Subcommittee  
Committee on Government Operations  
House of Representatives

Dear Mr. Chairman:

On October 29, 1987, you requested that we provide you with information on the nature and extent of hazardous waste pollution problems at the Federal Aviation Administration's (FAA) Mike Monroney Aeronautical Center in Oklahoma City, Oklahoma. Also, you wanted to know what actions the Center has taken to correct such problems and to clean up contamination resulting from its operations. Accordingly, this fact sheet formally transmits information previously provided to your staff at a briefing on February 5, 1988.

In summary, we found that state and local regulatory agencies cited the Center for noncompliance with industrial wastewater discharge and hazardous waste regulations several times between November 1984 and August 1987. The citations included discharging untreated toxic liquid wastes into sanitary sewers; spilling industrial wastes into storm sewers, possibly contaminating groundwater; and improperly documenting the transportation and disposal of hazardous waste. By the end of 1987, the Center had taken interim actions to address the causes of the problems and developed plans for a permanent solution. State and local officials told us that the Center's pollution problems will be solved if its plans for managing hazardous waste and cleaning up contaminated sites are funded and implemented.

Specifically, we found that Oklahoma City's Water Department cited the Center in November 1984 for discharging untreated toxic industrial liquids into Oklahoma City's Will Rogers Water Pollution Control Facility. In February and May 1986 reports, the Oklahoma Water Resources Board charged the Center for possible surface and groundwater contamination caused by unpermitted discharge (spills) of industrial wastewater into storm sewers, leaking underground fuel storage tanks, and an abandoned radioactive materials burial

plot. The Center had reported two of the sites identified by the Water Resources Board (one surface water contamination site and the radioactive materials burial plot) to the Environmental Protection Agency (EPA) in July 1985 as candidates for cleanup under provisions of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, commonly known as Superfund.

In January 1986, the Oklahoma State Department of Health cited the Center for noncompliance with Resource Conservation and Recovery Act regulations. The violations concerned the improper documentation of transportation and disposal of hazardous wastes and the absence of training for personnel.

Although the Center began in 1984 to respond to the regulatory agencies' concerns, Center environment officials said that the Center did not start a comprehensive program for its hazardous waste pollution problems until 1986. According to these officials, funding constraints slowed the progress of several proposed actions, and several improvements were not actually started until later in 1986.

By the end of 1987, the Center had installed an interim pretreatment system and spill containment structures and had implemented spill controls to prevent toxic wastewater from entering both sanitary and storm sewers. It had also started to remove and replace leaking underground fuel tanks and had taken action and developed a plan to comply with the Resource Recovery Act's requirements concerning handling and disposing of hazardous waste. In addition, the Center had developed a 5-year plan that includes permanent measures for protecting the environment and for cleaning up any contamination caused by its operations. The plan, which includes coverage of the two sites that the Center identified as Superfund cleanup candidates, calls for funding of \$9.5 million. The regulatory agencies responsible for overseeing the Center's corrective actions, believe the plan, if funded and properly implemented, will provide a permanent solution to past problems.

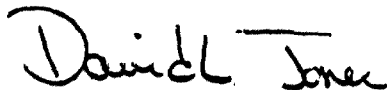
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To obtain information for this fact sheet, we reviewed records and/or interviewed officials of EPA, the Water Resources Board, the State Department of Health, the Oklahoma City Water Department, and the Center. The information contained in this fact sheet deals with the Center's environmental problems and corrective actions occurring since March 1984. To provide you this fact sheet by the date you requested, we verified information provided by officials only if documentary evidence was readily available from records currently on file at the Center. In addition, the information contained in this fact sheet was discussed with Center officials, who agreed with the facts presented.

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this fact sheet until 30 days from the date of this letter. At that time, we will send copies to the Center, EPA, the U.S. Department of Transportation, and other interested parties.

Major contributors to this fact sheet are listed in appendix I. If you have any questions, please contact me at (913) 236-3729.

Sincerely yours,



David L. Jones  
Regional Manager

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ABBREVIATIONS

EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
RCRA	Resource Conservation and Recovery Act

## SECTION 1

### PROBLEMS AND CLEANUP

#### EFFORTS AT FAA'S AERONAUTICAL CENTER

##### BACKGROUND

The Federal Aviation Administration's (FAA) Mike Monroney Aeronautical Center (the Center), located in the southwestern part of Oklahoma City, consists of several FAA facilities, including the FAA Academy, the FAA Depot, the Civil Aeromedical Institute, and the Aviation Standards National Field Office. The Center is located over the western portion of the Garber-Wellington Aquifer, which supplies drinking water to residential communities in central Oklahoma.

In carrying out its activities, the Center generates a variety of sanitary and industrial wastes. For example, the FAA Depot in fabricating, modifying, or repairing ground facility equipment items and the Aviation Standards National Field Office, in servicing aircraft, use agents such as methyl ethyl ketone and trichloroethylene and generate hazardous wastes, including hexavalent chromium and cyanide.

Three major laws--one governing water quality and two governing hazardous waste--deal with activities discussed in this fact sheet. Water quality is regulated under the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1251, et seq.), known as the Clean Water Act. Hazardous waste is regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, commonly known as Superfund.

The Environmental Protection Agency (EPA) has primary responsibility for regulating hazardous waste management and for monitoring compliance with RCRA and the Clean Water Act. In Oklahoma, EPA has delegated its responsibilities under RCRA for regulating the containment, management, control, and disposal of hazardous waste to the Oklahoma State Department of Health. Similarly, EPA has delegated its primary authority for controlling industrial waste discharges into surface and groundwater under the Clean Water Act to the Oklahoma Water Resources Board. EPA has, however, retained responsibility for managing the Superfund program. Under Superfund, potential hazardous waste sites are reported to EPA; EPA confirms suspected contamination, develops cleanup plans, and identifies the parties responsible for clean up. However, if the waste is on federal property, the agency involved must use its own funds for the cleanup.

As a holder of an industrial waste discharge permit, the Center can discharge liquid wastes into the sanitary sewer system, which flows into Oklahoma City's Will Rogers Water Pollution Control Facility. The Center is responsible to the city for ensuring that waste in excess of permit levels is not discharged into the city's sewer system. The city Water Department is in turn responsible to EPA under the Clean Water Act for assuring that wastewater discharging into and from its treatment facilities meets required standards.

Prior to 1985, the Center's environmental program was managed by the Civil Aeromedical Institute. Primarily as a result of problems with industrial waste discharges identified by the Oklahoma City Water Department in 1984, the Center created an Environmental Protection Specialist position during 1985 in the Center's Facility Support Division, and the Specialist became the responsible agent for waste disposal.

#### INDUSTRIAL WASTE DISCHARGE PROBLEMS

On March 7, 1984, the Superintendent, Water and Wastewater Treatment Division, Oklahoma City Water Department, informed the Center that toxic industrial liquid waste entering the Will Rogers Water Pollution Control Facility exceeded the facility's capacity to adequately treat the waste to permitted standards. These wastes included solvents, high strength industrial degreasers, and hexavalent chromium, all of which EPA classifies as hazardous. The Water Department requested that the Center review its entire operations and report to the city all activities that generate, or have a potential to generate, liquid industrial waste discharges into the sanitary sewers. The Center's March 16, 1984, response to city officials stated that new in-house procedures, such as transporting more wastes to disposal sites, had been developed as a result of the city's complaint and would prevent hazardous material from entering the city's sanitary sewer system and treatment facility.

On November 16, 1984, the Oklahoma City Water Department notified the Center that treatment plant personnel continued to observe abnormal discharges into its plant at least twice a month, as well as spills of hexavalent chromium and cyanide that had been traced to the Center. The Superintendent requested that within 60 days the Center formulate plans to prevent a recurrence of toxic liquid spills into the Oklahoma City sanitary sewer system. Records were not available to indicate whether a plan had been developed as a result of this request. (It is the Center's practice to retire records that are more than 2 years old.)

However, the Water Department conducted an inspection at the Center about 1 year later on October 3, 1985, and issued a compliance letter citing the Center for spilling toxic waste into drains located in the FAA Depot's metal finishing shop. According



to the Center's Environmental Protection Specialist, the Center closed off some drains at that time in order to prevent toxic liquid spills from reaching the sanitary sewers.

In addition, a May 21, 1986, Water Resources Board report cited the Center for unpermitted discharges of industrial wastes from three aircraft hangers into storm sewers, which could be polluting the outlet lagoon and Lake Peachy. The report, which referred to inspections conducted in December 1985 and January 1986, also cited the Center for possible groundwater pollution resulting from the lack of spill prevention and containment measures, leaking underground storage tanks (cited previously in the Board's February report), and an abandoned radioactive materials burial plot.

On October 27, 1986, the Center responded to the May 21, 1986, report saying it would install spill control structures and plug floor drains to prevent toxic waste from entering storm sewers. On December 18, 1986, the Water Resources Board advised the Center that the proposed actions should be adequate to correct most of the spill and drainage problems. However, the Board also stated that additional information on the outlet lagoon and Lake Peachy and more soil sampling of the Center's outside storage areas was needed to determine if significant surface or groundwater contamination had occurred. The Center sent the Board a sampling and analysis plan for review on February 20, 1987.

According to the Center's Environmental Protection Specialist, the Center did not have sufficient funds to take immediate action to correct the violations listed in the Water Resource Board's May 21, 1986, report. According to the Specialist, reprogramming of fiscal year 1986 funds was requested, but was not approved. According to this official, about \$40,000 was transferred from unobligated facilities and equipment funds late in 1986 and was used to determine which drains in the repair facilities and hangers were discharging into the sanitary sewers and which were draining into the storm sewers.

According to the Environmental Protection Specialist, approximately \$200,000 in fiscal year 1987 funds were reprogrammed and, in response to the Board's and the Water Department's concerns, were used as follows:

- All underground storage tanks were tested for leaks by a contractor.
- Four abandoned underground storage tanks were removed and soil samples analyzed for contamination.
- Contracts were issued for the design of double wall, fiberglass replacement fuel storage tanks.

- An interim wastewater pretreatment system for the FAA Depot's plating and metal finishing shops was installed, pending design and installation of a permanent pretreatment facility.

On February 17, 1987, the Center requested that the Oklahoma City Water Department review its conceptual design for a permanent facility to pretreat wastewater from the Center's industrial operation. In a March 6, 1987, letter, the city advised the Center that the design for the pretreatment facility appeared to cover all areas of noncompliance.

On August 17, 1987, city officials notified the Center that a July 29, 1987, inspection had found no toxic organics being discharged from the electroplating or metal finishing area, but that the three hangers were continuing to spill some toxic wastewater into the storm sewers. During the inspection, the Center advised city officials that it was aware of the problem and was working with the Water Resources Board to resolve it.

The Water Resources Board conducted a follow up inspection in September 1987 and advised the Center on October 27, 1987, that problem areas previously cited in May 1986 had been corrected and that the Board was pleased with the Center's efforts. The Board stated, however, that samples from the outlet lagoon and Lake Peachy showed that possible contamination had occurred at both sites. The Board advised the Center that it had forwarded the sampling results to the State Department of Health for evaluation, and that on October 12, 1987, the department had forwarded the results to EPA's Region VI for consideration of possible RCRA enforcement actions. EPA began conducting field work in February 1988 to determine the extent and sources of contamination to the outlet lagoon and Lake Peachy. The nature and extent of clean-up work will be determined after EPA completes its field work.

During 1987, the Center also prepared a 5-year environmental cleanup plan describing actions to clean up its environmental problems. The plan is divided into three phases, with total estimated costs of about \$9.5 million.

- Phase I, Initial Compliance, \$1.9 million. This involves making a comprehensive assessment of the Center's environmental problems and removing leaking underground fuel storage tanks.
- Phase II, Construction and Installation of Permanent Pollution Controls, \$3.9 million. This includes installing an industrial wastewater pretreatment facility, replumbing all drains into the pretreatment facility, and replacing underground fuel storage tanks.

-- Phase III, Environmental Cleanup, \$3.7 million. This involves removing contaminated soils and cleaning up any contamination found in the groundwater, the outlet lagoon, and Lake Peachy.

An official of the Center's Facility Support Division told us that at budget meetings on January 22, 1988, FAA headquarters reprogrammed \$1.8 million of fiscal year 1988 funds primarily for designing and installing the permanent pretreatment facility. However, Center officials told us on February 26, 1988, that they withdrew this reprogramming request because they realized that by the time it was approved it would be too late in the fiscal year to allow these funds to be obligated by contracts. Center officials said that they plan to continue designing the permanent pretreatment facility with the reprogrammed fiscal year 1987 funds and request that fiscal year 1989 funds be reprogrammed for installing the permanent pretreatment facility.

The Water Department and the Water Resources Board told us that they were pleased with the Center's responses to cited problems and believe that a permanent solution to the Center's environmental problems will be achieved if its 5-year plan is funded and properly implemented.

#### HAZARDOUS WASTE PROBLEMS

After the Water Department advised it of the Center's discharge violations, the Oklahoma State Department of Health conducted an industrial waste compliance inspection on November 25, 1985. The Department of Health found state and RCRA violations. These violations included improperly completed manifests for hazardous waste transportation and disposal; the absence of personnel training programs; and no internal communication, alarm system, and/or contingency plans to minimize hazards to human health or the environment in an emergency situation. On January 3, 1986, the Department of Health issued a warning letter to the Center citing these violations and requiring corrective action within 30 days.

On February 20, 1986, the Center advised the Department of Health that measures had been initiated to correct the cited deficiencies and that a comprehensive environmental program was being implemented. On March 20, 1986, however, the department prepared an administrative compliance order for issuance to the Center citing the above violations. The order stated that the Center's proposed corrective actions, specifically in the area of personnel training, internal communications, and emergency medical support, were inadequate to correct the violations cited. The Center immediately revised its hazardous waste management program to address all concerns. The department accepted the revised program and the administrative compliance order was not issued. As a part of fulfilling its program, the Center developed and

conducted training in 1986 for 850 Center employees in areas pertaining to RCRA requirements.

Department of Health officials told us that they were pleased with the Center's responses to the RCRA problems and believe that a permanent solution will be achieved if its hazardous waste management plan is funded and properly implemented.

TWO CENTER SITES CANDIDATES FOR  
SUPERFUND CLEANUP

In 1984, FAA initiated a nationwide survey at all of its facilities to identify any uncontrolled or abandoned hazardous waste disposal sites that might be candidates for clean up under the Superfund program. In a July 16, 1985, letter to EPA, the Center identified the outlet lagoon and the radioactive material burial plot as two sites that may warrant action under the program. In 1987, EPA requested that the Center make a preliminary assessment of these sites and report the results to EPA by April 3, 1988. The results of these assessments will help EPA determine the nature of clean-up work needed. Provisions for cleaning up the outlet lagoon and burial plot are included in the Center's 5-year environmental plan.

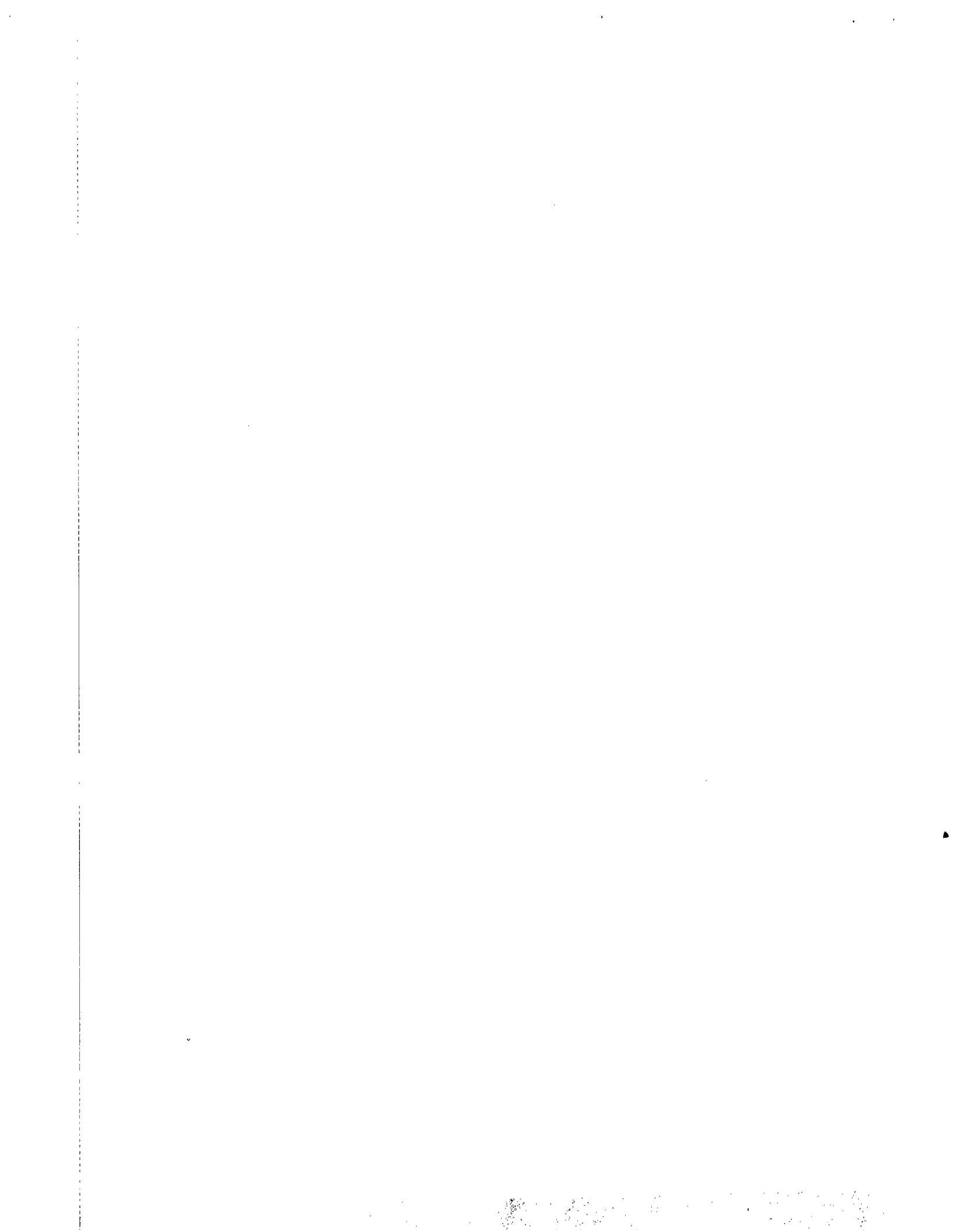
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