



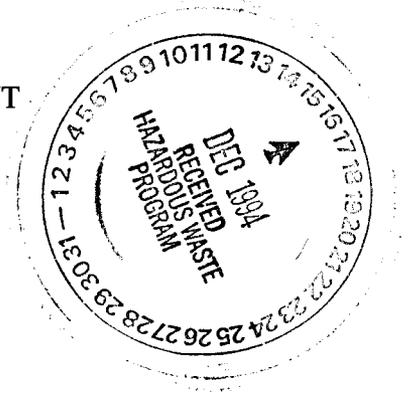
DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 49TH FIGHTER WING (ACC)
HOLLOMAN AIR FORCE BASE, NEW MEXICO

13 DEC 1994

MEMORANDUM FOR NEW MEXICO ENVIRONMENT DEPARTMENT

Mr. Mike Le Scouarnec
Hazardous & Radioactive Materials Bureau
PO Box 26110
525 Camino De Las Marques
Santa Fe, New Mexico 87502



FROM: 49 CES/CEV
550 Tabosa Ave
Holloman AFB, NM 88330-8458

SUBJECT: Hazardous Material Incident at Building 866

1. Per your telephone request, a description of subject hazardous substance spill is as follows: on 20 Oct 94, approximately 10 gallons of RQ Hazardous Waste Liquid, NOS (D006 and D007), NA 3082, were released from a Jet Parts Washer located on Holloman Air Force Base at building 866. The incident was reported to local, state, and national authorities. Although approximately 260 gallons of the hazardous waste were released from the Jet Parts Washer, approximately 250 gallons of the liquid were contained within the room. The remaining 10 gallons of liquid escaped the room but were quickly contained on the adjacent asphalt with absorbent pads; see the Waste Profile Sheet (Atch 1) for specific details. The spill did not reach the soil.
2. The clean up effort was quick and efficient. All spill contaminated debris was handled as hazardous waste and disposed of properly. I have included some photographs detailing the response efforts (Atch 2).
3. Investigation into the cause of the spill found that a dirty float shaft caused the float not to go back to the full position, thus not shutting off the water flow. The investigation efforts included working with the manufacturer as well as the operators.
4. Based on the investigation, new preventive measures and procedures are being instituted. If there are questions, please contact SSgt Rachwal at (505) 475-3931.


HOWARD E. MOFFITT
Deputy Base Civil Engineer

Attachment:

1. Waste Profile Sheet
2. Photographs of Spill



DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 49TH FIGHTER WING (ACC)
HOLLOMAN AIR FORCE BASE, NEW MEXICO

28 Oct 94

MEMORANDUM FOR 49 FW/CC

FROM: 49 CES ~~(3066)~~

SUBJECT: Report of Investigation, Hazardous Waste Spill, 20 Oct 94

1. NARRATIVE: On 20 Oct 94, at 1055, Amn Gelbert, assigned to the wheel and tire shop of the maintenance flight, set the timer on a jet washer (Model 50, serial # 8854 240V/3PH, manufactured by Better Engineering MFG, Inc.), located in a room on the south side of building 866, for seven minutes to wash two wheels. At 1105, Lt Reiss, maintenance flight OIC, was informed by another member of the wheel and tire shop, TSgt Morgan, that the jet washer had overflowed. TSgt Morgan had been apprised of the problem by SSgt Ketchem, of the same shop, who had discovered the overflow and had taken action to stop and contain it. Lt Reiss immediately notified the fire department and the squadron environmental coordinator, SSgt Shockley. TSgt Morgan notified the environmental engineer's office and the hazardous material center. Within a few minutes, firefighters arrived and Lt Reiss provided them a Hazardous Waste Profile Sheet (Atch 1), per their request, showing the nature of the hazardous material in the wheel stripping sludge. As actions continued to contain the spill, SSgt Shockley retrieved a chemical spill kit from the avionics shop and Lt Reiss, on the advice of SSgt Rachwal of the environmental engineer's office, obtained two wet/dry shop vacs to lower the effluent level enough to stop it from flowing outside the room containing the washer. This effort was augmented by SSgt Rachwal who returned with additional personal protective equipment and pumps. Rags and absorbent dikes were also used in the contamination control effort. Clean up operations resulted in three 55-gallon drums of effluent from the floor and an additional six drums including sludge from the washer itself, contaminated rags, gloves, mop heads, and other contamination control items corroborating and estimated leakage of 200 to 250 gallons.

2. CAUSE: The NCOIC of the wheel and tire shop, MSgt Callahan, requested information from Better Engineering on possible causes of the overflow. Their representative replied by fax, on 21 Oct 94, that the overflow could have resulted from (1) debris in the flapper of the solenoid assembly, or (2) a dirty float shaft causing the float not to go to the full position and shutting off the water flow. An examination of the machine showed that the float and float shaft were heavily encrusted with an earth-like deposit. The solenoid assembly was examined and was free of debris. The proximate cause of the incident, therefore, is attributable to the float system.

3. CONTRIBUTING FACTORS: The jet washer was installed in the spring/early summer of 1993. No personnel (of approximately five assigned to the shop) using the machine were here when it was installed. The machine has posted directions for use on the front. According to MSgt Callahan, the machine is used almost every day and has been used to clean a range of from 50 to 200 wheels/tires a month. Training on use of the machine is documented in users' AF Forms 623, On-the-Job Training Record. The AFTO Form 244, Industrial/Support Equipment Record, for the machine reflects current inspections and periodic as well as unscheduled maintenance actions. Not enough guidance was provided on properly maintaining (as opposed to operating) the washer and this problem was unanticipated by the users. This is the root cause of the overflow.

4. CONCLUSIONS: Thorough preventive maintenance could have prevented this incident. It is evident from the documentation and interviews that neither training nor (routine) maintenance were neglected. However, personnel were not trained on everything they needed to know to preclude this kind of incident.

5. RECOMMENDATIONS: The unit has requested maintenance guidance from Better Engineering MFG, Inc. and may request formal training from the company if necessary. I recommend they request the formal training in any case as it may provide (1) answers to questions or clarification of vague areas (2) reinforcement of more important point of maintenance or operation, and (3) a firmer basis for continuity than the manual alone.

6. PROPOSED WORDING FOR THE CROSSFEED ENVIRONMENTAL NOTAM:

For users of Better Engineering jet washers: DEBRIS IN THE FLAPPER OF THE SOLENOID ASSEMBLY OR CAKED ON TO THE FLOAT SHAFT CAN CAUSE THE JET WASHER TO OVERFLOW. USERS MUST CHECK THESE SYSTEMS TO ENSURE THEY ARE FREE OF MATTER THAT COULD IMPEDE THE PROPER OPERATION OF THIS WASHER.

1 Atch.
Hazardous Waste Profile Sheet


ROBERT D. MACMILLAN III, Maj, USAF
Investigating Officer

HAZARDOUS WASTE PROFILE SHEET

PART I

A. GENERAL INFORMATION

HAZARDOUS WASTE PROFILE NO. 50-94-035

B/Lg 866 49MS/MAMR

1. GENERATOR NAME Holloman Air Force Base

2. FACILITY ADDRESS Highway 70 West
Holloman AFB, New Mexico

3. GENERATOR USEPA ID NM 6572124422

4. GENERATOR STATE ID

6 88330

6. TECHNICAL CONTACT SSgt Orlando Villarreal

7. TITLE Aircraft Mechanic

PHONE 789 15051475-3065

8. 1. NAME OF WASTE Sludge from Wheel Skipping
 2. USEPA/STATE WASTE CODE(S) D006, D007
 3. PROCESS GENERATING WASTE Vehicle Maintenance
 4. PROJECTED ANNUAL VOLUME/UNITS 55gallons / month 5. MODE OF COLLECTION drum
 6. IS THIS WASTE A DIOXIN LISTED WASTE AS DEFINED IN 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, OR F028)? YES NO
 7. IS THIS WASTE RESTRICTED FROM LAND DISPOSAL (40 CFR 268)? YES NO
 HAS AN EXEMPTION BEEN GRANTED? YES NO
 DOES THE WASTE MEET APPLICABLE TREATMENT STANDARDS? YES NO REFERENCE STANDARDS _____

PART II

1. MATERIAL CHARACTERIZATION (OPTIONAL-NOT REQUIRED DATA)

COLOR _____
 DENSITY _____ BTU/LB _____
 TOTAL SOLIDS _____ ASH CONTENT _____
 LAYERING MULTILAYERED BILAYERED SINGLE PHASE

2. RCRA CHARACTERISTICS

- PHYSICAL STATE: SOLID LIQUID SEMI-SOLID
 GAS OTHER _____
 TREATMENT GROUP WASTEWATER NON-WASTEWATER
 IGNITABLE (D001) REACTIVE (D003)
 FLASH POINT (F) _____ WATER REACTIVE
 HIGH TOC (> 10%) CYANIDE REACTIVE
 LOW TOC (< 10%) SULFIDE REACTIVE
 CORROSIVE (D002) TOXICITY CHARACTERISTIC (SEE REVERSE FOR LISTING)
 pH _____ D006, D007
 CORRODES STEEL

3. CHEMICAL COMPOSITION (ppm or mg/L)

COPPER _____ PHENOLICS _____
 NICKEL _____ TOTAL HALOGENS _____
 ZINC _____ VOLATILE ORGANICS _____
 CHROMIUM-HEX _____ PCBs _____
 (OTHER) _____

NOTE: EXPLOSIVES, SHOCK SENSITIVE, PYROPHORIC, RADIOACTIVE, AND ETIOLOGICAL WASTES NORMALLY ARE NOT ACCEPTED BY THE DRMO

4. MATERIAL COMPOSITION

COMPONENT	CONCENTRATION	RANGE
Water	99%	
Solid	1%	
Cadmium	11 mg/l	
Chromium	52 mg/l	
TOTAL	100%	

5. SHIPPING INFORMATION

DOT HAZARDOUS MATERIAL? YES NO
 PROPER SHIPPING NAME RQ Hazardous Waste, Liquid, N.O.S. (D006, D007)
 HAZARD CLASS 9 U.N. or N.A. NO. NA3082
 ADDITIONAL DESCRIPTION _____
 METHOD OF SHIPMENT BULK DRUM OTHER _____
 CERCLA REPORTABLE QUANTITY (RQ) D006, D007 10 pounds
 EMERGENCY RESPONSE GUIDE PAGE _____
 DOT PUBLICATION 5000 8-5 PAGE NO. _____ EDITION (YR) 90
 SPECIAL HANDLING INFORMATION _____

6. GENERATOR CERTIFICATION

BASIS FOR INFORMATION

- CHEMICAL ANALYSIS (ATTACH TEST RESULTS)
 USER KNOWLEDGE (ATTACH SUPPORTING DOCUMENTS - Explain how and why these documents comply with RCRA requirements)

I, Orlando Villarreal, HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS TO THE BEST OF MY KNOWLEDGE AN ACCURATE REPRESENTATION OF THE WASTE TURNED IN TO THE DRMO. ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

SIGNATURE OF GENERATOR REPRESENTATIVE

DATE 8 March 94