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# Kearney

MANAGEMENT CONSULTANTS

A. T. KEARNEY, INC.
699 PRINCE STREET/P.O. BOX 1405
ALEXANDRIA, VIRGINIA 22313
703/836-6210
TELEX 248243ATKW UR


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Mr. Tom Clark
Regional Project Officer
U.S. Environmental Protection Agency
Region VI
1201 Elm Street
Dallas, Texas 75270

March 26, 1986

Reference: EPA Contract No. 68-01-7038; Work Assignment R06-01-08; Phase I Preliminary Assessment Report, Sparton's Coors Road Facility, Albuquerque, New Mexico

Dear Mr. Clark:

Enclosed please find the Phase I Preliminary Assessment Report for the referenced facility. This report was prepared based on information obtained from files at U.S. EPA Region VI and the New Mexico Environmental Improvement Division. Information available at the time of this review included the facility's Part A application; New Mexico EID inspection reports; several site investigation reports; closure plans; and post-closure care plans submitted to New Mexico EID for the storage units at the facility. A response to EPA's request for information concerning Solid Waste Management Units (SWMUs) from the facility was not available at the time this report was prepared.

We recommend that additional information be obtained from Sparton in various areas and have prepared a set of specific questions to submit to the applicant. As provided in the project plan for this work assignment, we will prepare the final Phase II Preliminary Assessment Report, including a Summary of Findings, Conclusions and Recommendations upon receipt of Sparton's response.

We also recommend that a site investigation be conducted to further assess the ongoing remediation efforts and closure of the facility's solid waste management units.

If you have any questions concerning this report, please call Mr. John Butler at (703) 836-6210.

Sincerely,

Don Beasley
Program Director

John H. Butler for
Kay H. Breeden
Technical Director

cc: R. Volkmar, Baker Engineers
E. Allen, EPA Region VI
L. Boada, EPA Region VI
[redacted], EPA Region VI
J. Butler
J. Grieve
S. Johnson
A. Schaffer

# PRELIMINARY ASSESSMENT REPORT

Sparton Technology, Inc.
9621 Coors Road, N.W.
Albuquerque, New Mexico 87114

EPA I.D. No. NMD083212332

Prepared for:

U.S. Environmental Protection Agency
Region VI
1201 Elm Street
Dallas, Texas 75270

Prepared by:

A. T. Kearney, Inc.
699 Prince Street
Alexandria, Virginia 22313

Contract No. 68-01-7038
Work Assignment No. R06-01-08

March 26, 1986

PRELIMINARY ASSESSMENT REPORT
SPARTON TECHNOLOGY, INC. - COORS ROAD PLANT

CONTENTS



Exhibits

# INTRODUCTION

This report represents a preliminary assessment of the need for corrective action(s) for releases of hazardous wastes and constituents at the electronics manufacturing and assembly plant owned and operated by Sparton Technology, Inc. at 9621 Coors Road, N.W., Albuquerque, New Mexico 87114. The U.S. EPA's Draft RCRA Preliminary Assessment/Site Investigation Guidance (August 1985) was used in preparing this report. Information regarding hazardous waste management activities at Sparton's Coors Road facility was taken from documents at U.S. EPA Region VI and the New Mexico Environmental Improvement Division (NM EID). References are listed at the end of this report.

At the time of this review, formal steps are in process to terminate the facility's interim permit status for operating long-term (greater than 90-day) hazardous waste storage units. Since submission of its RCRA Part A application in November 1980 to operate these units, Sparton has implemented changes in its waste management practices. Under the revised practices, all hazardous wastes generated at the facility are drummed and shipped to off-site disposal, thus discontinuing use of the storage units. Sparton has therefore requested that its Part A application be withdrawn and that the facility status be changed to generator.

Soil and groundwater contamination apparently resulting from the seepage of liquid wastes from the storage units operated by Sparton were discovered in 1983. Investigations have continued since that time to better determine the source, nature, and extent of the contamination and to design appropriate remedies. The remedial investigations are continuing at the time of this writing.

## FACILITY OPERATIONS AND HAZARDOUS WASTE MANAGEMENT

Sparton Technology, Inc. (Sparton), formerly Sparton Southwest, Inc., a subsidiary of Sparton Corporation, is the owner and operator of the electronics manufacturing and assembly plant at 9621 Coors Road, N.W., Albuquerque, New Mexico 87114. The principal plant operating areas include engineering and drafting support areas, machine and model shops, printed circuit board manufacturing facilities, assembly areas and testing laboratories.

Two major types of hazardous wastes are generated at the plant: (1) aqueous metal plating wastes from the printed circuit manufacturing process, and (2) halogenated and non-halogenated solvent wastes from electronic component cleaning processes. Sparton indicated in 1983 that ". . . there have been no significant changes in plating waste quantity or quality since 1961." (Ref B.4, p. 1.)

The evidence indicates that the waste management practices used at the facility have undergone considerable change since 1961. Some of the key dates/events in this history are listed on the following pages.

| Date(s) | Event(s) | Reference(s) |
|---|---|---|
| 15 Aug 61 | Operations began or construction commenced. | B.10 (p. 1 of 5)<br>B.4 (p. 1) |
| Start to Oct 79 or Oct 80 (?) | Shallow unlined sump (5' x 5' x 2' deep), constructed of concrete blocks and evidently no bottom, used for the storage/disposal of spent cleaning solvents. The wastes were dumped into the sump manually. | A.1 (pp. 1, 6 & & 12)<br>A.2 (p. 8)<br>A.3 (p. 17)<br>B.4 (p. 1)<br>C.5 (p. 1) |
| Start to late 70's (?) | Spent aqueous plating wastes discharged to concrete-lined evaporative ponds (?). At some time during the late 1970's the two ponds were lined with a hypalon liner. The ponds were originally used for storage/ disposal of the wastes. | B.4 (p. 1)<br>C.5 (p. 1) |
| Late 70's (?) to Nov 85 (?) | The now lined ponds were used for the storage of aqueous plating wastes, apparently up until loss of interim status on 8 Nov 85. They were used ". . . on a regular basis, until August 1983, . . .". | A.1 (p. 1)<br>A.2 (p. 1)<br>C.2 (pp. 1 & 2) |
| Oct 80 | Sparton closed the waste solvent storage sump. | A.1 (p. 12) |
| 17 Nov 80 | Sparton submitted a Part A RCRA permit application to operate hazardous waste container storage and surface impoundment (pond) storage units. | B.10 |
| 19 Nov 80 | Sparton began operations under RCRA interim permit status. Waste storage units included an unimproved drum storage area and two lined surface impoundments. | B.1<br>(Fact Sheet) |

| Date(s) | Event(s) | Reference(s) |
|---|---|---|
| May 81 | New drum storage area for containerized storage of hazardous waste put in operation. Storage of waste in the old unimproved area was discontinued. | A.1 (p. 12)<br>A.3 (p. 18) |
| May 83 | Sparton installed four initial groundwater wells designed to monitor seepage from the two ponds in response to RCRA requirements. Subsequent tests indicated that contaminants were present in the groundwater. | A.7 (Attachment C)<br>A.6 (p. 1) |
| Nov 83 | Seven additional groundwater monitoring wells were installed. Tests of the groundwater from the upper aquifer from all wells indicated that contaminants were present. The physical properties of the subsurface soil layers were determined. | A.6 |
| 84-85 | Six monitoring wells and one production well were added. Tests of samples from these wells indicated the presence of contaminants in the groundwater and also in the soils in the unsaturated zone. | A.4 |
| 15 Jan 85 and 14 Jun 85 | NM EID requested the submittal of a Part B RCRA permit application from Sparton. | B.1 (Fact Sheet) |
| 7 May 85 | Sparton submitted a closure plan for the facility. | A.3 |
| 10 Jul 85 | Sparton requested that its interim status be terminated, its Part A application be withdrawn, and the facility's status changed to generator of hazardous waste. | B.1 (Fact Sheet) |

| Date(s) | Event(s) | Reference(s) |
|---|---|---|
| 26 Sep 85 | NM EID letter advised Sparton of the results of review of the closure plan. This letter advised Sparton of a ". . . forthcoming corrective action order [3008(h)] . . .". | B.3 |
| 19 Dec 85 | Sparton submitted a "revised" closure plan for the pond and drum storage areas. | A.1 |
| 17 Dec 85 | Sparton submitted a post-closure care plan for the closed hazardous waste storage areas. | A.2 |
| 17 Feb 86 | NM EID letter advised Sparton of the results of review of Sparton's closure and post-closure plans. | B.2 |
| 20 Feb 86 | Public Notice announcement made of EPA and NM EID's intent to approve Sparton's request for termination of interim status and to approve closure of all long-term (greater than 90-day) storage areas. | B.1 (Public Notice) |
| 22 Mar 86 | Period for public comment ends. | B.1 (Public Notice) |
| March 1986 | Due date set by NM EID for submission of a post-closure permit application by Sparton. | B.1 (Fact Sheet) |

Five solid waste management units (SWMUs) have been identified on the 12 acre Sparton property. Four are subject to regulation under RCRA; one was closed October 1980 prior to the effective date of New Mexico's HWM regulations. The locations of the five SWMUs are shown on the attached Exhibit 1 (Plot Plan) taken from Ref. A.2. The five are:

1. East Pond (RCRA-regulated)
2. West Pond (RCRA-regulated)
3. Old Solvent Sump (Closed prior to RCRA)
4. Old Drum Area (RCRA-regulated)
5. New Drum Area (RCRA-regulated)

Identification of these five units resulted from review of the information referenced in the report. At the time of this review, Sparton had not provided information to EPA or NM EID specifically directed toward the identification of all SWMUs at the site. For this reason it is possible that there may be other units at the facility which have not been included in the information used in this report.

The Sparton plant generates two types of hazardous wastes, which in general have been handled (stored) separately since start-up:

1. Aqueous plating wastes - initially stored in the ponds (both prior to and after the ponds were lined); now placed in drums for off-site disposal within 90 days.
2. Solvent wastes - initially stored/disposed of in the unlined sump; now placed in drums for off-site disposal within 90 days.

Details of the management practices/procedures used to collect and transfer these wastes from origin to storage are not well documented, particularly for the period prior to November 1980. It is understood that the aqueous wastes were piped from the plating area to the ponds. Prior to 1980 the solvents were manually dumped in the sump, but since October 1980 they have been placed in drums at the point of origin and moved out to the drum storage area(s). At the present time it is understood that all wastes are now being placed in drums at the place of generation and moved out to the new drum collection area where they are shipped to off-site disposal within 90 days.

## HAZARDOUS WASTES AND HAZARDOUS CONSTITUENTS

### RCRA Part A Permit Application

Based on Sparton's initial (1980) application upon which the facility's interim status is based, the following wastes, identified by EPA hazardous waste number, were stored in containers or in the surface impoundments:

| Container Storage | Pond Storage |
|---|---|
| F001 | F006 |
| F002 | F007 |
| F003 | F008 |
| F005 | U009 |
| U002 | U122 |
| U159 | U134 |
| U226 | |
| U228 | |

Sparton submitted a revised application in July 1983 deleting storage of F007, F008 and F009 and changing pond storage to tank storage (see Exhibit 2).

Sparton's closure plan indicates that the ponds have been used exclusively for storage of aqueous plating wastes (Ref. A.1, p. 6), however, only the period since November 1980 seems to have been considered.

### Chemical Analysis of Pond Wastes

Laboratory tests of samples of the plating wastes from the two ponds performed in November 1980 showed the following results (Ref. C.11):

| Parameter or Constituent | Pond #1 | Pond #2 |
|---|---|---|
| Specific Gravity | 1.062 | 1.006 |
| Copper (ppm) | 295.5 | 9,687.5 |
| Tin (ppm) | 97.5 | 58.0 |
| Palladium (ppm) | 0.05 | 0.05 |
| Lead (ppm) | 6.52 | 13.7 |
| pH level | 1.79 | 1.80 |

Facility Annual Reports

Sparton's year end reports show the following regarding wastes stored in surface impoundments (Refs. B.6, B.9, B.11):

| Year | Amount | EPA Waste Number | Description |
|---|---|---|---|
| 1983 | 16,000 gal | F006 | Electroplating wastes from printed circuit board manufacturing; contains copper and other metals. |
| 1982 | (data not provided) | | |
| 1981 | 120 units (?) | F007 | Plating solution. |
| 1980 | 47,375 gal | F007 | Plating solution, acid (neutralized). |

Contaminants Detected in Groundwater

In response to RCRA orders, in May 1983, Sparton installed four groundwater monitoring wells and one piezometer (MW-1 thru MW-4 and P-1) to detect seepage from the surface impoundment area (Ref. A.7 and B.4). Tests showed that contaminants were present in the groundwater. In November 1983, seven additional borings were drilled to provide data on the subsurface strata at the site. The borings were converted to monitoring wells (MW-5 thru MW-11; see Ref. A.6). Later, in 1984 or early 1985, six monitoring wells (MW-12 thru MW-17) and one production well (PW-1) were added (Ref. A.4). The locations of these wells are shown on the Plot Plan (see Exhibit 1).

Groundwater sampling and analytical results to March 1985 show that VOCs and some metals are present in elevated concentrations in the upper aquifer across the entire plant site with the highest concentrations adjacent to the closed sump and West Pond areas. Upper aquifer water is more contaminated than that in the lower aquifer. Detailed findings are presented in Ref. A.4.

Chemical analyses have indicated that the following contaminants are present at elevated levels in the groundwater:

| Contaminant (Ref. B.4) | Possible EPA Hazardous Waste Number(s) |
|---|---|
| benzene | F001, F002, F003 |
| carbon tetrachloride | F001, U211 |
| chlorobenzene | F002, U037 |
| chloroethane | F001, F002 |
| chloroform | F001, F002, U044 |
| dichlorodifluoromethane | F001, F002, U075 |
| 1, 1-dichloroethane | F001, F002 |
| 1, 2-dichloroethane | F001, F002 |
| 1, 1-dichloroethylene | F001, F002, U078 |
| ethylbenzene | F003 |
| methylene chloride | F001, F002, U080 |
| 1, 1, 2, 2-tetrachloroethane | F001, F002, U209 |
| toluene | F005, U220 |
| 1, 1, 1-trichloroethane | F001, F002, U226 |
| trichloroethylene | F001, F002, U228 |
| chromium contamination | D007 |

The four principal organic contaminants were found to be 1,1-dichloroethylene, methylene chloride, trichloroethylene, and 1,1,1-trichloroethane (Ref. A.3, p. 11)

## Contaminants Detected in Soils

Contaminants have also been found at elevated levels in soils at various depths in the area of the ponds and sump as a result of tests of boring samples in 1984 (Ref. A.3, pp. 7-11). Both metallic and organic constituents were detected and the investigations indicate that extensive spreading of contaminants has occurred in the vadose zone (Ref. A.1, p. 8).

## SITE CONDITIONS
## AFFECTING RELEASES TO THE ENVIRONMENT

### Location/Setting/Topography

The Sparton Coors Road Facility consists of a 64,000 SF building on a 12 acre site located in the North Valley and Paradise Hills area of Albuquerque, New Mexico. The site is located about 2,500 feet northwest of the Rio Grande River on the west side of Coors Road, N.W. (see Exhibit 3). Locally, the area is hilly and slopes in wide terraces toward the river. The overall surface gradient from north to south is approximately 1.7 percent. Ground surface elevations vary from elevation 5,052 feet Mean Sea Level (MSL) on the northern edge of the property to elevation 5,041 feet MSL on the southern edge. Overall, the site is approximately 60 feet above the Rio Grande River, and 40 to 60 feet lower than the Paradise Park residential area, which is located approximately 4,000 feet to the west.

Buildings within 1/2 mile of the plant are generally commercial and light industrial. A horticultural nursery is located to the immediate south. To the north is a commercial building previously used for electronics manufacturing. The nearest residence is located across Coors Road, approximately 1,400 feet northeast of the site. The next nearest residences are in Paradise Park. Land to the west is undeveloped in the area between the plant and Paradise Park. Land to the east, across Coors Road, includes undeveloped and agricultural land.

### Hydrogeology

Site geological investigations are detailed in Ref. A.4. The subsurface at the Sparton site is reported to be divided into a series of sand and gravel units separated by fine-grained layers. The upper unit extends from the land surface to approximately 70 feet below grade, where an upper fine-grained layer appears to be present continuously, or almost continuously, underneath the site. The upper fine-grained layer is approximately 10 feet thick. Extending beneath it is a second sand and gravel unit which is approximately 60 feet thick. Underlying the second sand and gravel unit, at a total depth of about 140 feet, is a second fine-grained unit. The thickness and areal extent of this unit is presently unknown, but it was as thin as 1 foot in at least one boring.

The site is underlain by at least two distinctly different aquifers. The upper aquifer (water table aquifer) is a relatively thin, unconfined system which is present above the upper fine-grained layer mentioned above. Its thickness is on the order of 5 to 10 feet. The direction of flow is toward the south-southwest. Groundwater was found in all borings at about 60 to 70 feet below grade.

Another aquifer is present beneath the upper fine-grained unit which exhibits semi-confined characteristics. Its thickness is on the order of 60 feet and it apparently flows toward the west-southwest (Ref. A.3, p. 15).

## Climate/Precipitation

The Albuquerque climate is semi-arid, with annual rainfall measuring approximately 10 inches per year and annual evapotranspiration in excess of 60 inches per year. Record rainfalls are on the order of 1 inch in 24 hours. Rain at the facility generally enters the top layer of soil and is held by capillary action until removed by a wicking action caused by evaporation at the surface. This phenomenon results in practically no local recharge of the aquifer. Also it would be unlikely for surface runoff from the site to reach nearby streams.

## Soils

The plant is located on unconsolidated sand and gravel deposits with occasional fine-grained layers of silt and clay. The stratigraphy of these deposits is characteristic of valley fill alluvium and colluvium of the unconsolidated aquifer in the Rio Grande Valley (Ref. A.3, p. 14). These materials are highly porous and permeable.

## ANALYSIS OF SOLID WASTE MANAGEMENT UNITS (SWMUs)

UNITS: EAST POND (RCRA-REGULATED)
WEST POND (RCRA-REGULATED)

Description:

Reportedly used for the temporary storage of spent aqueous plating wastes, the two ponds are located side-by-side inside a fenced area north of the main manufacturing building (see Exhibit 1). Each pond measures approximately 20' x 30' and is 5' deep. Date of construction and initial use of the ponds was not provided -- it is inferred to be 1961 or shortly thereafter. From November 1980 to August 1983, it is reported that the ponds were used on a regular basis and they are described as having a 30-mil, 2-ply hypalon liner installed. The liner apparently was installed at some time between 1961 and 1980. It covers both ponds to include the area between them. The East Pond has concrete block walls with a sloped sand backfill to support the liner. The West Pond has cast concrete walls and also has the sand backfill. It is not clear whether the ponds were constructed with a floor slab or not.

These units are subject to regulations under RCRA. Sparton's interim status permit shows a design capacity of 20,000 gallons for S04 surface impoundment storage (Ref. B.8). Part B application data are not available for these units. Closure and post-closure care plans for the pond and drum storage areas were submitted in December 1985.

Apparently both ponds were constructed to serve the same function. Because of similarities in their construction, in the types of wastes stored in them, and in the way that they were operated, they seem to comprise a single unit.

Inspection notes dated 12 December 1983 indicate that Sparton plans to close the two impoundments and replace them with an above-ground tank (Ref. C.7, comments); however it does not appear that this was done(?)

On 10 July 1985, Sparton requested that its interim status be withdrawn and the facility's status changed to generator of hazardous waste. NM EID's review indicated that Sparton's

request was justified and is ". . . proposing to terminate Sparton's interim status by denying a permit." The deadline for receiving public comments on the proposed termination of interim status and closure of long-term (greater than 90-day) storage areas is 22 March 1986 (Ref. B.1).

History of Use:

The date of initial use of the units was not provided. The main plant building was constructed in 1961. The information seems to indicate that the units were first used at about that time and both were used on a regular basis until August 1983.

Reference B.4 provides the following: ". . . there have been no significant changes in plating waste quantity or quality since 1961 . . . Plating wastes are discharged to plastic-lined surface impoundments; however, initial discharges were only contained by concrete lining . . .".

Apparently, the hypalon liners were installed between 1961 and 1980.

Since November 1980, the Sparton Facility has operated under interim permit status as a hazardous waste storage facility. Sparton's initial Part A permit application (Exhibit 2) shows the following regarding wastes processed through surface impoundment storage (S04) for subsequent disposal at an authorized landfill:

| EPA Hazardous Waste Number | Estimated Gallons Processed Annually |
|---|---|
| F006 | 17,215 |
| F007 | 17,215 |
| F008 | 17,215 |
| F009 | 17,215 |
| U122 | 330 |
| U134 | 100 |

During their history of use as surface impoundment reservoirs, where the waste waters were transferred after temporary storage is not explained. Nor is the information clear as to whether or not any process activities such as evaporation or neutralization occurred in the ponds.

The information implies that the ponds have not been used for the storage of any wastes since August 1983 (Ref. A.1, p. 6). Sparton revised its Part A permit application in July 1983 to indicate use of tank rather than surface impoundment storage (see Exhibit 2); however, this revision was apparently not approved. It appears that the new waste management practices adopted by Sparton eliminates the use of storage facilities. The wastes are placed in containers at the point of origin and shipped to off-site disposal within 90 days. However the specifics of how the plating wastes are being processed on site without the use of the ponds are not provided.

Release Controls:

Apparently the ponds were lined with a 30-mil, 2-ply hypalon liner sometime between 1961 and 1980 (date uncertain). Subsequent to 1980, there is evidence that the ponds were alternately filled and emptied as the regular mode of operation, with periodic inspection of the integrity of the liner implied. Procedures and/or practices used in the filling and emptying of the ponds were not provided.

Without the liner there is very little to prevent seepage from the ponds. The walls are formed of cast concrete or concrete block. There is evidently no bottom (floor) slab. The soil is extremely porous. Information on the length of time that wastes were kept in the ponds before processing for disposal was not provided.

Sparton's waste analysis plan for the facility is understood to have been prepared, but was not provided for this review.

History of Releases:

Groundwater and soil contamination were detected beneath the Sparton site in 1983 through analysis of the data collected from the four monitoring wells installed by Harding Lawson Associates

(Ref. A.6, p. 18). The contamination is suspected to have originated from the closed waste solvent sump and the two plating wastes surface impoundments. The following information is from Ref. B.4:

> "...Solvent wastes were discharged to a below grade concrete tank until early 1970's. Solvent wastes are now drummed and stored. Plating wastes are discharged to plastic lined surface impoundments, however, initial discharges were only contained by concrete lining. Sparton installed groundwater monitor wells in July, 1983 in response to RCRA orders. Chemical analyses reported benzene, carbon tetrachloride, chlorobenzene, chloroethane, chloroform, dichlorodifluoromethane, 1, 1-dichloroethane, 1, 2-dichloroethane, 1, 1-dichloroethylene, ethylbenzene, methylene chloride, 1, 1, 2, 2 tetrachloroethane, toluene, 1, 1, 1 trichloroethane, trichloroethylene, and chromium contamination in groundwater. Sparton then proceeded to install more monitor wells in an attempt to determine extent of contamination. They found that groundwater contamination extended to the property line...SERIOUSNESS - HIGH..."

A Fact Sheet (Ref. B.1) dealing with the intent to terminate Sparton's interim permit status as a hazardous waste storage facility and to close all long-term storage areas at the Coors Road Facility under the New Mexico Hazardous Waste Act includes the following paragraph under the section dealing with closure:

> "Groundwater and soil contamination resulting from the storage of these wastes have been detected and will be addressed separately through a corrective action order to be issued by EPA Region VI."

The Fact Sheet states that Sparton's closure plan has been previously submitted, reviewed and modified by NM EID and announces that it is available for public comment. The period for public comment ends 22 March 1986. Sparton must implement the approved closure plan in accordance with its stipulated time schedule.

Information Needs:

1. When were the ponds originally constructed? Provide construction dimensions, materials, and other pertinent details. Provide drawings if available. Clarify at what time in their operation history were the liners installed.

2. Clarify the purpose of the surface impoundments.

3. Clarify the fate of the liquids stored in the units.

4. Clarify whether sludge is ever removed from the units.

5. References B.5 and C.2, Generator Checklist comments allude to replacement of the ponds with a tank to store aqueous wastes. Clarify whether an above-ground tank was used as a replacement for either one or both ponds. If so provide all available details concerning the construction of the tank and how it was used.

6. Clarify how the wastes being stored in the ponds were handled when use of the ponds was discontinued in August 1983.

UNIT: OLD SOLVENT SUMP (CLOSED PRIOR TO RCRA)

Description:

The sump is located in the same general area as the surface impoundments (See Exhibit 1). It is a below grade basin constructed of concrete blocks, and measures approximately 5' by 5' by 2' deep. Prior to October 1980 the sump was used for the storage/disposal of waste chlorinated and non-chlorinated solvents, which were emptied into the sump manually. (Ref. A.1, pp. 6 & 12). Construction drawings were not provided. The function of the sump and the fate of the wastes placed in it are not explicitly stated.

Date of Start-Up:

Uncertain; apparently at about the time of plant start-up in 1961 or shortly thereafter. Details of operating history were not provided.

Date of Closure:

Ref. A.1, p. 12 states, ". . . Sparton closed the sump in October 1980 by removing the remaining waste and then filling the sump with sand. Since that time, no wastes have been managed in the sump . . ." Closure in conjunction with the closure of all hazardous waste storage areas on site is pending (See Refs. A.1, A.2 & A.3).

Wastes Managed:

Sparton states that throughout the plant's operating history, the aqueous plating wastes were stored separately from the cleaning solvent wastes. The evidence indicates that up until its closure, the sump was used for the storage/disposal of the solvent wastes. How the sump was operated; i.e., whether it was emptied or not, and how often, is not described.

Release Controls:

During its period of use, apparently the only containment measures consisted of the unlined concrete block walls. It is not clear whether the sump had a bottom or not.

History of Releases:

Contamination of groundwater was detected in 1983. Soil contamination has also been detected. Many of the contaminants point to the sump as the likely source. (See Ref. A.6). The sump is reported to be the source of organic contamination in the soils and ground water under the site. (Ref. A.1, p. 12). Remedial investigations are in process in conjunction with the closure of all hazardous waste storage areas at the site. (See Refs. A.1, A.2, B.1, B.2, et. al.). Post closure care includes the area containing the two ponds and the sump.

Information Needs:

1. Clarify date of start-up and construction details of the old solvent sump. Provide drawings if available.

2. Clarify the purpose of the sump.

3. Provide the volumes and characterization of the wastes placed into the sump.

4. Indicate the fate of all wastes placed in the sump. Were wastes ever removed?

5. Clarify waste streams directed to the sump as opposed to waste streams stored in containers prior to 1980.

UNIT: OLD DRUM AREA (RCRA - REGULATED)

Description:

The old drum area is an area where drums of hazardous wastes were stored on the ground prior to May 1981, when the present hazardous waste drum storage area (new drum area) became operational. The old drum area was located adjacent to the west edge of a concrete pad north of the new drum area. (See Exhibit 1).

Date of Start-Up:

Date of first use uncertain; apparently at the time of plant start-up in 1961 or shortly thereafter.

Date of Closure:

Use of the area was discontinued in May 1981. Closure is pending in conjunction with the closure of all hazardous waste storage areas on site. (See Refs. A.1, A.2 & A.3).

Wastes Managed:

All containerized wastes such as spent solvents generated at the facility up until May 1981. It is uncertain as to whether containers of wastes from other Sparton sites were stored here or not. Reference C.2 comments and Ref. C.4 indicate waste shipments from the Deming and Rio Rancho facilities were received. Descriptions of the wastes managed were not provided. The waste analysis plan referred to in Ref. C.4 was not provided.

Release Controls:

The old drum area was unimproved. The old drum area was not lined or paved with an impervious surface and did not have spill containment structures. (Ref. A.1, p. 13).

History of Releases:

No information concerning releases was provided. Soil samples from the area are to be tested under the closure plan. (See Ref. A.1, p. 20 and Appendix G, and Ref. B.2, p. 4).

Information Needs:

1. Clarify date of start-up and period of use of the old drum storage area.

2. Clarify what wastes were stored in the old drum area during its period of use. Also clarify whether wastes from off-site generators; e.g. the Deming and Rio Rancho facilities were stored in the area.

3. Provide information on any known spills or other releases of wastes in the old drum area.

UNIT: NEW DRUM AREA (RCRA - REGULATED)

Description:

The new drum area occupies the northern portion of a covered chemical storage facility which is fenced and completely underlain by a curbed concrete pad (see Exhibit 1). The concrete pad is sloped to drain any spills toward a concrete gutter which, in turn, leads to an open-top concrete sump. Segregation of incompatible materials is maintained by a series of 6" high containment curbs which direct any spills toward the gutter (Ref. A.1, p. 13).

Date of Start-Up: May 1981

Date of Closure:

Closure is pending in conjunction with the closure of all hazardous waste storage areas on site. (See Ref. A.1, p. 21, and Refs. A.2 and A.3).

Wastes Managed:

All containerized hazardous wastes such as spent solvents stored on site after May 1981. It is unclear as to whether wastes other than those generated on site were stored here. See statements for Old Drum Area.

Release Controls:

See information under description.

History of Releases:

No information on spills or other releases was provided.

Future Plans:

Sparton plans to close the area as RCRA - regulated storage unit in conjunction with the closure of all hazardous waste storage areas on site. (See Ref. A.1, p. 21, and Refs. A.2 and A.3). After closure Sparton plans to use the area for temporary storage of containerized hazardous waste for periods not to exceed 90 days.

Information Needs:

1. Clarify what wastes were stored in the new drum area during its period of use. Also clarify whether wastes from off-site generators; e.g., the Deming and Rio Rancho facilities were stored in the area.

2. Provide information on any known spills or releases in the new drum area.

Other Information Requests

1. The discovery of contamination on the Sparton site led to investigations to identify the sources (areas where the contaminants originated). Reference A.6, p. 19 suggests ". . . a field survey should be conducted to determine if facilities located upgradient may be possible sources of contaminant contribution to the groundwater . . ." Was such a survey performed? If so what were the results?

2. Provide a detailed discussion of all outside wastes accepted by the facility. The discussion should include the following items:

- o Waste characterization;
- o Units accepting the waste; and
- o Fate of the wastes.

# SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

(To be developed)

PRELIMINARY ASSESSMENT REPORT
SPARTON TECHNOLOGY, INC. - COORS ROAD PLANT

## REFERENCES


A. Reports prepared by Harding Lawson Associates

| | | |
|---|---|---|
| A.1 | 19 Dec 85 | Pond and Drum Storage Areas Closure Plan |
| A.2 | 17 Dec 85 | Hazardous Waste Facility Post-Closure Care Plan |
| A.3 | 7 May 85 | Hazardous Waste Facility Closure Plan |
| A.4 | 13 Mar 85 | Hydrogeologic Characterization and Remedial Investigation |
| A.5 | 7 May 84 | Letter responding to NM EID re: Aquifer Reclamation and Surface Impoundment Closure |
| A.6 | 19 Mar 84 | Investigation of Soil and Groundwater Contamination |
| A.7 | 29 Jun 83 | Groundwater Monitoring Program |

B. Correspondence, Forms and Permit-Related Documents

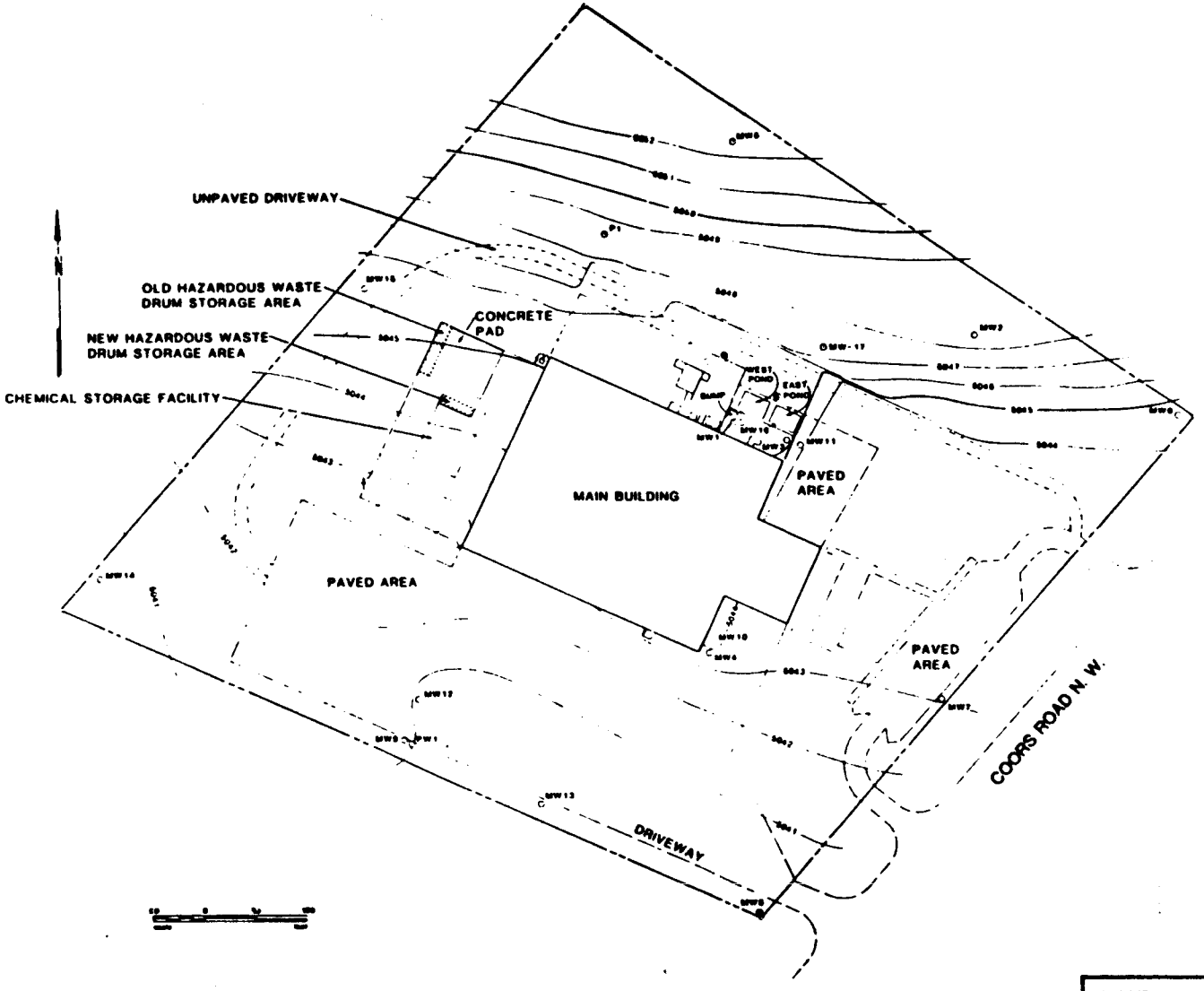
| | | |
|---|---|---|
| B.1 | 20 Feb 86 | NM EID Public Notice No. 4, Notice of Intent to Terminate Interim Status and to Close Long-Term (Greater Than 90-Day) Storage Areas for Hazardous Waste with attached announcement for radio and a two-page fact sheet (5 pages). |
| B.2 | 17 Feb 86 | NM EID letter to Sparton re: Closure Plan Modifications to the 19 Dec 85 Pond and Drum Storage Areas Closure Plan (7 pages). |
| B.3 | 26 Sep 85 | NM EID letter to Sparton re: Notice of Incompleteness of the 7 May 85 Hazardous Facility Closure Plan (10 pages). |
| B.4 | 20 Dec 83 | EPA Form 2070-8, Potential Hazardous Waste Site Identification (2 pages). |

| | | |
|---|---|---|
| B.5 | 21 Jul 83 | EPA Form 3510-1, General Information (2 pages) and EPA Form 3510-3, Hazardous Waste Permit Application (6 pages). |
| B.6 | 27 Mar 84 | EPA Form 8700-13A (Rev. 83), Generator Biennial Hazardous Waste Report for 1983 (8 pages) and EPA Form 8700-13B (Rev. 83), Facility Biennial Hazardous Waste Report for 1983 (3 pages). |
| B.7 | 27 May 83 | EPA Form 8700-13A (Rev. 82), Generator Annual Hazardous Waste Report - for 1981 (6 pages). |
| B.8 | 10 Aug 82 | EPA Region VI Statement of Conditions of Operation During Interim Status (1 page). |
| B.9 | 29 Jan 82 | EPA Form 8700-13 (Rev. 80), Part A: Generator, and Part B: Facility, Annual Hazardous Waste Report for 1981 (9 pages). |
| B.10 | 17 Nov 80 | EPA Form 3510-1, General Information (2 pages) and EPA Form 3510-3, Hazardous Waste Permit Application (5 pages). |
| B.11 | undated, unsigned | EPA Form 8700-13 (Rev. 80), Part A: Generator, and Part B: Facility, Annual Hazardous Waste Report for 1980 (5 pages). |

C. Inspections and Other Site-Related Reports

| | | |
|---|---|---|
| C.1 | 21 Feb 86 | Record of phone call by Alice Barr re: approval to test drilling spoils generated during well plugging (1 page). |
| C.2 | 13 Dec 85 | Completed Site Inspection checklist by Boyd Hamilton (15 pages). |
| C.3 | 6 Dec 85 | Record of Site Visit by Alice Barr (1 page). |
| C.4 | 19 Mar 85 | NM EID Memorandum: Inspection Trip Report by C. Kelley Crossman (2 pages). |

| | | |
|---|---|---|
| C.5 | 13 Feb 84 | Record of phone call by Julia Brown (2 pages) - poor quality copy . . . cannot read most of the handwritten notes. |
| C.6 | 20 Jun 84 | Completed Site Inspection checklist by Alice Barr (24 pages). |
| C.7 | 12 Dec 83 | Completed Site Inspection checklist by Mike Michoud (20 pages); by Boyd Hamilton (32 pages). |
| C.8 | 12 May 83 | Completed Site Inspection checklist by Mike Michoud (19 pages) and Jack Ellinger (11 pages but 5 pages of handwritten notes are not readable because of poor quality xerox copy). |
| C.9 | 10 Jun 82 | Two pages of Mike Michoud's inspection notes. |
| C.10 | 9 Nov 81 | California Hazardous Waste Manifest No. 5782 showing shipment to Casmalia, CA (1 page). |
| C.11 | 3 Nov 80 | Analytical Report on samples from Pond Nos. 1 and 2 (1 page). |




HLA — Harding Lawson Associates, Engineers, Geologists & Geophysicists

PLOT PLAN

SPARTON TECHNOLOGY INC
ALBUQUERQUE NEW MEXICO

2

MK — 8810.010.10

MG — 12-17-88

EXHIBIT 1

SPARTON TECHNOLOGY, INC. COORS ROAD FACILITY (NMD083212332)

Hazardous Wastes Managed based on RCRA Part A Permit Application Data

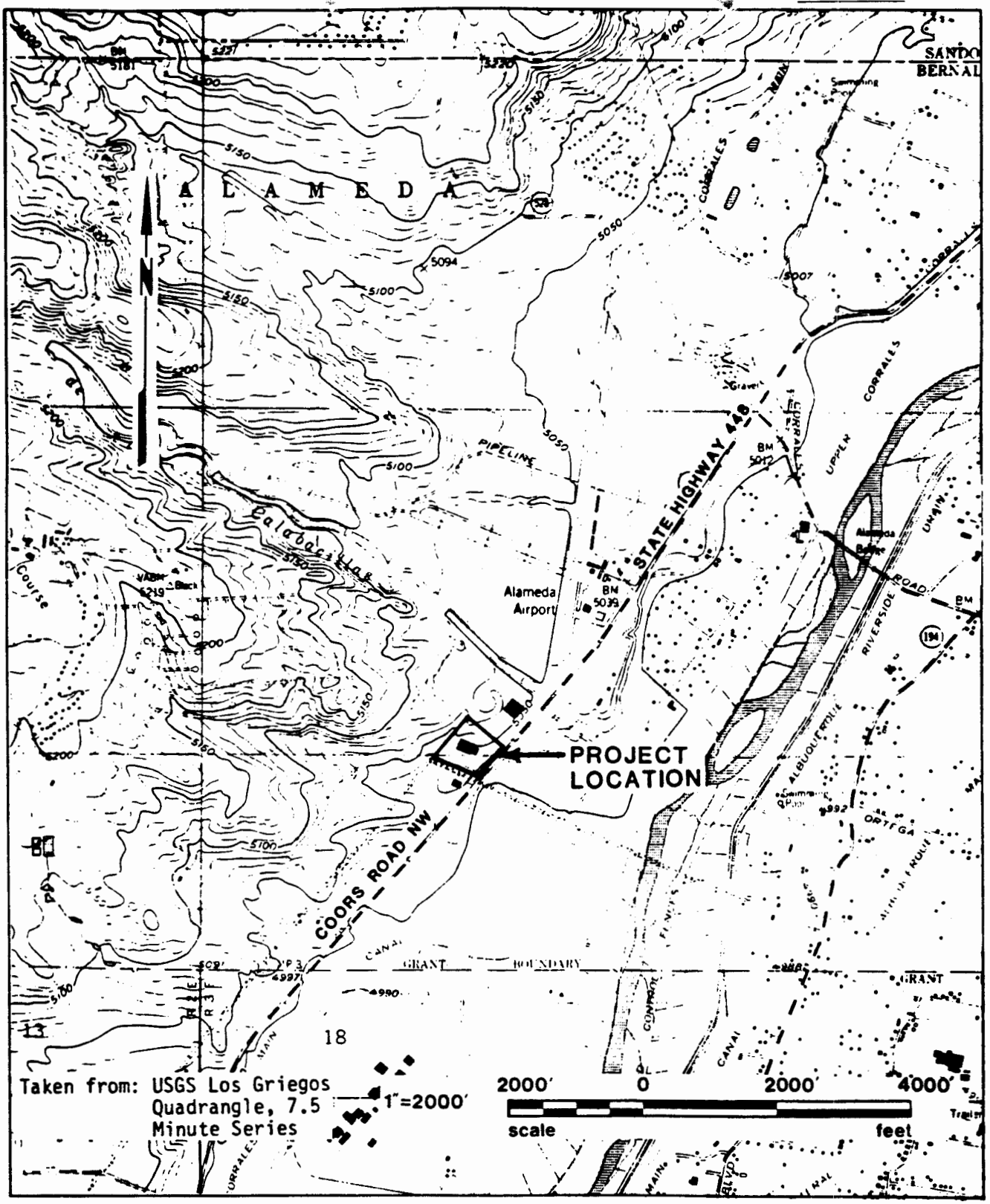
| Item No. | Hazardous Waste No. | Hazard Code(s)(1) | Hazardous Waste | Annual Quantity Processed Based on Part A Application Data | | | |
|---|---|---|---|---|---|---|---|
| | | | | Part A dtd 11/17/80(2) | | Part A dtd 7/21/83(3) | |
| | | | | Gallons | Type of Storage | Gallons | Type of Storage |
| 1. | F001 | T | The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated flourocarbons; and sludges from the recovery of these solvents in degreasing operations. | 1,540 | Container | 1,540 | Container |
| 2. | F002 | T | The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, and trichlorofluoromethane; and the still bottoms from the recovery of these solvents. | 1,540 | Container | 1,540 | Container |
| 3. | F003 | I | The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; and the still bottoms from the recovery of these solvents. | 1,540 | Container | 1,540 | Container |
| 4. | F005 | (I,T) | The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, and pyridine; and the still bottoms from the recovery of these solvents. | 1,540 | Container | 1,540 | Container |
| 5. | F006 | (T) | Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum. | 17,215 | Surface Impoundment | 60,000 | Tank |
| 6. | F007 | (R,T) | Spent cyanide plating bath solutions from electroplating operations (except for precious metals electroplating spent cyanide plating bath solutions). | 17,215 | Surface Impoundment | 0 | - |
| 7. | F008 | (R,T) | Plating bath sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process (except for precious metals electroplating plating bath sludges). | 17,215 | Surface Impoundment | 0 | - |

SPARTON TECHNOLOGY, INC. COORS ROAD FACILITY (NMD083212332)
Hazardous Wastes Managed based on RCRA Part A Permit Application Data

| Item No. | Hazardous Waste No. | Hazard Code(s)(1) | Hazardous Waste | Annual Quantity Processed Based on Part A Application Data: Part A dtd 11/17/80(2) Gallons | Part A dtd 11/17/80(2) Type of Storage | Part A dtd 7/21/83(3) Gallons | Part A dtd 7/21/83(3) Type of Storage |
|---|---|---|---|---|---|---|---|
| 8. | P009 | (R,T) | Spent stripping and cleaning bach solutions from electroplating operations where cyanides are used in the process (except for precious metals electroplating spent stripping and cleaning bath solutions). | 17,215 | Surface Impoundment | 0 | - |
| 9. | P030 | (T) | Cyanides (soluble cyanide salts), NES | 0 | - | 0 | - |
| 10. | P098 | (T) | Potassium cyanide | 0 | - | 0 | - |
| 11. | U002 | (I) | Acetone | 700 | Container | 700 | Container |
| 12. | U057 | (I) | Cyclohexanone | 0 | - | 0 | - |
| 13. | U108 | | 1,4-Diethylene dioxide or 1,4-dioxane | 0 | - | 0 | - |
| 14. | U122 | | Formaldehyde or methylene oxide | 330 | Surface Impoundment | 330 | Tank |
| 15. | U134 | (C,T) | Hydrogen fluoride or hydrofluoric acid | 100 | Surface Impoundment | 100 | Tank |
| 16. | U154 | (I) | Methanol or methyl alcohol | 0 | - | 0 | - |
| 17. | U159 | (I,T) | 2-Butanone | 7,800 | Container | 7,800 | Container |
| 18. | U162 | (I,T) | Methyl methacrylate | 0 | - | 0 | - |
| 19. | U220 | | Toluene | 0 | - | 0 | - |
| 20. | U226 | | 1,1,1-Trichloroethane | 11,440 | Container | 11,440 | Container |
| 21. | U228 | | Trichloroethylene or trichloroethene | 700 | Container | 700 | Container |
| 22. | U238 | | Carbonic acid, ethyl ester | 0 | - | 0 | - |
| 23. | U239 | (I) | Xylene | 0 | - | 0 | - |

(1) T = Toxic; I = Ignitable; R = Reactive; C = Corrosive; E = EP (EPA extraction procedure) Toxic; H = Acute Hazardous
(2) Original submission which was used as the basis for the interim permit.
(3) Updated submission which apparently was not approved by NM EID (See Ref. C.2, Generator Checklist comments).

EXHIBIT 3




**Harding Lawson Associates**
Engineers Geologists & Geophysicists

## LOCATION MAP

Sparton Technology, Inc.
Albuquerque, New Mexico

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| DRAWN | JOB NUMBER | APPROVED | DATE | REVISED | DATE |
|---|---|---|---|---|---|
| SP | 6310,012.12 | | | JG | 12-17-85 |