OPERATION/CONSTRUCTION MANAGERS

Municipal Services

P.O. Box 97, Garner, North Carolina 27529 (919)772-5393

CIVIL/SANITARY ENGINEERS

Engineering Company, P.A.

P.O. Box 349, Boone, North Carolina 28607 (704)262-1767

December 15, 1994

Mr. Edward F. Mussler III. E.I.T.
Environmental Engineer
Solid Waste Section
P.O. Box 27687
Raleigh, NC 27611-7687

Fac/Perm/Co ID #	Date	Doc ID#
mi ny 96-01	7/29/2011	DIN 14418

Re: Technical Review - Wayne County Transition Plan, Permit No. 96-01.
Response to November 15 1994 letter. Project No. G93121.

Dear Mr. Mussler:

Enclosed you will find two (2) copies of a revised Location Restriction Demonstration, MSWLF Unit Capacity, Written Operation Plan, Written Closure Plan, Written Post Closure Plan, Closure and Post Closure Cost Analysis and Summary, and Operation Drawings.

The following is a line by line response to the Technical Review questions from your November 15, 1994 Review.

Section I- Summary Report

1. The Summary Report has been revised deleting co-disposal of sewage sludge into the MSWLF unit.

2. The Summary Report has been revised to state that Wayne County will start a new permit process. The Transition Plan does not state anything about a site study for a new facility.

Section II- Location Restriction Demonstration

1. A demonstration has been provided showing the landfill not located within 5,000 feet of any airport runway used by only piston-powered aircraft or within 10,000 feet of any runway used by turbine-powered aircraft.

2. A FHBM map has been provided for the flood study.

Section VII- Written Operation Plan

1. The Transition Plan is all encompassing and is used to establish a closure date regardless of previous permit limits.

2. A demonstration on alternative daily cover has been made.

3. Benchmarks have been established and are located on drawing 93120-01, which was submitted on April 8, 1994.

4. The Written Operation Plan has been modified to state more clearly the types of wastes accepted. The C&D wastes are accepted into the MSWLF unit as Municipal Solid Waste. The wastes that the facility is not permitted to receive are located on page 3, 1.b. of the Written Operation Plan as submitted on April 8, 1994.

5. The plan has been revised to state that spoiled foods, etc. will be covered immediately with 6" of soil.

6. The plan has been revised to state that wastewater treatment sludges may be accepted as a soil conditioner and incorporated onto the vegetative growth layer but, in no case, greater than six inches in depth.

7. A demonstration on alternative daily cover has been made.

8. Disease vectors will be controlled by daily use of synthetic and/or soil cover.

9. The Permanent Methane Monitoring Plan has already been approved on September 14, 1994 by James C. Coffey, Supervisor, Solid Waste Section Permitting Branch.

10. The county will notify the closest fire station in case of a fire. Pans and dozers can be used to help fight any fires. "Hot loads" will not be accepted into the facility.

11. Access to the facility is controlled by a fence and gate. The county wets down the roads when a dust problem occurs.

12. An updated Erosion Control Plan will be sent to Land Quality for its review. Upon approval, we will forward the approval letter to the Section.

13. The current approved Erosion Control Plan gives details on the measures used to control drainage.

14. If it is determined that a "Paint Filter Test" is needed, the County will contact Environmental 1 to run the test.

15. The records are being kept at the facility.

16. The Spreading and Compacting Section has been revised. Blowing litter is controlled by a fenced facility. Run-on and run-off is controlled by keeping a minimum 5% slope on the working face. Berms are contracted as deemed necessary. There are no provisions made for inclement weather.

17. The Landfill knows the industrial users of its service area. Lloyd Cook has received SWANA training in hazardous waste. The Written Operation Plan has been changed to recommend hand raking of inspected wastes, and that PCB's are regulated under the Toxic Substance Control Act (TSCA). As stated in the Operation Plan, the County is, at a minimum, screening 1% of the waste stream.

18. A demonstration on alternative daily cover has been made.

19. The Permanent Methane Monitoring Plan has already been approved on September 14, 1994 by James C. Coffey, Supervisor, Solid Waste Section Permitting Branch. BS -

Section VIII- Closure Plan

1. The Operation drawing Miscellaneous Detail sheet has been modified to read no greater than 1×10^{-5} cm/sec.

2. A gas venting system has been added to the closure plan and operation drawings.

3. Paragraph (e) states a minimum of four soil samples each, per lift, per acre, of cohesive soil liner shall be secured for permeability testing. Paragraph (d) does specify the permeability testing. Paragraph (h) states the frequency of tests. The quality control on any stockpile is the responsibility of the contractor. The County is not responsible for permeability of any stockpile. The permeability of the cap is the concern of the County. The reference to the flexible membrane liner has been removed.

Section IX- Post Closure Plan

1. The County has no end use at this time for the property.

2. Semi-annual inspection is adequate even in the early years of closure. The Description of Maintenance Activities Section adequately describes maintenance procedures. The semi-annual maintenance of the sediment pond is not addressed here because there will be no significant erosion since everything will be permanently seeded.

3. Rule .1627(d)(3) has been addressed in the revised Post Closure Plan.

Section X- Closure and Post-Closure Cost Analysis and Summary

1. Closure cost reflects the gas management system in the revised cost estimates.

2. It has been our experience that the cost of on site soil only reflects the cost of transportation and compaction. Mobilization costs were included in the cost of soil placement, but has been revised to be a single line item. The QA/QC costs are sufficient.

3. The estimate has been revised to $100,000.

4. Once again, the semi-annual maintenance of the sediment pond is not addressed here because there will be no significant erosion since everything will be permanently seeded.

5. The estimate has been revised to $100,000.

If you have any questions, please advise.

Very truly yours,
MUNICIPAL ENGINEERING SERVICES CO., PA

D. Wayne Sullivan

D. Wayne Sullivan
Project Manager

DWS:cd
Enclosures
cc: Lloyd Cook

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

July 26, 1994

Mr. Lloyd Cook
460 B South Landfill Road
Dudley, N.C. 28333

RE: Interim Review Of Water Quality Monitoring Transition Plan
Wayne County Landfill, Permit # 96-01

Dear Mr. Jones,

There is limited time available for the Solid Waste Section to review and evaluate the Water Quality Monitoring Plan submitted as part of the Transition Plan. It is not possible to do a full technical review of this plan in time to allow for the upgrading of the monitoring system and the initial sampling episode of the baseline sampling event.

Therefore the Solid Waste Section is giving interim authorization for Wayne County to proceed with the upgrade of the ground-water monitoring system at the Wayne County MSWLF facility in general accordance with the proposal submitted in the monitoring plan included as part of the Transition Plan. **However, the monitoring system upgrade must meet the following conditions:**

In addition to the two new monitoring wells proposed (well 5 and well 6), a couple of additional wells are needed to effectively monitor the site. These additional monitoring wells should be installed at the approximate locations as described below.

One additional well should be installed at the southwest corner of the landfill between the waste area and the small branch, and about 200 feet north of proposed surface water monitoring location SW-2.

Another well should be installed on the southern boundary of the landfill, south of the concrete monument and near the head of the drainage feature that appears on the 2,000 foot perimeter map.

Proposed well 5 should be installed on the east side of the sedimentation basin. Proposed well 6 should be installed at the approximate location shown on the plan, and near the pine thicket.

The two "circular wells" may be abandoned.

The new monitoring wells should generally be installed about 100 to 150 feet from the waste boundary, but within the facility boundary.

The monitoring wells are to be constructed according to the specifications in the North Carolina Well Construction Standards (15A NCAC 2C .0108).

The monitoring wells are to be constructed according to the specifications in the "North Carolina Water Quality Monitoring Guidance Document For Solid Waste Facilities" as illustrated by the Typical Monitoring Well Schematic" diagram enclosed.

The monitoring wells are to be placed in the approved locations in areas free of garbage, refuse, or debris, and in areas not subject to flooding.

The monitoring wells are to be drilled to a depth, and the screens placed at vertical locations, that will ensure that future drought conditions, which may lower the water table, will not render the monitoring system ineffective.

Generally shallow monitoring wells shall be installed with a 15 foot screen, with the top of the screen set just above the seasonal high water table, unless hydrogeologic conditions justify changes in this design.

The sand pack should extend no more than 2 feet above the screen and no more than 1 foot below the screen. A bentonite seal of at least 1.0 foot should be installed above the screened interval. The bentonite shall be allowed adequate time to hydrate prior to grouting up the annular space of the well above the bentonite seal.

Monitoring wells shall be thoroughly developed after construction in order to reduce suspended solids, flush out the well, and re-establish equilibrium with the aquifer.

In addition to the water quality analytical data, the initial baseline sampling report must include for each monitoring well the following information: a Well Completion Record, Well Schematic Diagram, boring log, hydraulic conductivity value, porosity value, effective porosity value, and the direction and rate of ground-water flow. **This initial baseline sampling report must be received in the Solid Waste Section office on or before October 9, 1994.** The technical review and determination of adequacy of the Transition Plan Water Quality Monitoring Plan will not be completed until after the initial baseline sampling document has been received and reviewed by the Solid Waste Section.

The water quality sampling and analysis for the baseline sampling must be done according to the directives in the June 24, 1994, memorandum from the Solid Waste Section to MSWLF owners and operators.

If you have any questions or comments regarding this conditional interim authorization to install monitoring wells as necessary to upgrade the monitoring system at the Wayne County Landfill, please contact the Solid Waste Section at (919) 733-0692.

Sincerely,

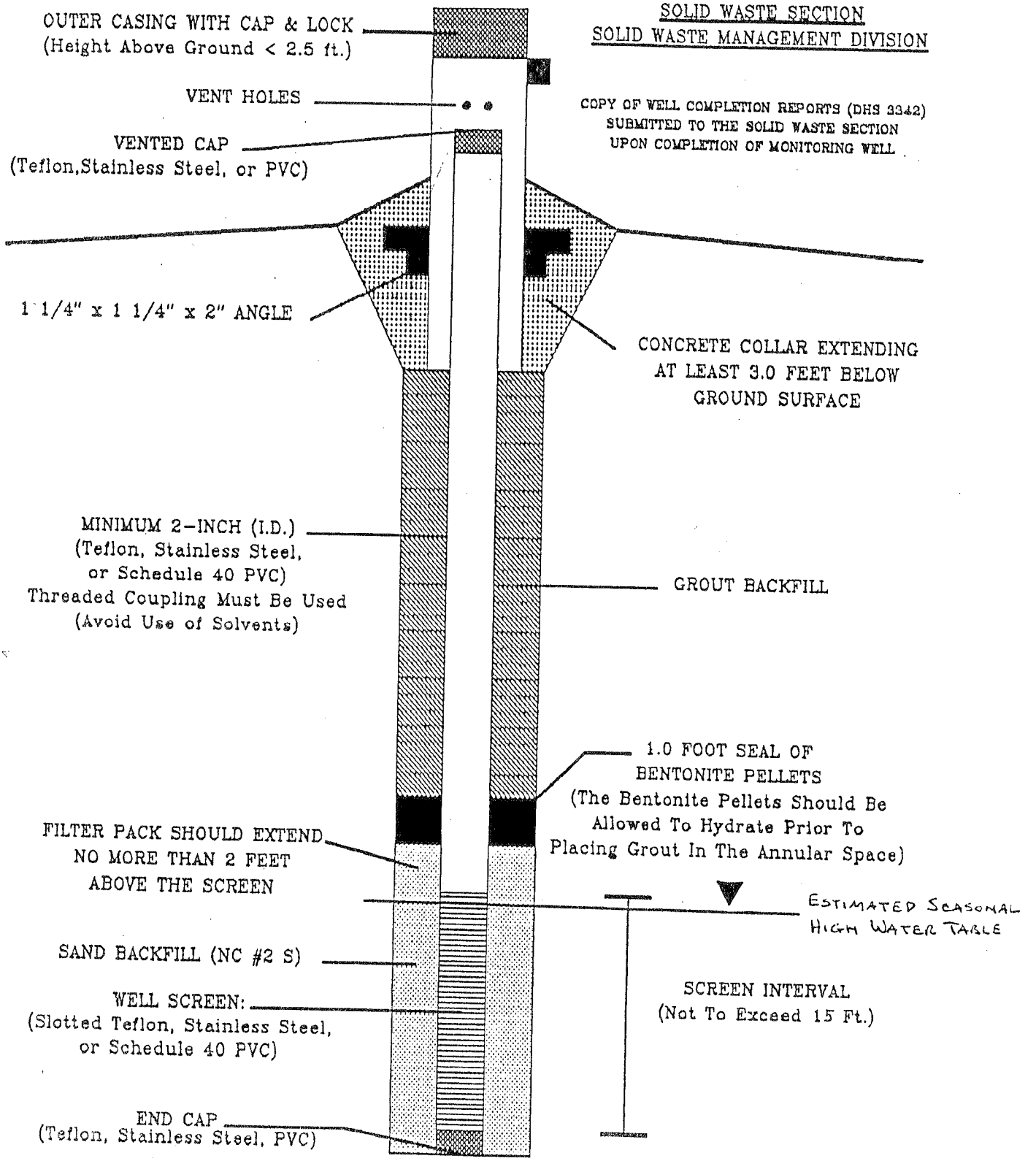
Bobby Lutfy

Bobby Lutfy
Hydrogeologist
Solid Waste Section

cc: Sherri Hoyt
Bill Morris
Municipal Engineering

Attachment

TYPICAL MONITORING WELL SCHEMATIC



OPERATION/CONSTRUCTION MANAGERS

Municipal Services

P.O. Box 97, Garner, North Carolina 27529 (919)772-5393

CIVIL/SANITARY ENGINEERS

Engineering Company, P.A.

P.O. Box 349, Boone, North Carolina 28607 (704)262-1767

April 8, 1994

APR 1994
Received
Solid Waste
Section

Mr. James Coffey, Supervisor
Solid Waste Section
NC Department of Environment, Health
and Natural Resources
PO Box 27687
Raleigh, NC 27611

Re: Wayne County Transition Plans

Dear Mr. Coffey:

On behalf of the Wayne County, we are enclosing herewith two (2) copies of the Landfill Transition Plans, reports, documentation and Operational Drawings for your approval.

If questions or comments arise during your review, please don't hesitate to contact me at 919-772-5393.

Very truly yours,
MUNICIPAL ENGINEERING SERVICES CO., PA

D. Wayne Sullivan

D. Wayne Sullivan
Project Manager

DWS:cw

Enclosures

Copy: Mr. Lloyd Cook, Solid Waste Director

WAYNE COUNTY
Original Operations Plan
Revised 9/94

WRITTEN OPERATION PLAN

OPERATIONAL PLAN FOR WAYNE COUNTY

The County of Wayne will operate their existing landfill until the end of 1997. The Transition Plan includes a vertical expansion which will be the plan by which the landfill is filled. The County has been operating under the trench method and now will have to fill with the area type fill. The daily fill should be maintained in the smallest area possible and filled as deep as possible before the daily cover is applied.

Daily Cover will be the combination of soil and synthetic cover. The synthetic cover will be used on days that the next days fill will be placed directly on top of the fill. Soil cover will be used when the next days waste will not be placed directly on top and the synthetic cover is not large enough to cover the entire area. (See cover requirements under operational requirements)

The County will implement a program at the landfill for detecting and preventing the disposal of hazardous and liquid wastes. The program shall consist of random inspection of incoming loads at a minimum of 1% of the weekly traffic. Landfill personnel will be trained to recognize hazardous and liquid wastes. Records shall be kept on the training and the inspections. (See Appendix I)

The County of Wayne shall monitor for explosive gases of landfill structures and property boundaries. The concentration of methane gases generated by the landfill cannot exceed 25 percent of the lower explosive limit for methane in the structures, and it cannot exceed the lower explosive limit for methane of the landfill property boundary. (See Appendix II) If methane gas is found to exceed the acceptable limits at either the property boundary or landfill structures, it is the County's responsibility to do the following:

1. Immediately take all necessary steps to ensure protection of human health and notify the Division of Solid Waste Management.

2. Within seven days of detection, place in the operating record the methane gas levels detected and a description of the steps taken to protect human health; and

3. Within 60 days of detection, implement a remediation plan for the methane gas release, place a copy of the plan in the operating record, and notify the Division of Solid Waste Management that the plan has been implemented. The plan shall describe the nature and extent of the problem and the proposed remedy.

Off and on site erosion shall be controlled through erosion control structures and devices. Provisions for a vegetative ground cover sufficient to restrain erosion shall be accomplished within 30 working days or 120 calendar days upon completion of any phase of landfill development.

The County of Wayne will record and retain at the landfill an operating record of the following information:

1. Inspection records, waste determination records, and training procedures;

2. Amounts by weight of solid waste received at the landfill to include source of generation;

3. Gas monitoring results and any remediation plans;

4. Any demonstration, certification, findings, monitoring, testing or analytical data required for surface and ground water monitoring;

5. Any monitoring, testing or analytical data required for closure or post-closure; and,

6. Any cost estimates and financial assurance documentation.

All information contained in the operating record shall be furnished upon request to the Division of Solid Waste Management or be made available at all reasonable times for inspection by the Division.

Ground and surface water shall be sampled and analyzed according to Subtitle D Appendix I detection monitoring requirements. The monitoring frequency for all Appendix I detection monitoring constituents shall be at least semiannual during the life of the facility (including closure) and the post-closure period. A minimum of four independent samples from each well (background and downgradient) shall be collected and analyzed for the Appendix I constituents during the first semiannual sampling event. At least one sample from each well (background and downgradient) shall be collected and analyzed during subsequent semiannual sampling events.

If the County of Wayne determines that there is a statistically significant increase over background for one or more of the constituents listed in Appendix I at any monitoring well at the relevant point of compliance, the County shall, within 14 days of the finding, report to the Division of Solid Waste and place a notice in the operating record indicating which constituents have shown statistically significant changes from background levels. The County shall establish an assessment monitoring program within 90 days. The County may demonstrate that a source other than the landfill caused the contamination or that the statistically significant increase resulted from an error in sampling, analysis, statistical evaluation, or natural variation in ground-water quality. A report documenting these demonstrations shall be certified by a Licensed Geologist or Professional Engineer and approved by the Division of Solid Waste. A copy of this report shall be placed in the operating record. If a successful demonstration is made, documented, and approved by the Division, the County may continue detection monitoring. If after 90 days, a successful demonstration is not made, the County shall initiate an assessment monitoring program.

OPERATIONAL REQUIREMENTS

1. Waste Acceptance and Disposal Requirements

   a. The Municipal Solid Waste Landfill (MSWLF) will only accept those solid wastes which it is permitted to receive. Wayne County will notify the Division within 24 hours of attempted disposal of any waste the landfill is not permitted to receive, including waste from outside the Wayne County area the landfill is permitted to serve.

   b. The following wastes are prohibited from disposal at the MSWLF:

      i. Hazardous waste as defined within 15A NCAC 13A, to also include hazardous waste from conditionally exempt small quantity generators.

      ii. Polychlorinated biphenyls (PCB) wastes as defined in 40 CFR 761.

      iii. Liquid wastes unless the container is a small container similar in size to that normally found in household waste; the container is designed to hold liquids for use other than storage; or the waste is household waste.

   c. Spoiled foods, animal carcasses, abattoir waste, hatchery waste, and other animal waste delivered to the disposal site shall be covered immediately.

   d. Asbestos waste shall be managed in accordance with 40 CFR 61. The waste shall be covered immediately with soil in a manner that will not cause airborne conditions and must be disposed of separate and apart from other solid wastes:

      i. At the bottom of the working face or;

      ii. In an area not contiguous with other disposal areas. Separate areas shall be clearly designated so that asbestos is not exposed by future land disturbing activities.

   e. Wastewater treatment sludges may be accepted either as a soil conditioner or co-disposed in the lined area.

   f. Wayne County will implement a program at the Landfill for detecting and preventing the disposal of hazardous and liquid wastes. (Appendix I) This program will include, at a minimum:

landfill structures (excluding gas control or recovery system components); and

ii. The concentration of methane gas does not exceed the lower explosive limit for methane at the landfill property boundary.

b. Wayne County will implement a routine methane monitoring program to ensure that the standards of 4 (a) are met. (Appendix III)

i. The type and frequency of monitoring must be determined based on the following factors:

I. Soil conditions;

II. The hydrogeologic conditions surrounding the facility;

III. The hydraulic conditions surrounding the facility;

IV. The location of facility structures and property boundaries.

ii. The minimum frequency of monitoring shall be quarterly.

c. If methane gas levels exceeding the limits specified in 4 (a) are detected, the owner or operator will:

i. Immediately take all necessary steps to ensure protection of human health and notify the Division of Solid Waste Management.

ii. Within seven days of detection, place in the operating record the methane gas levels detected and a description of the steps taken to protect human health; and

iii. Within 60 days of detection, implement a remediation plan for the methane gas releases, place a copy of the plan in the operating record, and notify the Division of Solid Waste Management that the plan has been implemented. The plan shall describe the nature and extent of the problem and the proposed remedy.

d. "Lower explosive limit" means the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 25° C and atmospheric pressure.

5. Air Criteria

a. Wayne County will ensure that the landfill does not violate any applicable requirements developed under a State Implementation Plan (SIP) approved or promulgated by the US. EPA Administrator pursuant to Section 110 of the Clean Air Act, as amended.

b. Open burning of solid waste, except for the infrequent burning of land clearing debris generated on site or debris from emergency clean-up operations, is prohibited. Any such infrequent burning will be approved by the Division of Solid Waste Management.

c. Equipment will be provided to control accidental fires or arrangements will be made with the local fire protection agency to immediately provide fire-fighting services when needed.

d. Fires that occur at the landfill will be reported to the Division of Solid Waste Management within 24 hours and written notification will be submitted within 15 days.

6. Access and safety requirements

a. The landfill will be adequately secured by means of gates, chains, beams, fences and other security measures approved by the Division of Solid Waste Management to prevent unauthorized entry.

b. An attendant will be on duty at the site at all times while it is open for public use to ensure compliance with operational requirements.

c. The access road to the site will be of all-weather construction and maintained in good condition.

d. Dust control measures will be implemented when necessary.

e. Signs providing information on tipping or disposal procedures, the hours during which the site is open for pubic use, the permit number and other pertinent information will be posted at the site entrance.

f. Signs will be posted stating that no hazardous or liquid waste can be received.

g. Traffic signs or markers will be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.

h. The removal of solid waste from the landfill will be prohibited unless the County approves and the removal is not performed on the working face.

i. Barrels and drums will not be disposed of unless they are empty and perforated sufficiently to ensure that no liquid or hazardous waste is contained therein, except fiber drums containing asbestos.

7. Erosion and Sedimentation Control Requirements

a. Adequate sediment control measures (structures or devices), will be utilized to prevent silt from leaving the landfill.

b. Adequate sediment control measures (structures or devices), will be utilized to prevent excessive on-site erosion.

c. Provisions for a vegetative ground cover sufficient to restrain erosion will be accomplished within **30 working days** or **120 calendar days** upon completion of any phase of landfill development.

8. Drainage Control and Water Protection Requirements

a. Surface water will be diverted from the operational area.

b. Surface water will not be impounded over or in waste.

c. Solid waste will not be disposed of in water.

d. Leachate will be contained on site and properly treated prior to discharge.

e. The landfill will not:

(i) Cause a discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements pursuant to Section 402.

(ii) Cause the discharge of a nonpoint source of pollution to waters of the United States, including wetlands, that violates any requirements of an area-wide or state-wide water quality management plan that has been approved under Section 208 or 319 of the Clean Water Act, as amended.

9. Liquids Restriction

a. Bulk or non-containerized liquid waste will not be placed in the landfill unless:

(i) The waste is household waste other than septic waste and waste oil.

b. Containers holding liquid wastes will not be placed in the landfill unless:

(i) The container is a small container similar in size to that normally found in household waste;

(ii) The container is designed to hold liquids for use other than storage; or

(iii) The waste is household waste.

c. For the purpose of this paragraph:

(i) Liquid waste means any waste material that is determined to contain "free liquids" as defined by Method 9095 (Paint Filter Liquids Test), S. W. 846.

10. Recordkeeping Requirements

a. Wayne County MSWLF will record and retain at the facility, or an alternative location near the facility approved by the Division of Solid Waste Management, in an operating record the following information as it becomes available.

(i) Inspection records, waste determination records, and training procedures;

(ii) Amounts by weight of solid waste received at the landfill to include source of generation.

(iii) Gas monitoring results and any remediation plans;

(iv) Any demonstration, certification, findings, monitoring, testing or analytical data required for surface and groundwater monitoring;

(v) Any monitoring, testing or analytical data required for closure or post-closure; and,

(vi) Any cost estimates and financial assurance documentation.

(v) Any monitoring, testing or analytical data required for closure or post-closure; and,

(vi) Any cost estimates and financial assurance documentation.

b. All information contained in the operating record will be furnished upon request to the Division of Solid Waste Management or be made available at all reasonable times for inspection by the Division.

c. Wayne County will maintain a copy of the operation plan at the landfill.

11. Spreading and Compacting Requirements

a. The landfill will restrict solid waste into the smallest area feasible.

b. Solid waste will be compacted as densely as practical into cells.

c. Appropriate methods such as fencing and diking will be provided within the area to confine solid waste subject to be blown by the wind. At the conclusion of each day of operation, all windblown material resulting from the operation will be collected and returned to the area.

APPENDIX I

A. INTRODUCTION

The municipal solid waste stream is made up of wastes from all sectors of society. The waste is often categorized by its source or its characteristics. Terms used include commercial, industrial, residential, biomedical, hazardous, household, solid, liquid, demolition/construction, sludge, etc. Regardless of how one classifies wastes, the bottom line is that wastes are delivered to the landfill and a management decision must be made to either reject or accept them. This responsibility rests with the manager of the landfill. Wastes which are not authorized to be accepted at the landfill create a number of potential problems including: (1) liability due to future releases of contaminants; (2) bad publicity if media learns of unacceptable waste entering the landfill; (3) potential for worker injury; (4) exposure to civil or criminal penalties; (5) damage to landfill environmental control systems.

B. HAZARDOUS WASTE REGULATIONS AND MANAGEMENT

In the United States, hazardous waste is regulated under RCRA, Subtitle C. A waste is hazardous if it is listed as a hazardous waste by the Administrator of the Environmental Protection Agency (EPA) in the Code of Federal Regulations, Title 40, Part 261, or if it meets one or more of the hazardous waste criteria as defined by EPA. These criteria are:

- Ignitability
- Corrosivity
- Reactivity
- Toxicity

1. Ignitability

Ignitable waste is a waste that burns readily, causes a fire by friction under normal circumstances, or is an oxidizer. Any waste having a flash point of <140F falls in this category. Flash point is that temperature at which a liquid gives off vapors that will ignite when an open flame is applied. Under Department of Transportation (DOT) definitions, a flammable liquid has a flash point of >100 F. A combustible liquid has a flash point between 100 and 200 F. Therefore, a flammable liquid is always hazardous while a combustible liquid may or may not be hazardous depending upon its flash point.

2. Corrosivity

A corrosive waste is one having a very high or a very low pH. The pH of a liquid is a measure of how acidic or basic (alkaline) the material is. The pH scale ranges from 0 to 14. High numbers are basic and low numbers are acidic. A substance having a pH ≤ 2.0 or ≥ 12.5 is defined as hazardous under RCRA.

3. Reactivity

A waste is reactive if it is normally unstable: reacts violently with water; forms an explosive mixture with water; contains quantities of cyanide or sulfur that could be released to the air; or can easily be detonated or exploded. These wastes may fall into any one of several DOT categories.

4. Toxicity Characteristic Leaching Procedure (TCLP)

A waste is TCLP toxic if the concentration of any constituent in Table 1 exceeds the standard assigned to that substance. The TCLP is a methodology which attempts to simulate the conditions within a landfill. An acidic solution is passed through a sample of waste and the resultant "leachate" is analyzed for contaminants. The TCLP is designed to detect heavy metals, pesticides and a few other organic and inorganic compounds. The purpose of the test is to prevent groundwater contamination by highly toxic materials. TCLP tests the mobility of 40 different elements and compounds.

Except in certain specified circumstances, regulated quantities of hazardous waste must be disposed of at a permitted hazardous waste disposal facility. In accordance with 40 CFR Part 261.3, **any material contaminated by a hazardous waste is also deemed to be a hazardous waste and must be managed as such.** RCRA permits are also required to store, transport, and treat hazardous waste.

C. POLYCHLORINATED BIPHENYL'S (PCBs)

1. Introduction

PCBs are nonflammable and conduct heat without conducting electricity. These compounds were most frequently used as an additive to oil or other liquids in situations where heat was involved. The PCBs enhance the heat conducting properties of the liquid and thereby increase the heat dissipation or cooling effect obtained. They have also been used in lubricants and paint. In the United States one of the most common applications was in electric transformers. The only effective method for destroying PCBs is high Temperature incineration which is relatively expensive due to a shortage of PCB incineration capacity.

T.C.L.P. CONSTITUENTS & REGULATORY LEVELS (mg/L)

CONSTITUENT	REG LEVEL	CONSTITUENT	REG LEVEL
Arsenic	5.0	Hexachlorobenzene	0.13
Barium	100	Hexachloro-1,3-butadiene	0.5
Benzene	0.5	Hexachloroethane	3.0
Cadmium	1.0	Lead	5.0
Carbon Tetrachloride	0.5	Lindane	0.4
Chlordane	0.03	Mercury	0.2
Chlorobenzene	100	Methoxychlor	10.0
Chloroform	6.0	Methyl ethyl ketone	200
Chromium	5.0	Nitrobenzene	2.0
m-Cresol	200	Pentachlorophenol	100
0-Cresol	200	Pyridine	5.0
p-Cresol	200	Selenium	1.0
Cresol	200	Silver	5.0
1,4-Dichlorobenzene	10.0	Tetrachloroethylene	0.7
1,2-Dichloroethane	0.7	Toxaphene	0.5
1,1-Dichloroethylene	0.5	Trichloroethylene	0.5
2,4-Dichlorophenoxyacetic acid	0.7	2,4,5-Trichlorophenol	400
2,4-Dinitrotoluene	0.13	2,4,6-Trichlorophenol	2.0
Endrin	0.02	2,4,5-TP (Silvex)	1.0
Heptachlor (and its hydroxide)	0.008	Vinyl Chloride	0.2

TABLE 1