NEW YORK STATE

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

6NYCRR PART 373

Hazardous Waste Storage

Permit Application

FACILITY NAME:	General Electric Company Buffalo Service Shop
FACILITY LOCATION:	175 Milens Road Tonawanda, NY 14150 — LATITUDE 42° 59' 37" LONGITUDE 78° 53' 20"
FACILITY MAILING ADDRESS:	Same as Above
FACILITY EPA ID NUMBER:	NYD 067539940
	SIC Code 7699
FACILITY CONTACT:	A. Hejmanowski, PCB Specialist Telephone Number (716) 876-1200

SUBMITTED BY:	General Electric Company 175 Milens Road Tonawanda, NY 14150 Mr. R. W. Conway, Manager
PREPARED BY:	A. Hejmanowski, PCB Specialist General Electric Company Tonawanda, NY
	R. Fulga, Manufacturing Engineer General Electric Company Paramus, NJ

R.W. Conway 4/25/86

A Hejmanowski 4/25/86

R Fulga 4/25/86

INDEX

A. ENVIRONMENTAL ASSESSMENT FORM

GENERAL ELECTRIC COMPANY
175 Milens Road
Tonawanda, New York 14150

EAF

ENVIRONMENTAL ASSESSMENT FORM

Purpose: The EAF is designed to help applicants and agencies determine, in an orderly manner, whether a project or action is likely to be significant. The question of whether an action is significant is not always easy to answer. Frequently, there are aspects of a project that are subjective or unmeasurable. It is also understood that those who will need to determine significance will range from those with little or no formal knowledge of the environment to those who are technically expert in environmental analysis. In addition, many who have knowledge in one particular area may not be aware of the broader concerns affecting the question of significance.

The EAF is intended to provide a method whereby the preparer can be assured that the determination process has been orderly, comprehensive in nature, and yet flexible to allow the introduction of information to fit a project or action.

EAF COMPONENTS: The EAF is comprised of three parts:

Part 1: Provides objective data and information about a given project and its site. By identifying basic project data, it assists a reviewer in the analysis that takes place in Parts 2 and 3.

Part 2: This phase of the evaluation focuses on identifying the range of possible impacts that may occur from a project or action. It provides guidance as to whether an impact is likely to be considered small to moderate or whether it is a potentially-large impact. The form also identifies whether an impact can be mitigated or reduced.

Part 3: Only if any impact in Part 2 is identified as potentially-large, then Part 3 is used to evaluate whether or not the impact is actually important to the municipality in which the project is located.

Determination of Significance

If you find that one (or more) impact is both large and its consequence is important, then the project is likely to be significant, and a draft environmental impact statement should be prepared.

Scoping

If a draft EIS is needed, the Environmental Assessment Form will be a valuable tool in determining the scope of the issues to be covered by the draft EIS.

APPENDIX A

EAF

ENVIRONMENTAL ASSESSMENT - PART I

Project Information

NOTICE: This document is designed to assist in determining whether the action proposed may have a significant effect on the environment. Please complete the entire Data Sheet. Answers to these questions will be considered as part of the application for approval and may be subject to further verification and public review. Provide any additional information you believe will be needed to complete PARTS 2 and 3.

It is expected that completion of the EAF will be dependent on information currently available and will not involve new studies, research or investigation. If information requiring such additional work is unavailable, so indicate and specify each instance.

NAME OF PROJECT:

Hazardous Waste Storage

NAME AND ADDRESS OF OWNER (If Different)

(Name)

(Street)

(P.O.) (State) (Zip)

BUSINESS PHONE:

ADDRESS AND NAME OF APPLICANT:

General Electric Company
(Name)

175 Milens Road
(Street)

Tonawanda, N.Y. 14150
(P.O.) (State) (Zip)

DESCRIPTION OF PROJECT: (Briefly describe type of project or action)

Storage of RCRA hazardous wastes and PCB's
DEC hazardous wastes B001 thru B007.

(PLEASE COMPLETE EACH QUESTION - Indicate N.A. if not applicable)

A. SITE DESCRIPTION

(Physical setting of overall project, both developed and undeveloped areas)

1. General character of the land: Generally uniform slope ✓ Generally uneven and rolling or irregular ____.

2. Present land use: Urban ____, Industrial ✓, Commercial ____, Suburban ____, Rural ____, Forest ____, Agriculture ____, Other ____.

3. Total acreage of project area: 5.3 acres.

Approximate acreage:	Presently	After Completion
Meadow or Brushland	____acres	____acres
Forested	____acres	____acres
Agricultural	____acres	____acres
Wetland (Freshwater or Tidal as per Articles 24, 25 or F.C.L.)	____acres	____acres
Water Surface Area	____acres	____acres
Unvegetated (rock, earth or fill)	____acres	____acres
Roads, buildings and other paved surfaces	4.3 acres	4.3 acres
Other (indicate type)	1 acres	1 acres

4. What is predominant soil type(s) on project site? Compact grass clayey silt

5. a. Are there bedrock outcroppings on project site? ____ Yes ✓ No

b. What is depth to bedrock? Unknown (in feet)

Test borings to 56 ft. did not encounter refusal.

6. Approximate percentage of proposed project site with slopes: 0-10% ✓ %; 10-15% ____%; 15% or greater ____%.

7. Is project contiguous to, or contain a building or site listed on the National Register of Historic Places? ____Yes ✓No

8. What is the depth to the water table? 22 feet

9. Do hunting or fishing opportunities presently exist in the project area? ____Yes ✓No

10. Does project site contain any species of plant or animal life that is identified as threatened or endangered - ____Yes ✓No, according to - Identify each species _____

11. Are there any unique or unusual land forms on the project site? (i.e. cliffs, dunes, other geological formations - ____Yes ✓No. (Describe _____)

12. Is the project site presently used by the community or neighborhood as an open space or recreation area - ____Yes ✓No.

13. Does the present site offer or include scenic views or vistas known to be important to the community? ____Yes ✓No

14. Streams within or contiguous to project area: None

    a. Name of stream and name of river to which it is tributary _____

15. Lakes, Ponds, Wetland areas within or contiguous to project area: None

    a. Name _____; b. Size (in acres) _____

16. What is the dominant land use and zoning classification within a 1/4 mile radius of the project (e.g. single family residential, R-2) and the scale of development (e.g. 2 story). Industrial

B. PROJECT DESCRIPTION

1. Physical dimensions and scale of project (fill in dimensions as appropriate) 2,000 square feet (existing). 1,870 square feet (proposed expansion of existing storage).

    a. Total contiguous acreage owned by project sponsor 5.3 acres.

    b. Project acreage developed: 0.05 acres initially; 0.09 acres ultimately.

    c. Project acreage to remain undeveloped ____-____.

    d. Length of project, in miles: ____-____(if appropriate)

    e. If project is an expansion of existing, indicate percent of expansion proposed: building square footage _____; developed acreage _____.

    f. Number of off-street parking spaces existing 150; proposed 150.

    g. Maximum vehicular trips generated per hour N/A (upon completion of project)

    h. If residential: Number and type of housing units:

	One Family	Two Family	Multiple Family	Condominium
Initial				
Ultimate				

    i. If:

	Orientation Neighborhood-City-Regional	Estimated Employment
Commercial		
Industrial		

    j. Total height of tallest proposed structure N/A feet.

2. How much natural material (i.e. rock, earth, etc.) will be removed from the site - None tons
_____cubic yards.

3. How many acres of vegetation (trees, shrubs, ground covers) will be removed from site None acres.

4. Will any mature forest (over 100 years old) or other locally-important vegetation be removed by this project? ____Yes ✓No

5. Are there any plans for re-vegetation to replace that removed during construction? ____Yes ____No N/A

6. If single phase project: Anticipated period of construction 1 months, (including demolition).

7. If multi-phased project: a. Total number of phases anticipated ____No. N/A

b. Anticipated date of commencement phase 1 ____month ____year (including demolition)

c. Approximate completion date final phase _____month ____year.

d. Is phase 1 financially dependent on subsequent phases? ____Yes ____No

8. Will blasting occur during construction? ____Yes ✓No

9. Number of jobs generated: during construction ____; after project is complete ____. N/A

10. Number of jobs eliminated by this project ____. N/A

11. Will project require relocation of any projects or facilities? ____Yes ✓No. If yes, explain:

_____.

12. a. Is surface or subsurface liquid waste disposal involved? ____Yes ✓No.

b. If yes, indicate type of waste (sewage, industrial, etc.) _____.

c. If surface disposal name of stream into which effluent will be discharged _____.

13. Will surface area of existing lakes, ponds, streams, bays or other surface waterways be increased or decreased by proposal? ____Yes ✓No.

14. Is project or any portion of project located in the 100 year flood plain? ____Yes ✓No

15. a. Does project involve disposal of solid waste? ✓Yes ____No

b. If yes, will an existing solid waste disposal facility be used? ✓Yes ____No

c. If yes, give name: Cecos Chemical Waste Management; location Niagara Falls, N.Y. Model City, N.Y.

d. Will any wastes not go into a sewage disposal system or into a sanitary landfill? ✓Yes ____No

16. Will project use herbicides or pesticides? ____Yes ✓No

17. Will project routinely produce odors (more than one hour per day)? ____Yes ✓No

18. Will project produce operating noise exceeding the local ambience noise levels? ____Yes ✓No

19. Will project result in an increase in energy use? ____Yes ✓No. If yes, indicate type(s) _____

_____.

20. If water supply is from wells indicate pumping capacity _____ gals/minute. N/A

21. Total anticipated water usage per day _____gals/day. N/A

22. Zoning: a. What is dominant zoning classification of site? Industrial

b. Current specific zoning classification of site Industrial

c. Is proposed use consistent with present zoning? Yes

d. If no, indicate desired zoning _____.

26. Approvals: a. Is any Federal permit required? ____Yes ✓No

b. Does project involve State or Federal funding or financing? ____Yes ✓No

c. Local and Regional approvals:

	Approval Required (Yes, No)	(Type)	Submittal (Date)	Approval (Date)
City, Town, Village Board	No			
City, Town, Village Planning Board	No			
City, Town, Zoning Board	No			
City, County Health Department	No			
Other local agencies	No			
Other regional agencies	No			
State Agencies	Yes		11/80	11/80
Federal Agencies	Yes			

C. INFORMATIONAL DETAILS

Attach any additional information as may be needed to clarify your project. If there are or may be any adverse impacts associated with the proposal, please discuss such impacts and the measures which can be taken to mitigate or avoid them.

PREPARER'S SIGNATURE: R Hilgal

TITLE: MFG. ENGINEER

REPRESENTING: GENERAL ELECTRIC CO.

DATE: 4/25/86

EAF

ENVIRONMENTAL ASSESSMENT - PART II

Project Impacts and Their Magnitude

General Information (Read Carefully)

- In completing the form the reviewer should be guided by the question: Have my decisions and determinations been reasonable? The reviewer is not expected to be an expert environmental analyst.
- Identifying that an effect will be potentially large (column 2) does not mean that it is also necessarily significant. Any large effect must be evaluated in PART 3 to determine significance. By identifying an effect in column 2 simply asks that it be looked at further.
- The Examples provided are to assist the reviewer by showing types of effects and wherever possible the threshold of magnitude that would trigger a response in column 2. The examples are generally applicable throughout the State and for most situations. But, for any specific project or site other examples and/or lower thresholds may be more appropriate for a Potential Large Impact rating.
- Each project, on each site, in each locality, will vary. Therefore, the examples have been offered as guidance. They do not constitute an exhaustive list of impacts and thresholds to answer each question.
- The number of examples per question does not indicate the importance of each question.

INSTRUCTIONS (Read Carefully)

a. Answer each of the 18 questions in PART 2. Answer Yes if there will be any effect.

b. Maybe answers should be considered as Yes answers.

c. If answering Yes to a question then check the appropriate box (column 1 or 2) to indicate the potential size of the impact. If impact threshold equals or exceeds any example provided, check column 2. If impact will occur but threshold is lower than example, check column 1.

d. If reviewer has doubt about the size of the impact then consider the impact as potentially large and proceed to PART 3.

e. If a potentially large impact or effect can be reduced by a change in the project to a less than large magnitude, place a Yes in column 3. A No response indicates that such a reduction is not possible.

			1. SMALL TO MODERATE IMPACT	2. POTENTIAL LARGE IMPACT	3. CAN IMPACT BE REDUCED BY PROJECT CHANGE
	IMPACT ON LAND	NO YES			
1.	WILL THERE BE AN EFFECT AS A RESULT OF A PHYSICAL CHANGE TO PROJECT SITE?	⊗ ○			
	Examples that Would Apply to Column 2				
___	Any construction on slopes of 15% or greater, (15 foot rise per 100 foot of length), or where the general slopes in the project area exceed 10%.		___	___	___
___	Construction on Land where the depth to the water table is less than 3 feet.		___	___	___
___	Construction of paved parking area for 1,000 or more vehicles.		___	___	___
___	Construction on land where bedrock is exposed or generally within 3 feet of existing ground surface.		___	___	___
___	Construction that will continue for more than 1 year or involve more than one phase or stage.		___	___	___
___	Excavation for mining purposes that would remove more than 1,000 tons of natural material (i.e. rock or soil) per year.		___	___	___
___	Construction of any new sanitary landfill.		___	___	___

	1. SMALL TO MODERATE IMPACT	2. POTENTIAL LARGE IMPACT	3. CAN IMPACT BE REDUCED BY PROJECT CHANGE
___ Construction in a designated floodway.	—	—	—
___ Other impacts: _____	—	—	—
_____	—	—	—

2. WILL THERE BE AN EFFECT TO ANY UNIQUE OR UNUSUAL LAND FORMS FOUND ON THE SITE? (i.e. cliffs, dunes, geological formations, etc.) NO ⊗ YES ○

___ Specific land forms: _____	—	—	—
_____	—	—	—

IMPACT ON WATER

3. WILL PROJECT AFFECT ANY WATER BODY DESIGNATED AS PROTECTED? (Under Articles 15, 24, 25 of the Environmental Conservation Law, E.C.L.) NO ⊗ YES ○

Examples that Would Apply to Column 2

___ Dredging more than 100 cubic yards of material from channel of a protected stream.	—	—	—
___ Construction in a designated freshwater or tidal wetland.	—	—	—
___ Other impacts: _____	—	—	—
_____	—	—	—

4. WILL PROJECT AFFECT ANY NON-PROTECTED EXISTING OR NEW BODY OF WATER? NO ⊗ YES ○

Examples that Would Apply to Column 2

___ A 10% increase or decrease in the surface area of any body of water or more than a 10 acre increase or decrease.	—	—	—
___ Construction of a body of water that exceeds 10 acres of surface area.	—	—	—
___ Other impacts: _____	—	—	—
_____	—	—	—

5. WILL PROJECT AFFECT SURFACE OR GROUNDWATER QUALITY? NO ⊗ YES ○

Examples that Would Apply to Column 2

___ Project will require a discharge permit.	—	—	—
___ Project requires use of a source of water that does not have approval to serve proposed project.	—	—	—
___ Project requires water supply from wells with greater than 45 gallons per minute pumping capacity.	—	—	—
___ Construction or operation causing any contamination of a public water supply system.	—	—	—
___ Project will adversely affect groundwater.	—	—	—
___ Liquid effluent will be conveyed off the site to facilities which presently do not exist or have inadequate capacity.	—	—	—
___ Project requiring a facility that would use water in excess of 20,000 gallons per day.	—	—	—
___ Project will likely cause siltation or other discharge into an existing body of water to the extent that there will be an obvious visual contrast to natural conditions.	—	—	—

			1. SMALL TO MODERATE IMPACT	2. POTENTIAL LARGE IMPACT	3. CAN IMPACT BE REDUCED BY PROJECT CHANGE
___	Other Impacts: _____		___	___	___
	_____		___	___	___
6.	WILL PROJECT ALTER DRAINAGE FLOW, PATTERNS OR SURFACE WATER RUNOFF?	NO ⊗ YES ○			
	Example that Would Apply to Column 2				
___	Project would impede flood water flows.		___	___	___
___	Project is likely to cause substantial erosion.		___	___	___
___	Project is incompatible with existing drainage patterns.		___	___	___
___	Other impacts: _____		___	___	___
	IMPACT ON AIR				
7.	WILL PROJECT AFFECT AIR QUALITY?.....	NO ⊗ YES ○			
	Examples that Would Apply to Column 2				
___	Project will induce 1,000 or more vehicle trips in any given hour.		___	___	___
___	Project will result in the incineration of more than 1 ton of refuse per hour.		___	___	___
___	Project emission rate of all contaminants will exceed 5 lbs. per hour or a heat source producing more than 10 million BTU's per hour.		___	___	___
___	Other impacts: _____		___	___	___
	_____		___	___	___
	IMPACT ON PLANTS AND ANIMALS				
8.	WILL PROJECT AFFECT ANY THREATENED OR ENDANGERED SPECIES?	NO ⊗ YES ○			
	Examples that Would Apply to Column 2				
___	Reduction of one or more species listed on the New York or Federal list, using the site, over or near site or found on the site.		___	___	___
___	Removal of any portion of a critical or significant wildlife habitat.		___	___	___
___	Application of Pesticide or herbicide over more than twice a year other than for agricultural purposes.		___	___	___
___	Other impacts: _____		___	___	___
	_____		___	___	___
9.	WILL PROJECT SUBSTANTIALLY AFFECT NON-THREATENED OR ENDANGERED SPECIES?	NO ⊗ YES ○			
	Example that Would Apply to Column 2				
___	Project would substantially interfere with any resident or migratory fish or wildlife species.		___	___	___
___	Project requires the removal of more than 10 acres of mature forest (over 100 years in age) or other locally important vegetation.		___	___	___

		NO	YES	1. SMALL TO MODERATE IMPACT	2. POTENTIAL LARGE IMPACT	3. CAN IMPACT BE REDUCED BY PROJECT CHANGE
IMPACT ON VISUAL RESOURCE						
10.	WILL THE PROJECT AFFECT VIEWS, VISTAS OR THE VISUAL CHARACTER OF THE NEIGHBORHOOD OR COMMUNITY?	⊗	○			
	Examples that Would Apply to Column 2					
___	An incompatible visual affect caused by the introduction of new materials, colors and/or forms in contrast to the surrounding landscape.			___	___	___
___	A project easily visible, not easily screened, that is obviously different from others around it.			___	___	___
___	Project will result in the elimination or major screening of scenic views or vistas known to be important to the area.			___	___	___
___	Other impacts: _____			___	___	___
	_____.			___	___	___
IMPACT ON HISTORIC RESOURCES						
11.	WILL PROJECT IMPACT ANY SITE OR STRUCTURE OF HISTORIC, PRE-HISTORIC OR PALEONTOLOGICAL IMPORTANCE?	⊗	○			
	Examples that Would Apply to Column 2					
___	Project occuring wholly or partially within or contiguous to any facility or site listed on the National Register of historic places.			___	___	___
___	Any impact to an archeological site or fossil bed located within the project site.			___	___	___
___	Other impacts: _____			___	___	___
	_____.			___	___	___
IMPACT ON OPEN SPACE & RECREATION						
12.	WILL THE PROJECT AFFECT THE QUANTITY OR QUALITY OF EXISTING OR FUTURE OPEN SPACES OR RECREATIONAL OPPORTUNITIES?.....	⊗	○			
	Examples that Would Apply to Column 2					
___	The permanent foreclosure of a future recreational opportunity.			___	___	___
___	A major reduction of an open space important to the community.			___	___	___
___	Other impacts: _____			___	___	___
	_____.			___	___	___
IMPACT ON TRANSPORTATION						
13.	WILL THERE BE AN EFFECT TO EXISTING TRANSPORTATION SYSTEMS?	⊗	○			
	Examples that Would Apply to Column 2					
___	Alteration of present patterns of movement of people and/or goods.			___	___	___
___	Project will result in severe traffic problems.			___	___	___
___	Other impacts: _____			___	___	___
	_____.			___	___	___

		1	2	3
		SMALL TO MODERATE IMPACT	POTENTIAL LARGE IMPACT	CAN IMPACT BE REDUCED BY PROJECT CHANGE
IMPACT ON ENERGY				
14. WILL PROJECT AFFECT THE COMMUNITIES SOURCES OF FUEL OR ENERGY SUPPLY?	NO ⊗ YES ○			
Examples that Would Apply to Column 2				
___ Project causing greater than 5% increase in any form of energy used in municipality.		___	___	___
___ Project requiring the creation or extension of an energy transmission or supply system to serve more than 50 single or two family residences.		___	___	___
___ Other impacts: _____		___	___	___
_____.		___	___	___
IMPACT ON NOISE				
15. WILL THERE BE OBJECTIONABLE ODORS, NOISE, GLARE, VIBRATION or ELECTRICAL DISTURBANCE AS A RESULT OF THIS PROJECT?	NO ⊗ YES ○			
Examples that Would Apply to Column 2				
___ Blasting within 1,500 feet of a hospital, school or other sensitive facility.		___	___	___
___ Odors will occur routinely (more than one hour per day).		___	___	___
___ Project will produce operating noise exceeding the local ambient noise levels for noise outside of structures.		___	___	___
___ Project will remove natural barriers that would act as a noise screen.		___	___	___
___ Other impacts: _____		___	___	___
_____.		___	___	___
IMPACT ON HEALTH & HAZARDS				
16. WILL PROJECT AFFECT PUBLIC HEALTH AND SAFETY?	NO ○ YES ⊗			
Examples that Would Apply to Column 2				
✓ Project will cause a risk of explosion or release of hazardous substances (i.e. oil, pesticides, chemicals, radiation, etc.) in the event of accident or upset conditions, or there will be a chronic low level discharge or emission.		✓	___	___
___ Project that will result in the burial of "hazardous wastes" (i.e. toxic, poisonous, highly reactive, radioactive, irritating, infectious, etc., including wastes that are solid, semi-solid, liquid or contain gases.)		___	___	___
___ Storage facilities for one million or more gallons of liquified natural gas or other liquids.		___	___	___
___ Other impacts: _____		___	___	___
_____.		___	___	___

		SMALL TO MODERATE IMPACT	POTENTIAL LARGE IMPACT	CAN IMPACT BE REDUCED BY PROJECT CHANGE
IMPACT ON GROWTH AND CHARACTER OF COMMUNITY OR NEIGHBORHOOD				
17. WILL PROJECT AFFECT THE CHARACTER OF THE EXISTING COMMUNITY?	NO ⊗ YES ○			
Example that Would Apply to Column 2				
___ The population of the City, Town or Village in which the project is located is likely to grow by more than 5% of resident human population.		___	___	___
___ The municipal budgets for capital expenditures or operating services will increase by more than 5% per year as a result of this project.		___	___	___
___ Will involve any permanent facility of a non-agricultural use in an agricultural district or remove prime agricultural lands from cultivation.		___	___	___
___ The project will replace or eliminate existing facilities, structures or areas of historic importance to the community.		___	___	___
___ Development will induce an influx of a particular age group with special needs.		___	___	___
___ Project will set an important precedent for future projects.		___	___	___
___ Project will relocate 15 or more employees in one or more businesses.		___	___	___
___ Other impacts: _____		___	___	___
_____		___	___	___
18. IS THERE PUBLIC CONTROVERSY CONCERNING THE PROJECT?	NO ⊗ YES ○			
Examples that Would Apply to Column 2				
___ Either government or citizens of adjacent communities have expressed opposition or rejected the project or have not been contacted.		___	___	___
___ Objections to the project from within the community.		___	___	___

IF ANY ACTION IN PART 2 IS IDENTIFIED AS A POTENTIAL LARGE IMPACT OR IF YOU CANNOT DETERMINE THE MAGNITUDE OF IMPACT, PROCEED TO PART 3.

PORTIONS OF EAF COMPLETED FOR THIS PROJECT:

PART I ____ PART II ____ PART 3 ____

DETERMINATION

Upon review of the information recorded on this EAF (Parts 1, 2 and 3) and considering both the magnitude and importance of each impact, it is reasonably determined that:

A. ✓ The project will result in no major impacts and, therefore, is one which may not cause significant damage to the environment. — PREPARE A NEGATIVE DECLARATION ○

B. Although the project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in PART 3 have been included as part of the proposed project. — PREPARE A NEGATIVE DECLARATION ○

C. The project will result in one or more major adverse impacts that cannot be reduced and may cause significant damage to the environment. — PREPARE POSITIVE DECLARATION PROCEED WITH EIS ○

4/25/86
Date

Signature of Preparer (if different from responsible officer)

Signature of Responsible Official in Lead Agency

Print or type name of responsible official in Lead Agency

EAF

ENVIRONMENTAL ASSESSMENT - PART III

EVALUATION OF THE IMPORTANCE OF IMPACTS

INFORMATION

- Part 3 is prepared if one or more impact or effect is considered to be potentially large.
- The amount of writing necessary to answer Part 3 may be determined by answering the question: In briefly completing the instructions below have I placed in this record sufficient information to indicate the reasonableness of my decisions?

INSTRUCTIONS

Complete the following for each impact or effect identified in Column 2 of Part 2:

1. Briefly describe the impact.
2. Describe (if applicable) how the impact might be mitigated or reduced to a less than large impact by a project change.
3. Based on the information available, decide if it is reasonable to conclude that this impact is important to the municipality (city, town or village) in which the project is located.

   To answer the question of importance, consider:

   - The probability of the impact or effect occurring
   - The duration of the impact or effect
   - Its irreversibility, including permanently lost resources or values
   - Whether the impact or effect can be controlled
   - The regional consequence of the impact or effect
   - Its potential divergence from local needs and goals
   - Whether known objections to the project apply to this impact or effect.

DETERMINATION OF SIGNIFICANCE

An action is considered to be significant if:

One (or more) impact is determined to both large and its (their) consequence, based on the review above, is important.

PART III STATEMENTS

(Continue on Attachments, as needed)

EAF

ENVIRONMENTAL ASSESSMENT FORM

Purpose: The EAF is designed to help applicants and agencies determine, in an orderly manner, whether a project or action is likely to be significant. The question of whether an action is significant is not always easy to answer. Frequently, there are aspects of a project that are subjective or unmeasurable. It is also understood that those who will need to determine significance will range from those with little or no formal knowledge of the environment to those who are technically expert in environmental analysis. In addition, many who have knowledge in one particular area may not be aware of the broader concerns affecting the question of significance.

The EAF is intended to provide a method whereby the preparer can be assured that the determination process has been orderly, comprehensive in nature, and yet flexible to allow the introduction of information to fit a project or action.

EAF COMPONENTS: The EAF is comprised of three parts:

Part 1: Provides objective data and information about a given project and its site. By identifying basic project data, it assists a reviewer in the analysis that takes place in Parts 2 and 3.

Part 2: This phase of the evaluation focuses on identifying the range of possible impacts that may occur from a project or action. It provides guidance as to whether an impact is likely to be considered small to moderate or whether it is a potentially-large impact. The form also identifies whether an impact can be mitigated or reduced.

Part 3: Only if any impact in Part 2 is identified as potentially-large, then Part 3 is used to evaluate whether or not the impact is actually important to the municipality in which the project is located.

Determination of Significance

If you find that one (or more) impact is both large and its consequence is important, then the project is likely to be significant, and a draft environmental impact statement should be prepared.

Scoping

If a draft EIS is needed, the Environmental Assessment Form will be a valuable tool in determining the scope of the issues to be covered by the draft EIS.

APPENDIX B

SHORT ENVIRONMENTAL ASSESSMENT FORM

INSTRUCTIONS:

(a) In order to answer the questions in this short EAF is is assumed that the preparer will use currently available information concerning the project and the likely impacts of the action. It is not expected that additional studies, research or other investigations will be undertaken.

(b) If any question has been answered Yes the project may be significant and a completed Environmental Assessment Form is necessary.

(c) If all questions have been answered No it is likely that this project is not significant.

(d) Environmental Assessment

1. Will project result in a large physical change to the project site or physically alter more than 10 acres of land? . . . . . ___ Yes ___ No

2. Will there be a major change to any unique or unusual land form found on the site? . . . . . ___ Yes ___ No

3. Will project alter or have a large effect on an existing body of water? . . . . . ___ Yes ___ No

4. Will project have a potentially large impact on groundwater quality? . . . . . ___ Yes ___ No

5. Will project significantly effect drainage flow on adjacent sites? . . . . . ___ Yes ___ No

6. Will project affect any threatened or endangered plant or animal species? . . . . . ___ Yes ___ No

7. Will project result in a major adverse effect on air quality? . . . . . ___ Yes ___ No

8. Will project have a major effect on visual character of the community or scenic views or vistas known to be important to the community? . . . ___ Yes ___ No

9. Will project adversely impact any site or structure of historic, pre-historic, or paleontological importance or any site designated as a critical environmental area by a local agency? . . . ___ Yes ___ No

10. Will project have a major effect on existing or future recreational opportunities? . . . ___ Yes ___ No

11. Will project result in major traffic problems or cause a major effect to existing transportation system? . . . . . ___ Yes ___ No

12. Will project regularly cause objectionable odors, noise, glare, vibration, or electrical disturbance as a result of the project's operation? . ___ Yes ___ No

13. Will project have any impact on public health or safety? . . . . . ___ Yes ___ No

14. Will project affect the existing community by directly causing a growth in permanent population of more than 5 percent over a one-year period or have a major negative effect on the character of the community or neighborhood? . . ___ Yes ___ No

15. Is there public controversy concerning the project? ___ Yes ___ No

PREPARER'S SIGNATURE: _____ TITLE: _____

REPRESENTING: _____ DATE: _____

9/1/78

DESCRIPTION OF SERVICES AND HAZARDOUS WASTE ACTIVITIES

The General Electric Buffalo Service Shop is involved in the repair of industrial equipment including electric motors, transformers, turbines, pumps, compressors, etc.

In the performance of these repair activities, the facility generates hazardous wastes as defined in 40CFR1261. A RCRA Permit Application, Part A, was submitted to the Unites States ENvironmental Protection Agency in November 1980 to obtain interim status for the storage of hazardous wastes.

The Buffalo Service Shop also receives PCB liquids, solids, and articles (New York DEC Hazardous Waste Numbers B001 through B007) from customers and other General Electric repair facilities for storage prior to shipment to qualified disposal sites. As PCB wastes are received from off site and are included in New York hazardous management regulations, a 6 NYCRR Part 373 Permit for the storage of NYDEC hazardous waste numbers, B001 through 007, is requested.

The Buffalo Service Shop customers include industries, utilities, governmental agencies, commercial and service institutions. A representative listing of customers from whom PCB liquids, solids, and articles have been received is as follows.

Alcan
Oswego, New York

Anheuser Busch
Baldinsville, New York

Childrens Hospital
Buffalo, New York

Columbus McKinnon
Buffalo, New York

Comstock Foods
Red Creek, New York

Conrail
Buffalo, New York

Freezer Queen
Buffalo, New York

General Electric
Bridgeport, CT.
Pittsfield, MA.
Schenectady, NY

National Forge
Irvine, PA.

New York State (OGS)
Binghamton, NY

N.Y.S.E. &G.
Binghamton, NY

Nestles Company
Fulton, NY

PASNY
Gilboa, NY

St. Jeromes Hospital
Batavia, NY

St. Bonaventure University
Olean, NY

SUNY
Delhi, NY

Union Central School
Endicott, NY

VA Hospitals
Bedford, MA.
Canandiagua, NY

The geographical area serviced by the Buffalo Service Shop for PCB storage activities is primarily New York State, Western Pennsylvania, Northeastern New Jersey, and the New England States.

Listing of approved transporters and disposal sites used by the Buffalo Service Shop is attached.

TRANSPORTERS

TRANSPORTER	PERMIT NO.
Hazmat Environmental 2765 Kenmore Ave. Tonawanda, NY 14150 (716) 877-5533	EPA ID NYD 980769947 NY PERMIT 9A278
Inland Pollution Control 345 Quincy Ave. Braintree, MA. 02184 (614) 843-7111	EPA ID MAD 095869459 NY PERMIT MA010
SCA CHEMICAL SERVICES 1550 Balmer Road Model City, NY 14107 (716) 754-8231	EPA ID NYD 049836679 NY PERMIT 9A081
TONAWANDA TANK TRANSPORT 1140 Military Road Buffalo, NY 14217 (716) 873-9703	EPA ID NYD 097644801 NY PERMIT 9A080
U.S. POLLUTION CONTROL, INC. Tulsa, OK. 74217 (800) 331-6316	EPA ID OKT 410010474 NY PERMIT OK002
GENERAL ELECTRIC COMPANY 175 Milens Road Tonawanda, NY 14150 (716) 876-1200	EPA ID NYD 067539940 NY PERMIT 9A105

FACILITY AND OPERATION PLAN

Facility Description

The General Electric Buffalo Service Shop is a 69,000 sq.ft. single building located on 5.3 acres of land at 175 Milens Road, Tonawanda, New York (Exhibit 1). The site location is above the 100 year flood water elevation. The facility consists of approximately 63,000 sq. ft. of one story manufacturing/service area and 6,000 sq. ft. of office area. Located within the building's manufacturing/service area are the following designated storage areas: PCB work and storage areas, RCRA storage area, Waste Oil storage area and above ground new electrical oil storage area.

PCB Work Area - an interior area 37 ft. 3 in. x 13 ft. 10 in. with a 6 inch thick concrete floor enclosed by a 8 inch high x 9 inch thick concrete curb providing secondary containment for 2500 gallons. The PCB work area is used for storage during receiving of PCB items at the facility, in-process storage of PCB items during repair operations, and storage of PCB items used for repair operations. Three portable 275 gallon capacity

tanks used for the storage of PCB oil (B001) while performing repairs are also stored in this area. The 275 gallon tanks are of welded low carbon steel construction with an oval configuration 44 inches x 27 inches x 60 inches in length with a 14 guage wall thickness.

PCB Storage Area - An interior area 24 ft. 6 in. x 21 ft. 6 in. with a 6 inch concrete floor enclosed by a 16 inch high x 9 inch thick concrete curb providing secondary containment for 5,200 gallons. The PCB storage area has separate secured access only from the exterior of the facility and is used for PCB items prior to shipment to qualified disposal sites.

In addition to the PCB work and storage areas other areas are designated for RCRA Hazardous Wastes, waste oil (less than 50 ppm PCB concentrations), and new electrical oil.

Waste Oil Tank Storage Area - An interior area 17 ft. 4 in. x 14 ft. 10 in. with a 6 inch thick concrete floor enclosed by a 24 inch high x 10 inch thick concrete curb providing secondary containment for 3800 gallons. The waste oil tank storage area contains a 2,000 gallon capacity storage tank. The 2000 gallon tank has a locked top fill point and is used for storage of waste transformer oil with PCB concentrations less than 50 ppm. Within the same diked area drums of scrap motor oil and lubricating oil are also being stored.

RCRA Hazardous Waste Storage Area - An exterior 11 ft. x 30 ft. fenced area on a concrete pad for RCRA hazardous waste drum storage.

Above Ground New Electrical Oil Storage - An exterior area 56 ft. 7 in. x 11 ft. Enclosed by a 2 ft. 9 in. x 8 in. thick concrete curb providing secondary containment for 12,800 gallons. The above ground new electrical oil storage area contains two (2) 6000 gallon capacity storage tanks.

PCB Operation Plan

All service operations at the Buffalo Service Shop which involve PCB liquids, solids, articles, are conducted in accordance with Federal EPA Regulations 40CFR761, New York State Hazardous Waste Regulations 6NYCRR Part 370 through 373 and the General Electric Apparatus and Engineering Services Procedures.

The Buffalo Service Shop receives PCB liquids, solids, and articles for storage prior to disposal. These materials are also generated by the Buffalo Service Shop from service and repair activities at the facility and at customers' locations. PCB items received by the Buffalo Service Shop consist of drummed liquids and solids, and PCB articles. Upon arrival of the PCB shipment, the Shipping-Receiving Clerk reviews the PCB Unloading

Authorization Form obtained from authorized Shop Management Personnel.

The Shipping-Receiving Clerk receives and dates the PCB item and signs the hazardous waste manifest. The manifest copies are sent to the PCB Specialist for review and distribution and the material is moved to the PCB work area. The PCB Specialist issues the job planning as required, and maintains records of the material received, and generated by decontamination. The PCB items are then placed in the PCB Storage Area or shipped to a qualified disposal site.

All items shipped for disposal are manifested as PCB items unless tests are obtained to verify that PCB concentrations are below 50 ppm. The PCB Specialist is responsible for obtaining PCB Test Analysis and maintaining test reports. The manifest are prepared and distributed by the PCB Specialist who also arranges for shipment and disposal with qualified transporters and disposal sites. The PCB Specialist maintains records of PCB materials received, shipped, and in inventory. These records are maintained in the facility's files for five years.

The 2000 gallon storage container is used only for the storage of scrap transformer oil certified to be less than 50 PPM PCB. To maintain required levels below 50 ppm PCB concentration, the following procedure is strictly adhered to:

The 2000 gallon tank fill point is securely padlocked. The PCB Specialist has control of the lock key. To obtain the key to utilize the tank, a certified test report of PCB level of liquid must be available. Written planning is then issued to advise which transformer or drums of liquid can be emptied into the 2000 gallon tank. The PCB Specialist maintains an inventory log indicating PCB concentration, gallons added, weight of liquid, date added, and work order number.

Attached, under this tab, are the following Drawings/Form:

- Buffalo Shop - Location of RCRA, PCB, Waste Oil, New Oil Storage Areas.
- Buffalo Shop - PCB Work Area
- Buffalo Shop - PCB Storage Area
- Buffalo Shop - Waste Oil Storage Area
- PCB Item Unload Authorization Form

The General Electric Company, Buffalo Service Shop, has the following environmental permits:

NYSDEC, Division of Air:

ID - 146489 - 1587 - 00013

ID - 146489 - 1587 - 00011

ID - 146489 - 1587 - 00201

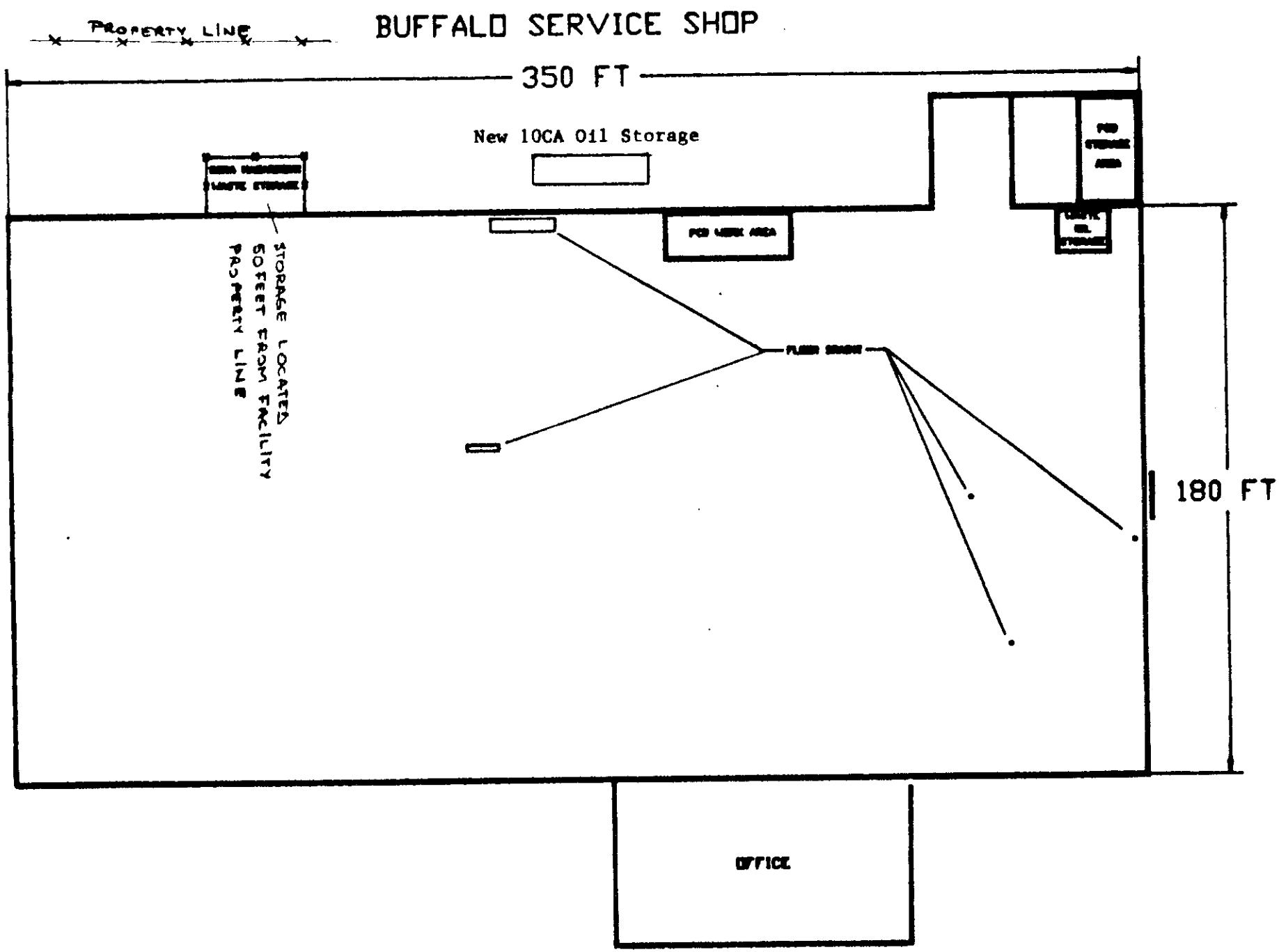
ID - 146489 - 1587 - 00241

ID - 146489 - 1587 - 00627

NYSDEC, Division of Solid and Hazardous Waste:

6NYCRR Part 364, Waste Transporter Permit No. 9A-105

EPA Hazardous Waste Activity Permit NYD 067539940


PROPERTY LINE
BUFFALO SERVICE SHOP
350 FT
New 10CA Oil Storage
STORAGE LOCATED 50 FEET FROM FACILITY PROPERTY LINE
180 FT
OFFICE

GENERAL ELECTRIC

APPARATUS AND ENGINEERING SERVICES OPERATIONS
GENERAL ELECTRIC COMPANY • 175 MILENS ROAD • TONAWANDA, NEW YORK 14150 • (716) 876-1800

PCB ITEM UNLOAD AUTHORIZATION

GENERATOR _____ TRANSPORTER _____

ADDRESS _____ EPA ID NO. _____

_____ MANIFEST NO. _____

EPA ID NO. _____ DATE _____

PCB ITEMS DUE	INSPECTION CHECK		BY
_____ Drums - Liquid	17E Drums	_____	_____
_____ PCB Level	Leaking	_____	_____
_____ Drums - Solid	17C Drums	_____	_____
_____ Drums - Caps	17C Drums	_____	_____
_____ KVA - Transf.	Serial No.	_____	_____
_____ PCB Level	N/P Gals.	_____	_____
	N/P Weight	_____	

ACTUAL OUTSIDE DIMENSIONS: _____ L _____ W _____ H _____

_____ KVA - Transf.	Serial No.	_____	_____
_____ PCB Level	N/P Gals.	_____	
	N/P Weight	_____	

ACTUAL OUTSIDE DIMENSIONS: _____ L _____ W _____ H _____

_____ KVA - Transf.	Serial No.	_____	_____
_____ PCB Level	N/P Gals.	_____	
	N/P Weight	_____	

ACTUAL OUTSIDE DIMENSIONS: _____ L _____ W _____ H _____

NOTE: Check all items for proper labels.
Record transformer N/P data.
Take and record transformer physical dimensions.

PROPOSED ADDITIONS TO EXISTING STORAGE

The proposed additions to existing storage, planned to be installed at the General Electric Facility, are shown in the attached Building Plan. The proposed additions are as follows:

1. Additional Facilities - Above - Ground Indoor Storage Tanks

Four (4) new storage tanks and associated pumps and piping are planned to be installed in the southeast corner of the facility, as shown in the Liquid Waste Storage Facilities Drawing. (Exhibit 2).

Tank Capacity	Materal Stored	Fill Point	Reference
5000 Gal.	Pyranol, PCB>25,000 PPM	Top	T-1
5000 Gal.	10CA Oil, PCB<25,000 PPM	Top	T-2
3000 Gal.	Waste Kerosene W/PCBs	Top	T-3
1000 Gal.	Kerosene	Tank Fitting	T-4

Each tank will be fabricated of heavy guage steel in accordance with Underwriters' Laboratories, Inc., Subject No. 142, standard for steel above ground tanks for flammable and combustible liquids, and installed in accordance with National Fire Protection Association, No. 31.

Design criteria, materials of construction, appurtenances, etc. are discussed in the attached specifications.

In order to prevent spills of oil or kerosene, the following measures will be implemented:

a) All storage tanks are contained by dikes sized and constructed in accordance with all applicable regulations.

b) Tanks T-1, T-2, T-3 and T-4 are equipped with level detectors.

c) All inlet and outlet piping is double wall.

d) All piping will be inspected weeky for corrosion and leaks.

e) Storage tanks and dikes will be visually inspected weekly for signs of deterioration and leaks. Inspection will include foundations and supports of tanks.

f) The pumps for Tanks T-1, T-2, T-3, and T-4 are provided with pressure relief discharging back to pump suction in the event of blockage in the piping.

g) Tanks T-1 and T-2 are connected to each other with an overflow pipe. In the event of a system failure in which one of the tanks would overfill, waste liquid would discharge to one adjacent tank.

h) Tanks T-3 and T-4 are each equipped with a normally closed, remotely activated valve to provide for quick cutoff of flow in the event of fire in the vicinity of the tanks.

2. Additional Facilities - Expanded PCB Work Area

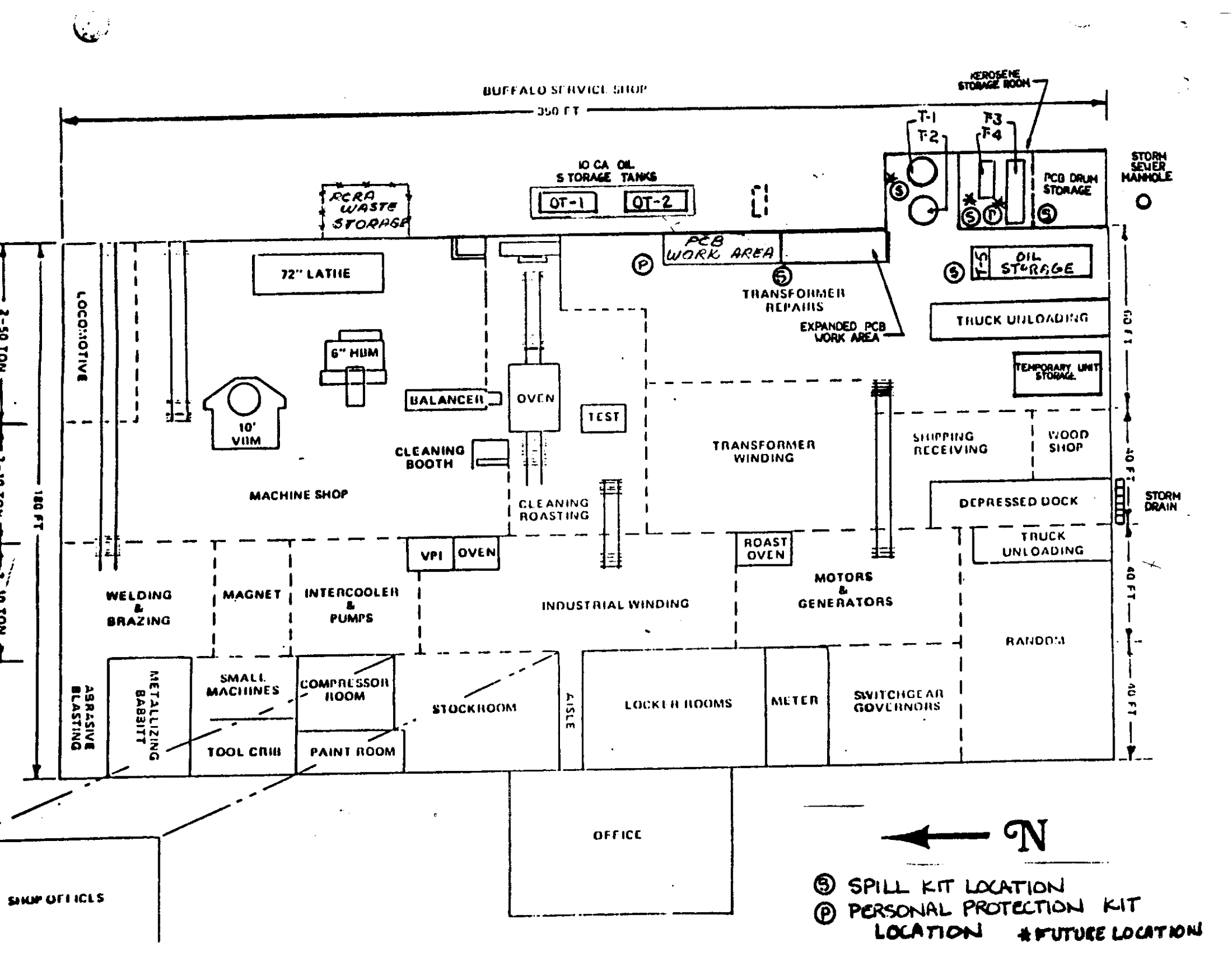
The existing PCB work area (37 ft. 3 in. x 13 ft. 10 in.) with a 6 inch thick concrete floor enclosed by a 8 inch high x 9 inch thick concrete curb) will be enlarged by increasing the diked area (32 ft. 0 in. x 13 ft. 10 in. area with 8 inch high x 9 inch thick concrete curbe will be added).

The new addition will provide secondary containment for additional 2,190 gallons. The PCB work area is used for storage during receiving of PCB items at the facility, in-process storage of PCB items during repair operations and storage of PCB items used for repair operations.

3. Additional Facilities - RCRA Waste, Outdoor Drum Storage Area.

The outdoor drum storage area will be contained and protected from runoff.

The perimeter of the concrete pad will be diked. A roof will be erected over the storage area, and the fence will be sided so that runoff will drain outside to the contained area.


BUFFALO SERVICE SHOP
350 FT
KEROSENE STORAGE ROOM
T-1
T-2
T-3
T-4
STORM SEWER MANHOLE
10 CA OIL STORAGE TANKS
OT-1
OT-2
RCRA WASTE STORAGE
PCB DRUM STORAGE
PCB WORK AREA
OIL STORAGE
TRANSFORMER REPAIRS
EXPANDED PCB WORK AREA
TRUCK UNLOADING
TEMPORARY UNIT STORAGE
72" LATHE
6" HBM
10' VBM
BALANCER
OVEN
TEST
CLEANING BOOTH
CLEANING ROASTING
TRANSFORMER WINDING
SHIPPING RECEIVING
WOOD SHOP
DEPRESSED DOCK
STORM DRAIN
TRUCK UNLOADING
MACHINE SHOP
LOCOMOTIVE
2-50 TON
180 FT
60 FT
40 FT
VPI
OVEN
ROAST OVEN
MOTORS & GENERATORS
WELDING & BRAZING
MAGNET
INTERCOOLER & PUMPS
INDUSTRIAL WINDING
RANDOM
ABRASIVE BLASTING
METALLIZING BABBITT
SMALL MACHINES
TOOL CRIB
COMPRESSOR ROOM
PAINT ROOM
STOCKROOM
AISLE
LOCKER ROOMS
METER
SWITCHGEAR GOVERNORS
OFFICE
SHOP OFFICES
N
⑤ SPILL KIT LOCATION
Ⓟ PERSONAL PROTECTION KIT LOCATION
*FUTURE LOCATION

GENERAL ELECTRIC CO.

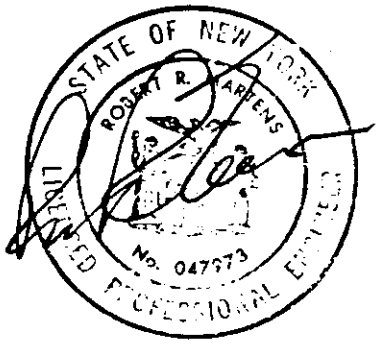
APPARATUS AND ENGINEERING SERVICES OPERATIONS

TONAWANDA, NEW YORK

LIQUID WASTE STORAGE FACILITIES

PURCHASE SPECIFICATIONS NO. 1

DECEMBER 1985



MALCOLM PIRNIE, INC.
S-3515 Abbott Road - P.O.Box 1938
Buffalo, New York 14219

GENERAL ELECTRIC COMPANY
TONAWANDA, NEW YORK

LIQUID WASTE STORAGE FACILITIES

PURCHASE SPECIFICATION NO. 1
STEEL STORAGE TANKS
(T-1, T-2, T-3, T-4)

DECEMBER 1985

WORK INCLUDED

1. VENDOR shall furnish two (2) 5000-gallon, one (1) 3000-gallon, and one 1000-gallon steel storage tanks, complete with all appurtenances in accordance with this Specification and with the sketches included with this Specification, for the services as described herein.

GENERAL

2. Each tank shall be fabricated of heavy gauge steel in accordance with Underwriters' Laboratories, Inc., Subject No. 142, Standard for Steel Aboveground Tanks for Flammable and Combustible Liquids, and installed in accordance with National Fire Protection Association No. 31. The tanks shall be chemically resistant to the liquids handled as described in Service Conditions (Section 3) of this Specification.

SERVICE CONDITIONS

3. Each Steel tank shall be entirely suitable for operation with the designated liquid at the conditions listed.

Tank	Liquid
T-1	Pyranol (Askarel) containing PCB's above 25,000 ppm. 5,000 gal cap. Specific gravity 1.5
T-2	Electrical Insulating Oil (10 c oil) containing PCB's between 50 and 25,000 ppm. 5,000 gal cap. Specific Gravity 0.91
T-3	Kerosene and PCB-contaminated oil 3,000 gal cap Specific Gravity 0.81 Flash Point 115°F
T-4	Kerosene Specific Gravity 0.81 1,000 gal cap. Flash Point 115°F

DESIGN CRITERIA

4. Dimensional, volumetric and tank configuration type shall be as specified below:

Tank	Nominal Volume	Nominal Dimensions	Type
T-1	5000 gal.	13 ft.- 4 in. x 8 ft. dia.	Vertical
T-2	5000 gal.	13 ft.- 4 in. x 8 ft. dia.	Vertical
T-3	3000 gal.	18 ft. - 0 in. x 5-1/3 ft.dia.	Horizontal
T-4	1000 gal.	10 ft. - 0 in. x 4-1/8 ft. dia.	Horizontal

MATERIALS OF CONSTRUCTION

5. The materials of construction for each tank shall be entirely suitable for the services as described and shall consist of the following as a minimum for all tanks:

For the vertical tanks, the thickness of the tanks shall be a minimum of 7 gauge. The bottom shall be a minimum of 1/4-inch and the top shall be a minimum of 10 gauge.

For the horizontal tanks, the thickness of the tank shall be a minimum of 7 gauge.

All pipe connections and fittings shall be of steel of good welding quality, with a thread length of at least 1-inch.

All openings in the tanks shall be closed with wooden plugs or metal covers to protect the threads and exclude foreign matter during transit or storage.

The interior of the tank shall be thoroughly cleaned of all scale, grease and dirt.

The exterior of the tanks shall be sand-blasted to remove mill scale and rust and then painted with one (1) coat of Koppers 654 Epoxy Primer, Porter's 4300 M.C.R.-43 Epoxy Primer, or equal; and two (2) coats of Koppers Bitumastic No. 300-M, Porter's Tarset C-200, or equal.

Each tank shall be tested before placed in service in accordance with the applicable paragraphs of the Code under which the tank was built. The Listing Mark of Underwriters Laboratories Inc. on the tank shall be evidence of compliance with this test.

The VENDOR shall furnish a certified statement that a 7,000-volts spark test has been made on all coated surfaces of the tanks.

APPURTENANCES

6. Each tank shall be furnished with appurtenances specified herein.

   a. Pipe Connections: Provide connections for each tank as follows. Locations shall be as shown on the attached sketches.

      1) One (1) - 2-inch diameter flanged inlet connection.

      2) One (1) - 2-inch diameter flanged drain connection near bottom of tank.

      3) One (1) - 2-inch diameter flanged connection for vent located on the top of tank.

      4) One (1) - 2-inch diameter flanged outlet connection near bottom of tank.

      5) One (1) - 4-inch diameter flanged opening on top for level measurement.

      At the inlet opening on top of the tank, provide a drop tube running from the inlet connection to within 6-inches of the bottom of the tank, installed to avoid excessive vibration of the pipe.

      Provide each of the two vertical tanks with one (1) 3-inch diameter flanged overflow connection near top of tank.

   b. Manholes: Each tank shall be provided with a 24-inch diameter manhole with a self-closing cover such that the pressure in the tank cannot exceed 2.5 psi. The cover shall be provided with a gasket resistant to flammable liquids and/or PCB's, as necessary, and of not less than 1/8-inch thickness.

   c. High Liquid Level Alarm: Each vertical tank shall be provided with an audible air vent. Each horizontal tank shall be provided with a float vent valve at the vent connection as shown.

   d. Tie Down Lugs: Tie down lugs suitable to resist forces when loading the tanks shall be provided by the VENDOR.

   e. Tank Lifting Lugs: Tank lifting lugs shall be provided by the vendor.

   f. Ladder: Provide a steel ladder for each tank where shown on the attached sketches.

DRAWINGS

8. The VENDOR shall furnish four (4) copies and one (1) reproducible of complete detailed shop drawings, providing descriptions of the proposed equipment and installation drawings. No equipment shall be manufactured until the shop drawings are approved.

The drawings shall be submitted for approval not later than the time stated in the proposal.

OPERATION AND MAINTENANCE BROCHURE

9. The VENDOR shall furnish four (4) copies of an installation, operation and maintenance brochure, which shall include copies of approved shop and installation drawings. The brochure shall be furnished at the time the equipment is shipped from the factory or earlier.

EQUIPMENT GUARANTEE

10. The manufacturer shall guarantee the equipment against defects in workmanship and material for a period of one year, beginning ninety (90) days from date of shipment, or from the time it is placed in service, whichever shall occur first.

All costs for labor and replacement parts required to repair the unit due to equipment malfunction during the guarantee period will be considered to have been included in the price bid for this equipment.

The manufacturer shall also guarantee that the equipment will perform the service for which it was designed, and should it fail to do so, will modify or replace the unit at no cost to the Purchaser.

OSHA

11. The manufacturer shall accompany his proposal with a separate statement that his equipment complies in all respects to the Occupational Safety and Health Act of 1970.

PATENT INFRINGEMENT

12. The VENDOR, at his own expense, will defend, safe harmless, settle or otherwise dispose of any suit brought against the Purchaser or its representatives which is based on a claim that the equipment proposed and offered by the VENDOR, and the operation thereof in accordance with the methods specified by the VENDOR per se constitutes an infringement on any United States patent or patents prior to the dates of the bid and the acceptance of the installed equipment, and will pay all damages and costs awarded therein against the Purchaser, or any amounts agreed upon in any settlement or disposal thereof with the Vendor's consent, if such Vendor is duly notified in writing of such suit and given authority, information and assistance (at the expense of the VENDOR) for the defense of same, provided that the VENDOR will not be liable for any claim or infringement based upon the operation of the equipment proposed by the VENDOR not substantially

DRAWINGS

8. The VENDOR shall furnish four (4) copies and one (1) reproducible of complete detailed shop drawings, providing descriptions of the proposed equipment and installation drawings. No equipment shall be manufactured until the shop drawings are approved.

The drawings shall be submitted for approval not later than the time stated in the proposal.

OPERATION AND MAINTENANCE BROCHURE

9. The VENDOR shall furnish four (4) copies of an installation, operation and maintenance brochure, which shall include copies of approved shop and installation drawings. The brochure shall be furnished at the time the equipment is shipped from the factory or earlier.

EQUIPMENT GUARANTEE

10. The manufacturer shall guarantee the equipment against defects in workmanship and material for a period of one year, beginning ninety (90) days from date of shipment, or from the time it is placed in service, whichever shall occur first.

All costs for labor and replacement parts required to repair the unit due to equipment malfunction during the guarantee period will be considered to have been included in the price bid for this equipment.

The manufacturer shall also guarantee that the equipment will perform the service for which it was designed, and should it fail to do so, will modify or replace the unit at no cost to the Purchaser.

OSHA

11. The manufacturer shall accompany his proposal with a separate statement that his equipment complies in all respects to the Occupational Safety and Health Act of 1970.

PATENT INFRINGEMENT

12. The VENDOR, at his own expense, will defend, safe harmless, settle or otherwise dispose of any suit brought against the Purchaser or its representatives which is based on a claim that the equipment proposed and offered by the VENDOR, and the operation thereof in accordance with the methods specified by the VENDOR per se constitutes an infringement on any United States patent or patents prior to the dates of the bid and the acceptance of the installed equipment, and will pay all damages and costs awarded therein against the Purchaser, or any amounts agreed upon in any settlement or disposal thereof with the Vendor's consent, if such Vendor is duly notified in writing of such suit and given authority, information and assistance (at the expense of the VENDOR) for the defense of same, provided that the VENDOR will not be liable for any claim or infringement based upon the operation of the equipment proposed by the VENDOR not substantially

conforming to the methods specified by the VENDOR'S written operating instructions, or on any modifications of the equipment not approved by the VENDOR in writing, or on the use of the equipment proposed (or any part thereof) in connection with a patented process over which the VENDOR has no control.

ATTACHMENTS

13. The sketches listed below are included with this Specification:

Sketch No.	Title
PSK T-1	Pyranol Storage Tank
PSK T-2	Insulating Oil Storage Tank
PSK T-3	Waste Kerosene Storage Tank
PSK T-4	Kerosene Storage Tank

PROPOSAL

14. The proposal shall contain the following data and information:

a. Price, including freight to Tonawanda, New York, for all equipment specified. All applicable taxes shall be indicated.

b. Weights of equipment.

c. Complete descriptive literature, including the type, make and model of the tank to be furnished; sufficient material and fabrication specifications of all components to describe fully the equipment offered, and preliminary dimension and cross-sectional drawings of the fully assembled unit.

d. A list of any and all instances where the tanks proposed deviate from the specifications. If no exceptions are taken, the VENDOR shall so indicate.

e. Name and address of the factory-authorized service organization nearest to Tonawanda, New York and statement of maximum time to have serviceman at plant site after notification of equipment malfunction.

f. A signed statement from the VENDOR that he has reviewed the Specifications; that he has a clear understanding of them as they affect his equipment; that his equipment meets the Specifications except for any exceptions he specifically lists; and that his equipment is suitable for installation as specified. The Purchaser reserves the right to waive any informalities.

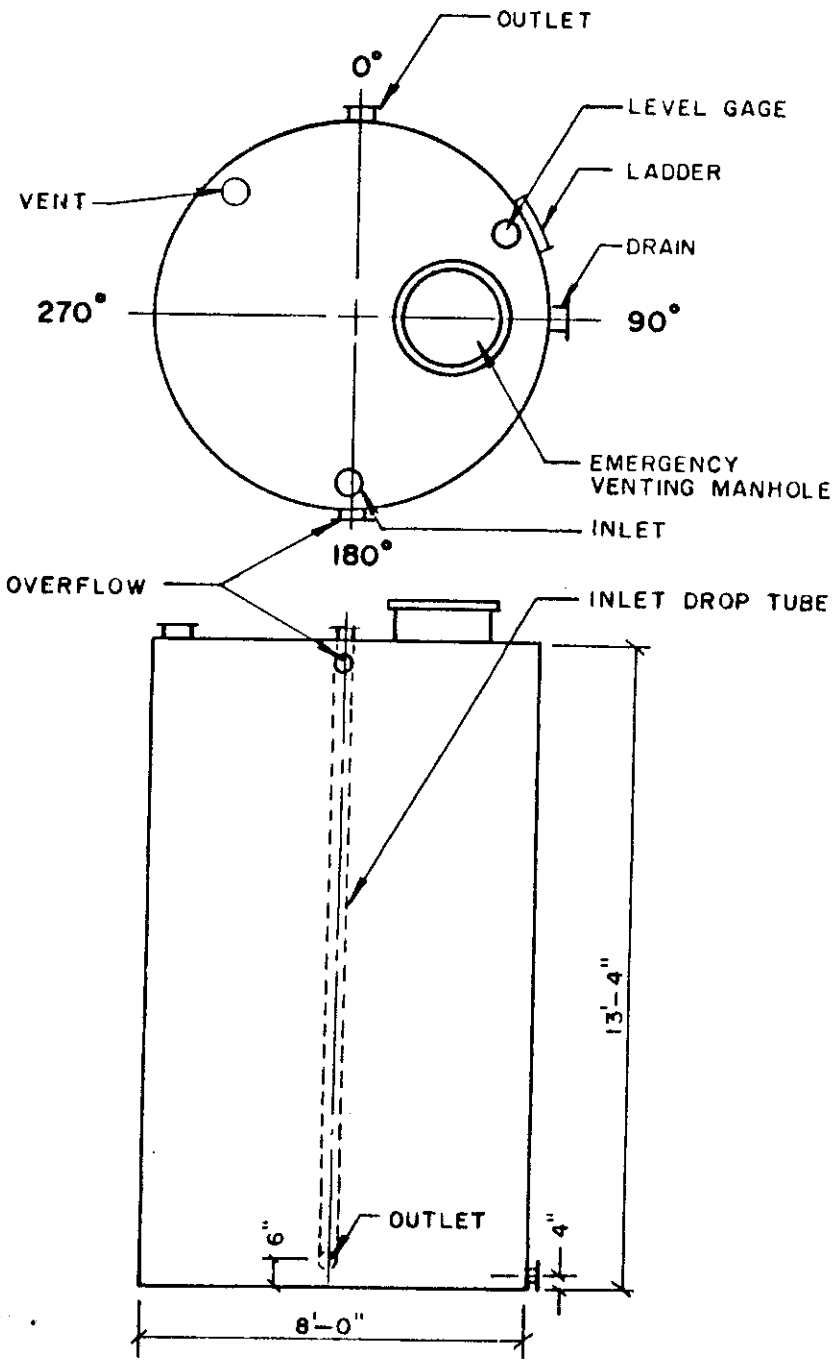
g. The VENDOR shall supply four (4) copies of the proposal, on or before _____, distributed as listed below:

Two (2) copies:

Mr. Vincent J. Funigiello, P.E.
Project Manager
Malcolm Pirnie, Inc.
S-3525 Abbott Road
P.O.Box 1938
Buffalo, NY 14219

Two (2) copies:

Mr. Richard Fulga
General Electric Co.
6001 Tonnelle Avenue
North Bergen, NJ 07047



NAMEPLATE	ASKAREL W/PCB
APPROX. CAPACITY	5000 GAL.
SPEC. GRAVITY	1.5
CONCENTRATION	25000 – 50000 P.P.M.
HEIGHT (OVERALL)	13'-4"
DIAMETER (NOM.)	8'-0"

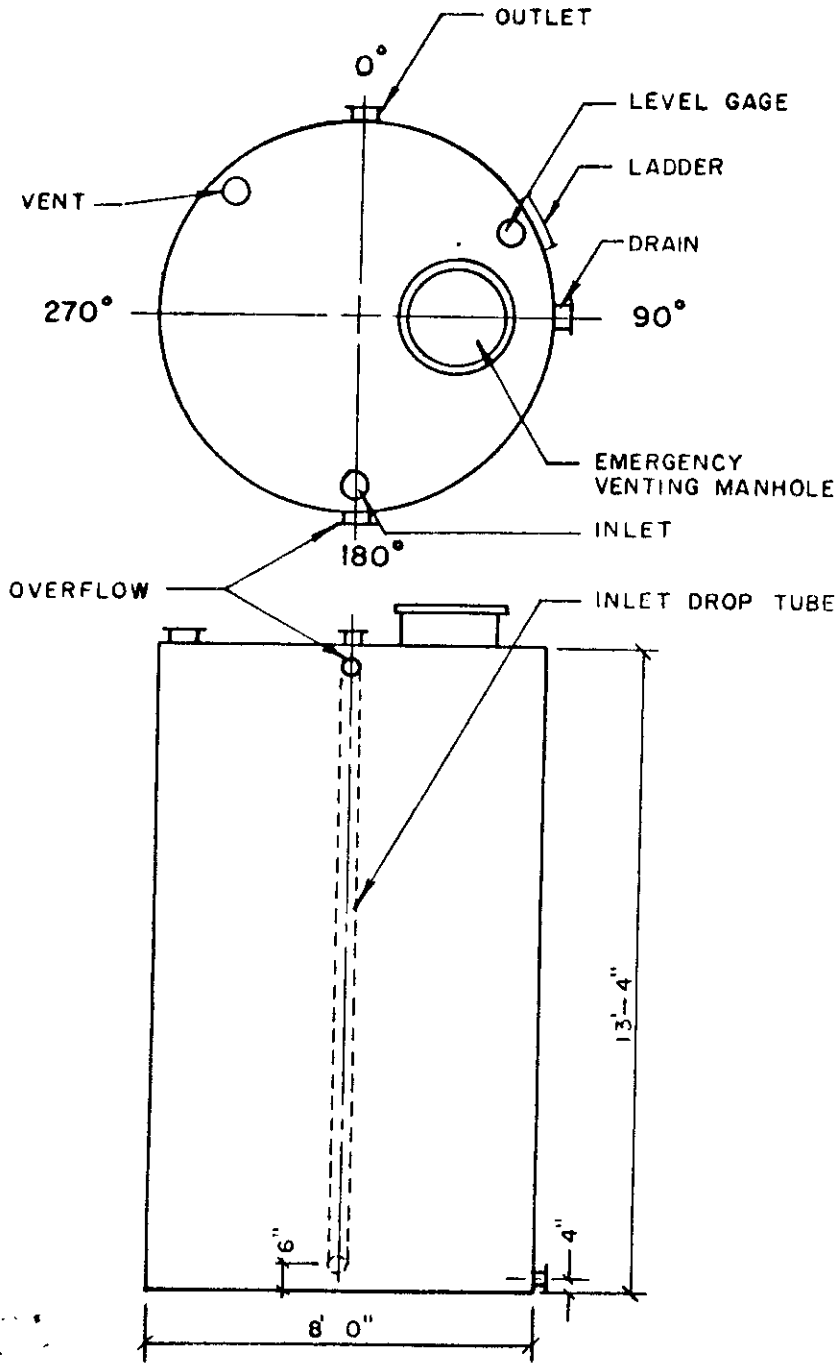
CONNECTIONS	SIZE	ANGLE
INLET (WITH DROP TUBE)	2"	180°
OUTLET	2"	0°
VENT	2"	315°
OVERFLOW	3"	180°
DRAIN	2"	90°
LEVEL GAGE	4"	60°
MANHOLE	24"	90°
LADDER	—	60°

MALCOLM PIRNIE, INC.

GENERAL ELECTRIC
TONAWANDA, NY.

ASKAREL (P.C.B.) STORAGE TANK
PSK T-1

MALCOLM PIRNIE



NAMEPLATE	INSUL. OIL W/PCB
APPROX. CAPACITY	5000 GAL.
SPEC. GRAVITY	0.91
CONCENTRATION	25000 P.P.M
HEIGHT(OVERALL)	13'-4"
DIAMETER (NOM.)	8'-0"

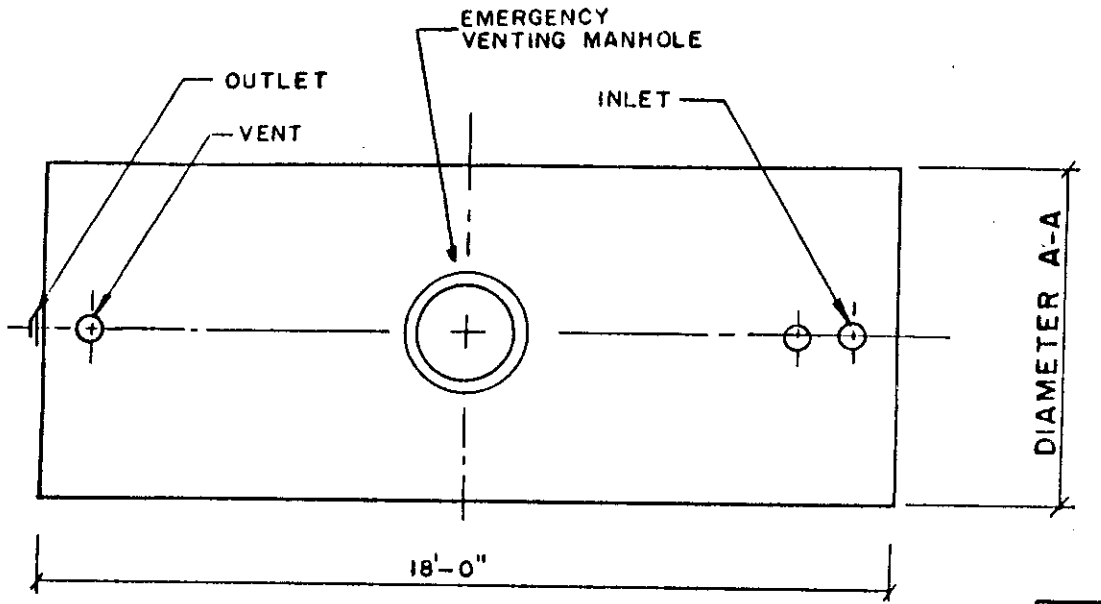
CONNECTIONS	SIZE	ANGLE
INLET (WITH DROP TUBE)	2"	180°
OUTLET	2"	0°
VENT	2"	315°
OVERFLOW	3"	180°
DRAIN	2"	90°
LEVEL GAGE	4"	60°
MANHOLE	24"	90°
LADDER	—	60°

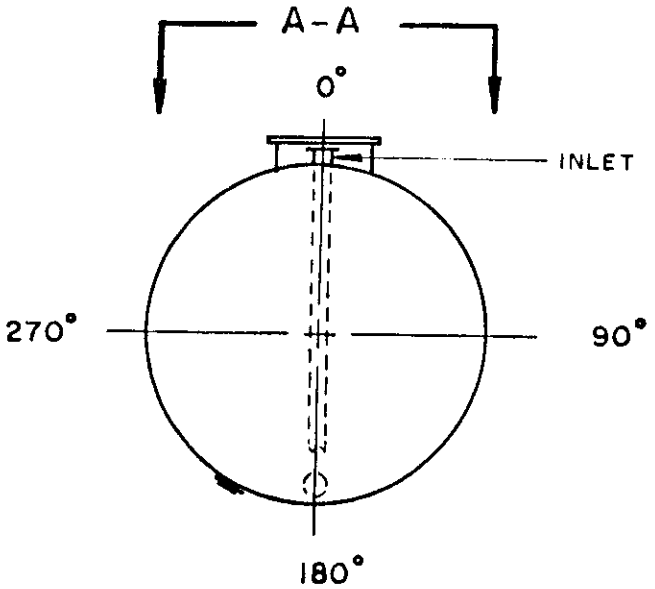
MALCOLM PIRNIE, INC.

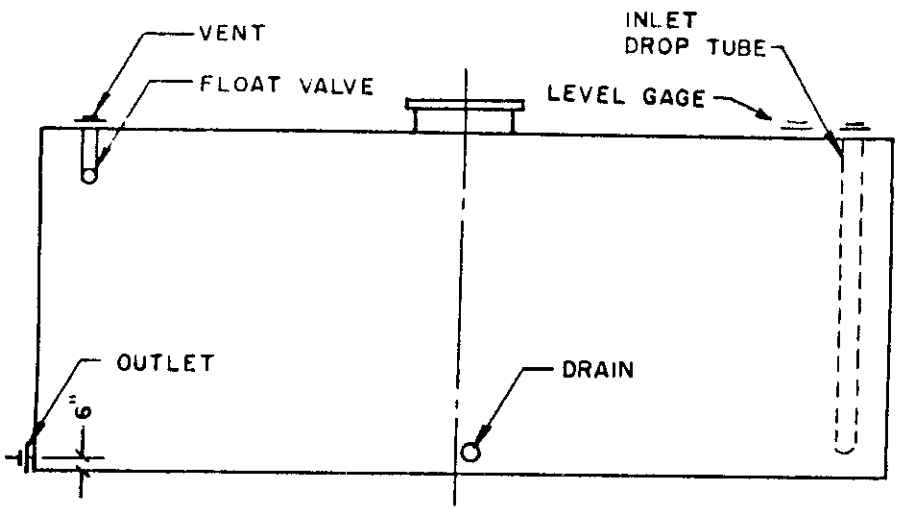
GENERAL ELECTRIC
TONAWANDA, NY

INSULATING OIL (P.C.B.) STORAGE TANK
PSK T—2

MALCOLM PIRNIE







NAMEPLATE	WASTE KEROSENE
APPROX. CAPACITY	3000 GAL.
FLASH POINT	115° F
LENGTH (OVERALL)	18'-0"
DIAMETER (NOM.)	5 1/3'

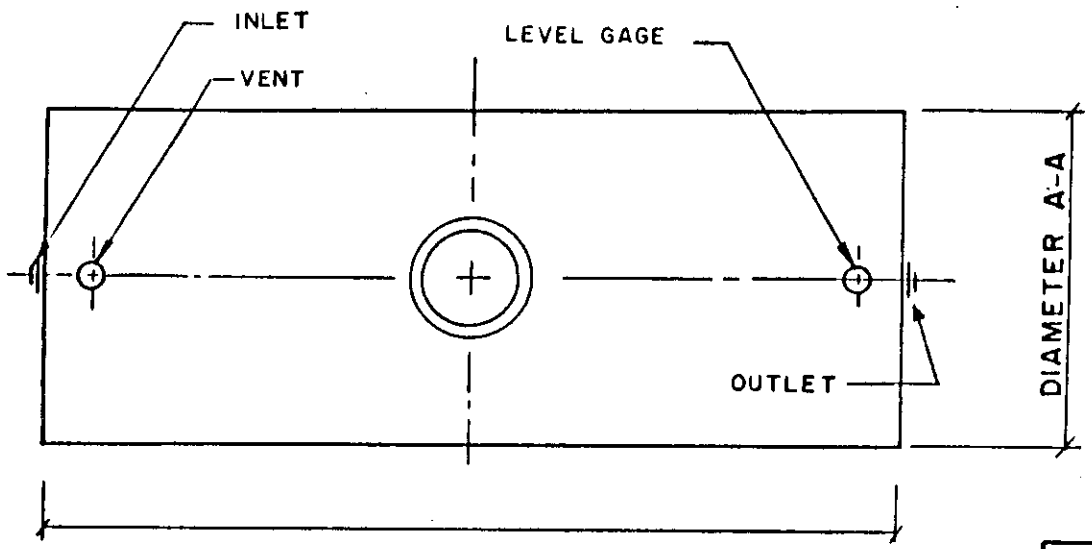
CONNECTIONS	SIZE	ANGLE
INLET (WITH DROP TUBE)	2"	0°
OUTLET	2"	180°
VENT (WITH FLOAT VENT VALVE)	2"	0°
DRAIN	2"	209°
LEVEL GAGE	4"	0°
MANHOLE	24"	0°

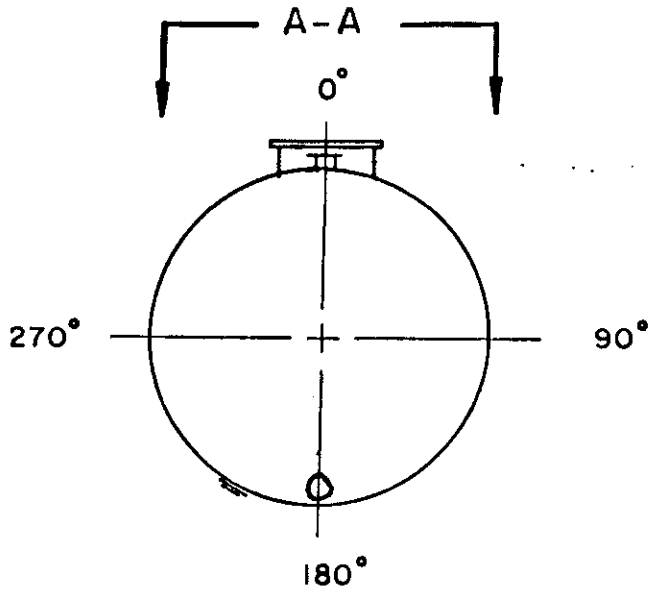
MALCOLM PIRNIE, INC.

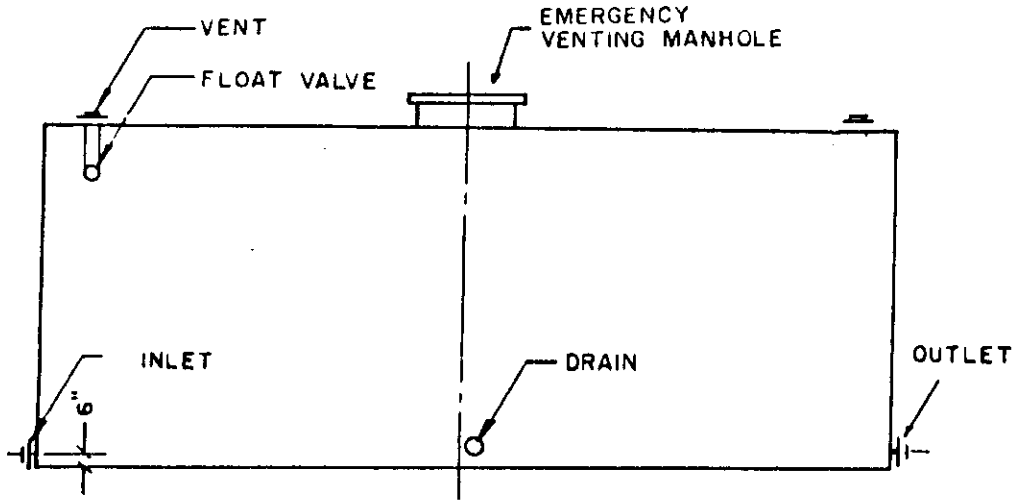
GENERAL ELECTRIC
TONAWANDA, NY.

WASTE KEROSENE STORAGE TANK
PSK T-3

MALCOLM PIRNIE







NAMEPLATE	KEROSENE
APPROX. CAPACITY	1000 GAL.
FLASH POINT	115° F
LENGTH (OVERALL)	10'-0"
DIAMETER (NOM.)	4-1/8'

CONNECTIONS	SIZE	ANGLE
INLET	2"	180°
OUTLET	2"	180°
VENT (WITH FLOAT VENT VALVE)	2"	0°
DRAIN	2"	209°
LEVEL GAGE	4"	0°
MANHOLE	24"	0°

MALCOLM PIRNIE, INC.

GENERAL ELECTRIC
TONAWANDA, N.Y.
PURCHASE SPEC NO.

KEROSENE STORAGE TANK
PSK T-4

MALCOLM PIRNIE

HAZARDOUS WASTE ANALYSIS PLAN

The Buffalo Service Shop is responsible for identifying those materials which upon disposal are defined as hazardous wastes under RCRA and/or by the hazardous waste management regulations of the State of New York. These materials include all stock materials that could result in hazardous waste when discarded and hazardous wastes produced or received by the Shop including PCB items.

A. Stock Materials

1. All stock materials (except for non-chemical items such as hardware where there is no reason to believe that they may be hazardous waste) used in the Buffalo Service Shop will be reviewed annually to determine if they exhibit hazardous characteristics or are included in the hazardous waste substance listings specified in 6NYCRR Part 371. Identification of materials will be accomplished through the use of data established by the Domestic Apparatus and Engineering Programs Department on commonly used Service Shop materials, material safety data sheets and vendor information.

2. New materials added to stock will be reviewed by the Hazardous Waste Coordinator to determine if they will require control or disposal as hazardous wastes when discarded.

3. The identification of stock materials as potential hazardous wastes will be in accordance with the procedures defined in the "Hazardous Waste Analysis" section of the ASBD Hazardous Waste Management System manual.

4. A current listing of materials maintained in stock which require control of disposal as hazardous wastes will be maintained in the Buffalo Service Shop's Hazardous Waste Analysis File.

B. Shop Process Wastes

1. Materials produced by shop processes will require periodic chemical and physical analysis to determine if they exhibit hazardous characteristics.

B. Shop Process Wastes - Continued

In obtaining samples for waste analysis, precaution shall be taken to ensure that a representative sample is taken. The selection of equipment and procedure for obtaining representative samples will be performed in accordance with EPA procedure specified in SW-846 (U.S. Environmental Protection Agency - Test Methods for Evaluating Solid Waste).

Analysis for hazardous waste characteristics will be performed in accordance with EPA procedures specified in 40CRF, Part 261.

If the analysis shows no hazardous characteristics, then the analysis will be repeated annually or whenever a significant process change occurs (e.g. change of cleaning agent). If hazardous characteristics are identified, then analysis is required each time the material is removed for disposal.

2. Materials generated by the Buffalo Sevice Shop which require analysis are as follows:

MATERIAL	LOCATION	TYPE OF ANALYSIS
Sludge	Oil Water Seperator Cleaning Area Sumps	Ignitability (D001) Corrosivity (D002) EP Toxicity (D004 - D011) PCB Concentration
Sludge/Waste Water	Water Wash Paint Booth	Ignitability (D001) EP Toxicity (D004 - D011)
Sludge/Waste	Metalizing Exhaust	EP Toxicity (D004 - D011)
Abrasive Blasting Fines	Abrasive Blast Dust Collectors	EP Toxicity (D004 - D011)
Waste Oil		PCB Concentration

C. PCB Items and Wastes

Test analysis reports for PCB concentration must be received with all shipments of PCB contaminated liquids into the Buffalo Service Shop. All electrical equipment containing insulating liquids must be assumed to be PCB contaminated until a sample is obtained by the Buffalo Service Shop and analyzed to determine PCB concentrations prior to shipment to disposal. All solvents used for decontamination of PCB items must be sampled and analyzed for PCB concentration will be performed by electron capture gas chromotography in accordance with the accepted EPA methods.

D. Waste Analysis Responsibility and Record Keeping

The Hazardous Waste Coordinator is responsible for obtaining samples and analysis of all hazardous wastes generated and shipped from the Buffalo Service Shop. The Hazardous Coordinator is also responsible for insuring that analysis reports are obtained for PCB items received by the Buffalo Service Shop.

Laboratory facilities utilized for hazardous waste analysis include:

General Electric Insulation Test Laboratories
Denver, Colorado
Philadelphia, Pennsylvania
Pittsfield, Massachusetts

Cecos International
Niagara Falls, New York

Acts Testing Laboratory
Cheektowagao, New York

Buffalo Testing Lab
902 Kenmore Avenue
Buffalo, New York

Copies of test analysis reports will be maintained in the Buffalo Service Shop's Hazardous Waste Analysis File.

BUFFALO TESTING LABORATORIES
INCORPORATED
CHEMISTS—METALLURGISTS
BIOLOGISTS—ENGINEERS
902 Kenmore Ave
Buffalo, N Y. - 14216
Phone: AC 716—873-2302

RECEIVED JAN 2 0 1986

Report No. 82,398
P. O. No. 015-C2911-116

January 16, 1986

Attn:
General Electric Company
Buffalo Service Shop
175 Milens Road
Tonawanda, NY 14150

Gentlemen:

Following are the results of the tests performed on the specimen which you submitted to us on December 3, 1985.

Specimen Submitted:
Three (3) oil samples identified as:
1) Scrap motor oil sample
2) Scrap XFMR oil sample
3) Scrap, gear, honing and grinder oil sample.

Object: PCB Analysis on all samples. EP Toxicity on sample 3.

BUFFALO TESTING LABORATORIES
INCORPORATED

BUFFALO TESTING LABORATORIES
INCORPORATED
Buffalo, N.Y. 14216

Results:
A) PCB's

Sample ID	PCB's
#1	ND (<10 ppm)
#2	ND (<10 ppm)
#3	ND (<10 ppm)

B) EP Toxicity on Sample #3

Contaiminant	Concentration	Maximum Alloweble Concentration (mg/l)
Arsenic	0.017	5.0
Barium	2.52	100.0
Cadmium	<0.002	1.0
Chromium	<0.010	5.0
Lead	33.3	5.0
Mercury	<0.0002	0.2
Selenium	<0.010	1.0
Silver	<0.010	5.0

Very truly yours,
BUFFALO TESTING LABORATORIES, INC.

Daniel T. Urbanczyk

DANIEL T. URBANCZYK

ACTS TESTING LABS, INC.

3916 Broadway • Buffalo, N.Y. 14227-1192 • (716) 684-3300

TECHNICAL REPORT 5-0275 February 22, 1985
P.O. #015-005-C1600
#015-003-C1600

Mr. Anthony Hejmanowski
GENERAL ELECTRIC

SUBJECT:

Hazardous Waste Evaluation of two samples received on January 10, 1985.

INTRODUCTION:

The samples were evaluated for one or more of the Hazardous Waste Characteristics of Ignitability, Corrosivity, Reactivity and EP Toxicity as defined in Title 40, Code of Federal Regulations, Part 261. All analyses were conducted according to "Test Methods for the Evaluation of Solid Waste Physical/ Chemical Methods", EPA.

SAMPLE IDENTIFICATION:

ACTS #	SAMPLE ID
0275	Liquid Sample - Bright Dip/Water
0276	Oil/Water Separator Liquid

HW 75, 88, 89
56,

EXECUTIVE SUMMARY:

The submitted Sample Bright Dip Water EXHIBITS the Hazardous Waste Characteristic of EP Toxicity (Metals Only) due to a hexavalent chromium level which exceeds the EPA limit. It DOES NOT EXHIBIT the Hazardous Waste Characteristic of Ignitability or Corrosivity.

The submitted sample Oil/Water Separator Liquid DOES NOT EXHIBIT the Hazardous Waste Characteristics of EP Toxicity (Metals Only), Ignitability, Corrosivity or Reactivity.

ACTS TESTING LABS, INC.

Thomas Knickerbocker
Thomas Knickerbocker
Environmental Laboratory
Coordinator

ACTS TESTING LABS, INC.

Daniel P. Murtha
Daniel P. Murtha, Ph.D.
Laboratory Director

/cj

RESULTS

A IGNITABILITY (261.21)

SAMPLE ID	Pensky Martens Flash Point, °F
Liquid Sample - Bright Dip/Water	GT 140°F
Oil/Water Separator Liquid	GT 140°F

B) CORROSIVITY (261.22)

SAMPLE ID	pH Units
Liquid Sample - Bright Dip/Water	2.65
Oil/Water Separator Liquid	11.55

C) REACTIVITY (261.23)

SAMPLE ID	Cyanide at pH2	Sulfide at pH2
Liquid Sample - Bright Dip/Water	-	LT 1.0
Oil/Water Separator Liquid	-	0.48

In addition the samples ARE stable, DO NOT react with water, and ARE NOT capable of detonation. Cyanide and sulfide results are reported as milligrams per liter (mg/l).

LT = Less Than

GT = Greater Than

RESULTS

D) EP TOXICITY (261.24)

	LIQUID SAMPLE BRIGHT DIP/WATER	OIL/WATER SEPARATOR LIQUID	EPA LIMIT
Arsenic	0.05	0.07	5.0
Barium	LT 0.1	LT 0.1	100.0
Cadmium	0.25	LT 0.01	1.0
Chromium	9,890 *	0.18	5.0
Lead	1.8	0.6	5.0
Mercury	LT 0.02	0.20	0.2
Selenium	LT 0.05	0.073	1.0
Silver	0.95	LT 0.01	5.0

* mg/l Hexavalent Chromium

ADDITIONAL PARAMETERS:

	PCB's as Arochlor 1260
Oil/Water Separator Liquid	LT 0.001 mg/l

LT = Less Than

ACTS TESTING LABS, INC.

3916 Broadway • Buffalo, N.Y. 14227-1192 • (716) 684-3300
120 West 41st Street • New York, N.Y. 10036 • (212) 302-6780

TECHNICAL REPORT 6-0697 February 11, 1986
P.O. # 015-C2911-088

Mr. Anthony Hejmanowski
GENERAL ELECTRIC

SUBJECT:

Hazardous Waste Evaluation of one sample received on January 21, 1986.

INTRODUCTION:

The sample was evaluated for one or more of the Hazardous Waste Characteristics of Ignitability, Corrosivity, Reactivity and EP Toxicity as defined in Title 40, Code of Federal Regulations, Part 261. All analyses were conducted according to "Test Methods for the Evaluation of Solid Waste Physical/ Chemical Methods", EPA.

SAMPLE IDENTIFICATION:

ACTS #	SAMPLE ID
0697	Oil/Water Separator

EXECUTIVE SUMMARY:

The submitted sample EXHIBITS the Hazardous Waste Characteristic of EP Toxicity (Metals Only), due to a lead level which exceed the EPA limit but DOES NOT EXHIBIT the Hazarous Waste Characteristics of Ignitability, Corrosivity, or Reactivity.

ACTS TESTING LABS, INC.

Daniel P. Murtha, Ph.D.
Laboratory Director

DPM/sms

RESULTS

A) IGNITABILITY 261.21	Pensky Martens Flash Point, F
Oil/Water Separator, Oil Layer	Greater Than 140 F

B) CORROSIVITY 261.22	pH Units
Oil/Water Separator, Aqueous Layer	6.60

C) REACTIVITY 261.23	Cyanide at pH2	Sulfide at pH2
Oil/Water Separator, Oil Layer	0.88	5.4
Oil/Water Separator, Aqueous Layer	0.04	0.22

In addition, the sample IS stable, DOES NOT react with water and IS NOT capable of detonation. Cyanide and Sulfide results are reported in milligrams per liter (mg/l).

D) EP TOXICITY (261.24)	Oil/Water Separator	EPA Limit
Arsenic	LT 0.002	5.0
Barium	LT 1.0	100.00
Cadmium	LT 0.09	1.0
Chromium	2.2	5.0
Lead	15.0	5.0
Mercury	LT 0.035	0.2
Selenium	LT 0.002	1.0
Silver	0.08	5.0

LT = Less Than
EP Toxicity results are reported as milligrams of contaminant per liter of leachate.

ADDITIONAL PARAMETERS:

	PCBs, ppm
Oil Water Separator	LT 0.7 as Aroclor 1260

LT = Less Than
ppm = parts per million (ppm) or micrograms per gram (ug/g).

BUFFALO TESTING LABORATORIES
INCORPORATED

CHEMISTS—METALLURGISTS BIOLOGISTS—ENGINEERS

902 Kenmore Ave Buffalo, N.Y. - 14216

Phone: AC 716—873-2302

Report No: 82,662
P. O. No.: 015 31506-1

February 3, 1986

ttn:
General Electric Company
Buffalo Service Shop
175 Milens Road
Tonawanda, NY 14150

Gentlemen:

Following are the results of the tests performed on the specimen which you submitted to us on January 29, 1986.

Specimen Submitted: One (1) 10C oil sample identified as: Unit #C5.

Object: PCB Analysis.

Method: Gas Chromatography.

Results:
PCB's = 17ppm as AROCHLOR 1260

RECEIVED FEB 4 1986

Very truly yours,
BUFFALO TESTING LABORATORIES, INC.

DANIEL T. URBANCZYK

BUFFALO TESTING LABORATORIES
INCORPORATED

BUFFALO TESTING LABORATORIES
INCORPORATED

CHEMISTS—METALLURGISTS BIOLOGISTS—ENGINEERS

902 Kenmore Ave Buffalo, N.Y. - 14216

Phone AC 716—873-2302

Report No.: 82,962
P. O. No.: 015 91527-2

March 21, 1986

Attn:
General Electric Co.
175 Milens Road
Tonawanda, NY 14150

Gentlemen:

Following are the results of the tests performed on the specimen which you submitted to us on March 21, 1986.

Specimen Submitted: One (1) 10C oil sample.

Object: PCB Analysis.

Method: Gas Chromatography.

Results:
PCB's - 58ppm as AROCHLOR 1260

Very truly yours,
BUFFALO TESTING LABORATORIES, INC.

Daniel T. Urbanczyk
DANIEL T. URBANCZYK

BUFFALO TESTING LABORATORIES
INCORPORATED

mm - 87

BUFFALO TESTING LABORATORIES
INCORPORATED

CHEMISTS—METALLURGISTS BIOLOGISTS—ENGINEERS

902 Kenmore Ave. Buffalo, N.Y. - 14216

Phone: AC 716—873-2302

Report No.: 82,916
P.O. No.: 015 31525-1

March 18, 1986

ttn:
General Electric Company
175 Milens Road
Tonawanda, NY 14150

Gentlemen:

Following are the results of the tests performed on the specimen which you submitted to us on March 13, 1986.

Specimen Submitted:
Two (2) 10C oil samples identified by S/N D583168 and:
1) A Reg
2) B Ind.

Object: PCB Analysis.

Results:
PCB
1) Arochlor 1260 detected (<5.0ppm)
2) Arochlor 1260 detected (<5.0ppm)

Very truly yours,
BUFFALO TESTING LABORATORIES, INC.

Nelson L. Schwenk Jr.
NELSON L. SCHWENK, JR.

BUFFALO TESTING LABORATORIES
INCORPORATED

TEST METHODS FOR EVALUATING SOLID WASTE

Physical/Chemical Methods

SW-846

2nd Edition

U.S. ENVIRONMENTAL PROTECTION AGENCY

1982

TABLE OF CONTENTS[1]

[1]Section and method numbers from the first edition of this manual are given in brackets, and are also listed in the conversion Table following this Table of Contents.

[2]To ensure that future additions and deletions of material can be made without disruption, the manual's pages are not numbered sequentially. Major headings are repeated throughout their appropriate sections. Smaller scale discussions (actual methods, for instance) are numbered sequentially within themselves.

SECTION TWO WASTE EVALUATION PROCEDURES (Continued)

SECTION/METHOD

SECTION SEVEN INORGANIC ANALYTICAL METHODS (Continued)

SECTION/METHOD

TABLE 1. SAMPLING EQUIPMENT FOR PARTICULAR WASTE TYPES

	Waste location or container								
Waste type	Drum	Sacks and bags	Open bed truck	Closed bed truck	Storage tanks or bins	Waste files	Ponds, lagoons, & pits	Conveyor belt	Pipe
Free flowing liquids and slurries	Coliwasa	N/A	N/A	Coliwasa	Weighted bottle	N/A	Dipper	N/A	Dipper
Sludges	Trier	N/A	Trier	Trier	Trier	[a]	[a]		
Moist powders or granules	Trier	Trier	Trier	Trier	Trier	Trier	Trier	Shovel	Dipper
Dry powders or granules	Thief	Thiet	Thief	Thief	Thief	Thief	Thief	Shovel	Dipper
Sand or packed powders and granules	Auger	Auger	Auger	Auger	[a]	[a]	[a]	Dipper	Dipper
Large grained solids	Large Trier	Large Trier	Large Trier	Large Trier	Large Trier	Large Trier	Large Trier	Trier	Dipper

[a]This type of sampling situation can present significant logistical sampling problems, therefore sampling equipment must be specifically selected or designed based on site and waste conditions. No general statement about appropriate sampling equipment can be made.

2. Do not use a glass Coliwasa to sample liquids that contain hydrofluoric acid.

3. If significant amounts of solid material are present within 2 inches of the bottom of the container to be sampled, special procedures will be necessary to obtain a representative sample of this solid phase.

Apparatus

Coliwasas are available commercially (NASCO) or can be fabricated to conform to the specifications detailed in Figure 1. Table 2 lists the parts required to fabricate a plastic or glass Coliwasa.

Assembly

Assemble Coliwasa sampler as follows:

1. Attach swivel to the T-handle with the 3.12-cm-long bolt and secure with the 3/16-in. NC washer and lock nut.

2. Shape stopper into a cone by boring a 0.95-cm hole through the center of the stopper. Insert a short piece of 0.95-cm-O.D. handle through the hole until the end of the handle is flush against the bottom (smaller diameter) surface of the stopper. Carefully and uniformly turn the stopper into a cone against a grinding wheel. This is done by turning the stopper with the handle and grinding it down conically from about 0.5 cm of the top (larger diameter) surface to the edge of the 0.95-cm-hole on the bottom surface. Attach neoprene stopper to one end of the stopper rod and secure with the 3.8-in. NC washer and lock nut.

3. Install the stopper and stopper rod assembly in the sampling tube.

4. Secure locking block sleeve on the block with glue or screws.

5. Position the locking block on top of the sampling tube so that the sleeveless portion of the block fits inside the tube, the sleeve sits against the top end of the tube, and the upper end of the stopper rod slips through the center hold of the block.

6. Attach the upper end of the stopper to the swivel of the T-handle.

7. Place the sampler in the closed position and adjust the tension on the stopper by screwing the T-handle in or out.

8. Test the tension by filling the Coliwasa with water to ensure that it is leak free.

1.2 Implementation of Sampling Plan

This section describes EPA-approved equipment and procedures for obtaining representative samples of a solid waste. The information in this section is general in nature. Since each specific sampling situation is unique, the equipment and procedures described must be modified appropriately in an actual use situation to ensure that representative samples are collected. It is the responsibility of those persons conducting sampling programs to make the appropriate modifications.

1.2.1 Selection of Sampling Equipment

Sampling the diverse types of RCRA-regulated wastes requires a variety of different types of samplers. Several sampling devices are described in this section. Some of these samplers are commercially available. Others will have to be fabricated by the user. Table 1 is a general guide to the types of waste that can be sampled by each of the samplers described.

1.2.1.1 Composite Liquid Waste Sampler (Coliwasa)

Scope and Purpose

The Coliwasa is a device employed to sample free-flowing liquids and slurries contained in drums, shallow open-top tanks, pits, and similar containers. It is especially useful for sampling wastes that consist of several immiscible liquid phases.

The Coliwasa consists of a glass, plastic, or metal tube equipped with an end closure which can be opened and closed while the tube is submerged in the material to be sampled.

The Coliwasa was developed by the California Department of Health under a grant from the U.S. EPA. A more detailed discussion of the Coliwasa can be found in the Department of Health's report "Samplers and Sampling Procedures for Hazardous Waste Streams," Grant No. R804692010, MERL, USEPA, Cincinnati, Ohio. A modification of the device is described in "Evaluation of the Procedures for Identification of Hazardous Wastes," by L.R. Williams et al. (EPA/EMSC, Las Vegas, Nevada).

It should be mentioned that some experienced sampling personnel find the Coliwasa cumbersome and difficult to clean or dispose of following use.

General Comments and Precautions

1. Do not use a plastic Coliwasa, unless it is constructed of fluorocarbons (e.g., Teflon), to sample wastes containing organic materials.

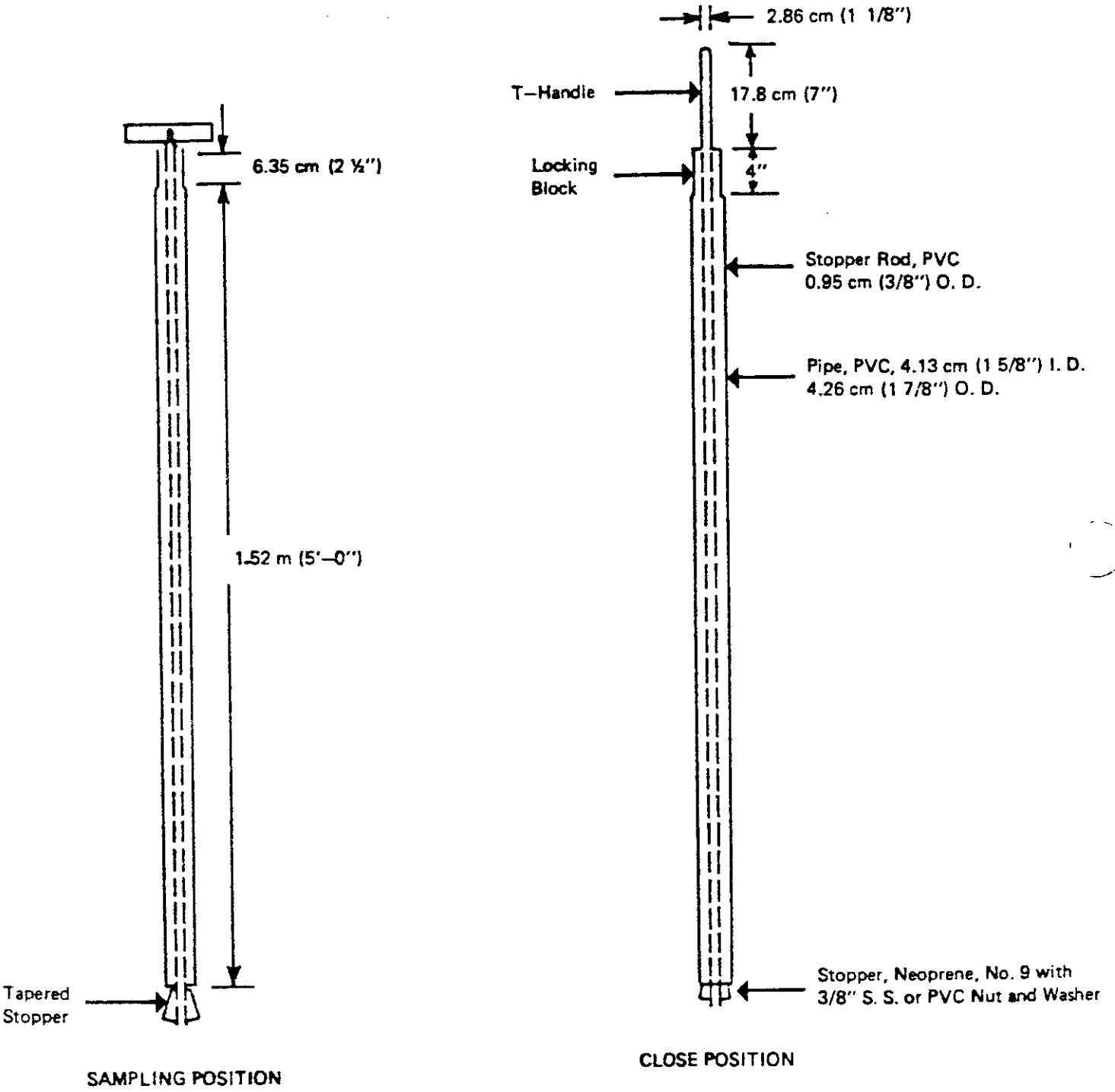


Figure 1. Composite liquid waste sampler (Coliwasa).

TABLE 2. PARTS FOR CONSTRUCTING A COLIWASA

Quantity	Item	Comments	Supplier
1	Sample tube, translucent PVC plastic, 4.13 cm I.D. x 1.52 m long x 0.4 cm wall thickness	Plastic Coliwasa only	Plastic supply houses
1	Sample tube, borosilicate glass, 4.13 cm I.D. x 1.52 m long	Glass Coliwasa only	Corning Glass Works #72-1602
1	Stopper, neoprene rubber #9		Laboratory supply house
1	Stopper rod, PVC, 0.95 cm O.D. x 1.67 m long	Plastic Coliwasa only	Plastic supply houses
1	Stopper rod, teflon, 0.95 cm O.D. x 1.67 m long	Glass or Plastic Coliwasa	Plastic supply houses
1	Locking block, PVC, 3.8 cm O.D. x 10.2 cm long with 0.56-cm hole in center	Fabricate by drilling 0.56-cm hole through center	Plastic supply houses
1	Locking block sleeve, PVC, 4.13 cm I.D. x 6.35 cm long	Fabricate from stock 4.13-cm PVC pipe	Plastic supply houses
1	T-handle, aluminum, 18 cm long x 2.86 cm wide with 1.27-cm-wide channel	Fabricate from aluminum bar stock	Hardware stores
1	Swivel, aluminum bar 1.27 cm square x 5.08 cm long with 3/8-in. NC inside thread to attach stopper rod	Fabricate from aluminum bar stock	Hardware stores

TABLE 2 (CONT.)

Quantity	Item	Comments	Supplier
1	Nut, PVC, 3/8 in. NC		Plastic supplier
1	Washer, PVC, 3/8 in. NC		Plastic supplier
1	Nut, stainless steel, 3/8 in. NC		Hardware stores
1	Washer, stainless steel, 3/8 in.		Hardware stores
1	Bolt, 3.12 cm long x 3.16 in. NC		Hardware stores
1	Nut, 3/16 in. NC		Hardware stores
1	Washer, lock 3/16 in.		Hardware stores

Procedure

1. Clean Coliwasa.

2. Adjust sampler's locking mechanism to ensure that the stopper provides a tight closure. Open sampler by placing stopper rod handle in the T-position and pushing the rod down until the handle sits against the sampler's locking block.

3. Slowly lower the sampler into the waste at a rate that permits the level of liquid inside and outside the sampler to remain the same. If the level of waste in the sampler tube is lower inside than outside, the sampling rate is too fast and will produce a nonrepresentative sample.

4. When the sampler hits the bottom of the waste container, push sampler tube down to close and lock the stopper by turning the T-handle until it is upright and one end rests on the locking block.

5. Withdraw Coliwasa from waste and wipe the outside with a disposable cloth or rag.

1.2.1.2 Weighted Bottle

Scope and Application

This sampler consists of a glass or plastic bottle, sinker, stopper, and a line which is used to lower, raise, and open the bottle. The weighted bottle samples liquids and free-flowing slurries.

General Comments and Precautions

1. Do not use a nonfluorocarbon plastic bottle to sample wastes containing organic materials.

2. Do not use a glass bottle to sample wastes that contain hydrofluoric acid.

3. Before sampling, ensure that the waste will not corrode the sinker, bottle holder, or line.

Apparatus

A weighted bottle with line is built to the specifications in ASTM Methods D 270 and E 300. Figure 2 shows the configuration of a weighted bottle sampler.

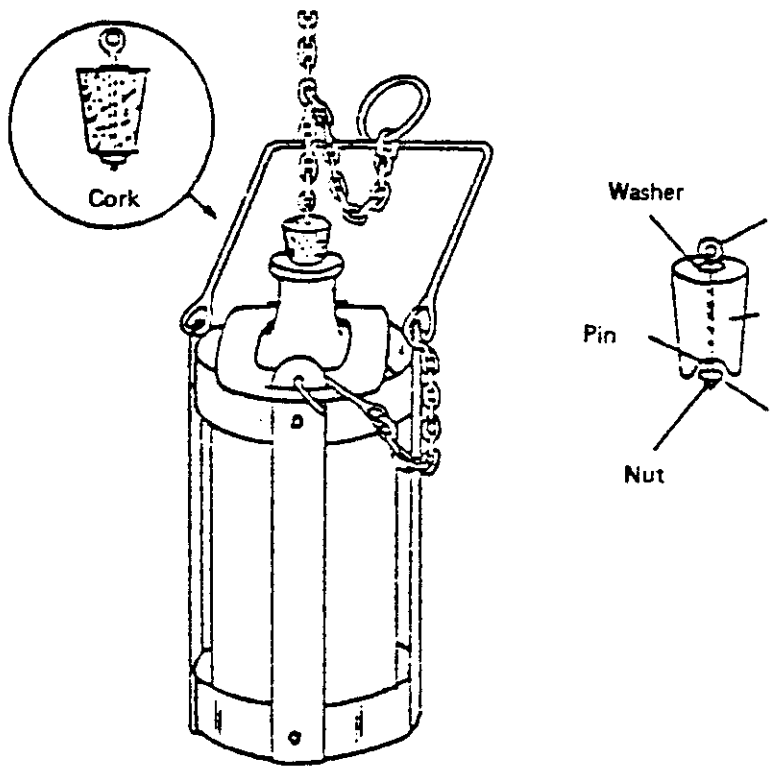


Figure 2. Weighted bottle sampler.

Procedure

1. Clean bottle.
2. Assemble weighted bottle sampler.
3. Lower the sampler to directed depth and pull out the bottle stopper by jerking the line.
4. Allow bottle to fill completely as evidenced by cessation of air bubbles.
5. Raise sampler, cap, and wipe off with a disposable cloth. The bottle can serve as a sample container.

1.2.1.3 Dipper

Scope and Application

The dipper consists of a glass or plastic beaker clamped to the end of a 2- or 3-piece telescoping aluminum or fiberglass pole which serves as the handle. A dipper samples liquids and free-flowing slurries.

General Comments and Precautions

1. Do not use a nonfluorocarbon plastic beaker to sample wastes containing organic materials.
2. Do not use a glass beaker to sample wastes of high pH or wastes that contain hydrofluoric acid.
3. Paint aluminum pole and clamp with a 2-part epoxy or other chemical-resistant paint when sampling either alkaline or acidic wastes.

Apparatus

Dippers are not available commercially and must be fabricated to conform to the specifications detailed in Figure 3. Table 3 lists the parts required to fabricate a dipper.

Procedure

1. Clean beaker, clamp, and handle.
2. Assemble dipper by bolting adjustable clamp to the pole. Place beaker in clamp and fasten shut.
3. Turn dipper so the mouth of the beaker faces down and insert into waste material. Turn beaker right side up when dipper is at desired depth. Allow beaker to fill completely as shown by the cessation of air bubbles.
4. Raise dipper and transfer sample to container.

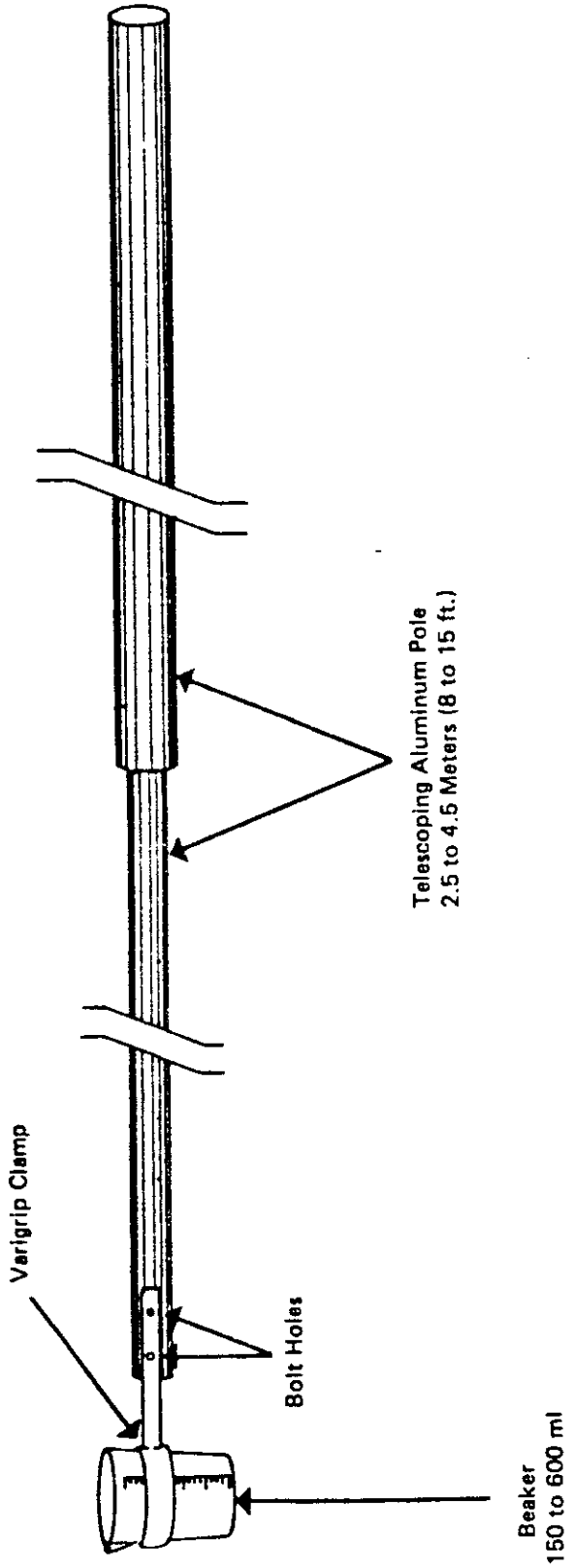


Figure 3. Dipper.

TABLE 3. PARTS FOR CONSTRUCTING A DIPPER

Quantity	Item	Supplier
1	Adjustable clamp, 6.4 to 8.9 cm (2-1/2 to 3-1/2 in.) for 250- to 600-ml beakers. Heavy-duty aluminum	Laboratory supply houses
1	Tube 2.5 to 4.5 m long with joint cam locking mechanism. Diameter 2.54 cm I.D. and 3.18 cm I.D.	Swimming pool supply houses
1	Polypropylene or glass beaker, 250 ml to 600 ml	Laboratory supply houses
4	Bolts 2-1/4 in. x 1/4 in., NC	Hardware stores
4	Nuts, 1/4 in., NC	Hardware stores

1.2.1.4 Thief

Scope and Application

A thief consists of two slotted concentric tubes usually made of stainless steel or brass. The outer tube has a conical pointed tip which permits the sampler to penetrate the material being sampled. The inner tube is rotated to open and close the sampler. A thief is used to sample dry granules or powdered wastes whose particle diameter is less than one-third the width of the slots.

Apparatus

A thief is available at laboratory supply stores (Figure 4).

Procedure

1. Clean sampler.

2. Insert closed thief into waste material. Rotate inner tube to open thief. Wiggle the unit to encourage material to flow into thief. Close thief and withdraw. Place sampler thief in a horizontal position with the slots facing upward. Remove inner tube from thief and transfer sample to a container.

1.2.1.5 Trier

Scope and Application

A trier consists of a tube cut in half lengthwise with a sharpened tip that allows the sampler to cut into sticky solids and loosen soil. A trier samples moist or sticky solids with a particle diameter less than one-half the diameter of the trier.

Apparatus

1. Triers 61 to 100 cm long and 1.27 to 2.54 cm in diameter are available at laboratory supply stores.

2. A large trier can be fabricated to conform to the specifications in Figure 5. A metal or polyvinyl chloride pipe, 1.52 m (5 ft) long x 3.2 cm (1.4 in.) I.D., with a 0.32-cm (1-1/8 in.) wall thickness, is needed. The pipe should be sawed lengthwise, about 60-40 split, to form a trough stretching from one end to 10 cm away from the other end. The edges of the slot and the tip of the pipe are sharpened to permit the sampler to cut into the waste material being sampled. The unsplit length of the pipe serves as the handle.

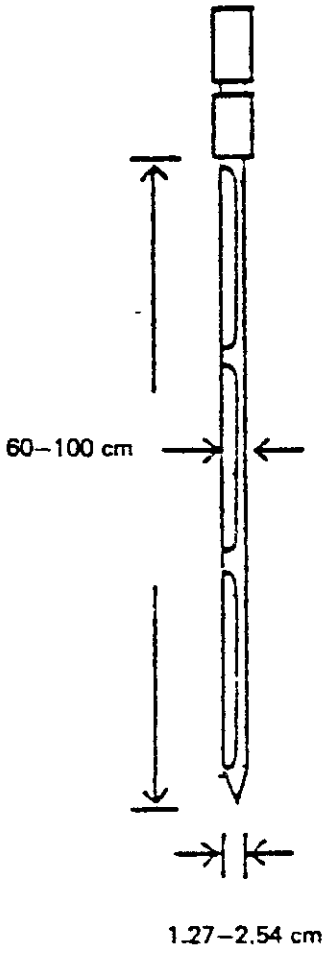
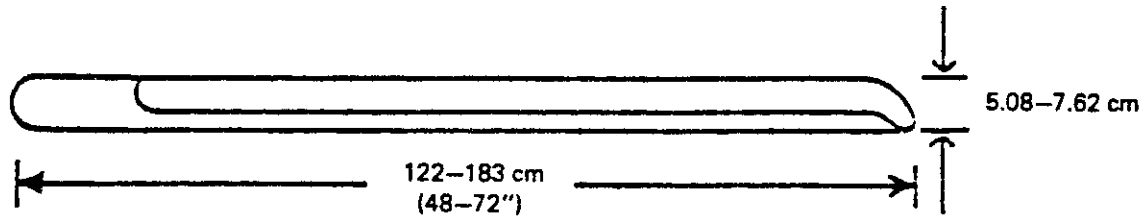


Figure 4. Thief sampler.



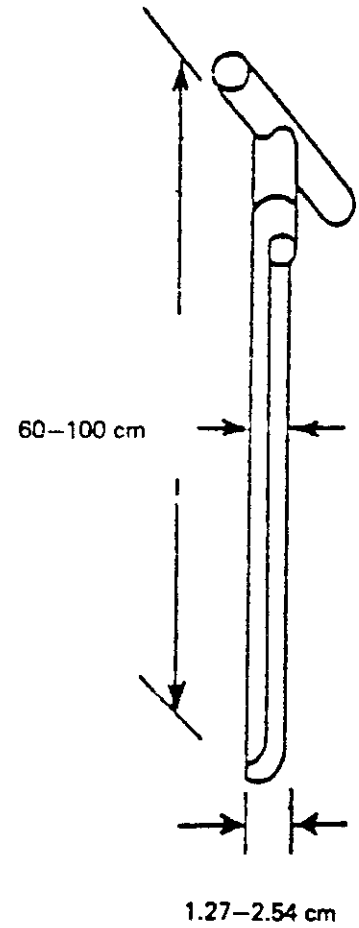


Figure 5. Sampling triers.

Procedure

1. Clean trier.

2. Insert trier into waste material 0 to 45° from horizontal. Rotate trier to cut a core of the waste. Remove trier with concave side up and transfer sample to container.

1.2.1.6 Auger

Scope and Application

An auger consists of sharpened spiral blades attached to a hard metal central shaft. An auger samples hard or packed solid wastes or soil.

Apparatus

Augers are available at hardware and laboratory supply stores.

Procedure

1. Clean sampler.

2. Bore a hole through the middle of an aluminum pie pan large enough to allow the blade of the auger to pass through. The pan will be used to catch the sample brought to the surface by the auger.

3. Place pan against the sampling point. Auger through the hole in the pan until the desired sampling depth is reached. Back off the auger and transfer the sample in the pan and adhering to the auger to a container. Spoon out the rest of the loosened sample with a sample trier.

1.2.1.7 Scoop and Shovel

Scope and Application

Scoops and shovels are used to sample granular or powdered material in bins, shallow containers and conveyor belts.

Apparatus

Scoops are available at laboratory supply houses. Flat-nosed shovels are available at hardware stores.

Procedure

1. Clean sampler.

2. Obtain a full cross section of the waste material using a scoop or shovel that is large enough to contain the waste collected in one cross section sweep.

1.2.2 Selection of Sample Containers

The most important factors to consider when choosing containers for hazardous waste samples are compatibility with the waste, cost, resistance to breakage, and volume. Containers must not distort, rupture, or leak as a result of chemical reactions with constituents of waste samples. Thus, it is important to have some idea of the properties and composition of the waste. The containers must have adequate wall thickness to withstand handling during sample collection and transport to the laboratory. Containers with wide mouths are desirable to facilitate transfer of samples from samplers to containers. Also, the containers must be large enough to contain the optimum sample volume.

Containers for collecting and storing hazardous waste samples are usually made of plastic or glass. Plastics that are commonly used to make the containers include high-density or linear polyethylene (LPE), conventional polyethylene, polypropylene, polycarbonate, teflon FEP (fluorinated ethylene propylene), polyvinyl chloride (PVC), or polymethylpentene. Teflon FEP is almost universally usable due to its chemical inertness and resistance to breakage. However, its high cost severely limits its use. LPE, on the other hand, usually offers the best combination of chemical resistance and low cost when samples are to be analyzed for inorganic parameters.

Glass containers are relatively inert to most chemicals and can be used to collect and store almost all hazardous waste samples except those that contain strong alkali and hydrofluoric acid. Soda glass bottles are suggested due to their low cost and ready availability. Borosilicate glass containers, such as Pyrex and Corex, are more inert and more resistant to breakage than soda glass but are expensive and not always readily available. Glass containers are generally more fragile and much heavier than plastic containers. Glass or FEP containers must be used for waste samples that will be analyzed for organic compounds.

The containers must have tight, screw-type lids. Plastic bottles are usually provided with screw caps made of the same material as the bottles. Buttress threads are recommended. Cap liners are not usually required for plastic containers. Teflon cap liners should be used with glass containers supplied with rigid plastic screw caps. Teflon liners may be purchased from plastic specialty supply houses (e.g., Scientific Specialties Service, Inc., P.O. Box 352, Randallstown, Maryland 21133). These caps are usually provided with waxed paper liners. Other liners that may be suitable are polyethylene, polypropylene, and neoprene plastics.

1.2.3 Processing and Storage of Samples

Once a sample has been collected, steps must be taken to preserve the chemical and physical integrity of the sample during transport and storage prior to analysis. The type of sample preservation required will vary according to the sample type and the parameter to be measured.

Preservation and storage requirements are described in the individual analytical methods in this manual. Since these requirements vary with the analytical method to be employed, it may be necessary to prepare more than one container of the same waste if more than one type of analysis is to be conducted. The chemical makeup of the samples can alter the effectiveness of preservation, therefore all sample analyses should be performed as soon as possible after sampling.

Section 1.3 of this manual describes specifications for packaging and shipping samples.

1.3 Documentation of Chain of Custody

An essential part of any sampling/analytical scheme is ensuring the integrity of the sample from collection to data reporting. This includes the ability to trace the possession and handling of samples from the time of collection through analysis and final disposition. This documentation of the history of the sample is referred to as Chain of Custody.

Chain of custody is necessary if there is any possibility that the analytical data or conclusions based upon analytical data will be used in litigation. In cases where litigation is not involved, many of the chain-of-custody procedures are still useful for routine control of sample flow. The components of chain of custody - sample seals, a field log book, chain-of-custody record, and sample analysis request sheet - and the procedures for their use are described in the following sections.

A sample is considered to be under a person's custody if (1) it is in a person's physical possession, (2) in view of the person after he has taken possession, (3) secured by that person so that no one can tamper with the sample, or (4) secured by that person in an area which is restricted to authorized personnel. A person who has samples under his custody must comply with the procedures described in the following sections.

The material presented here briefly summarizes the major aspects of chain of custody. The reader is referred to NEIC Policies and Procedures, EPA-330/9/78/001-R (as revised 1/82), or other manual as appropriate, for more information.

1.3.1 Sample Labels

Sample labels (Figure 1) are necessary to prevent misidentification of samples. Gummed paper labels or tags are adequate and should include at least the following information:

Sample number

Name of collector

Date and time of collection

Place of collection

Labels should be affixed to sample containers prior to or at the time of sampling. The labels should be filled out at the time of collection.

1.3.2 Sample Seals

Sample seals are used to detect unauthorized tampering of samples following sample collection up to the time of analysis. Gummed paper seals may be used for this purpose. The paper seal should include, at least, the following information:

Collector _____ Sample No. _____

Place of Collection _____

_____

Date Sampled _____ Time Sampled _____

Field Information _____

_____

_____

Figure 1. Example of Sample Label

Sample number (This number must be identical with the number on the sample label)

Collector's name

Date and time of sampling

The seal must be attached in such a way that it is necessary to break it in order to open the sample container. An example of a sample seal is shown in Figure 2. Seals must be affixed to containers before the samples leave the custody of sampling personnel.

1.3.3 Field Log Book

All information pertinent to a field survey or sampling must be recorded in a log book. This should be bound, preferably with consecutively numbered pages that are 21.6 by 27.9 cm (8-1/2 by 11 in.). As a minimum, entries in the log book must include the following:

Purpose of sampling (e.g., surveillance, contract number)

Location of sampling point

Name and address of field contact

Producer of waste and address, if different than location

Type of process (if known) producing waste

Type of waste (e.g., sludge, wastewater)

Suspected waste composition, including concentrations

Number and volume of sample taken

Description of sampling point and sampling methodology

Date and time of collection

Collector's sample identification number(s)

Sample distribution and how transported (e.g., name of laboratory, UPS, Federal Express)

References such as maps or photographs of the sampling site

Field observations

Any field measurements made (e.g., pH, flammability, explosivity)

Signatures of personnel responsible for observations

NAME AND ADDRESS OF ORGANIZATION COLLECTING SAMPLES

Person Collecting Sample _____ Sample No. _____
(signature)

Date Collected _____ Time Collected _____

Place Collected _____

Figure 2. Example of Official Sample Seal

Sampling situations vary widely. No general rule can be given as to the extent of information that must be entered in the log book. A good rule, however, is to record sufficient information so that someone can reconstruct the sampling without reliance on the collector's memory.

The log book must be protected and kept in a safe place.

1.3.4 Chain-of-Custody Record

To establish the documentation necessary to trace sample possession from the time of collection, a chain-of-custody record should be filled out and accompany every sample. This record becomes especially important if the sample is to be introduced as evidence in a court litigation. A chain-of-custody record is illustrated in Figure 3.

The record should contain the following minimum information.

Sample number

Signature of collector

Date and time of collection

Place and address of collection

Waste type

Signature of persons involved in the chain of possession

Inclusive dates of possession

1.3.5 Sample Analysis Request Sheet

The sample analysis request sheet (Figure 4) is intended to accompany the sample on delivery to the laboratory. The field portion of this form is completed by the person collecting the sample and should include most of the pertinent information noted in the log book. The laboratory portion of this form is intended to be completed by laboratory personnel and to include at a minimum:

Name of person receiving the sample

Laboratory sample number

Date of sample receipt

Sample allocation

Analyses to be performed

ENVIRO .ATAL PROTECTION AGENC.
Office of Enforcement

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME					NO. OF CON-TAINERS							REMARKS
SAMPLERS: *(Signature)*													
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION								

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

3– 0605

Figure 3. Example of chain-of-custody record.

SAMPLING ANALYSIS REQUEST

PART I: Field Section

Collector _____ Date Sampled _____ Time _____ hours

Affiliation of Sampler _____

Address _____
number street city state zip

Telephone (___)_____ Company Contact _____

LABORATORY SAMPLE NUMBER	COLLECTOR'S SAMPLE NO.	TYPE OF SAMPLE*	FIELD INFORMATION**

Analysis Requested _____

_____

_____

Special Handling and/or Storage _____

_____

PART II: LABORATORY SECTION**

Received by _____ Title _____ Date_____

Analysis Required _____

_____

* Indicate whether sample is soil, sludge, etc.
**Use back of page for additional information relative to sample location.

Figure 4. Example of hazardous waste sample analysis request sheet.

1.3.6 Sample Delivery to the Laboratory

The sample should be delivered to the laboratory for analysis as soon as practicable - usually within 1 or 2 days after sampling. The sample must be accompanied by the chain-of-custody record (Figure 3) and by a sample analysis request sheet (Figure 4). The sample must be delivered to the person in the laboratory authorized to receive samples (often referred to as the sample custodian).

1.3.7 Shipping of Samples

Any material that is identified in the DOT Hazardous Material Table (49 CFR 172.101) must be transported as prescribed in the table. All other hazardous waste samples must be transported as follows:

1. Collect sample in a 16-ounce or smaller glass or polyethylene container with nonmetallic teflon-lined screw cap. Allow sufficient air space (approximately 10% by volume) so container is not liquid full at 54° C (130° F). If collecting a solid material, the container plus contents should not exceed 1 pound net weight. If sampling for volatile organic analysis, fill VOA container to septum but place the VOA container inside a 16-ounce or smaller container so the required air space may be provided. Large quantities, up to 3.785 liters (1 gallon), may be collected if the sample's flash point is 23° C (75° F) or higher. In this case, the flash point must be marked on the outside container (e.g., carton, cooler), and shipping papers should state that "Flash point is 73° F or higher."

2. Seal sample and place in a 4-mil-thick polyethylene bag, one sample per bag.

3. Place sealed bag inside a metal can with noncombustible, absorbent cushioning material (e.g., vermiculite or earth) to prevent breakage, one bag per can. Pressure-close the can and use clips, tape or other positive means to hold the lid securely.

4. Mark the can with:

   Name and address of originator
   "Flammable Liquid N.O.S. UN 1993"
   (or "Flammable Solid N.O.S. UN 1325")

   NOTE: UN numbers are now required in proper shipping names.

5. Place one or more metal cans in a strong outside container such as a picnic cooler or fiberboard box. Preservatives are not used for hazardous waste site samples.

6. Prepare for shipping:

   "Flammable Liquid, N.O.S. UN 1993" or "Flammable Solid, N.O.S. UN 1325"; "Cargo Aircraft Only" (if more than 1 quart net per outside package); "Limited Quantity" or "Ltd. Qty."; "Laboratory Samples"; "Net Weight__" or "Net Volume __" (of hazardous contents) should be indicated on shipping papers and on outside of outside shipping container. "This Side Up" or "This End Up" should also be on container. Sign shipper certification.

7. Stand by for possible carrier requests to open outside containers for inspection or modify packaging. It is wise to contact carrier before packing to ascertain local packaging requirements and not to leave area before the carrier vehicle (aircraft, truck, etc.) is on its way.

1.3.8 Receipt and Logging of Sample

In the laboratory, a sample custodian should be assigned to receive the samples. Upon receipt of a sample, the custodian should inspect the condition of the sample and the sample seal, reconcile the information on the sample label and seal against that on the chain-of-custody record, assign a laboratory number, log in the sample in the laboratory log book, and store the sample in a secured sample storage room or cabinet until assigned to an analyst for analysis.

The sample custodian should inspect the sample for any leakage from the container. A leaky container containing multiphase sample should not be accepted for analysis. This sample will no longer be a representative sample. If the sample is contained in a plastic bottle and the container walls show that the sample is under pressure or releasing gases, the sample should be treated with caution since it may be explosive or release extremely poisonous gases. The custodian should examine whether the sample seal is intact or broken, since a broken seal may mean sample tampering and would make analysis results inadmissible in court as evidence. Any discrepancies between the information on the sample label and seal and the information that is on the chain-of-custody record and the sample analysis request sheet should be resolved before the sample is assigned for analysis. This effort might require communication with the sample collector. Results of the inspection should be noted on the sample analysis request sheet and on the laboratory sample log book.

Incoming samples usually carry the inspector's or collector's identification numbers. To further identify these samples, the laboratory should assign its own identification numbers, which normally are given consecutively. Each sample should be marked with the assigned laboratory number. This number is correspondingly recorded on a laboratory sample log book along with the information describing the sample. The sample information is copied from the sample analysis request sheet and cross-checked against that on the sample label.

1.3.9 Assignment of Sample for Analysis

In most cases, the laboratory supervisor assigns the sample for analysis. The superwisor should review the information on the sample analysis request sheet, which now includes inspection notes recorded by the laboratory sample custodian. The technician assigned to analysis should record in the laboratory notebook the identifying information about the sample, the date of receipt, and other pertinent information. This record should also include the subsequent testing data and calculations. The sample may have to be split with other laboratories in order to obtain all the necessary analytical information. In this case, the same type of chain-of-custody procedures must be employed at the other laboratory and while the sample is being transported to the other laboratory.

Once the sample has been received in the laboratory, the supervisor or his assignee is responsible for its care and custody. He should be prepared to testify that the sample was in his possession or secured in the laboratory at all times from the moment it was received from the custodian until the analyses were performed.

1.4 Sampling Methodology

The sampling methodology will be determined in part by the sampling strategy to be employed. Four different types of sampling strategies (simple random, stratified random, systematic random, and authoritative sampling) were discussed in Section 1.1. The latter three strategies require more information than the simple random approach. This additional information must either be acquired through sampling or must be estimated. The information requirements of the sampling strategy to be used should be kept in mind when designing a sampling plan.

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the Agency to be representative of the waste.

Extremely viscous liquid	ASTM Standard D140-70[1]
Crushed or powdered material	ASTM Standard D346-75
Soil or rock-like material	ASTM Standard D420-69
Soil-like material	ASTM Standard D1452-65
Fly-ash-like material	ASTM Standard D2234-76

1.4.1 Containers

The term container as used here refers to receptacles that are designed for transporting materials, e.g., drums and other smaller receptacles as opposed to stationary tanks. (Stationary tanks are discussed in Section 1.4.2.) Weighted bottles, Coliwasas, drum thiefs, or triers are the sampling devices which are chosen for the sampling of containers.

The sampling strategy for containers varies according to (1) the number of containers to be sampled, and (2) access to the containers. Ideally, if the waste is contained in several containers, every container will be sampled. If this is not possible due to the large number of containers or cost factors, a subset of individual containers must be randomly selected for sampling. This can be done by assigning each container a number and then randomly choosing a set of numbers for sampling.

Access to a container will affect the number of samples that can be taken from the container and the location within the container from which samples can be taken. Ideally, several samples should be taken from locations displaced both vertically and horizontally throughout the waste. The number of samples required for reliable sampling will vary depending on the distribution of the waste components in the container. As a minimum with an unknown waste, a sufficient number and distribution of samples should be taken to address any possible vertical anomalies in the

---

[1]ASTM Standards are available from ASTM, 1916 Race Street, Philadelphia, PA 19103.

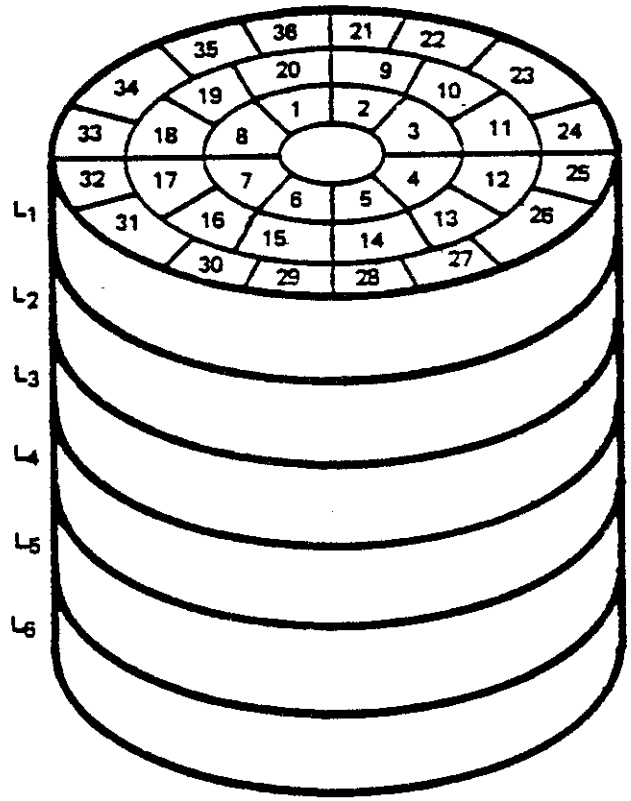


Figure 1. Container divided into an imaginary three-dimensional grid.

waste. This is because contained wastes have a much greater tendency to be nonrandomly heterogeneous in a vertical rather than a horizontal direction due to (1) settling of solids and the denser phases of liquids, and (2) variation in the content of the waste as it entered the container. Bags, paper drums, and open-headed steel drums (of which the entire top can be removed) generally do not restrict access to the waste and therefore do not limit sampling.

When access to a container is unlimited, a useful strategy for obtaining a representative set of samples is a three-dimensional simple random sampling strategy in which the container is divided by constructing an imaginary three-dimensional grid (see Figure 1). This is done as follows. First, the top surface of the waste is divided into a grid whose sections either approximate the size of the sampling device or are larger than the sampling device if the container is large. (Cylindrical containers can be divided into imaginary concentric circles which are then further divided into grids of equal size.) Each section is assigned a number. The height of the container is then divided into imaginary levels that are at least as large as the vertical space required by the chosen sampling device. These imaginary levels are then assigned numbers. Specific levels and grid locations are then selected for sampling using a random number table or random number generator.

Another appropriate sampling approach is the two-dimensional simple random sampling strategy, which can usually yield a more precise sampling when fewer samples are collected. This strategy involves (1) dividing the top surface of the waste into an imaginary grid as in the three-dimensional strategy, (2) selecting grid sections for sampling using random number tables or number generators, and (3) sampling each selected grid point in a vertical manner along the entire length from top to bottom using a sampling device such as a drum thief, or Coliwasa.

Some containers such as drums with bung openings limit access to the contained waste and restrict sampling to a single vertical plane. Samples taken in this manner can be considered representative of the entire container only if the waste is known to be homogeneous. Precautions must be taken when sampling any type of steel drum since the drum may explode or expel gases and/or pressurized liquids. An EPA/NEIC manual, "Safety Manual for Hazardous Waste Site Investigation," addresses these safety precautions.

1.4.2 Tanks

Tanks are essentially large containers. The considerations involved in sampling tanks are therefore similar to those for sampling containers (Section 1.4.1). As with containers, the goal of sampling tanks is to acquire a sufficient number of samples from different locations within the waste to provide analytical data that are representative of the entire tank contents. The accessibility of the tank contents will affect the sampling methodology.

Next, the depth to which sampling will take place is determined and subdidvided into equal levels which are also sequentially numbered. (The lowest sampling depth will vary from landfill to landfill. Usually, sampling extends to the interface of the fill and the natural soils. If soil contamination is suspected, sampling may extend into the natural soil.) The horizontal and vertical sampling coordinates are then selected using random number tables or generators. If some information is known about the nature of the waste, then a modified three-dimensional strategy may be more appropriate. For example, if the landfill consists of several cells, a more precise measurement may be obtained by considering each cell as a stratum and employing a stratified three-dimensional random sampling strategy (see Section 1.1).

Hollow stem augers combined with split-spoon samplers are frequently appropriate for sampling landfills. Water-driven or water-rinsed coring equipment should not be used for sampling since the water can rinse chemical components from the sample. Excavation equipment such as backhoes may be useful in obtaining samples at various depths; the resulting holes may be useful for viewing and recording the contents of the landfill.

The most appropriate type of sampling device for tanks depends on the tank parameters. In general, shallow tanks are sampled using subsurface samplers (i.e., pond samplers), while weighted bottles are usually employed for tanks deeper than 5 ft. Dippers are useful for sampling pipe effluents.

1.4.3 Waste Piles

Waste accessibility, which is frequently a function of pile size, is a key factgor in the design of a sampling strategy for a waste pile. Ideally, piles containing unknown wastes should be sampled using a three-dimensional simple random sampling strategy. This strategy can be employed only if all points within the pile can be accessed. In such cases, the pile should be divided into a three-dimensional grid system, the grid sections assigned numbers, and the sampling points then chosen using random number talbes or number generators.

If sampling is limited to certain portions of the pile, then the collected sample will be representative only of those portions unless the waste is known to be homogeneous.

In cases where the size of a pile impedes access to the waste, a set of samples that are representative of the entire pile can be obtained with a minimum of effort by scheduling sampling to coincide with pile removal. The number of truckloads needed to remove the pile should be estimated, and the truckloads randomly chosen for sampling.

The sampling devices most commonly used for small piles are thiefs, triers, and shovels. Excavation equipment such as backhoes can be useful for sampling medium-sized piles.

1.4.4 Landfills and Lagoons

Landfills contain primarily solid waste, while lagooned waste may range from liquids to dried sludge residues. Lagooned waste that is either liquid or semisolid is often best sampled using the methods recommended for large tanks (see Section 1.4.2). Usually solid wastes contained in a landfill or lagoon are best sampled using the three-dimensional random sampling strategy.

The three-dimensional random sampling strategy involves establishing an imaginary three-dimensional grid of sampling points in the waste and then using random number tables or generators to select points for sampling. In the case of landfills and lagoons, the grid is established using a survey or map of the area. The map is divided into 2 two-dimensional grids with sections of equal size. These sections are then assigned numbers sequentially.

If the tank is an open one, allowing unrestricted access, then usually a representative set of samples is best obtained using the three-dimensional simple random sampling strategy described in Section 1.4.1. This strategy involves dividing the tank contents into an imaginary three-dimensional grid. As a first step, the top surface of the waste is divided into a grid whose sections either approximate the size of the sampling device or are larger than the sampling device if the tank is large. (Cylindrical tanks can be divided into imaginary concentric circles which are then further divided into grids of equal size.) Each section is assigned a number. The height of the tank is then divided into imaginary levels that are at least as large as the vertical space required by the chosen sampling device. These imaginary levels are assigned numbers. Specific levels and grid locations are then selected for sampling using a random number table or random number generator.

A less comprehensive sampling approach may be appropriate if information regarding the distribution of waste components is known or assumed (e.g., vertical compositing will yield a representative sample). In such cases, a two-dimensional simple random sampling strategy may be appropriate. In this strategy, the top surface of the waste is divided into an imaginary grid; grid sections are selected using random number tables or number generators; and each selected grid point is then sampled in a vertical manner along the entire length from top to bottom using a sampling device such as a weighted bottle, a drum thief, or Coliwasa. If the waste is known to consist of two or more discrete strata, a more precise representation of the tank contents can be obtained by using a stratified random sampling strategy, i.e., sampling each stratum separately using the two- or three-dimensional simple random sampling strategy.

Some tanks permit only limited access to their contents, which restricts the locations within the tank from which samples can be taken. If sampling is restricted, the sampling strategy must, as a minimum, take sufficient samples to address the potential vertical anomalies in the waste in order to be considered representative. This is because contained wastes tend to display vertical, rather than horizontal, nonrandom heterogeneity due to settling of suspended solids or denser liquid phases. If access restricts sampling to a portion of the tank contents (e.g., in an open tank, the size of the tank may restrict sampling to the perimeter of the tank; in a closed tank, the only access to the waste may be through inspection ports), then the resulting analytical data will only be deemed representative of the accessed area, not of the entire tank contents unless the tank contents are known to be homogeneous.

If a limited access tank is to be sampled, and little is known about the distribution of components within the waste, a set of samples that are representative of the entire tank contents can be obtained by taking a series of samples as the tank contents are being drained. This should be done in a simple random manner by estimating how long it will take to drain the tank and then randomly selecting times during drainage for sampling.

SECURITY

In order to prevent spills that would result from accident or vandalism on the Shop site, the following measures are taken:

a. The master flow and drain valves and any other valves that will permit direct outward flow of a tank's contents to the surface are securely locked in the closed position when in non-operating status.

b. The starter control on all oil/PCB pumps is locked in the "OFF" position or located at a site accessible only to authorized personnel when the pumps are in a non-operating status.

c. The loading-unloading connections of oil/PCB pipelines is securely capped or blank-flanged when not in service or on standby service for an extended time.

d. The Facility is fully fenced. Entrance gates are locked when the facility is closed.

e. Facility lighting is commensurate with the type and location of the facility. Lighting is of sufficient capacity to ensure adequate security and safe operations, considering discovery of spills occurring during hours of darkness and prevention of spills occurring through acts of vandalism.

HAZARDOUS WASTE INSPECTION PLAN

This inspection plan applies to existing storage and proposed expansion of existing storage.

Weekly Inspections

The following inspections will be performed at least once per week using Forms 1, 2 and 3, of Appendix A, and will include, but not be limited to, the following:

Drainage

Diked areas and storage areas will be inspected for accumulation of oil/PCBs that may have escaped from small leaks. Any escaped oil/PCBs will be collected and returned to waste storage tanks or drums.

Inspection of Above-ground Storage Tanks

Storage tanks will be visually inspected for signs of deterioration of leaks which might cause a spill. Such inspection will include the foundations and support of tanks that are above the surface of the ground.

Inspection of Drum Storage Areas

Both indoor and outdoor drum storage areas will be visually inspected for signs of leakage. Inspection will verify the integrity of the drums (no ruptures or leaking bungs) and an orderly arrangement of the area to prevent accidents in handling.

Inspection of Temporary Container Storage

Temporary Container Storage will be visually inspected for signs of leakage. Inspections will verify the integrity of the containers and any PCB-containing equipment in the area.

Facility Transfer Operations

All areas of oil/PCB transfer including but not limited to tank fill points, transformer fill points, and waste oil/PCB draining areas, will be inspected to insure the integrity of all above-ground valves, pipelines, flange points, drip pans, pipe supports, etc.

Facility Spill Control and Emergency Response Equipment

Spill Control Kits will be checked for completeness and availability at all hazardous waste storage areas. Emergency response equipment consisting of portable fire extinguishers, shop sprinkler system and public address system will be inspected for proper operation.

Annual Inspection

The following inspections will be performed at least once per year using From 4 of Appendix A, and will include the entire tank for:

a. Rust or other physical deterioration.

b. Leakage and/or accumulation of oil within diked area.

c. Settlement, cracking and/or general deterioration of the diked area foundations and curbing.

d. Immediate steps must be taken to correct any of these deficiencies as soon as they are discovered, including replacement or repair of tanks and piping, etc., as required.

Temporary Storage Containers

The storage containers will be thoroughly inspected once per year. A detailed inspection should include an examination of the entire container for signs of corrosion, paint loss, leaking, proper markings, etc.

Records of all yearly inspections shall be made and kept on file with this SPCC Plan for a minimum of three (3) years.

Air Testing of Tanks

At least once every five (5) years, above-ground storage tanks will be checked for leakage by using low pressure air testing. Records of all inspections shall be kept on file with this SPCC Plan.

Inspection Personnel:

PCB Storage and Work Areas:

Inspector - A. Hejmanowski
Alternate - W. Lukas

RCRA Waste Collection and Storage Areas

Inspector - H. Haase
Alternate - J. Domske

Spill Control and Emergency Response Equipment

Inspector - H. Haase
Alternate - J. Domske

APPENDIX A

RECORDS AND REPORT FORMS

HAZARDOUS WASTE MANAGEMENT INSPECTION -- FORM 1

This Form must be completed weekly and filed in the RCRA Operating File for three years.

_____ Service Shop

EPA Identification Number _____

Date _____ Time _____ Inspector _____

REQUIRED EQUIPMENT	QTY.	EQUIPMENT AVAILABLE AND IN GOOD CONDITION	CORRECTIVE ACTION REQUIRED
PERSONAL SAFETY:			
Rubber Gloves			
Rubber Boots			
Disposable Coveralls			
Face Shields			
Respirators			
SPILL CONTROL:			
Absorbent Material			
Plastic Sheeting			
Brooms			
Shovels			
Empty Drums			
EMERGENCY RESPONSE:			
Fire Extinguishers			
Internal Communication			
External Communication			

WASTE STORAGE AREA

Storage Facilities Are Properly Segregated _____

Storage Facilities Are Accessible for Inspection _____

#5014A

HAZARDOUS WASTE MANAGEMENT INSPECTION -- FORM 2

DATE _____ TIME _____ INSPECTOR _____ PAGE ___ of ___

STORAGE CONTAINERS

SHOP LOCATION	CONTAINER NUMBER	CONTAINER TYPE	EPA HAZARDOUS WASTE NO.	CONDITION STATUS (✓ IF O.K.)			CORRECTIVE ACTION REQUIRED
				LABELED	COVERS	NO SPILLAGE	

FORM 3

WEEKLY INSPECTION REPORT

DATE: _____ INSPECTOR: _____

TANK	MATERIAL	SIGNS OF DETERIORATION	LEAKS YES/NO	CONDITION OF FOUNDATIONS/SUPPORTS	NOTES
OT-1	10 CA Oil				
OT-2	10 CA Oil				
T-1	Pyranol PCB>25,000 PPM				
T-2	10 CA Oil PCB<25,000 PPM				
T-3	Waste Kerosene with PCBs				
T-4	Kerosene				
T-5	Scrap Oil				

DIKED AREAS	LEAKS	CONDITION OF DRUMS			NOTES
	Location	Ruptures	Leaking Bungs	Arrangement	
T-1 & T-2					
T-3 & T-4					
OT-1 & OT-2					
PCB Storage Area					
PCB Work Area					
Outdoor Storage Area					

FORM 3 (continued)

WEEKLY INSPECTION REPORT

DATE: _____ INSPECTOR: _____

CONDITION OF ASSOCIATED EQUIPMENT

1. PUMPS

2. VALVES

3. VENT

4. PIPING

5. PIPE SUPPORTS

6. TANK FILL LOCATIONS

7. TANK DRAIN LOCATIONS

8. DRIP PANS

FORM 4

ANNUAL INSPECTION REPORT

An authorized employee shall make a visual inspection of each of the storage tanks on an ANNUAL basis and complete this report.

Tank/ Storage Container	Liquid Depth	Rust Spots Yes/No	Air Pressure Yes/No	Foundation Cracks or Settlement Yes/No	Leakage Yes/No	Inspected by (initials)	Date	NOTES

PERSONNEL TRAINING PLAN

Annual classroom training will be conducted for all Shop Personnel. This training will include hazardous waste identification, hazardous waste shop floor control, and shop emergency plans. Specialized on-the-job training utilizing information and consultation provided by General Electric Apparatus & Engineering Services Environmental Engineering Operation will be provided to individuals with specific hazardous waste responsibilities. Shop personnel involved with PCB servicing activities attend 2 day training sessions on procedures and regulations for handling PCB's. The Buffalo Service Shop maintains copies of the General Electric Service Shop Hazardous Waste Management System Manual and Apparatus and Engineering Services Engineering Procedures, "PCB Servicing - Procedures and Control".

Tony Hejmanowski, PCB Specialist, is familiar with the Service Shop Hazardous Waste Manual and PCB procedures and is

responsible for conducting in-shop training on hazardous wastes. Tony Hejmanowski has also attended a two day Seminar on "Industrial Waste Management Stratgies" conducted by the CECOS Company in 1983.

HAZARDOUS WASTE MANAGEMENT

PERSONNEL

The following Shop personnel are presently assigned duties/responsibilities for proper handling and control of hazardous materials:

HAZARDOUS MATERIAL IDENTIFICATION		
Designee	Anthony Hejmanowski	Purchasing
Alternate	Paul Collin	Stockroom Keeper
SHOP HAZARDOUS WASTE CONTROL		
Designee	Henry Haase	Transformer B
Alternates	Paul Collin Anthony Hejmanowski	Stockrook Keeper Purchasing
EMERGENCY ACTIVITIES		
Emergency Coordinator	Walter Lukas	Electrical Foreman
Shop Manager	Richard Conway	Manager
Alternate Coordinator	Anthony Hejmanowski	Purchasing
Area Foreman	Robert Eisenberger	Foreman
Area Operator	Henry Haase	Transformer B
Area Operator	Kenneth Berger	Transformer B
TRAINING		
Designee	Anthony Hejmanowski	Purchasing
Alternate	Walter Lukas	Emergency Coordinator
INSPECTION		
Designee	Anthony Hejmanowski	Purchasing
Alternate	Walter Lukas	Electrical Foreman
Designee	Henry Haase	Transformer B
Alternate	James Domske	Transformer A
RECORD KEEPING		
Designee	Anthony Hejmanowski	Purchasing

HAZARDOUS WASTE MANAGEMENT

JOB DESCRIPTION

HAZARDOUS MATERIAL IDENTIFICATION

Perform review of stock materials believed to be hazardous

Review purchase of new material.

HAZARDOUS WASTE CONTROL

Properly distribute, collect and have analyzed wastes identified as hazardous.

EMERGENCY ACTIVITIES

Emergency Coordinator and Alternates will be thoroughly familiar with contingency and emergency procedures plans. All duties as defined in plans will be performed by designated personnel.

TRAINING

Designated employees will be responsible for all aspects of training as specified in Shop Training Plan.

INSPECTION

Designated employees will be familiar with inspection plan. Employees will be responsible to perform inspection duties as outlined in plan.

RECORD KEEPING

Designated employees will be repsonsible for all files and reports required by federal, state, local and department regulations.

A-14-R

GENERAL ELECTRIC

DOMESTIC APPARATUS AND ENGINEERING SERVICES OPERATIONS

• MAIL ADDRESS:
175 Milens Road
Tonawanda, NY 14150
April 24, 1986

• TELEPHONE:
8*254-8241

SUBJECT: PCB SUPERVISOR'S RECERTIFICATION TRAINING

Mr. Anthony Hejmanowski
General Electric Company
175 Milens Road
Tonawanda, NY 14150

Dear Tony:

The following craftsmen attended a PCB Recertification seminar that was held in Amherst, New York, on April 23, 1986:

K. Berger
M. Dole
J. Domske
H. Haase
R. Koepsell
D. Krysztofowicz
P. Lynch
J. Rice

The seminar was a review of General Electric's PCB Supervisor's Manual and included the following topics:

- EPA Regulations for the use, service and disposal of PCBs.

- Spill control and spill prevention.

- Proper handling of PCBs, both solids and liquids.

- Proper marking of PCB articles and containers.

- Use of approved containers and approved carriers.

- Manifesting shipments.

Very truly yours,

Gregg Zimmerman
Coordinator PCB Services
Empire Region

GZ/met

Z8641

A-14-R

GENERAL ELECTRIC

DOMESTIC APPARATUS AND ENGINEERING SERVICES OPERATIONS

• MAIL ADDRESS:
175 Milens Road
Tonawanda, NY 14150
March 12, 1986

• TELEPHONE:
8-254-8233

SUBJECT: RESPIRATOR USE AND MAINTENANCE

c: R. Conway

TO: W. Lukas

R. Eisenberger

I have made arrangements with Mr. Fred Abbott, MSA Sales Engineer, to give a presentation on use and maintenance of Comfo II Respirators. A slide presentation will be given Thursday, March 20, 1986, as follows:

1st Shift 3:30 P.M. - 4:30 P.M.

2nd Shift 4:30 P.M. - 5:30 P.M.

Please have cafeteria ready by 3 P.M. on Thursday, March 20, 1986.

We should also have two or three employees in each group take respirators to presentation for demonstration purposes.

Tony Hejmanowski
Electrical Planner

TH/met

See attached Attendee Lists.

Roster of Attendees

1st shift

Name	Department	Certificates Awarded (If Any) Instruction	Attendance
M. Vukovic	Trans.	☐	☐
B. Hammond	TRANS	☐	☐
MIKE DOLE	TRANS	☐	☐
J. Rice	Trans	☐	☐
R. Kilgee	Mach. Shop	☐	☐
M. Hewitt	" "	☐	☐
P. Kutis	" "	☐	☐
	MTN GRN KEN FRONCZAK	☐	☐
J. Ishman	Electrical	☐	☐
J. Cyeek	M.L.	☐	☐
E. LaSota	S.D.	☐	☐
	W.D -40 L. KNASZAK	☐	☐
M. Domaggia	MA	☐	☐
K. Tross	E&C	☐	☐
M. Maher	Winder	☐	☐
M.L. Martz	Winder	☐	☐
	Electrical	☐	☐
	"	☐	☐
	Trans. DAVID KRYSZTOFOWICZ	☐	☐
	STOCK ROOM	☐	☐
	Shipfitter	☐	☐
	MILICA JELENIC	☐	☐
	Bucker J. CZARNECKI	☐	☐
W. Lukas	- Foreman	☐	☐
M. Watts	Eletrical	☐	☐
C. Issacs	"	☐	☐
P. Collins	Stockroom	☐	☐
J. Andrews	Ship. + Receiving	☐	☐

USE ADDITIONAL SHEETS IF NECESSARY

Roster of Attendees

2nd shift

Name	Department	Certificates Awarded (If Any) Instruction	Attendance
Joseph Stinson	Electrical	☐	☐
Mark Bryan	Mechanical	☐	☐
Dick Koch	Mechanical	☐	☐
Paul Schmitt	Mechanical	☐	☐
Al Kubler Jr.	Mechanical	☐	☐
Marc Thomas	Mechanical	☐	☐
Jay Ott	Mechanical	☐	☐
Lawrence Woznicki	Electrical	☐	☐
Edward W. Spanholz	Elec.	☐	☐
		☐	☐
Total (33)		☐	☐
		☐	☐
3/20/86 Safety Meeting		☐	☐
		☐	☐
Precautions use + care		☐	☐
of Respirators		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐

USE ADDITIONAL SHEETS IF NECESSARY

A-14-R

GENERAL ELECTRIC

DOMESTIC APPARATUS AND ENGINEERING SERVICES OPERATIONS

• MAIL ADDRESS:
175 Milens Road
Tonawanda, NY 14150
October 21, 1985

• TELEPHONE:
8-254-8233

c: D. Conway

SUBJECT: HAZARDOUS WASTE CONTROL

TO: B. Lembke
W. Lukas

Please arrange for Hazardous Waste Control slide presentation to be shown to all employees. The presentation will cover the following:

Identification

Collection

Storage

Transportation

Treatment

Disposal

CONTINGENCY & EMERGENCY PROCEDURES

A. Hejmanowski
PCB Specialist

AH/met

HAZARDOUS WASTE CONTROL PRESENTATION

ATTENDEE	DATE
J. Cyrek	10-17-88
N. Hokanson	10-17-88
J. Gwoszdz	"
[illegible]	"
Jim Domske	"
Mike Dole	"
[illegible]	"
[illegible]	"
M. Walker	"
Hammon	"
Rave	"
R. Kreger	"
[illegible]	"
M. [illegible]	"
Marc Thomas	"
Brian Deverell	"
Paul Katts	"
TOM SHEAR	"
Ken Dau	"
Mary Lou Mad	"
[illegible]	"
Paul K Collins	"
[illegible]	"
R. Becki	"
John [illegible]	"
Ken [illegible]	"
[illegible]	"
[illegible]	"
E. De Soto B'	"
[illegible] Jelinek	"

HAZARDOUS WASTE CONTROL PRESENTATION

ATTENDEE	DATE
[illegible] Koch	10-16-85
[illegible]	"
P. Schmitt	"
J. Stinson	"
[illegible]	10-16-85
K. [illegible]	10-16-85
C. Wallace Jr	"
M. Bryan	"
[illegible]	"
Bob Koessell	"
Al Knight Jr.	"
[illegible]	10-17-85
[illegible]	10/16/85

HAZARDOUS WASTE CONTROL

Script to Accompany

Slide/Tape Presentation

Apparatus & Engineering Services

GENERAL ELECTRIC

HAZARDOUS WASTE CONTROL

Slide #1
(Title Slide – Hazardous Waste Control)

(Slide 1) The safe disposal of hazardous wastes has become a major problem for the industrial world.

Slide #2
(Photo of hazardous waste dump site)

(Slide 2) Each year two hundred and fifty million tons of toxic, corrosive, ignitable and otherwise dangerous wastes are generated in the United States.

Slide #3
(Photo of barrels of hazardous wastes in waste dump)

(Slide 3) These substances will adversely affect human health and safety as well as the natural environment ...

(Slide 4) if not disposed of properly.

Slide #4
(Photo of truck at dump site)

Slide #5
(Photo of code book of federal regulations)

(Slide 5) In 1980 the most comprehensive environmental law ever enacted in this country went into effect. This is the Resource Conservation and Recovery Act, otherwise known as RCRA.

(Slide 6) The act defines hazardous wastes ...

Slide #6
(Word Slide)
Resource Conservation and Recovery Act – (RCRA)
- o Defines hazardous wastes

Slide #7
(Word Slide–Build on slide # 6)
- o Establishes requirements
  - – Storage
  - – Transportation
  - – Treatment
  - – Disposal

(Slide 7) and establishes specific requirements for the storage, transportation, treatment, and disposal of such wastes.

Slide #8
(Cartoon of RCRA presiding as judge over disposers of hazardous waste)

(Slide 8) These regulations require that hazardous wastes be controlled from the moment of generation to final disposal. Although the facility which treats, disposes of, or stores hazardous wastes for more than 90 days must have permits from the proper regulatory agencies, the industrial facility which generates the hazardous waste is never relieved of the ultimate responsibility. The industrial generator may, in fact, carry legal responsibility for the safe disposal of these wastes for hundreds of years to come.

Slide #9
(Line art–map of the United States with "Federal EPA" superimposed)

(Slide 9) RCRA regulations establish federal requirements for the control of hazardous wastes and grant the United States Environmental Protection Agency broad powers of definition and enforcement.

Slide #10
(Line art–map of the United States with state boundary lines highlighted)

(Slide 10) It is the intent of RCRA to encourage individual states to assume responsibility for hazardous waste control and develop their own programs.

Slide #11
(Word Slide)
RCRA Requires State Programs:
- o Be equivalent to federal
- o Be approved by the Environmental Protection Agency (EPA)

(Slide 11) State programs must be equivalent to the RCRA requirements and be approved by the United States Environmental Protection Agency.

Slide #12
(Line art–overlapping circles identifying that facilities involved with hazardous wastes must abide by EPA–approved federal and state regulations)

(Slide 12) Several states have established programs with stricter requirements than the federal regulations. In some cases, facilities involved with hazardous wastes are subject to two sets of regulations: state and federal.

Slide #13
(Photo of hazardous waste being handled by workman)

(Slide 13) Many of the wastes generated by General Electric's Apparatus and Engineering Service facilities are defined by RCRA regulations as hazardous ...

Slide #14
(Photo of workman on site shoveling hazardous waste)

(Slide 14) and must be controlled in accordance with applicable state and federal regulations.

Slide #15
(Word Slide)
Resource and Recovery Act (RCRA)
- o Defines hazardous wastes
- o Categorizes hazardous wastes
- o Assigns identification numbers

(Slide 15) To control these wastes they must first be identified. RCRA defines hazardous wastes, categorizes them and assigns each a specific identification number.

Slide #16
(Word Slide)
Categories of Hazardous Wastes
- o Wastes with hazardous characteristics
- o Wastes identified as hazardous

(Slide 16) The regulations list two general categories – wastes with hazardous characteristics, and wastes specifically identified as hazardous.

Slide #17
(Word Slide)
Wastes with Hazardous Characteristics
- o Ignitable
  - D001
- o Corrosive
  - D002
- o Reactive
  - D003
- o EP Toxicity
  - D004 through D017

(Slide 17) Wastes with hazardous characteristics are divided into four groups, and assigned identification numbers beginning with the prefix D.

Slide #18
(Word Slide)
Wastes with Hazardous Characteristics
- o Ignitable - D001
  - Liquid with <140°F flashpoint
  - Solid with ignitability
  - Any oxidizer

(Slide 18) An ignitable waste, D001, is defined as a liquid with a flash point of less than 140 degrees Fahrenheit; or any solid which can cause fires through friction, absorption of moisture or spontaneous combustion; or any oxidizer.

Slide #19
(Word Slide-Build on Slide #18)
- o Corrosive-D002
  - Liquid with pH <2 or >12.5
  - Corrodes SAE steel > 1/4 in. per year

(Slide 19) A waste with corrosive characteristics, D002, is any liquid having a pH of less than 2 or greater than 12.5, Which can corrode SAE 1020 steel at a rate greater than one-quarter inch per year.

Slide #20
(Word Slide-Build on Slide #19)
- o Reactive-D003
  - Any unstable, easily explodable material

(Slide 20) D003 is any reactive waste, defined as material which is normally unstable and easily exploded. Reactive wastes form toxic gases or vapors when exposed to water, mild acid, or mild basic solutions.

Slide #21
(Word Slide-Build on Slide # 20)
- o EP Toxicity-D004 thru D017
  - Material with contaminants equal to or greater than maximum permitted toxic substances

(Slide 21) EP toxicity, D004 through D017, are wastes which, when subjected to a specific test procedure, show contaminants equal to or greater than the maximum listed concentrations of defined toxic substances.

Slide #22
(Word Slide)
Wastes with Hazardous Characteristics
- o Toxic Metals = EP Toxicity
  - Arsenic – D004
  - Barium – D005
  - Cadmium – D006
  - Chromium – D007
  - Lead – D008
  - Mercury – D009
  - Selenium – D010
  - Silver – D011

(Slide 22) Hazardous waste numbers D004 through D011 are identification numbers for toxic metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver, with concentrations which would result in the material being an EP toxic hazardous waste.

Slide #23
(Word Slide)
Wastes with Hazardous Characteristics
- o D012 through D017
  - Pesticides
  - Herbicides

(Slide 23) The EPA hazardous waste numbers D012 through D017 are assigned to wastes containing pesticides and herbicides which would not normally be found in General Electric's service shops.

Slide #24
(Photo of barrel of hazardous waste)

(Slide 24) Examples of wastes generated in our facilities which may have hazardous characteristics include ...

Slide #25
(Photo of workman placing used ignitable rags in approved refuse container)

(Slide 25) waste paints, varnishes, and used rags – which are ignitable – D001;

Slide #26
(Photo of barrel of waste steam cleaning soap)

(Slide 26) and waste steam cleaning soaps, defined as corrosive – D002.

Slide #27
(Photo of workman shoveling steam cleaning sludge)

(Slide 27) Steam cleaning sludges,

Slide #28
(Photo of equipment ducts in which abrasive blasting dust is used)

(Slide 28) abrasive blasting dust,

Slide #29
(Photo of water wash spray booth)

(Slide 29) and sludges from water wash spray booths for paint spraying or metallizing operations may be EP toxic wastes. These must be assumed hazardous unless or until they are tested and data is obtained to verify that they do not exhibit hazardous characteristics.

Slide #30
(Photo of RCRA hazardous wastes lists)

(Slide 30) RCRA regulations contain four extensive lists of hazardous wastes with a combined total of 446 EPA hazardous waste numbers. The first of these define hazardous wastes from non-specific sources and are identified by numbers beginning with the prefix F.

Slide #31
(Photo of used cleaning solvent)

(Slide 31) Several of these wastes are generated in the service shop operations. They include spent or used cleaning solvents and thinners, along with any associated sludges.

Slide #32
(Line art-diagram showing how solvent hazardous waste added to a wastewater drain will be mixed with non-hazardous wastes in the oil water separator, causing a contaminated mixture to be transferred to the sewer treatment works)

(Slide 32) If these waste solvents and thinners are mixed with non-hazardous wastes, the total mixture may then become a hazardous waste.

Slide #33
(Photo of barrel of trichloroethane)

(Slide 33) For example, a common cleaning solvent used in the service shop is 1,1,1—trichloroethane.

Slide #34
(Line art depicting mixing of 1/3 cup 1,1,1 trichloroethane with 1000 gallons of waste water)

(Slide 34) If one-third cup of 1,1,1—trichloroethane is mixed with 1,000 gallons of waste water, the total mixture of 1,000 gallons becomes a hazardous waste.

Slide #35
(Photo of workman pouring waste solvent into approved storage container)

(Slide 35) This is why unused or waste solvents and thinners must be returned to or stored in containers which identify the material.

Slide #36
(Photo of workman improperly disposing of waste solvent by pouring it down the drain)

(Slide 36) Solvents and thinners must never be disposed of by pouring them down the drain.

Slide #37
(Word Slide)
Wastes with Hazardous Characteristics
- o Solvents and thinners used in GE service shops
  - EPA numbers F001 through F005

(Slide 37) These spent solvents and thinners, many of which are used in service shop operations, carry the EPA waste numbers F001 through F005.

Slide #38
(Word Slide)
Hazardous Wastes from
Specific Sources
- o Identified by EPA numbers K001 through K069
- o Products of manufacturing or chemical processes
- o Not generally used in service shop

(Slide 38) The second list contains hazardous wastes from specific sources which are identified by EPA numbers K001 through K069. These materials are the products of manufacturing or chemical processes which are not used or generated in General Electric service shops.

Slide #39
(Word Slide)
Discarded Commercial
Chemical Products
- o Acute hazardous wastes
  - EPA numbers P001 through P122
  - Extreme toxicity
  - Not generally used in service shop
  - These are poisons such as:
    Arsenic
    Cyanide

(Slide 39) The third and fourth lists define hazardous waste categories of discarded commercial chemical products. The first, acute hazardous wastes, carries numbers P001 through P122. These products are not generally found in GE service shops BUT require special consideration due to their extremely toxic nature. The P designation classifies such highly toxic poisons as arsenic, cyanide and other chemicals used in pesticides.

Slide #40
(Word Slide)
Discarded Commercial
Chemical Products
- o Commercial chemical products
  - EPA numbers V001 through V239
  - Many used in service shop
    Acetone
    Methyl
    Ethyl Ketone
    Toluene
    Xylene

(Slide 40) The list of commercial chemical products identified as EPA numbers U001 through U239, contains many chemicals used routinely in the service shop.

Slide #41
(Photo of labeled containers of toluol, xylol, trichloroethane and solvent)

(Slide 41) These include toluol, xylol, 1.1.1 trichloroethane, and many others.

Slide #42
(Photo of workman emptying drum)

(Slide 42) Although some of these chemicals are covered in the list for hazardous wastes from non-specific sources, the U designation covers pure materials such as unused material left in the bottom of a drum.

Slide #43
(Photo of workman draining solvent)

(Slide 43) A used, dirty material such as the waste solvent taken from a cleaning tank or vapor degreaser will carry the F designation.

Slide #44
(Word Slide)
Hazardous Waste Procedures
- o Identify hazardous waste
- o Detail proper
  - – Accumulation
  - – Storage
  - – Shipment
  - – Disposal

(Slide 44) Each service shop must have available written, documented procedures for the accurate identification of hazardous wastes. There are also specific requirements which must be followed for the proper accumulation, storage, shipment, and disposal of all wastes classified as hazardous.

Slide #45
(Word Slide–Build on Slide #44)
- o Procedures include:
  - – Emergency/contingency
  - – Inspection
  - – Record keeping/reporting

(Slide 45) These requirements include detailed emergency and contingency procedures, inspection procedures, record keeping and reporting procedures.

Slide #46
(Photo of Hazardous Waste Management System Manual)

(Slide 46) To assist shop personnel in implementing these procedures and requirements, a "Hazardous Waste Management System" manual is available in each service shop.

Slide #47
(Word Slide)
"Hazardous Waste Management System Manual"
- o Details RCRA regulations
- o Outlines required methods of operation

(Slide 47) This manual details applicable RCRA regulations and provides outline guides for the establishment of the required methods of operation.

Slide #48
(Word Slide)
Hazardous Waste Analysis Plan
- o Identifies wastes in shop which must be classified as hazardous

(Slide 48) We will review the basic procedures or plans which are required to properly control hazardous wastes in the service shop. These requirements include the "Hazardous Waste Analysis Plan." This plan should enable personnel to accurately identify all wastes produced in the shop which must be classified as hazardous.

Slide #49
(Photos of containers of normally stocked materials which will become hazardous when discarded)

(Slide 49) The materials normally stocked, which will become hazardous wastes when discarded, should be listed in the "Hazardous Waste Analysis Plan."

Slide #50
(Photo of Material Safety Data Sheet)

(Slide 50) These materials can be identified by their labels or by obtaining a Material Safety Data Sheet which the vendor is required by law to provide upon request.

Slide #51
(Photo of workman testing material for hazardous characteristics)

(Slide 51) The plan must also identify those materials which require testing to determine if they have hazardous characteristics.

Slide #52
(Word Slide–Build on Slide #48)
Hazardous Waste Analysis Plan
- o Outlines test frequency

(Slide 52) It outlines the frequency with which tests must be conducted.

Slide #53
(Word Slide–Build on Slide #52)
- o Names individuals responsible for tests and accurate identification of hazardous wastes

(Slide 53) and names the individuals responsible for obtaining the tests and identifying hazardous wastes.

Slide #54
(Word Slide)
Shop Floor Control Plan
- o Written outline for:
  - – Accumulation and collection of hazardous wastes
  - – Storage and control of hazardous wastes

(Slide 54) The Shop Floor Control Plan provides a written outline for accumulation and collection, storage and control of hazardous wastes in the shop.

Slide #55
(Photo of hazardous wastes in approved storage containers)

(Slide 55) It designates a specific location where frequently used materials which become hazardous wastes can be accumulated. Storage of hazardous wastes for more than 90 days requires a permit from the EPA. Most General Electric facilities store hazardous wastes for less than 90 days.

Slide #56
(Photo of waste barrels in restricted access area)

(Slide 56) These wastes must be accumulated and kept in the designated storage area with restricted access and proper signs.

Slide #57
(Photo of workman inspecting bottom of used hazardous material container)

(Slide 57) Containers that have held hazardous materials must be inspected to determine that less than one inch of material remains in the bottom.

Slide #58
(Line art–depicting barrel with 1 inch or more of waste classified as hazardous waste and barrel with 1 inch or less of waste classified as non–hazardous waste)

(Slide 58) If there is less than one inch, the container can be disposed of as general trash.

Slide #59 (Photo of workman disposing of container in approved hazardous waste receptacle)	(Slide 59) An inch or more of hazardous material requires that the container be classified as hazardous waste and treated as such.
Slide #60 (Photo of workman emptying hazardous waste drum)	(Slide 60) Drums in GE's service shops, which contained solvent, thinner, liquid or powder steam cleaning soaps must be inspected to ensure that they contain less than one inch of material. These drums must be treated as a hazardous waste if more than one inch remains.
Slide #61 (Photo of aerosol container)	(Slide 61) To qualify as general trash, an aerosol container must have no remaining pressure in the can.
Slide #62 (Photo of workman puncturing aerosol can)	(Slide 62) All aerosol cans should be punctured in an approved manner to allow the pressure to escape and the contents to drain.
Slide #63 (Photo of workman disposing of aerosol can)	(Slide 63) The material obtained from the can must now be controlled as a hazardous waste and the punctured aerosol can becomes general trash.
Slide #64 (Photo of hazardous wastes stored in steel drums)	(Slide 64) Most hazardous wastes require storage in steel drums. In order to be shipped off-site, these drums must meet Department of Transportation (DOT) Standards.
Slide #65 (Photo of 17E single trip container without removable head)	(Slide 65) The standards specify that hazardous waste liquids must be shipped in 17E, single trip containers without removable heads,
Slide #66 (Photo of 17H single trip container with removable head)	(Slide 66) and solids shipped in DOT specification 17H drums which are single trip containers with removable heads.
Slide #67 (Photo of acid stored in original container)	(Slide 67) Although steel drums are the preferred containers for the storage of hazardous wastes, these wastes must be compatible with their containers. Acids and materials which would corrode steel require special provisions. Acids should be stored in their original containers,
Slide #68 (Photo of workman placing plastic liner inside steel drum)	(Slide 68) and corrosive materials should be placed in drums with plastic liners.
Slide #69 (Photo of steel drum with hazardous waste label)	(Slide 69) A hazardous waste label must be placed on the container as soon as the first hazardous waste is placed within that container.

Slide #70
(Close-up photo of hazardous waste label)

(Slide 70) This label must show the name and address of the generator, the EPA identification number of the generator, the EPA waste identification number of the material, and the date the hazardous waste was first placed in the container.

Slide #71
Line art depicting hazardous waste tank storage provisions – 2 feet of freeboard or containment dike)

(Slide 71) Although not generally used in the service shops, open tanks which hold hazardous wastes must meet additional requirements. For example, each must have a minimum of two feet of freeboard, unless the tank is surrounded by a dike, trench overflow tank or other drainage control system.

Ignitable or reactive wastes may be stored in tanks only if treatment or storage conditions are such that the wastes are unignitable or unreactive.

Slide #72
(Photo of shovel, brooms, plastic sheeting, spare drum and absorbent material)

(Slide 72) Facilities must be adequately prepared in the event of an unplanned spill or release of liquid or solid hazardous wastes into the environment. Each shop must be equipped with spill control tools and materials which should include shovels, brooms, plastic sheeting, spare drums and absorbent materials.

Slide #73
(Photo of mounted fire extinguishers)

(Slide 73) Fire control equipment must be available and sufficient aisle space maintained.

Slide #74
(Photo of workman clad in rubber boots and gloves, disposable coveralls and face shield)

(Slide 74) Personal protective clothing and equipment must be on hand. These consist of items such as rubber boots, rubber gloves, disposable coveralls, face shields and respirators.

Slide #75
(Photo of office worker answering phone)

(Slide 75) When hazardous wastes are being handled, there must be immediate access to an alarm or telephone system,

Slide #76
(Photo of employee visually monitoring another employee who is handling a drum filled with hazardous waste)

(Slide 76) either directly or through visual or voice contact with another employee.

Slide #77
(Word Slide)
Emergency Contingency Plan

(Slide 77) A contingency plan must be established to minimize human health and environmental hazards which might result from fires, explosions, natural disasters or other emergency incidents.

Slide #78
(Photo of fire resulting from explosion)

(Slide 78) During such an emergency, hazardous wastes could escape into the air, soil or water and it is necessary to contain, clean, or otherwise cease the uncontrolled release of hazardous materials as soon as possible.

Slide #79
(Word Slide)
Emergency Contingency Plan
"Details specific actions to take in the event of an EMERGENCY"

(Slide 79) This plan details specific actions shop personnel must take in response to an emergency.

Slide #80
(Word Slide)
Contingency Plan
- o Local emergency telephone numbers of:
  - Police
  - Fire Department
  - Hospitals
- o Shop emergency coordinators
- o Evacuation plans
- o Description of alarm systems

(Slide 80) In addition to outlining specific actions necessary during an emergency, the contingency plan must contain local emergency contacts and telephone numbers of police, fire departments and hospitals and also list the names, addresses and telephone numbers of the shop emergency coordinator and his alternates. It should also include evacuation plans and a description of the alarm systems.

Slide #81
(Word Slide)
The Emergency Coordinator is familiar with, and can implement the Contingency Plan

(Slide 81) A designated emergency coordinator who is familiar with, and has the authority to implement a contingency plan, must be on-site or on-call at all times. In the event of an emergency, the contingency plan shall be implemented immediately.

Slide #82
(Word Slide)
The Contingency Plan is:
- o Reviewed annually
- o Revised as required

(Slide 82) This plan must be reviewed annually and revised as required for changes such as new emergency coordinators.

Your shop's specific contingency plan and emergency procedures will be reviewed at the conclusion of this presentation.

Slide #83
(Photo of workman recording notes during inspection of hazardous waste storage containers)

(Slide 83) Each facility which generates hazardous waste is required to have a detailed inspection plan developed and implemented.

Slide #84
(Word Slide)
Inspection Plan
- o Storage areas
- o Containers
- o Tank storage
- o Personal safety equipment
- o Emergency response equipment
- o Spill control equipment

(Slide 84) This plan must document procedures and outline responsibilities for inspecting equipment and areas used to store and handle hazardous wastes.

i

Slide #85
(Word Slide–Build on Slide #84)
Weekly Inspection

(Slide 85) All storage areas, containers, tank storage, personal safety equipment, emergency response equipment and spill control equipment must be inspected weekly. Any faulty equipment or structures must be corrected immediately.

Each service shop which holds an EPA permit for hazardous waste storage over 90 days must prepare weekly inspection reports which must be retained in the shop file for a period of three years.

Slide #86
(Word Slide)
Training Program
Shop personnel must be familiar with:
- o All regulations
- o Take part in annual review

(Slide 86) EPA regulations also require that all service shop personnel complete a training program on hazardous waste control. Shop personnel must be familiar with the regulations and take part in an annual review. It is the intent of this presentation to provide such training, and attendance will be taken to comply with record keeping requirements.

Slide #87
(Word Slide)
Keep on File
- o All operating records and plans
  - – Hazardous waste analysis reports
  - – Inspection reports
  - – Closure plans
  - – Closure cost estimates

(Slide 87) Proper recording and reporting of hazardous waste management activities require that files be established and maintained. RCRA requires shops to retain on file all operating records and plans including hazardous waste analysis reports, inspection reports, training records, manifest records, closure plans and closure cost estimates.

Slide #88
(Word Slide–Build on Slide #87)
- o All required contingency/ emergency activities

(Slide 88) Records must also be kept on all required contingency or emergency activities.

Slide #89
(Word Slide)
Hazardous Waste Reports
- o Submit to state/federal agencies
- o Frequency requirements vary
  - – Quarterly
  - – Once every two years

(Slide 89) Reports of hazardous waste activities must be submitted regularly to state and/or federal environmental agencies. Reporting frequency requirements will vary from state to state and range from quarterly to once every two years.

Slide #90
(Photo of hazardous waste records being transferred to EPA representative)

(Slide 90) All hazardous waste records must be made available to authorized EPA representatives upon request.

Slide #91
(Word Slide)
Internal Hazardous Waste Management
- o Hazardous Waste Analysis Plan
- o Shop Floor Control Plan
- o Contingency Plan
- o Inspection Plan
- o Records and Reports
- o Training Program

(Slide 91) In summary, internal hazardous waste management requirements include the following: A "Hazardous Waste Analysis Plan" which assists in identifying material likely to become a hazardous waste: the establishment of A "Shop Floor Control Plan" which outlines procedures for proper collection, storage and control of wastes classified as hazardous: the Contingency Plan which states in detail actions shop personnel must take in the event of an emergency; an inspection of equipment and hazardous waste storage areas must be made on a weekly basis; and reports must be filed and retained for at least three years. Also, records must be maintained and files established on all operations, reports, inspections, shipments and specified RCRA plans, and all shop personnel must complete a hazardous waste control training program.

Slide #92
(Photo of inspector at dump site inspecting improperly stored wastes)

(Slide 92) Shop personnel should be aware that if hazardous wastes are shipped to an improper disposal facility, General Electric can be held liable for the clean up of the disposal facility at any time in the future. Responsibility for the proper disposal of hazardous wastes rests with the generator, according to current interpretations of law, for an indefinite period—perhaps hundreds of years. Furthermore, an individual who knowingly disposes of hazardous wastes in an improper manner, may be held personally liable and be subject to substantial fines or jail, if convicted.

Slide #93
(Photo of steel drum with proper labels affixed)

(Slide 93) The safe transportation of hazardous wastes requires that each shop package the wastes in accordance with department of transportation (DOT) regulations. The containers must meet DOT specifications and the wastes must be classified according to established DOT descriptions and identification numbers for hazardous materials.

Slide #94
(Close-up photo of hazardous waste label showing DOT material shipping name and identification number)

(Slide 94) Before shipping, the containers must also be marked with the DOT material shipping name, the DOT identification number, and the shipping manifest number. In addition, the container must have a DOT hazardous material classification label.

Slide #95
(Photo of hazardous material classification labels)

(Slide 95) These labels designate the hazardous characteristic of the material; for example, flammable solid, flammable liquid, corrosive, or ORM-E – "other regulated materials, Class E."

Slide #96
(Photo of vehicle with placards affixed)

(Slide 96) Each transporter must have the proper placards for marking the vehicle. If not, the service shop is responsible for providing them.

Slide #97
(Photo of GE vehicle with placards affixed)

(Slide 97) The carrier's company name and address must be visibly identified. If the vehicle is to be loaded with more than one thousand pounds of hazardous material, a placard must be put on all four sides. If there is only one class of materials being shipped, the placard must specify the same hazard class label as displayed on the containers being transported. If, however, there are two or more hazardous classifications, the placard "DANGEROUS" must be displayed.

Slide #98
(Photo of manifest forms)

(Slide 98) A manifest form must be completed for each shipment of hazardous waste. This form will designate a receiving facility that holds an EPA approved permit to receive waste for storage, treatment or disposal.

Slide #99
(Word Slide)
Manifest Form
- o Manifest document number
- o Generator–name, address, telephone
- o Transporter identification
- o Receiving facility–name, address, telephone
- o Description of the waste
- o Total quantity by weight or volume

(Slide 99) The manifest form must carry the manifest document number, the waste generator's name, address, and telephone number, and the EPA identification number. If more than one transporter is to be used, each must be identified in this manner. Included in the manifest must be the name, address and EPA identification number of the receiving facility. A description of the waste and total quantity by units of weight or volume of each container on the vehicle must be described.

Slide #100
(Word Slide)
Hazardous Waste Generator
- o Signs manifest certification
- o Obtains dated signature of transporter
- o Obtains signed copy from receiver
  - Keeps for 3 years

(Slide 100) The hazardous waste generator must sign the manifest certification, obtain the dated signature of the initial transporter, and retain one copy for three years or until a signed copy is received from the facility that received the waste. This signed copy from the receiving facility must then be retained for three years.

Slide #101
(Word Slide)
An exception report is submitted if signed copy is not received within 35 days

(Slide 101) If the signed copy is not received within 35 days of the date the shipment was accepted by the original transporter, the generator must file an exception report with the appropriate EPA regional administrator.

Slide #102
(Word Slide)
Small Quantity Generator Exemption
- o Facilities which generate less than 2,200 pounds in one month

(Slide 102) Some service shops may qualify for small quantity generator exemptions. Facilities which generate less than 2200 pounds in one month do not have to meet some of the federal RCRA requirements.

Slide #103
(Word Slide–Build on Slide #102)
- o States vary
  - – Some permit less
  - – Some permit no exemption

(Slide 103) However, many states have reduced the quantities necessary to qualify, and others do not allow any exemptions at all.

Slide #104
(Word Slide–Build on Slide #103)
- o EPA is proposing reduction to
  - – 220 pounds

(Slide 104) The Federal EPA is proposing that the basis for small quantity exemption be reduced from 2,200 pounds to 220 pounds of hazardous waste generated in one month. Many facilities which are now small quantity generators may lose this exemption in the future.

Slide #105
(Word Slide)
Small Quantity Generator Exemption
- o Requires
  - – Accurate records
  - – Up–to–date records

  To verify quantities generated

(Slide 105) If your shop claims a small quantity generator exemption it is still necessary to maintain accurate, up–to–date records in order to verify the quantities of hazardous wastes actually generated.

Slide #106
(Word Slide)
A Reduction in Waste is a Reduction of Hazardous Waste

(Slide 106) A REDUCTION OF WASTE MEANS A REDUCTION OF HAZARDOUS WASTES. Remember, RCRA regulations control <u>WASTE MATERIALS</u>. Since these materials are being discarded and disposed of, one way to cut costs is to minimize the amount of waste in general. If, for example, paint is used completely the container is not a hazardous waste, but if an inch or more remains, the paint container must be treated as hazardous waste.

Slide #107
(Word Slide)
Proper Hazardous Waste Disposal is
- o Important
- o Costly

(Slide 107) Proper hazardous waste disposal is an important, costly consideration for every General Electric service shop.

Slide #108
(Word Slide–Build on Slide #107)
Therefore:
Follow all state and federal regulations carefully

(Slide 108) Shop personnel must be aware of, and follow, all federal and state regulations designed to safely store, ship and dispose of these wastes.

Slide #109
(Cartoon–RCRA as Superman controlling hazardous wastes to protect the earth's environment)

(Slide 109) The Federal Resource and Recovery Act, or RCRA defines what materials become hazardous waste products and establishes regulations for the safe storage, transportation, treatment and disposal of these wastes.

Slide #110
(Photo of General Electric service shop)

(Slide 100) Each service shop has a Hazardous Waste Management System Manual which explains each plan and defines these regulations in detail.

Slide #111
(Title Slide – Hazardous Waste Control)

(Slide 111) This concludes our Hazardous Waste Control System presentation. Compliance with these procedures and controls will help ensure a clean, healthy environment for everyone.

THE END

HAZARDOUS WASTE

CONTINGENCY PLAN

AND

EMERGENCY PROCEDURES PLAN

FOR

GENERAL ELECTRIC COMPANY
175 Milens Road
Tonawanda, N.Y.

EPA I.D. No: NYD067539940

I. CONTACTS--GENERAL ELECTRIC

A. Emergency Coordinator

Name:	Walter Lukas
Home Address:	354 Stoney Road, Lancaster, N.Y.
Home Phone:	684-0173
Work Phone:	876-1200, Ext. 285

B. Alternate Emergency Coordinator

Name:	Anthony Hejmanowski
Home Address:	39 Chateau Ct., Depew, N.Y.
Home Phone:	683-4245
Work Phone:	876-1200, Ext. 233

C. Shop Manager

Name:	Richard W. Conway
Home Address:	47 Windridge Ct., Williamsville, N.Y
Home Phone:	688-0995
Work Phone:	876-1200, Ext. 231

II. EMERGENCY CONTACTS

A.

Police Department	Phone No. 876-5300
Fire Department	Phone No. 876-1212
Ambulance Service	Phone No. 836-3396
Emergency Pollution Response Unit	Phone No. 284-7113

III. REGULATORY AGENCIES

A. Local

Town of Tonawanda WWPT
Two Mile Creek Road
Tonawanda, New York
Phone No. 716-693-4900

B. State — DEC
600 Delaware Avenue
Buffalo, New York
Phone No. 716-847-4551 or 24 Hr.
Oil & Hazardous Material Spill
notification No. 518-457-7362

C. Federal EPA — U.S. EPA Region II
26 Federal Plaza
New York, N.Y. 10007
Phone No. 212-264-2525

D. Coast Guard — North End Fuhrman Blvd.
Buffalo, New York
Phone No. 716-846-4168 (Days)
Phone No. 716-846-4153 (Nights/
Weekends/Holidays

E. National Response Center — Phone No. 800-424-8802

IV. GENERAL DESCRIPTION OF FACILITIES

A. Type of Manufacturing: Repair of industrial equipment

B. Type of Building: Steel and block construction

C. Number of Buildings: One

D. Location of Plant: 175 Milens Road
Tonawanda, New York 14150

E. Types of Materials Handled: Flammable Liquids, flammable solids, corrosive liquids, corrosive solids, toxic chemicals, PCB's.

F. Previous Emergency Incidents: (Describe briefly any Hazardous Waste spills that occured at this location.

None

G. Potential for Emergency Incidents: (Describe briefly conditions in Hazardous Waste areas that could increase the potential for an incident, e.g. storm sewers, heavy truck traffic, waterways adjoining property).

The possibility of an uncontrolled hazardous waste spill is minimal. All PCB Storage areas are diked and would require a simultaneous tank or container leak and dike failure to allow material to enter storm drains. RCRA hazardous waste is stored in 55 gallon drums and the RCRA hazardous waste storage area is over 200 feet from the nearest storm drain catch basin. All interior facility floor drains discharge through oil water separators into the POTW.

V. EMERGENCY PROCEDURES: The emergency procedures required in the event of a spill, fire, explosion or other incident that could release Hazardous Waste into the air, soil, or surface water are as follows.

A. Area Operator. The Area Operator is the first line of defense in mitigating spills, fires, explosions, etc. The Area Operator is trained to respond to emergencies in his particular area.

In case of an emergency incident, the Area Operator will immediately:

1. Notify the Area Foreman

2. Take action to control or shut down equipment that is contributing to the incident or could possibly contribute to the incident.

3. Contain the emergency incident e.g., use absorbents for spills and portable fire extinguishers for fires.

B. Area Foreman. The Area Foreman will take action to mitigate the incident, evaluate the situation, and call for assistance, if needed. The Area Foreman has been trained to respond to emergency situations in his area.

In case of an emergency incident, the Area Foreman will immediately:

1. Evacuate the area except for personnel performing emergency functions.

2. Notify the Emergency Coordinator.

3. Direct other personnel to the emergency as needed.

C. Emergency Coordinator. The Emergency Coordinator is responsible for coordinating plant-wide response to emergency incidents. The Emergency Coordinator or his alternate is available 24 hours a day, 7 days a week. The Emergency Coordinator is responsible for training plant personnel in all aspects of emergency incidents, e.g., Hazardous Waste spills, fires, explosions, personal injuries, evacuation procedures, and interfacing with police and fire departments, hospitals, and regional emergency response teams.

In case of an emergency incident, the Emergency Coordinator or his alternate will immediately:

1. Notify the fire and emergency response team.

2. Notify the Shop Manager.

3. Notify the proper local, state, and federal agencies, if required.

D. Emergency Response Team. The Emergency Response Team includes personnel who are trained to cope with Hazardous Waste spills, or other Hazardous Waste incidents. They will have available equipment necessary to contain the emergency; e.g., absorbent material, shovels, fire extinguishers, rubber gloves, face masks, etc.

In case of an emergency incident, the Emergency Response team will immediately:

1. Proceed to the emergency site.
2. Take the necessary action to mitigate the emergency.
3. Determine if additional Emergency Services are required.
4. Contain the incident.
5. Clean up the area after the emergency is contained.

VI. AGREEMENTS WITH LOCAL POLICE, FIRE DEPARTMENTS, HOSPITALS AND EMERGENCY RESPONSE CONTRACTORS.

A. Police. Police are available to direct traffic, handle crowds, and provide security services. Police have a copy of the Contingency Plan and Emergency Procedures Plan.

B. Fire Department. The Fire Department will respond to fires and other emergency incidents providing back-up fire protection and rescue services. The Fire Department has a copy of the Contingency Plan and Emergency Procedures Plan.

C Hospital. The hospital is available to provide medical service. The hospital has a copy of the Contingency Plan and Emergency Procedures Plan.

D. Emergency Response Contractor. The following contractor is familiar with the plant and is available to provide 24 hours, 7 days a week, back-up service to plant organizations.

Name: CECOS International
Special Services Division

Address: Niagara Falls, New York

Telephone: 716-284-7113

VII. MEASURES TO PREVENT THE ESCAPE OF HAZARDOUS WASTES INTO THE ENVIRONMENT.

A. Drum Storage Areas

1. All drums are inspected once a week for:
   a. Leaks
   b. To ensure that lids and bungs are in place
   c. To ensure that markings are proper

B. Other Hazardous Waste Facilities

1. PCB storage areas have containment

2. All tanks and PCB articles and curbs are inspected weekly to insure there is no leakage

VIII. EVACUATION PLAN

All personnel will be thoroughly familiar with the alarm system and the evacuation plan. The evacuation plan is posted conspicuously. The evacuation plan should be a block layout of the facility showing all exists, nd preferred exit routes for personnel during any evacuation. (See Exhibit 1).

IX. MINIMUM EMERGENCY EQUIPMENT

A. Personal Protective Equipment Kit (designate location of equipment. (See Attached).
   1. Safety Goggles
   2. Face Shields
   3. Rubber Gloves
   4. Rubber Boots
   5. Respirator
   6. Disposal Coveralls

B. Spill Kit (designate location of equipment) (See Attached)
   1. Empty 55 gallon 17H drums (2)
   2. Absorbant material (enough to absorb 55 gallons of liquid)
   3. Shovels
   4. Rags
   5. Brooms
   6. Plastics

C. Fire Protection
   1. Portable fire extinguishers--designate quantity and general location (e.g. building columns--4 per bay)
   2. Fire hoses and connections (if applicable)

D. Emergency Alarm System

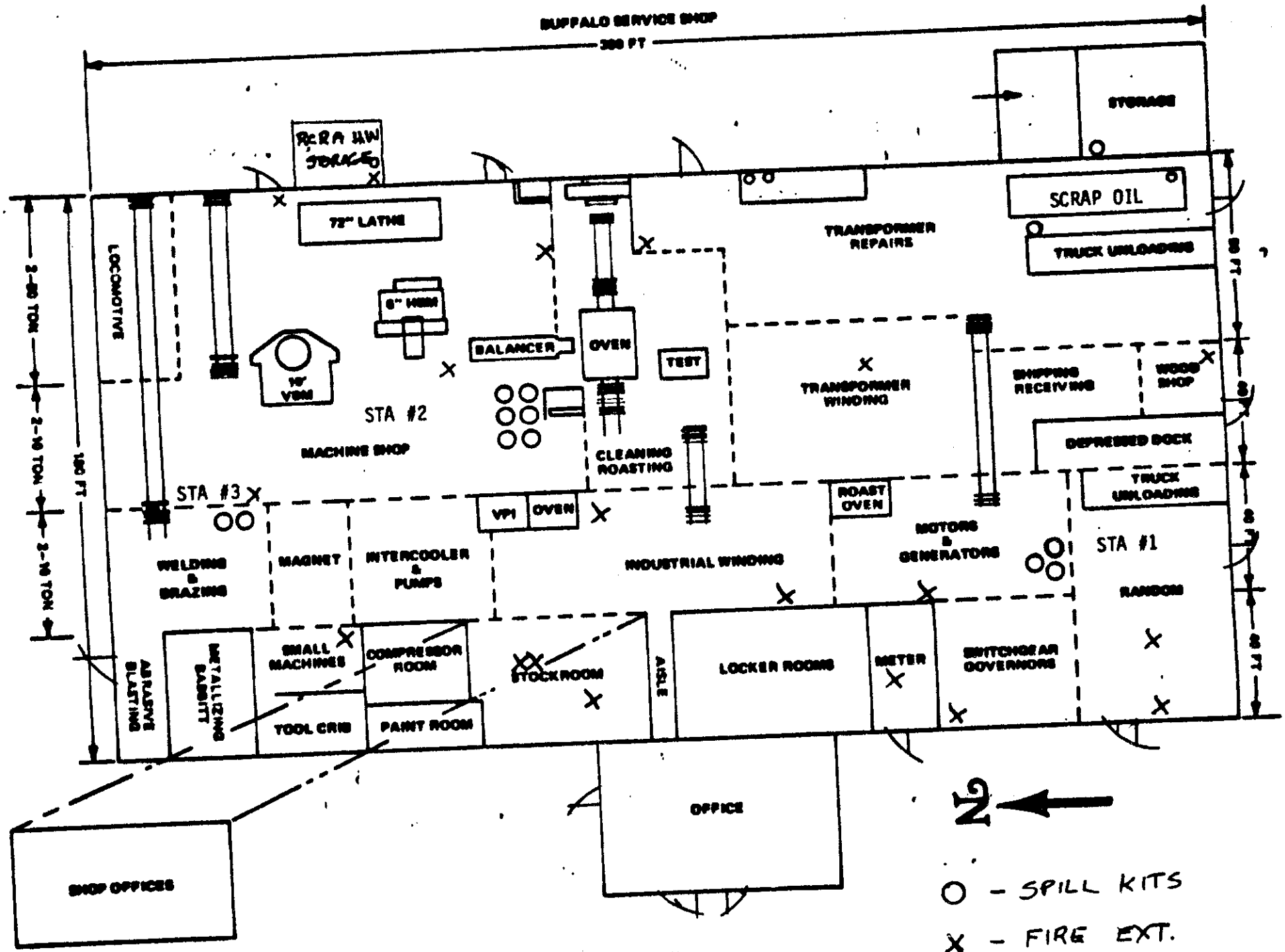
1. Internal alarm - Public address system, telephones
2. External communication - telephone

Prepared by: Anthony Hejmanowski (PCB Specialist) Date: 4-25-86

Approved by: Walter Lukas/AK (Emergency Coordinator) Date: 4/25/86

Approved by: Richard W. Conway (Shop Manager) Date: 4/25/86

HAZARDOUS WASTE C[illegible]ECTION AND STORAGE



SERVICE SHOP EMERGENCY PROCEDURES

A. Emergency Control

1. In the event of an emergency, where it is feasible to remain on the premises without unduly endangering plant personnel, the following procedure will be followed:

   a. An Emergency Control Center will be established at the Electrical Foreman Office.

   b. The Emergency Coordinator will report immediately to the Emergency Control Center.

   c. The Shop Emergency Team will report immediately to the Emergency Control Center.

   d. Maintenance and engineering personnel will report immediately to the Emergency Control Center.

2. In the event of an emergency where it is necessary to evacuate the shop building, the following procedure will be followed:

   a. An alternate Emergency Control Area will be established at the Main Gate.

   b. The Emergency Coordinator will report immediately to the alternative Emergency Control Area where he will designate individuals to contact the fire department, police department, and ambulance services required.

   c. Each foreman and supervisor will be responsible for ensuring that all personnel have vacated their area of responsibility. Then they will report to the Emergency Coordinator at the Emergency Control Area.

   d. The Shop Emergency Team will report immediately to the Emergency Control Area.

   e. Maintenance and engineering personnel will report immediately to the Emergency Control Area.

B. Fire

1. The foreman whose area requires fire department assistance will perform the following activities:

   a. Activate internal alarms.

   b. Call the fire department.

   c. Assign a person to the shop entrance to direct the firemen to the scene of the emergency.

   d. Assign fire-fighting personnel to fight the fire with the use of fire extinguishers and/or fire hoses. Caution should be used not to over commit shop fire-fighting activities to the extent that shop personnel are endangered. If in doubt, evacuate the area and wait for the fire department.

   e. Notify the Emergency Coordinator of the Emergency.

2. The Emergency Coordinator will perform the following activities:

   a. Notify the Shop Emergency Team and take charge of shop fire-fighting activities.

   b. Notify the fire department, police department, ambulance services, and emergency response teams as required.

   c. Assign personnel to isolate electrical power and shop gas and fuel supplies as required.

   d. Assign personnel to move material away from the path of fire or from possible water damage.

   e. Evacuate personnel from areas of potential danger.

   f. After the fire, direct and assign people to secure the area and perform clean-up activities.

C. Civil Disturbance

In the event of a civil disturbance, the Emergency Coordinator will direct the following activities:

1. Ensure that all personnel have vacated areas with external doors or windows.

2. Close and lock all gates providing access to the shop property.

3. Move as much company/customer equipment as practical inside the building.

4. Close and lock all exterior building doors and windows.

5. Activate all exterior alarm systems.

6. Alert shop personnel that an emergency condition exists and that emergency procedures are to be immediately followed.

7. Notify the police department.

D. Bomb Threat

In the event that a bomb threat is received, the following action will be taken:

1. The person receiving the threat will attempt to obtain as much information as possible in accordance with the guidelines detailed in Employee Relations Information letter ERIL 68-19D.

2. The person receiving the threat will immediately notify the shop manager or acting manager.

3. The shop manager or acting manager will notify the police department and in accordance with emergency procedures.

E. Evacuation of Premises

In the event that evacuation of the building becomes necessary, the Emergency Coordinator will direct any of the following activities judged by the nature of the emergency.

1. Nofity the police department of evacuation activity and obtain their assistance in providing the safest route for evacuation from the general area.

2. Activate external alarm systems.

3. Assign personnel to direct traffic to leave Company property in an orderly coordinated manner.

4. Utilize all available shop vehicles and personal cars to provide all personnel with transportation away from Company property.

5. Remove all essential records from the building.

6. Shut down building activities that will not be required.

7. If caretaker activities are required, select at least two volunteers to remain as plant caretakers.

8. Close and lock all perimeter fence gates.

9. Close and lock all exterior doors and windows.

10. Notify the police department of the condition of the premises.

11. Notify the fire department of the condition of the premises.

12. In the event that access to the shop is not available, predetermine a satellite Emergency Control Center.

F. Service Shop Emergency Response Teams

(Requires annual review and revision).

The following individuals are assigned to the shop's Emergency Response Team. These individuals are familiar with the shop's Emergency Procedures and have received training in the use of shop fire-fighting equipmewnt and/or Hazardous Waste spill containment and clean up. Designated individuals are familiar with the shop's utilities and with the proper procedures for shop power isolation and the shutdown of fuel supplies.

Walter Lukas - Emergency Coordinator

Richard W. Conway - Shop Manager

Tony Hejmanowski - PCB Specialist - Alternate Emerg. Coordinator

Henry Haase - Shop Maintenance - Area Operator

Kenneth Berger - Transformer Repair A - Area Operator

Prepared by Walter Lukas
Emergency Coordinator

HAZARDOUS WASTE MANAGEMENT

PERSONNEL

The following Shop personnel are presently assigned duties/responsibilities for proper handling and control of hazardous materials:

HAZARDOUS MATERIAL IDENTIFICATION

Designee	Anthony Hejmanowski	Purchasing
Alternate	Paul Collin	Stockroom Keeper

SHOP HAZARDOUS WASTE CONTROL

Designee	Henry Haase	Transformer B
Alternates	Paul Collin Anthony Hejmanowski	Stockrook Keeper Purchasing

EMERGENCY ACTIVITIES

Emergency Coordinator	Walter Lukas	Electrical Foreman
Shop Manager	Richard Conway	Manager
Alternate Coordinator	Anthony Hejmanowski	Purchasing
Area Foreman	Robert Eisenberger	Foreman
Area Operator	Henry Haase	Transformer B
Area Operator	Kenneth Berger	Transformer B

TRAINING

Designee	Anthony Hejmanowski	Purchasing
Alternate	Walter Lukas	Emergency Coordinator

INSPECTION

Designee	Anthony Hejmanowski	Purchasing
Alternate	Walter Lukas	Electrical Foreman
Designee	Henry Haase	Transformer B
Alternate	James Domske	Transformer A

RECORD KEEPING

Designee	Anthony Hejmanowski	Purchasing

HAZARDOUS WASTE MANAGEMENT

JOB DESCRIPTION

HAZARDOUS MATERIAL IDENTIFICATION

Perform review of stock materials believed to be hazardous

Review purchase of new material.

HAZARDOUS WASTE CONTROL

Properly distribute, collect and have analyzed wastes identified as hazardous.

EMERGENCY ACTIVITIES

Emergency Coordinator and Alternates will be thoroughly familiar with contingency and emergency procedures plans. All duties as defined in plans will be performed by designated personnel.

TRAINING

Designated employees will be responsible for all aspects of training as specified in Shop Training Plan.

INSPECTION

Designated employees will be familiar with inspection plan. Employees will be responsible to perform inspection duties as outlined in plan.

RECORD KEEPING

Designated employees will be repsonsible for all files and reports required by federal, state, local and department regulations.

GENERAL ELECTRIC

APPARATUS AND ENGINEERING SERVICES OPERATIONS
GENERAL ELECTRIC COMPANY • 175 MILENS ROAD • TONAWANDA, NEW YORK 14150 • (716) 876-1900

November 18, 1985

Sheridan Park Fire District #4
738 Sheridan Drive
Tonawanda, NY 14151

Attention: Fire Chief

Gentlemen:

As per New York State Department of Environmental Conservation Publication 6NYCRR, Subpart 373-2, find attached a copy of our Hazardous Waste Contingency and Emergency Procedures Plan.

If you have any questions, please feel free to call.

Sincerely,

Walter Lukas
Emergency Coordinator

WL/met

attachment

GENERAL ELECTRIC

APPARATUS AND ENGINEERING SERVICES OPERATIONS
GENERAL ELECTRIC COMPANY • 175 MILENS ROAD • TONAWANDA, NEW YORK 14150 • (716) 876-1200

November 18, 1985

Town of Tonawanda
1835 Sheridan Drive
Kenmore, NY 14223

Attention: Chief of Police

Gentlemen:

As per New York State Department of Environmental Conservation Publication 6NYCRR, Subpart 373-2, find attached a copy of our Hazardous Waste Contingency and Emergency Procedures Plan.

If you have any questions, please feel free to call.

Sincerely,

Walter Lukas
Emergency Coordinator

WL/met

attachment

GENERAL ELECTRIC

APPARATUS AND ENGINEERING SERVICES OPERATIONS
GENERAL ELECTRIC COMPANY • 175 MILENS ROAD • TONAWANDA, NEW YORK 14150 • (716) 876-1900

November 18, 1985

Kenmore Mercy Hospital
2950 Elmwood Avenue
Kenmore, NY 14227

Attention: Chief of Staff

Gentlemen:

As per New York State Department of Environmental Conservation Publication 6NYCRR, Subpart 373-2, find attached a copy of our Hazardous Waste Contingency and Emergency Procedures Plan.

If you have any questions, please feel free to call.

Sincerely,

Walter Lukas

Walter Lukas
Emergency Coordinator

WL/met

attachment

GENERAL ELECTRIC COMPANY
TONAWANDA, NEW YORK

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

FEBRUARY 1986

MALCOLM PIRNIE, INC.
Environmental Engineers, Scientists and Planners
Buffalo, New York

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

APPENDICES

LIST OF FIGURES

APPROVAL PAGE

MANAGEMENT APPROVAL

General Electric Company
Apparatus & Engineering
Service Division

This Spill Prevention, Control and Countermeasure Plan has the approval of management; management shall provide the manpower, equipment and materials required to expeditiously control and remove any harmful quantity of oil or PCB-contaminated liquid discharged from the facility; and this plan will be implemented as described herein.

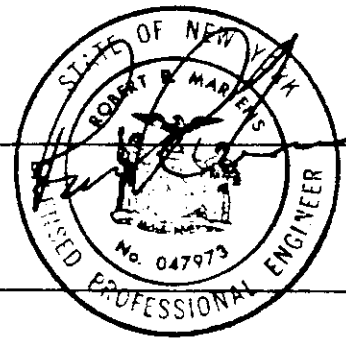
SIGNATURE: Richard W. Conway
Name: Richard Conway
Title: Shop Manager
Date: April 7, 1986

PROFESSIONAL ENGINEERING CERTIFICATION

We hereby certify that we have reviewed this Spill Prevention, Control and Countermeasure Plan, and being familiar with the Federal Regulation 40 CFR, Part 112, do attest that the plan has been prepared in accordance with good engineering practices.

MALCOLM PIRNIE, INC.

SIGNATURE:
Name: Robert R. Martens
Title: Vice President
Date: APRIL 18, 1986



(SEAL)

FOREWORD

This Spill Prevention, Control and Countermeasure (SPCC) Plan has been prepared for the

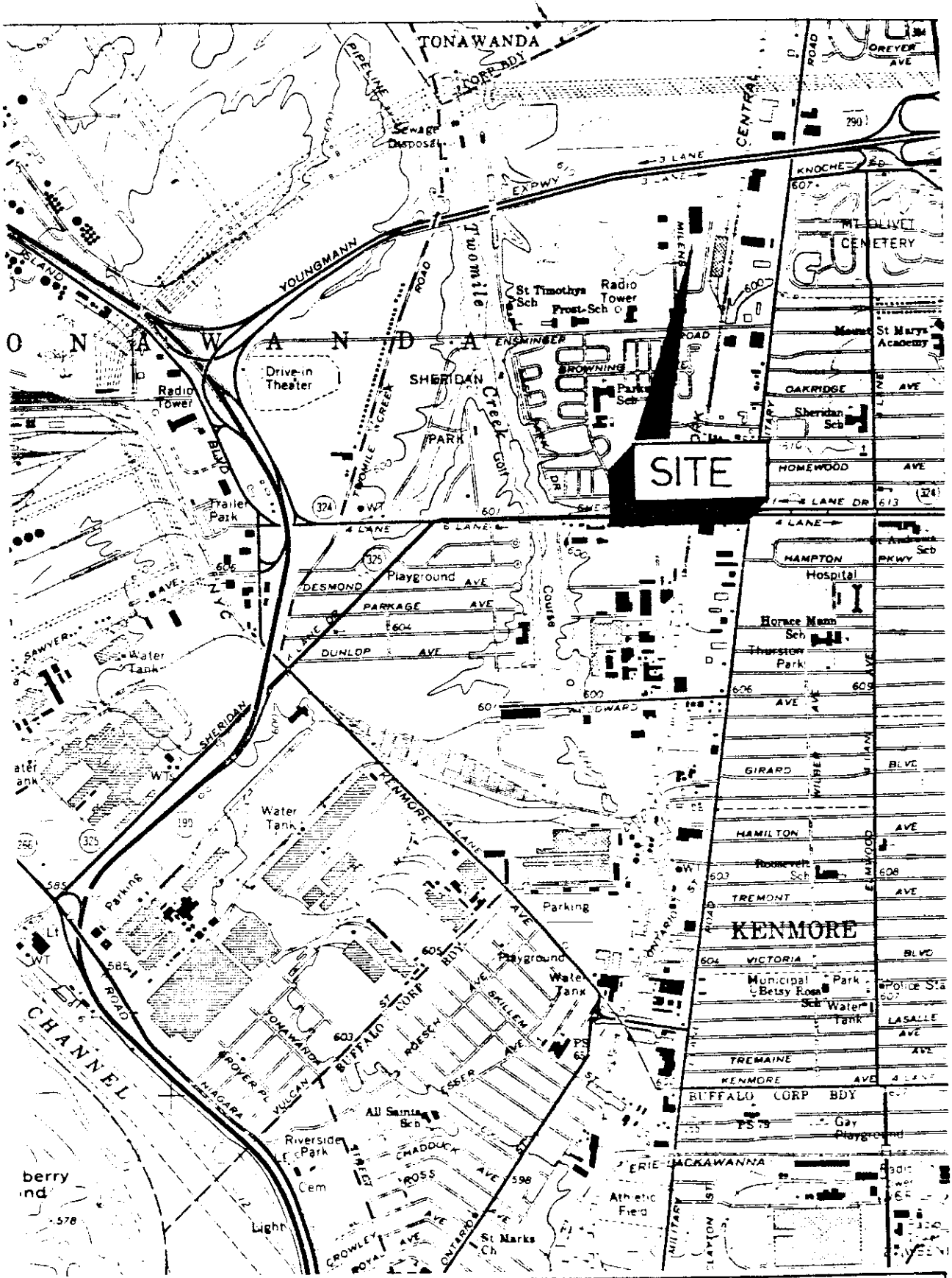
General Electric Company
Apparatus & Engineering Service Division
175 Milens Road
Tonawanda, New York 14150

The property is located within the limits of the Town of Tonawanda in an industrialized area, as shown on Figure 1, Location Map.

The following SPCC Plan has been prepared in accordance with the following Federal and State regulations:

- 40 CFR, Part 112, Oil Pollution Prevention (Appendix C)
- Title 6, NYCRR, Part 373-2.4, Contingency Plan and Emergency Procedures for Hazardous Waste Treatment, Storage and Disposal Facilities (Appendix D)
- 40 CFR, Part 302, Designation, Reportable Quantities and Notification
- Title 6, NYCRR, Part 371, Identification and Listing of Hazardous Wastes
- 40 CFR, Part 264, Subpart D, RCRA Contingency Plans for Hazardous Waste Treatment, Storage and Disposal Facilities

FIGURE 1



GENERAL ELECTRIC CO.
LOCATION MAP

TONAWANDA, NY

FEBRUARY, 1986

1.0 GENERAL INFORMATION

1.1 Description of Facility

The Apparatus and Engineering Service Division of the General Electric Company uses part of their facilities for transferring and storing PCB Oil and wastes. The PCB handling area is limited to the southeast corner of the facility, as shown in the Building Plan in Appendix B.

Presently, there is a PCB work area where PCB Oil is drained from equipment and transferred to 55-gallon drums. The drums are stored in the drum storage area. The drum storage area is contained by a dike and is located in a separate room which is locked.

Other liquids, including oil and kerosene, are used to flush the equipment. These PCB-contaminated liquids are contained and stored in 55-gallon drums in the drum storage area.

The equipment which has been drained and flushed is stored in the PCB work area or in the temporary unit storage area. Uncontaminated waste oil is stored in a 2000-gallon above-ground storage tank. Uncontaminated waste material is stored in drums in the oil storage area. The tank and drums are contained by a dike.

There are two 6000-gallon above-ground storage tanks outside the east wall of the facility. They store uncontaminated 10 CA oil. The tanks are on a concrete pad and are contained by a dike. There is also an outdoor drum storage area which stores 36 (55-gallon) drums. The drums contain paint, varnish and cleaning fluids. The drums are on a concrete pad.

A paved road leads to the outside storage tanks along the east side of the facility; however, the surface area surrounding the secondary containment for outside tanks and drum storage is not paved.

The area surrounding the south wall of the building is a paved parking lot. A storm sewer runs east to west along the south wall, and eventually discharges to Two Mile Creek.

The indoor liquid waste storage facilities will be enlarged. There will be four (4) above-ground storage tanks. Three will store PCB-contaminated material; one will store uncontaminated kerosene, as described in Section 4.7. All of the storage tanks will have piping and pumps to allow transfer of material to and from the tanks. The tanks may be filled or emptied, as appropriate, from an appropriate vehicle.

The PCB work area will be enlarged by providing additional diked area. Also, the outdoor drum storage area will be covered, and the fence will be sided to prevent runoff from entering the area.

1.2 Definitions

HAZARDOUS WASTE - For the purposes of this plan, "hazardous waste" shall have the definition specified in Title 6 NYCRR, Part 371.1(d).

HAZARDOUS WASTE CONSTITUENTS - For the purposes of this plan,"hazardous waste constituents" shall be as designated in Appendix 23 of Title 6 NYCRR, Part 371.

OIL - For the purposes of this plan, "oil" is defined to include oil of any kind or form, including but not limited to petroleum, fuel oil, liquid hydrocarbons, oil refuse and carbon-compound solvents capable of producing a sheen on water.

SPILL EVENT - A "spill event" is a discharge of oil or hazardous substance into or upon the navigable waters of the United States or adjoining shorelines in harmful quantities. For the purposes of this plan, a "spill event" is defined as a release of a reportable quantity of oil, hazardous waste, hazardous waste constituents, or hazardous substances to air, water or land.

REPORTABLE QUANTITY - A "reportable quantity" shall be as defined in 40 CFR Part 302.

PRIMARY CONTAINMENT - "Primary containment" is defined as the spill containment provided by facility equipment itself (viz. tanks, pipelines, feed drums, etc.)

SECONDARY CONTAINMENT - "Secondary containment" is the first level of control in the event of a spill or leak; this can involve dikes (permanent or temporary) and the use of sorbent materials.

HAZARDOUS SUBSTANCE - A "hazardous substance" shall be defined as any substance designated pursuant to 40 CFR 302.4.

1.3 Spill Sources

The five major spill sources at the General Electric shop are as follows:

- Bulk Storage Tanks (above-ground)
- Drum Storage Areas
- PCB Work Area
- Transfer Lines
- Loading/Unloading Facilities

1.3.1 Potential Causes of Spills

The most probable cause of spillage at the above-ground tanks would be overfilling; however, tank rupture or bottom failure are also possibilities. The maximum volume of such a spill would be limited to the capacity of the largest above-ground tank (6000 gallons).

A spill in the drum storage areas or PCB work area could result from container corrosion, puncture, or overturning. Although spill volumes could be variable depending on the number of drums affected, the typical spill volume should be less than or equal to 55 gallons.

Transfer line and/or process equipment failure(s) could result from corrosion, over-pressurization, or mechanical failure. Human error (e.g. opening a wrong valve or unauthorized starting of a pump) could also result in a spill. Potential spill volumes are highly variable.

Tank truck loading/unloading areas are located throughout the facility. Spills can occur at these locations due to overfilling of a tank truck, valve drainage, tank rupture, improper line hook-up or transfer line overpressurization. The potential volume of material spilled is variable but generally not greater than the capacity of any tank truck.

2.0 REPORTING SPILLS

2.1 Reporting To General Electric

Any person observing an imminent or actual emergency situation, including any unplanned sudden or non-sudden release of oil, hazardous waste or hazardous waste constituents on the shop site, will report this occurrence immediately to the Emergency Coordinator.

2.1.1 Emergency Coordinator

Name:	Walter Lukas
Home Address:	354 Stoney Road
Home Phone:	684-0173
Work Phone:	876-1200, Extention 285

2.1.2 Alternate Emergency Coordinator

Name:	Anthony Hejmanowski
Home Address:	39 Chateau Court
Home Phone:	684-4245
Work Phone:	876-1200, Extension 233

2.1.3 Shop Manager

Name:	Richard Conway
Home Address:	47 Windridge Court
Home Phone:	688-0995
Work Phone:	876-1200, Extension 231

2.2 Reporting to Emergency Contacts

Any person observing an actual emergency situation, including the release of oil, hazardous waste, or hazardous waste constituents on the shop site will report this occurrence to the appropriate Emergency Contacts, as follows:

2.2.1 Police Department - Town of Tonawanda
Phone: 876-5300

2.2.2 Fire Department - Town of Tonawanda
Phone: 876-1212

2.2.3 Ambulance Service - Twin City Ambulance
Phone: 836-3396

2.3 Basic Information Required

Any person reporting an actual or imminent emergency situation to the Emergency Coordinator or Emergency Contacts will include the following information:

a. Nature of Emergency
b. Time observed
c. Location
d. Shop sewer, drain or storm sewer involved
e. Material released
f. Probable source
g. Volume and duration

2.4 Reporting to Authorities

If the Emergency Coordinator determines that the facility has had a release which could threaten human health or the environment outside the facility, he must report his findings to the appropriate local authorities, including the Emergency Contacts listed in Section 2.2.

The Emergency Coordinator must also immediately report his findings by telephone as follows:

2.4.1 Local

In the event of a spill into the sewer:

Town of Tonawanda Wastewater Treatment Plant
Two Mile Creek Road
Town of Tonawanda, New York
Phone: 716/693-4900

2.4.2 State

Department of Environmental Conservation
600 Delaware Avenue
Buffalo, New York 14202-1073
Phone: 716/847-4551 or
24-hour Oil & Hazardous Material Spill
Notification No. 518/457-7362

Department of Transportation
Regional Oil Spill Engineer
General W. J. Donovan State Office Building
Buffalo, New York
Phone: 716/847-3213

2.4.3 Federal EPA Regional Administrator

U.S.Environmental Protection Agency, Region II
26 Federal Plaza
New York, New York 10007
Phone: 212/264-2525

2.4.4 Coast Guard

In the event of a spill into a waterway:
North End of Fuhrman Boulevard
Buffalo, New York
Phone: Days - 716/846-4168
Nights/Weekends/Holidays - 716/846-4153

2.4.5 National Response Center

Phone: 800/424-8802

2.5 Spill Information Required

The following information must be included in the report to authorities:

a. Name and telephone number of reporter.
b. Name and address of facility.
c. Exact location of spill in plant.
d. Material spilled.
e. Volume and duration of spill.
f. Time observed.
g. Extent of injuries, if any.
h. The possible hazards to human health, or the environment outside the facility.
i. Actions taken for containment and cleanup.
j. Person to contact on scene.
k. Other agencies notified.

3.0 DUTIES OF EMERGENCY COORDINATOR

At all times there must be at least one employee either on the facility premises or on call with the responsibility for coordinating all emergency response measures.

In addition to the notification of government agencies specified in Section 2.4, the duties of the Emergency Coordinator are defined in 6NYCRR 373-2.4 (included in Appendix D).

It is required that the Emergency Coordinator and his alternates be thoroughly familiar with the content of 6NYCRR 373-2 and this SPCC Plan.

4.0 SPILL PREVENTION

4.1 Above-ground Storage Tanks

Tank Capacity	Material	Location*	Fill Point	Reference
6000 gal.	10 CA oil	Outside, east side	Top	OT-1
6000 gal.	10 CA oil	Outside, east side	Top	OT-2
2000 gal.	Scrap oil	South end, high bay	Top	T-5

* See Building Plan in Appendix B.

4.1.1 Prevention Measures for Outdoor Tanks

In order to prevent oil spills, the following measures have been implemented:

4.1.1.1 The storage tanks are contained by a dike.

4.1.1.2 The tanks are equipped with level gages.

4.1.1.3 All piping will be inspected weekly for corrosion and/or leaks.

4.1.1.4 Storage tanks and dikes will be visually inspected weekly for signs of deterioration and leaks.

4.1.1.5 Rainfall and snowmelt which has accumulated in the diked area will be removed to maintain full capacity of the diked storage volume.

4.1.2 Prevention Measures for Indoor Tanks

In order to prevent oil spills, the following measures have been implemented:

4.1.2.1 The storage tank is contained by a dike.

4.1.2.2 All piping will be inspected weekly for corrosion and leaks.

4.1.2.3 The storage tank and dike will be visually inspected weekly for signs of deterioration and leaks. Inspection will include foundations and supports of tank.

4.1.3 Protection for All Storage Tanks

4.1.3.1 Tanks will be protected from corrosion by maintaining painted or other protective coating.

4.1.3.2 Tanks will be inspected in accordance with Section 7.0.

4.1.4 Spill Potential

The possibility of an uncontrolled spill is minimal since the tanks are diked. Should a tank leak and a dike failure occur simultaneously, oil could flow into storm drains located in the parking lot. Oil entering the storm drains would flow into Two Mile Creek.

4.2 Drum Storage

No. of Drums	Material	Location
75 (Maximum)	PCB or PCB-Contaminated Liquid	South End of Bldg. (See Building Plan Appendix B)

4.2.1 Prevention Measures

To prevent spills, the following measures have been implemented:

4.2.1.1 Storage area is diked. Stored volume will not exceed capacity of dike.

4.2.1.2 Area is enclosed and locked. Only authorized personnel are allowed in storage room.

4.2.1.3 Special drum lifting device is used when moving drums.

4.2.1.4 Inspection aisles are adequate.

4.2.1.5 Spill kits are available.

4.2.1.6 Records are available and up to date.

4.2.1.7 Area will be inspected on weekly basis in accordance with Section 7.0 for

a. Leaks.

b. Lids and bungs in place.

c. Proper markings.

4.2.2 Spill Potential

The possibility of an uncontrolled spill is minimal since the storage area is diked. In the event of a dike failure or vandalism, spilled material could reach the storm drains located in the parking lot, and from this point flow into Two Mile Creek.

4.3 Outdoor Drum Storage

No. of Drums	Material	Location
36	Paint, Varnish, Cleaning Fluid	North of Tanks OT-1 & OT-2 (See Building Plan Appendix B)

4.3.1 Prevention Measures

To prevent spills the following measures have been implemented:

4.3.1.1 The drums are stored on a concrete pad, approximately 11 feet by 32 feet.

4.3.1.2 The area is securely fenced and locked. Only authorized personnel are allowed in outside storage area.

4.3.1.3 Records are available and up to date.

4.3.1.4 Area will be inspected on a weekly basis in accordance with Section 7.0 for leaks, lids and bungs in place, and proper markings.

4.3.2 Spill Potential

The possibility of an uncontrolled spill is minimal since the material is stored in individual drums. The maximum amount of such a spill event would be 55 gallons. The rate of flow would be dependent upon the physical characteristics of the liquid.

4.4 Temporary Container Storage

The facility has three (3) 275-gallon storage tanks which are normally used for field servicing of equipment. On occasion,

one or more of these tanks are used at the facility to store PCBs from equipment undergoing repair. Storage time is normally less than 30 days. When not in field use, these containers are stored in the PCB work area. (See Building Plan in Appendix B).

4.4.1 Prevention Measures

To prevent spills, the following measures have been implemented:

4.4.1.1 The PCB work area is diked. Stored volume will not exceed capacity of dike.

4.4.1.2 The containers have been fitted with a lifting lug for use when moving containers.

4.4.1.3 Inspection aisles are established.

4.4.1.4 Spill kits are available.

4.4.1.5 Records are available and up to date.

4.4.1.6 Area will be inspected on a weekly basis for:

a. Leaks.

b. Proper markings.

c. Buildup of liquids in diked area.

4.4.2 Spill Potential

The possibility of an uncontrolled spill is minimal since the storage area is diked. Given the small quantities of PCBs stored in the area, and the location of the area, it is highly unlikely that spilled materials could reach the storm drains located in the parking lot. In the event that spilled material did reach the storm drains, it would flow into Two Mile Creek.

4.5 Temporary Unit Storage

Units which have been drained of PCB-contaminated material, flushed, and awaiting disposal are sometimes temporarily stored outside the PCB work area. This area is 15 feet by 30 feet and is directly across from the oil storage area. Units are stored only when the PCB work area is crowded.

4.5.1 Prevention Measures

To prevent spills, the following measures have been implemented:

4.5.1.1 Units are drained and flushed before being stored outside a diked area.

4.5.1.2 Spill kits are available.

4.5.1.3 Records are available and up to date.

4.5.1.4 Area will be inspected on a weekly basis for leaks.

4.5.2 Spill Potential

The possibility of an uncontrolled spill is minimal because the units are drained and flushed. Given the small quantities of liquid which could spill, and the location of the area, it is unlikely that spilled materials could reach the storm drains in the parking lot.

4.6 In-ground Storage Tank

A 2000-gallon carbon steel tank just south of the outdoor 10 CA oil tanks is no longer in use. The tank has been drained, flushed, and sealed off. It is scheduled to be removed in 1986.

4.7 Additional Facilities - Above-ground Indoor Storage Tanks

Four (4) new storage tanks and associated pumps and piping will be installed at the General Electric facility.

Tank Capacity	Material	Fill Point	Reference
5000 gal.	Pyranol, PCB $\geq$ 25,000 ppm	Top	T-1
5000 gal.	10 CA Oil, PCB $<$ 25,000 ppm	Top	T-2
3000 gal.	Waste Kerosene w/PCBs	Top	T-3
1000 gal.	Kerosene	Tank Fitting	T-4

The tanks will be located in the Southeast corner of the shop, as shown in the Building Plan in Appendix B.

4.7.1 Prevention Measures for Indoor Tanks

In order to prevent spills of oil, kerosene or hazardous substances the following measures will be implemented:

4.7.1.1 Spill Control

a. All storage tanks are contained by dikes.

b. Tanks T-1, T-2, T-3 and T-4 are equipped with level detectors.

c. All piping hangs over diked areas.

d. All piping will be inspected weekly for corrosion and leaks.

e. Storage tanks and dikes will be visually inspected weekly for signs of deterioration and leaks. Inspection will include foundations and supports of tanks.

f. The pumps for tanks T-1, T-2, T-3 and T-4 are provided with pressure relief discharging back to pump suction in the event of blockage in the piping.

g. Tanks T-1 and T-2 are connected to each other with an overflow pipe. In the event of a system failure in which one of the tanks would overfill, waste liquid would discharge to the adjacent tank.

h. Tanks T-3 and T-4 are each equipped with a normally closed, remotely activated valve to provide for quick cutoff of flow in the event of fire in the vicinity of the tanks.

4.7.2 Protection For Storage Tanks

4.7.2.1 Tanks will be protected from corrosion by maintaining painted or other protective coating.

4.7.2.2 Tanks will be inspected in accordance with Section 7.0.

4.7.3 Spill Potential

The possibility of an uncontrolled spill is minimal since the tanks are diked. Should a tank leak and a dike failure occur simultaneously, oil could flow into storm drains located in the parking lot. Oil entering storm drains would flow into Two Mile Creek.

4.8 Additional Facilities - Expanded PCB Work Area

The PCB work area referred to in Section 4.4 will be enlarged by increasing the diked area. This area is shown on the Building Plan in Appendix B. The control measures listed in Section 4.4.1 will be implemented in the expanded area to prevent spills.

4.9 Additional Facilities - Outdoor Drum Storage Area

The outdoor drum storage area will be contained and protected from runoff. The perimeter of the concrete pad will be diked. A roof will be erected over the area, and the fence will be sided so that runoff will drain outside of the contained area.

5.0 SECURITY

In order to prevent spills that would result from accident or vandalism on the Shop site, the following measures are taken:

a. The master flow and drain valves and any other valves that will permit direct outward flow of a tank's contents to the surface are securely locked in the closed position when in non-operating status.

b. The starter control on all oil/PCB pumps is locked in the "OFF" position or located at a site accessible only to authorized personnel when the pumps are in a non-operating status.

c. The loading-unloading connections of oil/PCB pipelines is securely capped or blank-flanged when not in service or on standby service for an extended time.

d. The Facility is fully fenced. Entrance gates are locked when the facility is closed.

e. Facility lighting is commensurate with the type and location of the facility. Lighting is of sufficient capacity to ensure adequate security and safe operations, considering discovery of spills occurring during hours of darkness and prevention of spills occurring through acts of vandalism.

6.0 SPILL CONTROL AND COUNTERMEASURES

6.1 Small Spills

6.1.1 A spill is considered small if it does not meet the definition of a "spill event".

6.1.2 Immediately upon the detection of a small spill event, the following response shall be implemented to ensure that oil or PCB-contaminated liquid is not discharged to the environment:

6.1.2.1 Identify and locate source of spill by inspecting tank, piping and valves for leakage or rupture.

6.1.2.2 Limit discharge of oil or PCB-contaminated liquid, if possible, by closing discharge valves on tanks, shutting off power to pump, or other measures as necessary.

6.1.2.3 Report spill to supervisor.

6.1.2.4 Begin clean-up.

a. All employees involved in the clean-up shall be required to wear protective clothing as specified in Section 11.1.

b. Arrange valves on PCB work area pump discharge to pump contents of diked area into one of the waste storage tanks. If these pumps cannot be used, use a portable pump. If the storage tanks are ruptured, pump spilled material into properly labeled 55-gallon drums for temporary storage. In order to avoid possible contamination of the outside surface of the 55-gallon drums, it may be necessary to transfer the liquid to drums while they are located outside the diked area.

c. After the bulk liquid is pumped out, apply available absorbent materials. Sufficient quantities of absorbent material shall be kept in the Shop to be used in the event of a small spill. Absorbent material shall be spread over the spilled oil/PCB in sufficient quantity to absorb the material.

d. Sweep absorbent material toward the center of the spill, keeping broom dry. DO NOT step on spilled material. Pick up wet material with shovel and place in a properly labeled 55-gallon drum. Do not put waste absorbent material into same 55-gallon drum as bulk liquid material. Repeat application of absorbent, sweeping, etc. until spill is cleaned up. At no time will oil or PCBs be washed down any drain.

e. Clean up and decontaminate spill control equipment by swabbing with kerosene. Place all equipment and properly labeled 55-gallon drums with contaminated liquids or absorbent materials in their proper locations and request replacement of any materials used to clean up spill. Place all contaminated protective clothing in separate, labeled 55-gallon drum and request replacement.

6.2 Large Spills

6.2.1 A large spill is a "spill event" as defined in Section 1.2. In the event of a large spill, action shall be taken to remove or control the material, if possible. Such action should occur after notification of the responsible agencies (Section 2.0) and with their full concurrence.

6.2.2 Immediately upon the detection of a large spill, perform the following:

6.2.2.1 Identify and locate source of spill.

6.2.2.2 Contain the spill by placing:

a. Dams or dikes of sawdust, soil, sandbags, etc. to stop spill from spreading.

b. Any available absorbent materials maintained nearby (oil-absorbent granuals or pads, etc.).

c. Mats (rubber, plastic, etc.) over catchbasin grate(s) to ensure that any spill will not enter storm drains.

6.2.3 Report spills to supervisor.

6.2.4 Begin clean-up as outlined in Section 6.1.2.4.

6.2.5 If a spill should occur that requires clean-up action beyond the capabilities of the Shop personnel, the services of a reputable spill removal contractor will be engaged. Contractors in the Western New York area include:

Name of Firm:	CECOS INTERNATIONAL, INC.
Address:	2321 Kenmore Avenue Buffalo, New York
Telephone:	873-4200
Name:	Mobil Industrial Services
Address:	190 Oliver St. North Tonawanda, New York
Telephone:	693-2274 800/255-2900

6.3 Notification

6.3.1 Emergency Arrangements with Local Authorities

In the event of a spill which has affected or threatens human health or the environment, the Emergency Coordinator will call upon local authorities for assistance, if necessary. Arrangements to familiarize local police, fire and hospitals with this SPCC Plan and the materials used and stored at the General Electric facility in Tonawanda have been made.

6.3.1.1 Hazardous Waste Contingency and Emergency Procedures Plan - Copies of this plan have been given to:

a. Town of Tonawanda Police Department
b. Town of Tonawanda Fire Department
c. Kenmore Mercy Hospital

6.3.1.2 Hazardous Material Report Form - This form has been given to the Town of Tonawanda Fire Department. Revised forms will be given to the Fire Department as conditions change at the Facility.

6.3.2 Notification of Authorities

The Emergency Coordinator shall notify the necessary authorities by telephone, radio telecommunication or other similar means of rapid communication. The discharge must be reported within 24 hours.

6.3.3 On-Scene Coordinator

Simultaneous with proper notification, the spill must be contained and cleaned up as rapidly as circumstances permit. Small spills may be handled by General Electric Company personnel. Large spills, however, may require the services of a professional oil clean-up contractor. Use of dispersants, sinking agents, emulsifiers,etc. is prohibited. If the proper steps are not taken to promptly remove any spill for which General Electric Company is responsible, the Federal Government is authorized by law to remove or arrange for the removal of such a discharge from the waters of the United States. With notification, a Federal "On-Scene Coordinator" (OSC) shall investigate the reported spill. If the appropriate action is being taken, the OSC shall monitor and provide assistance as required. If the appropriate containment or clean-up action is not being taken, the OSC will take control of the response activity. The cost of this clean-up will be charged to the party responsible for the spill.

6.3.4 Disposal of Spilled Material

Once a spill has been cleaned up, disposal of the spilled oil and/or PCB-contaminated materials must be performed in accordance with all applicable Local, State and Federal regulations. Disposal will be addressed at that time, and will depend upon the volume and material of the spill on a case-by-case basis. The New York State Department of Environmental Conservation (NYSDEC) must be contacted for the approval of a site prior to disposal of any waste material to ensure that a proper location is chosen, and the disposal method used is in compliance with applicable regulations.

6.3.5 Spill Event Record

After a spill has been properly cleaned up, a Spill Event Record will be completed, using the format of Appendix A, Form 1, Spill Event Record. Completed copies of this form shall be kept on file with this SPCC Plan.

6.3.6 Multiple Spill Events

Should this facility have one Spill Event of more than 1000 gallons, or two Spill Events within any 12-month period, General Electric Company is required to submit this Plan to the EPA Regional Administrator within sixty (60) days of the occurrence, in the manner prescribed by 40 CFR 112.4(A). A second complete copy of the information provided the Regional Administrator will be sent at the same time to the NYSDEC, Albany Office.

7.0 INSPECTION AND RECORDS

In addition to keeping records of all discharges from diked areas, records will also be kept of maintenance inspections. Maintenance inspections will be made by a competent person and will be more comprehensive than observations made by operators in their routine activities.

7.1 Daily Inspections

The following inspections will be performed at least once each operating day using Form 2 of Appendix A, Daily Inspection Report, and will include, but not be limited to, the following:

7.1.1 Above-ground Storage Tanks

Inspect the discharge control equipment (pumps, piping and tanks) to ensure that it is not leaking. Determine the level of liquid in each tank.

7.2 Weekly Inspections

The following inspections will be performed at least once per week using Form 3 of Appendix A, and will include, but not be limited to, the following:

7.2.1 Drainage

Diked areas and storage areas will be inspected for accumulation of oil/PCBs that may have escaped from small leaks. Any escaped oil/PCBs will be collected and returned to waste storage tanks or drums.

7.2.2 Inspection of Above-ground Storage Tanks

Storage tanks will be visually inspected for signs of deterioration or leaks which might cause a spill. Such inspection will include the foundations and support of tanks that are above the surface of the ground.

7.2.3 Inspection of Drum Storage Areas

Both indoor and outdoor drum storage areas will be visually inspected for signs of leakage. Inspection will

verify the integrity of the drums (no ruptures or leaking bungs) and an orderly arrangement of the area to prevent accidents in handling.

7.2.4 Inspection of Temporary Container Storage

Temporary Container Storage will be visually inspected for signs of leakage. Inspections will verify the integrity of the containers and any PCB-containing equipment in the area.

7.2.5 Facility Transfer Operations

All areas of oil/PCB transfer including but not limited to tank fill points, transformer fill points, and waste oil/PCB drainage areas, will be inspected to insure the integrity of all above-ground valves, pipelines, flange points, drip pans, pipe supports, etc.

7.3 Annual Inspection

The following inspections will be performed at least once per year using Form 4 of Appendix A, and will include the following:

7.3.1 Above-ground Storage Tanks

All above-ground tanks will be thoroughly inspected. A detailed inspection should include an examination of the entire tank for:

a. Rust or other physical deterioration.
b. Leakage and/or accumulation of oil within diked area.
c. Settlement, cracking and/or general deterioration of the diked area foundation and curbing.
d. Immediate steps must be taken to correct any of these deficiencies as soon as they are discovered, including replacement or repair of tanks and piping, etc., as required.

7.3.2 Temporary Storage Containers

The storage containers will be thoroughly inspected once per year. A detailed inspection should include an

examination of the entire container for signs of corrosion, paint loss, leaking, proper marking, etc.

7.3.3 Records of all yearly inspections shall be made and kept on file with this SPCC Plan for a minimum of three (3) years.

7.4 Air Testing of Tanks

At least once every five (5) years, above-ground storage tanks will be checked for leakage by using low pressure air testing. Records of all inspections shall be kept on file with this SPCC Plan.

8.0 PERSONNEL TRAINING

General Electric Co. will continue to instruct and train personnel in proper PCB storage procedures, and methods of spill prevention.

8.1 Operation

No person will be allowed to operate the PCB storage equipment without supervision until he or she has demonstrated an ability to operate such equipment in the prescribed manner.

8.2 Meetings

Meetings will be held between the Shop Manager or designated employee in charge of the spill prevention and control, and other employees at the General Electric Co. at regular intervals frequent enough to assure an adequate understanding of this SPCC plan, but at intervals not to exceed one (1) year. The date of these meetings shall be recorded. (Refer to Appendix A, Form 5). At these meetings, the agenda should include:

8.2.1 A discussion of known spill events and/or failures, malfunctioning components, and potential spill sources.

8.2.2 A briefing of recently developed precautionary or response measures and/or record-keeping procedures.

8.2.3 A brief review of the following points such that an employee can demonstrate competency:

a. The proper operating procedures for the PCB liquid waste storage facilities.
b. The nature of the materials being handled and potential health hazards.
c. Capacities of the storage tanks.
d. Location and operation of all safety equipment.
e. Location and operation of all spill response materials.
f. Spill response procedures outlined in this SPCC Plan.

9.0 DISTRIBUTION OF SPCC PLAN

A copy of the Plan will be maintained at the Facility, and will be available to Regulatory Agencies upon their request.

10.0 REVIEW AND AMENDMENT

The SPCC Plan must be reviewed and amended, as required, whenever one or more of the following conditions occur:

a. Applicable regulations are revised.

b. The Plan fails to result in satisfactory response to an emergency.

c. The shop changes in a way that increases the potential for an emergency or changes the response necessary in an emergency.

d. The list of emergency coordinators changes.

e. The list of required emergency equipment changes.

f. Three (3) years have elapsed since the previous review. The Plan will be amended as a result of this review to include more effective Prevention and Control technology if such technology will significantly reduce the likelihood of a spill from the Shop, and if such technology has been field-proven at the time of the review.

11.0 EMERGENCY EQUIPMENT

The shop has the following minimum emergency equipment available for protection of the personnel, facilities and the environment, in the event of a hazardous waste emergency. The location of the equipment is shown on the Building Plan in Appendix B. Additional Spill Kits and Personal Protective Equipment kits will be provided when the additional facilities are in place.

11.1 Personal Protective Equipment Kit

a. Safety goggles
b. Face shields
c. Rubber gloves
d. Rubber boots
e. Respirator
f. Disposable coveralls (Saranex-coated Tyvex)

11.2 Spill Kit

a. Empty 55-gallon drums (2)
b. Absorbent material - enough to absorb 55 gallons of liquid.
c. Shovels (2)
d. Rags
e. Brooms
f. Plastic Sheets
g. Rubber or Plastic mats (4 ft. x 4 ft.)

11.3 Fire Protection

a. Water-type extinguisher (portable)
b. Foam-type extinguishers (portable)

11.4 Portable Pump - Suitable for use with stored liquids.

12.0 PREVIOUS SPILL EVENTS

There have been no spill events at the General Electric Facility in the past twelve (12) months.

APPENDIX A

RECORDS AND REPORT FORMS

FORM 1

SPILL EVENT RECORD

Date of Event:

Time:

Environment Polluted, or Spill Contained on Site:

Cause of Spill:

Corrective Actions and/or Countermeasures taken; tank or equipment repaired:

Additional preventive measures taken, if any, to minimize possibility of recurrence:

_____

Emergency Coordinator

FORM 2
DAILY INSPECTION REPORT

DATE: _____ INSPECTOR: _____

TANK	CAPACITY gal.	MATERIAL	VOLUME gal.	NOTES
OT-1	6000	10 CA Oil		
OT-2	6000	10 CA Oil		
T-1	5000	Pyranol PCB>25000 PPM		
T-2	5000	10 CA Oil PCB<25000 PPM		
T-3	3000	Waste Kerosene with PCBs		
T-4	1000	Kerosene		
T-5	2000	Scrap Oil		

FORM 3

WEEKLY INSPECTION REPORT

DATE: _____ INSPECTOR: _____

TANK	MATERIAL	SIGNS OF DETERIORATION	LEAKS YES/NO	CONDITION OF FOUNDATIONS/SUPPORTS	NOTES
OT-1	10 CA Oil				
OT-2	10 CA Oil				
T-1	Pyranol PCB>25,000 PPM				
T-2	10 CA Oil PCB<25,000 PPM				
T-3	Waste Kerosene with PCBs				
T-4	Kerosene				
T-5	Scrap Oil				

DIKED AREAS	LEAKS	CONDITION OF DRUMS			NOTES
	Location	Ruptures	Leaking Bungs	Arrangement	
T-1 & T-2					
T-3 & T-4					
OT-1 & OT-2					
PCB Storage Area					
PCB Work Area					
Outdoor Storage Area					

FORM 3 (continued)

WEEKLY INSPECTION REPORT

DATE: _____ INSPECTOR: _____

CONDITION OF ASSOCIATED EQUIPMENT

1. PUMPS

2. VALVES

3. VENT

4. PIPING

5. PIPE SUPPORTS

6. TANK FILL LOCATIONS

7. TANK DRAIN LOCATIONS

8. DRIP PANS

FORM 4

ANNUAL INSPECTION REPORT

An authorized employee shall make a visual inspection of each of the storage tanks on an ANNUAL basis and complete this report.

Tank/ Storage Container	Liquid Depth	Rust Spots Yes/No	Air Pressure Yes/No	Foundation Cracks or Settlement Yes/No	Leakage Yes/No	Inspected by (initials)	Date	NOTES

FORM 5

RECORD OF SPILL SAFETY MEETING

SUPERVISOR: _____

DATE: _____

TIME STARTED: _____ ENDED: _____

POINTS DISCUSSED; COMMENTS

A. Known spill events or failures.

B. Malfunctioning equipment, potential spill sources.

C. Recent precautionary developments.

POINTS REVIEWED; COMMENTS

A. Products handled:

B. System:

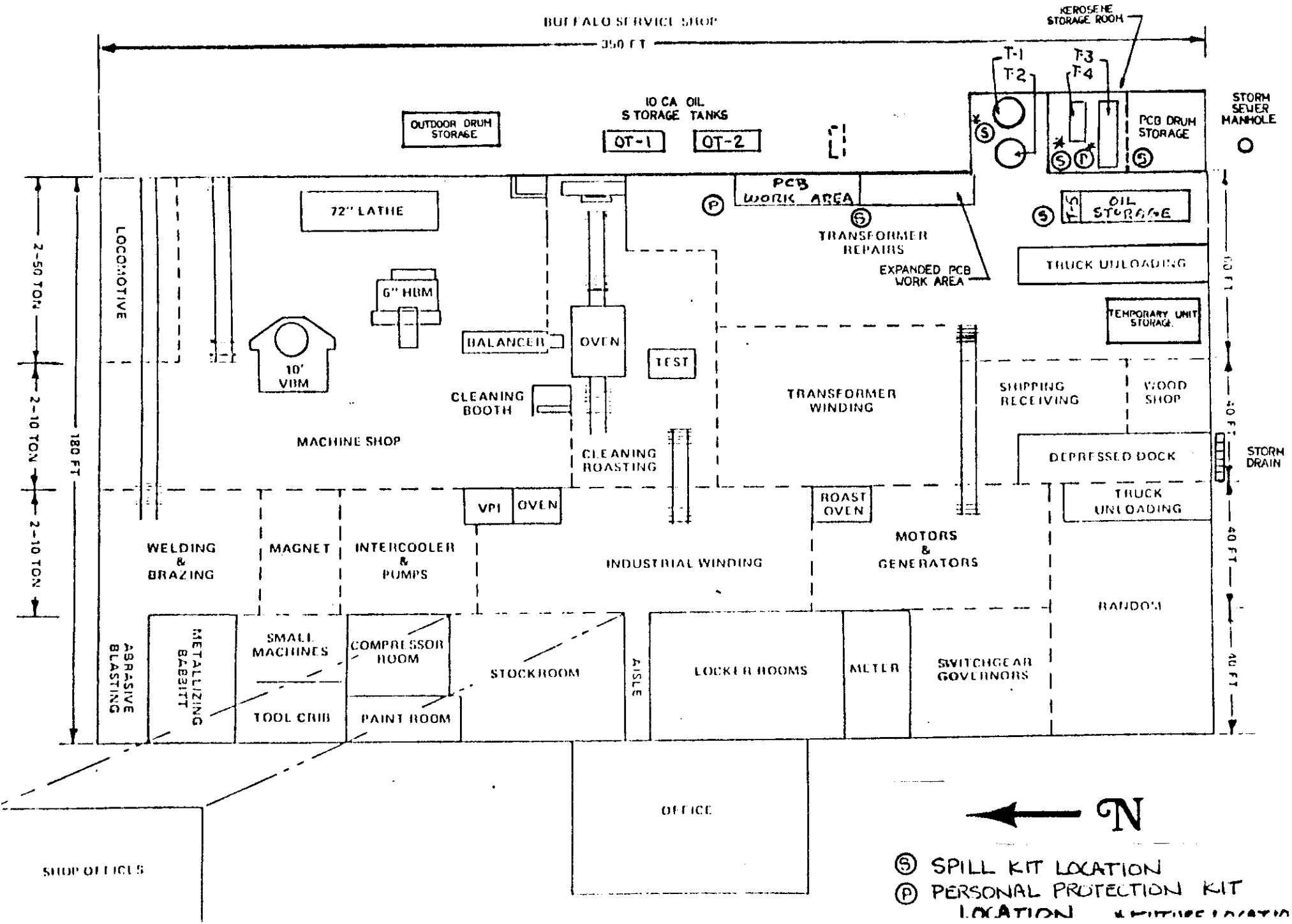
C. Safety Equipment:

D. Spill Containment Methods and Plan:

E. Other:

APPENDIX B

BUILDING PLANS


BUFFALO SERVICE SHOP
350 FT
KEROSENE STORAGE ROOM
T-1
T-2
T-3
T-4
STORM SEWER MANHOLE
OUTDOOR DRUM STORAGE
10 CA OIL STORAGE TANKS
OT-1
OT-2
PCB DRUM STORAGE
PCB WORK AREA
TRANSFORMER REPAIRS
EXPANDED PCB WORK AREA
OIL STORAGE
TRUCK UNLOADING
TEMPORARY UNIT STORAGE
72" LATHE
6" HBM
10' VBM
BALANCER
OVEN
TEST
CLEANING BOOTH
MACHINE SHOP
CLEANING ROASTING
TRANSFORMER WINDING
SHIPPING RECEIVING
WOOD SHOP
DEPRESSED DOCK
STORM DRAIN
TRUCK UNLOADING
VPI
OVEN
ROAST OVEN
MOTORS & GENERATORS
INDUSTRIAL WINDING
RANDOM
WELDING & BRAZING
MAGNET
INTERCOOLER & PUMPS
LOCOMOTIVE
2-50 TON
2-10 TON
2-10 TON
180 FT
40 FT
40 FT
40 FT
ABRASIVE BLASTING
METALLIZING BABBITT
SMALL MACHINES
TOOL CRIB
COMPRESSOR ROOM
PAINT ROOM
STOCKROOM
AISLE
LOCKER ROOMS
METER
SWITCHGEAR GOVERNORS
OFFICE
SHOP OFFICES
N
S SPILL KIT LOCATION
P PERSONAL PROTECTION KIT LOCATION

APPENDIX C

40 CFR, PART 112

ENVIRONMENTAL PROTECTION AGENCY REGULATIONS ON OIL POLLUTION PREVENTION

(40 CFR 112; 38 FR 34164, December 11, 1973; Amended by 39 FR 31602, August 29, 1974; 41 FR 12657, March 26, 1976)

PART 112—OIL POLLUTION PREVENTION

Non-transportation Related Onshore and Offshore Facilities

AUTHORITY: Secs. 311(j)(1)(C), 311(j)(2), 501(a), Federal Water Pollution Control Act (Sec. 2, Pub. L. 92-500, 86 Stat. 816 et seq. (33 U.S.C. 1251 et seq.)); Sec. 4(b), Pub. L. 92-500, 86 Stat. 897; 5 U.S.C. Reorg. Plan of 1970 No. 3 (1970), 35 FR 15623, 3 CFR 1966-1970 Comp.; E.O. 11735, 38 FR 21243, 3 CFR.

§ 112.1 General applicability.

(a) This part establishes procedures, methods and equipment and other requirements for equipment to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable waters of the United States or adjoining shorelines.

(b) Except as provided in paragraph (d) of this section, this part applies to owners or operators of non-transportation-related onshore and offshore facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing or consuming oil and oil products, and which, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in Part 110 of this chapter, into or upon the navigable waters of the United States or adjoining shorelines.

(c) As provided in sec. 313 (86 Stat. 875) departments, agencies, and instrumentalities of the Federal government are subject to these regulations to the same extent as any person, except for the provisions of § 112.6.

(d) This part does not apply to:

(1) Facilities, equipment or operations which are not subject to the jurisdiction of the Environmental Protection Agency, as follows:

(A) onshore and offshore facilities, which, due to their location, could not reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines. This determination shall be based solely upon a consideration of the geographical, locational aspects of the facility (such as proximity to navigable waters or adjoining shorelines, land contour, drainage, etc.) and shall exclude consideration of manmade features such as dikes, equipment or other structures which may serve to restrain, hinder, contain, or otherwise prevent a discharge of oil from reaching navigable waters of the United States or adjoining shorelines; and

(B) equipment or operations of vessels or transportation-related onshore and offshore facilities which are subject to authority and control of the Department of Transportation, as defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, 36 FR 24000.

(2) those facilities which, although otherwise subject to the jurisdiction of the Environmental Protection Agency, meet both of the following requirements:

(A) the underground buried storage capacity of the facility is 42,000 gallons or less of oil, and

(B) the storage capacity, which is not buried, of the facility is 1,320 gallons or less of oil, provided no single container has a capacity in excess of 660 gallons.

[41 FR 12657, March 26, 1976]

(e) This part provides for the preparation and implementation of Spill Prevention Control and Countermeasure Plans prepared in accordance with § 112.7, designed to complement existing laws, regulations, rules, standards, policies and procedures pertaining to safety standards, fire prevention and pollution prevention rules, so as to form a comprehensive balanced Federal/State spill prevention program to minimize the potential for oil discharges. Compliance with this part does not in any way relieve the owner or operator of an onshore or an offshore facility from compliance with other Federal, State or local laws.

§ 112.2 Definitions.

For the purposes of this part:

(a) "Oil" means oil of any kind or in any form, including, but not limited to petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil.

(b) "Discharge" includes but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping. For purposes of this part, the term "discharge" shall not include any discharge of oil which is authorized by a permit issued pursuant to Section 13 of the River and Harbor Act of 1899 (30 Stat. 1121, 33 U.S.C. 407), or Sections 402 or 405 of the FWPCA Amendments of 1972 (86 Stat. 816 et seq., 33 U.S.C. 1251 et seq.).

(c) "Onshore facility" means any facility of any kind located in, on, or under any land within the United States, other than submerged lands, which is not a transportation-related facility.

(d) "Offshore facility" means any facility of any kind located in, on, or under any of the navigable waters of the United States, which is not a transportation-related facility.

(e) "Owner or operator" means any person owning or operating an onshore facility or an offshore facility, and in the case of any abandoned offshore facility, the person who owned or operated such facility immediately prior to such abandonment.

(f) "Person" includes an individual, firm, corporation, association, and a partnership.

(g) "Regional Administrator", means the Regional Administrator of the Environmental Protection Agency, or his designee, in and for the Region in which the facility is located.

(h) "Transportation-related" and "non-transportation-related" as applied to an onshore or offshore facility, are defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, 36 FR 24080.

(i) "Spill event" means a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines in harmful quantities, as defined at 40 CFR Part 110.

(j) "United States" means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Canal Zone, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands.

(k) The term "navigable waters" of the United States means "navigable waters" as defined in section 502(7) of the FWPCA, and includes:

(1) all navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA (Pub. L. 92-500), and tributaries of such waters;

(2) interstate waters;

(3) intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and

(4) intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

(l) "Vessel" means every description of watercraft or other artificial contriv-

ance used, or capable of being used as a means of transportation on water, other than a public vessel.

§ 112.3 Requirements for preparation and implementation of Spill Prevention Control and Countermeasure Plans.

(a) Owners or operators of onshore and offshore facilities in operation on or before the effective date of this part that have discharged or, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare a Spill Prevention Control and Countermeasure Plan (hereinafter "SPCC Plan"), in writing and in accordance with section 112.7. Except as provided for in paragraph (f) of this section, such SPCC Plan shall be prepared within six months after the effective date of this part and shall be fully implemented as soon as possible, but not later than one year after the effective date of this part.

[41 FR 12657, March 26, 1976]

(b) Owners or operators of onshore and offshore facilities that become operational after the effective date of this part, and that have discharged or could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare an SPCC Plan in accordance with § 112.7. Except as provided for in paragraph (f) of this section, such SPCC Plan shall be prepared within six months after the date such facility begins operations and shall be fully implemented as soon as possible, but not later than one year after such facility begins operations.

(c) Owners or operators of onshore and offshore mobile or portable facilities, such as onshore drilling or workover rigs, barge mounted offshore drilling or workover rigs, and portable fueling facilities shall prepare and implement an SPCC Plan as required by paragraphs (a), (b) and (d) of this section. The owners or operators of such facility need not prepare a new SPCC Plan each time the facility is moved to a new site. The SPCC Plan may be a general plan, prepared in accordance with section 112.7, using good engineering practice. When the mobile or portable facility is moved, it must be located and installed using the spill prevention practices outlined in the SPCC Plan for the facility. No mobile or portable facility subject to this regulation shall operate unless the SPCC Plan has been implemented. The SPCC Plan shall only apply while the facility is in a fixed (non-transportation) operating mode.

[41 FR 12657, March 26, 1976]

(d) No SPCC Plan shall be effective to satisfy the requirements of this part unless it has been reviewed by a Registered Professional Engineer and certified to by such Professional Engineer. By means of this certification the engineer, having examined the facility and being familiar with the provisions of this part, shall attest that the SPCC Plan has been prepared in accordance with good engineering practices. Such certification shall in no way relieve the owner or operator of an onshore or offshore facility of his duty to prepare and fully implement such Plan in accordance with § 112.7, as required by paragraphs (a), (b) and (c) of this section.

(e) Owners or operators of a facility for which an SPCC Plan is required pursuant to paragraphs (a), (b) or (c) of this section shall maintain a complete copy of the Plan at such facility if the facility is normally attended at least 8 hours per day, or at the nearest field office if the facility is not so attended, and shall make such Plan available to the Regional Administrator for on-site review during normal working hours.

(f) Extensions of time.

(1) The Regional Administrator may authorize an extension of time for the preparation and full implementation of an SPCC Plan beyond the time permitted for the preparation and implementation of an SPCC Plan pursuant to paragraphs (a), (b) or (c) of this section where he finds that the owner or operator of a facility subject to paragraphs (a), (b) or (c) of this section cannot fully comply with the requirements of this part as a result of either nonavailability of qualified personnel, or delays in construction or equipment delivery beyond the control and without the fault of such owner or operator or their respective agents or employees.

(2) Any owner or operator seeking an extension of time pursuant to paragraph (f) (1) of this section may submit a letter of request to the Regional Administrator. Such letter shall include:

(i) A complete copy of the SPCC Plan, if completed;

(ii) A full explanation of the cause for any such delay and the specific aspects of the SPCC Plan affected by the delay;

(iii) A full discussion of actions being taken or contemplated to minimize or mitigate such delay;

(iv) A proposed time schedule for the implementation of any corrective actions being taken or contemplated, including interim dates for completion of tests or studies, installation and operation of any necessary equipment or other preventive measures.

In addition, such owner or operator may present additional oral or written statements in support of his letter of request.

(3) The submission of a letter of request for extension of time pursuant to paragraph (f) (2) of this section shall in no way relieve the owner or operator from his obligation to comply with the requirements of § 112.3 (a), (b) or (c). Where an extension of time is authorized by the Regional Administrator for particular equipment or other specific aspects of the SPCC Plan, such extension shall in no way affect the owner's or operator's obligation to comply with the requirements of § 112.3 (a), (b) or (c) with respect to other equipment or other specific aspects of the SPCC Plan for which an extension of time has not been expressly authorized.

§ 112.4 Amendment of SPCC Plans by Regional Administrator.

(a) Notwithstanding compliance with § 112.3, whenever a facility subject to § 112.3 (a), (b) or (c) has: Discharged more than 1,000 U.S. gallons of oil into or upon the navigable waters of the United States or adjoining shorelines in a single spill event, or discharged oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines in two spill events, reportable under section 311(b)(5) of the FWPCA, occurring within any twelve month period, the owner or operator of such facility shall submit to the Regional Administrator, within 60 days from the time such facility becomes subject to this section, the following:

(1) Name of the facility;

(2) Name(s) of the owner or operator of the facility;

(3) Location of the facility;

(4) Date and year of initial facility operation;

(5) Maximum storage or handling capacity of the facility and normal daily throughput;

(6) Description of the facility, including maps, flow diagrams, and topographical maps;

(7) A complete copy of the SPCC Plan with any amendments;

(8) The cause(s) of such spill, including a failure analysis of system or subsystem in which the failure occurred;

(9) The corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements;

(10) Additional preventive measures taken or contemplated to minimize the possibility of recurrence;

(11) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or spill event.

(b) Section 112.4 shall not apply until the expiration of the time permitted for the preparation and implementation of an SPCC Plan pursuant to § 112.3 (a), (b), (c) and (f).

(c) A complete copy of all information provided to the Regional Administrator pursuant to paragraph (a) of this section shall be sent at the same time to the State agency in charge of water pollution control activities in and for the State in which the facility is located. Upon receipt of such information such State agency may conduct a review and make recommendations to the Regional Administrator as to further procedures, methods, equipment and other requirements for equipment necessary to prevent and to contain discharges of oil from such facility.

(d) After review of the SPCC Plan for a facility subject to paragraph (a) of this section, together with all other information submitted by the owner or operator of such facility, and by the State agency under paragraph (c) of this section, the Regional Administrator may require the owner or operator of such facility to amend the SPCC Plan if he finds that the Plan does not meet the requirements of this part or that the amendment of the Plan is neces-

sary to prevent and to contain discharges of oil from such facility.

(e) When the Regional Administrator proposes to require an amendment to the SPCC Plan, he shall notify the facility operator by certified mail addressed to, or by personal delivery to, the facility owner or operator, that he proposes to require an amendment to the Plan, and shall specify the terms of such amendment. If the facility owner or operator is a corporation, a copy of such notice shall also be mailed to the registered agent, if any, of such corporation in the State where such facility is located. Within 30 days from receipt of such notice, the facility owner or operator may submit written information, views, and arguments on the amendment. After considering all relevant material presented, the Regional Administrator shall notify the facility owner or operator of any amendment required or shall rescind the notice. The amendment required by the Regional Administrator shall become part of the Plan 30 days after such notice, unless the Regional Administrator, for good cause, shall specify another effective date. The owner or operator of the facility shall implement the amendment of the Plan as soon as possible, but not later than six months after the amendment becomes part of the Plan, unless the Regional Administrator specifies another date.

(f) An owner or operator may appeal a decision made by the Regional Administrator requiring an amendment to an SPCC Plan. The appeal shall be made to the Administrator of the United States Environmental Protection Agency and must be made in writing within 30 days of receipt of the notice from the Regional Administrator requiring the amendment. A complete copy of the appeal must be sent to the Regional Administrator at the time the appeal is made. The appeal shall contain a clear and concise statement of the issues and points of fact in the case. It may also contain additional information from the owner or operator, or from any other person. The Administrator or his designee may request additional information from the owner or operator, or from any other person. The Administrator or his designee shall render a decision within 60 days of receiving the appeal and shall notify the owner or operator of his decision.

[41 FR 12657, March 26, 1976]

§ 112.5 Amendment of Spill Prevention Control and Countermeasure Plans by owners or operators.

(a) Owners or operators of facilities subject to § 112.3 (a), (b) or (c) shall amend the SPCC Plan for such facility in accordance with § 112.7 whenever there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines. Such amendments shall be fully implemented as soon as possible, but not later than six months after such change occurs.

(b) Notwithstanding compliance with paragraph (a) of this section, owners and operators of facilities subject to § 112.3 (a), (b) or (c) shall complete a review and evaluation of the SPCC Plan at least once every three years from the date such facility becomes subject to this part. As a result of this review and evaluation, the owner or operator shall amend the SPCC Plan within six months of the review to include more effective prevention and control technology if: (1) Such technology will significantly reduce the likelihood of a spill event from the facility, and (2) if such technology has been field-proven at the time of the review.

(c) No amendment to an SPCC Plan shall be effective to satisfy the requirements of this section unless it has been certified by a Professional Engineer in accordance with § 112.3(d).

§ 112.6 Civil penalties for violation of Oil Pollution Prevention Regulations.

Owners or operators of facilities subject to § 112.3(a), (b) or (c) who violate the requirements of this Part 112 by failing or refusing to comply with any of the provisions of § 112.3, § 112.4 or § 112.5 shall be liable for a civil penalty of not more than $5,000 for each day such violation continues. Civil penalties shall be imposed in accordance with procedures set out in Part 114 of this subchapter D.

§ 112.7 Guidelines for the preparation and implementation of a Spill Prevention Control and Countermeasure Plan.

The SPCC Plan shall be a carefully thought-out plan, prepared in accordance with good engineering practices, and which has the full approval of management at a level with authority to commit the necessary resources. If the plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, these items should be discussed in separate paragraphs, and the details of installation and operational start-up should be explained separately. The complete SPCC Plan shall follow the sequence outlined below, and include a discussion of the facility's conformance with the appropriate guidelines listed:

(a) A facility which has experienced one or more spill events within twelve months prior to the effective date of this part should include a written description of each such spill, corrective action taken and plans for preventing recurrence.

(b) Where experience indicates a reasonable potential for equipment failure (such as tank overflow, rupture, or leakage), the plan should include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each major type of failure.

(c) Appropriate containment and/or diversionary structures or equipment to prevent discharged oil from reaching a navigable water course should be provided. One of the following preventive systems or its equivalent should be used as a minimum:

(1) Onshore facilities.

(i) Dikes, berms or retaining walls sufficiently impervious to contain spilled oil

(ii) Curbing

(iii) Culverting, gutters or other drainage systems

(iv) Weirs, booms or other barriers

(v) Spill diversion ponds

(vi) Retention ponds

(vii) Sorbent materials

(2) Offshore facilities.

(i) Curbing, drip pans

(ii) Sumps and collection systems

(d) When it is determined that the installation of structures or equipment listed in § 112.7(c) to prevent discharged oil from reaching the navigable waters is not practicable from any onshore or offshore facility, the owner or operator should clearly demonstrate such impracticability and provide the following:

(1) A strong oil spill contingency plan following the provision of 40 CFR Part 109.

(2) A written commitment of manpower, equipment and materials required to expeditiously control and remove any harmful quantity of oil discharged.

(e) In addition to the minimal prevention standards listed under § 112.7 (c), sections of the Plan should include a complete discussion of conformance with the following applicable guidelines, other effective spill prevention and containment procedures (or, if more stringent, with State rules, regulations and guidelines):

(1) *Facility drainage (onshore); (excluding production facilities).* (i) Drainage from diked storage areas should be restrained by valves or other positive means to prevent a spill or other excessive leakage of oil into the drainage system or inplant effluent treatment system, except where plan systems are designed to handle such leakage. Diked areas may be emptied by pumps or ejectors; however, these should be manually activated and the condition of the accumulation should be examined before starting to be sure no oil will be discharged into the water.

(ii) Flapper-type drain valves should not be used to drain diked areas. Valves used for the drainage of diked areas should, as far as practical, be of manual, open-and-closed design. When plant drainage drains directly into water courses and not into wastewater treatment plants, retained storm water should be inspected as provided in paragraph (e)(2)(iii) (B, C and D) before drainage.

(iii) Plant drainage systems from undiked areas should, if possible, flow into ponds, lagoons or catchment basins, designed to retain oil or return it to the facility. Catchment basins should not be located in areas subject to periodic flooding.

(iv) If plant drainage is not engineered as above, the final discharge of all in-plant ditches should be equipped with a diversion system that could, in

the event of an uncontrolled spill, return the oil to the plant.

(v) Where drainage waters are treated in more than one treatment unit, natural hydraulic flow should be used. If pump transfer is needed, two "lift" pumps should be provided, and at least one of the pumps should be permanently installed when such treatment is continuous. In any event, whatever techniques are used facility drainage systems should be adequately engineered to prevent oil from reaching navigable waters in the event of equipment failure or human error at the facility.

(2) *Bulk storage tanks (onshore); (excluding production facilities).* (i) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature, etc.

(ii) All bulk storage tank installations should be constructed so that a secondary means of containment is provided for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spilled oil. Dikes, containment curbs, and pits are commonly employed for this purpose, but they may not always be appropriate. An alternative system could consist of a complete drainage trench enclosure arranged so that a spill could terminate and be safely confined in an in-plant catchment basin or holding pond.

(iii) Drainage of rainwater from the diked area into a storm drain or an effluent discharge that empties into an open water course, lake, or pond, and bypassing the in-plant treatment system may be acceptable if:

(A) The bypass valve is normally sealed closed.

(B) Inspection of the run-off rain water ensures compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.

(C) The bypass valve is opened, and resealed following drainage under responsible supervision.

(D) Adequate records are kept of such events.

(iv) Buried metallic storage tanks represent a potential for undetected spills. A new buried installation should be protected from corrosion by coatings, cathodic protection or other effective methods compatible with local soil conditions. Such buried tanks should at least be subjected to regular pressure testing.

(v) Partially buried metallic tanks for the storage of oil should be avoided, unless the buried section of the shell is adequately coated, since partial burial in damp earth can cause rapid corrosion of metallic surfaces, especially at the earth/air interface.

(vi) Aboveground tanks should be subject to periodic integrity testing, taking into account tank design (floating roof, etc.) and using such techniques as hydrostatic testing, visual inspection or a system of non-destructive shell thickness testing. Comparison records should be kept where appropriate, and tank supports and foundations should be included in these inspections. In addition, the outside of the tank should frequently be observed by operating personnel for signs of deterioration, leaks which might cause a spill, or accumulation of oil inside diked areas.

(vii) To control leakage through defective internal heating coils, the following factors should be considered and applied, as appropriate.

(A) The steam return or exhaust lines from internal heating coils which discharge into an open water course should be monitored for contamination, or passed through a settling tank, skimmer, or other separation or retention system.

(B) The feasibility of installing an external heating system should also be considered.

(viii) New and old tank installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to avoid spills. Consideration should be given to providing one or more of the following devices:

(A) High liquid level alarms with an audible or visual signal at a constantly manned operation or surveillance station; in smaller plants an audible air vent may suffice.

(B) Considering size and complexity of the facility, high liquid level pump cutoff devices set to stop flow at a predetermined tank content level.

(C) Direct audible or code signal communication between the tank gauger and the pumping station.

(D) A fast response system for determining the liquid level of each bulk storage tank such as digital computers, telepulse, or direct vision gauges or their equivalent.

(E) Liquid level sensing devices should be regularly tested to insure proper operation.

(ix) Plant effluents which are discharged into navigable waters should have disposal facilities observed frequently enough to detect possible system upsets that could cause an oil spill event.

(x) Visible oil leaks which result in a loss of oil from tank seams, gaskets, rivets and bolts sufficiently large to cause the accumulation of oil in diked areas should be promptly corrected.

(xi) Mobile or portable oil storage tanks (onshore) should be positioned or located so as to prevent spilled oil from reaching navigable waters. A secondary means of containment, such as dikes or catchment basins, should be furnished for the largest single compartment or tank. These facilities should be located where they will not be subject to periodic flooding or washout.

(3) *Facility transfer operations, pumping, and in-plant process (onshore); (excluding production facilities).* (i) Buried piping installations should have a protective wrapping and coating and should be cathodically protected if soil conditions warrant. If a section of buried line is exposed for any reason, it should be carefully examined for deterioration. If corrosion damage is found, additional examination and corrective action should be taken as indicated by the magnitude of the damage. An alternative would be the more frequent use of exposed pipe corridors or galleries.

(ii) When a pipeline is not in service, or in standby service for an extended time the terminal connection at the transfer point should be capped or blank-flanged, and marked as to origin.

(iii) Pipe supports should be properly designed to minimize abrasion and corrosion and allow for expansion and contraction.

(iv) All aboveground valves and pipelines should be subjected to regular examinations by operating personnel at which time the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces should be assessed. In addition, periodic pressure testing may be warranted for piping in areas where facility drainage is such that a failure might lead to a spill event.

(v) Vehicular traffic granted entry into the facility should be warned verbally or by appropriate signs to be sure that the vehicle, because of its size, will not endanger above ground piping.

(4) *Facility tank car and tank truck loading/unloading rack (onshore).* (i) Tank car and tank truck loading/unloading procedures should meet the minimum requirements and regulation established by the Department of Transportation.

(ii) Where rack area drainage does not flow into a catchment basin or treatment facility designed to handle spills, a quick drainage system should be used for tank truck loading and unloading areas. The containment system should be designed to hold at least maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded in the plant.

(iii) An interlocked warning light or physical barrier system, or warning signs, should be provided in loading/unloading areas to prevent vehicular departure before complete disconnect of flexible or fixed transfer lines.

(iv) Prior to filling and departure of any tank car or tank truck, the lowermost drain and all outlets of such vehicles should be closely examined for leakage, and if necessary, tightened, adjusted, or replaced to prevent liquid leakage while in transit.

(5) *Oil production facilities (onshore).* (i) *Definition.* An onshore production facility may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) *Oil production facility (onshore) drainage.* (A) At tank batteries and central treating stations where an accidental discharge of oil would have a reasonable possibility of reaching navigable waters, the dikes or equivalent required under § 112.7(c)(1) should have drains closed and sealed at all times except when rainwater is being drained. Prior to drainage, the diked area should be inspected as provided in paragraph (e)(2)(iii) (B), C), and (D). Accumulated oil on the rainwater should be picked up and returned to storage or disposed of in accordance with approved methods.

(B) Field drainage ditches, road ditches, and oil traps, sumps or skimmers, if such exist, should be inspected at regularly scheduled intervals for accumulation of oil that may have escaped from small leaks. Any such accumulations should be removed.

(iii) *Oil production facility (onshore) bulk storage tanks.* (A) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(B) All tank battery and central treating plant installations should be provided with a secondary means of containment for the entire contents of the largest single tank if feasible, or alternate systems such as those outlined in § 112.7(c)(1). Drainage from undiked areas should be safely confined in a catchment basin or holding pond.

(C) All tanks containing oil should be visually examined by a competent person for condition and need for maintenance on a scheduled periodic basis. Such examination should include the foundation and supports of tanks that are above the surface of the ground.

(D) New and old tank battery installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to prevent spills. Consideration should be given to one or more of the following:

(1) Adequate tank capacity to assure that a tank will not overfill should a pumper/gauger be delayed in making his regular rounds.

(2) Overflow equalizing lines between tanks so that a full tank can overflow to an adjacent tank.

(3) Adequate vacuum protection to prevent tank collapse during a pipeline run.

(4) High level sensors to generate and transmit an alarm signal to the computer where facilities are a part of a computer production control system.

(iv) *Facility transfer operations, oil production facility (onshore).* (A) All above ground valves and pipelines should be examined periodically on a scheduled basis for general condition of items such as flange joints, valve glands and bodies, drip pans, pipeline supports, pumping well polish rod stuffing boxes, bleeder and gauge valves.

(B) Salt water (oil field brine) disposal facilities should be examined often, particularly following a sudden change in atmospheric temperature to detect possible system upsets that could cause an oil discharge.

(C) Production facilities should have a program of flowline maintenance to prevent spills from this source. The program should include periodic examinations, corrosion protection, flowline replacement, and adequate records, as appropriate, for the individual facility.

(6) *Oil drilling and workover facilities (onshore)* (i) Mobile drilling or workover equipment should be positioned or located so as to prevent spilled oil from reaching navigable waters.

(ii) Depending on the location, catchment basins or diversion structures may be necessary to intercept and contain spills of fuel, crude oil, or oily drilling fluids.

(iii) Before drilling below any casing string or during workover operations, a blowout prevention (BOP) assembly and well control system should be installed that is capable of controlling any well head pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(7) *Oil drilling, production, or workover facilities (offshore).* (i) Definition: "An oil drilling, production or workover facility (offshore)" may include all drilling or workover equipment, wells, flowlines, gathering lines, platforms, and auxiliary nontransportation - related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) Oil drainage collection equipment should be used to prevent and control small oil spillage around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and allied equipment. Drains on the facility should be controlled and directed toward a central collection sump or equivalent collection system sufficient to prevent discharges of oil into the navigable waters of the United States. Where drains and sumps are not practicable oil contained in collection equipment should be removed as often as necessary to prevent overflow.

(iii) For facilities employing a sump system, sump and drains should be adequately sized and a spare pump or equivalent method should be available to remove liquid from the sump and assure that oil does not escape. A regular scheduled preventive maintenance inspection and testing program should be employed to assure reliable operation of the liquid removal system and pump start-up device. Redundant automatic sump pumps and control devices may be required on some installations.

(iv) In areas where separators and treaters are equipped with dump valves whose predominant mode of failure is in the closed position and pollution risk is high, the facility should be specially equipped to prevent the escape of oil. This could be accomplished by extending the flare line to a diked area if the separator is near shore, equipping it with a high liquid level sensor that will automatically shut-in wells producing to the separator, parallel redundant dump valves, or other feasible alternatives to prevent oil discharges.

(v) Atmospheric storage or surge tanks should be equipped with high liquid level sensing devices or other acceptable alternatives to prevent oil discharges.

(vi) Pressure tanks should be equipped with high and low pressure sensing devices to activate an alarm and/or control the flow or other acceptable alternatives to prevent oil discharges.

(vii) Tanks should be equipped with suitable corrosion protection.

(viii) A written procedure for inspecting and testing pollution prevention equipment and systems should be prepared and maintained at the facility. Such procedures should be included as part of the SPCC Plan.

(ix) Testing and inspection of the pollution prevention equipment and systems at the facility should be conducted by the owner or operator on a scheduled periodic basis commensurate with the complexity, conditions and circumstances of the facility or other appropriate regulations.

(x) Surface and subsurface well shut-in valves and devices in use at the facility should be sufficiently described to determine method of activation or control, e.g., pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms. Detailed records for each well, while not necessarily part of the plan should be kept by the owner or operator.

(xi) Before drilling below any casing string, and during workover operations a blowout preventer (BOP) assembly and well control system should be installed that is capable of controlling any well-head pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(xii) Extraordinary well control measures should be provided should emergency conditions, including fire, loss of control and other abnormal conditions, occur. The degree of control system redundancy should vary with hazard exposure and probable consequences of failure. It is recommended that surface shut-in systems have redundant or "fail close" valving. Subsurface safety valves may not be needed in producing wells that will not flow but should be installed as required by applicable State regulations.

(xiii) In order that there will be no misunderstanding of joint and separate duties and obligations to perform work in a safe and pollution free manner, written instructions should be prepared by the owner or operator for contractors and subcontractors to follow whenever contract activities include servicing a well or systems appurtenant to a well or pressure vessel. Such instructions and procedures should be maintained at the offshore production facility. Under certain circumstances and conditions such contractor activities may require the presence at the facility of an authorized representative of the owner or operator who would intervene when necessary to prevent a spill event.

(xiv) All manifolds (headers) should be equipped with check valves on individual flowlines.

(xv) If the shut-in well pressure is greater than the working pressure of the flowline and manifold valves up to and including the header valves associated with that individual flowline, the flowline should be equipped with a high pressure sensing device and shutin valve at the wellhead unless provided with a pressure relief system to prevent over pressuring.

(xvi) All pipelines appurtenant to the facility should be protected from corrosion. Methods used, such as protective coatings or cathodic protection, should be discussed.

(xvii) Sub-marine pipelines appurtenant to the facility should be adequately protected against environmental stresses and other activities such as fishing operations.

(xviii) Sub-marine pipelines appurtenant to the facility should be in good

operating condition at all times and inspected on a scheduled periodic basis for failures. Such inspections should be documented and maintained at the facility.

(8) *Inspections and records.* Inspections required by this part should be in accordance with written procedures developed for the facility by the owner or operator. These written procedures and a record of the inspections, signed by the appropriate supervisor or inspector, should be made part of the SPCC Plan and maintained for a period of three years.

(9) *Security (excluding oil production facilities).* (i) All plants handling, processing, and storing oil should be fully fenced, and entrance gates should be locked and/or guarded when the plant is not in production or is unattended.

(ii) The master flow and drain valves and any other valves that will permit direct outward flow of the tank's content to the surface should be securely locked in the closed position when in non-operating or non-standby status.

(iii) The starter control on all oil pumps should be locked in the "off" position or located at a site accessible only to authorized personnel when the pumps are in a non-operating or non-standby status.

(iv) The loading/unloading connections of oil pipelines should be securely capped or blank-flanged when not in service or standby service for an extended time. This security practice should also apply to pipelines that are emptied of liquid content either by draining or by inert gas pressure.

(v) Facility lighting should be commensurate with the type and location of the facility. Consideration should be given to: (A) Discovery of spills occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.) and (B) prevention of spills occurring through acts of vandalism.

(10) *Personnel, training and spill prevention procedures.* (i) Owners or operators are responsible for properly instructing their personnel in the operation and maintenance of equipment to prevent the discharges of oil and applicable pollution control laws, rules and regulations.

(ii) Each applicable facility should have a designated person who is accountable for oil spill prevention and who reports to line management.

(iii) Owners or operators should schedule and conduct spill prevention briefings for their operating personnel at intervals frequent enough to assure adequate understanding of the SPCC Plan for that facility. Such briefings should highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures.

APPENDIX

Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency.

SECTION 2—DEFINITIONS

The Environmental Protection Agency and the Department of Transportation agree that for the purposes of Executive Order 11548, the term:

(1) "Non-transportation-related onshore and offshore facilities" means:

(A) Fixed onshore and offshore oil well drilling facilities including all equipment and appurtenances related thereto used in drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(B) Mobile onshore and offshore oil well drilling platforms, barges, trucks, or other mobile facilities including all equipment and appurtenances related thereto when such mobile facilities are fixed in position for the purpose of drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(C) Fixed onshore and offshore oil production structures, platforms, derricks, and rigs including all equipment and appurtenances related thereto, as well as completed wells and the wellhead separators, oil separators, and storage facilities used in the production of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(D) Mobile onshore and offshore oil production facilities including all equipment and appurtenances related thereto as well as completed wells and wellhead equipment, piping from wellheads to oil separators, oil separators, and storage facilities used in the production of oil when such mobile facilities are fixed in position for the purpose of oil production operations, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(E) Oil refining facilities including all equipment and appurtenances related thereto as well as in-plant processing units, storage units, piping, drainage systems and waste treatment units used in the refining of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(F) Oil storage facilities including all equipment and appurtenances related thereto as well as fixed bulk plant storage, terminal oil storage facilities, consumer storage, pumps and drainage systems used in the storage of oil, but excluding inline or breakout storage tanks needed for the continuous operation of a pipeline system and any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(G) Industrial, commercial, agricultural or public facilities which use and store oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(H) Waste treatment facilities including in-plant pipelines, effluent discharge lines, and storage tanks, but excluding waste treatment facilities located on vessels and terminal storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels and associated systems used for off-loading vessels.

(I) Loading racks, transfer hoses, loading arms and other equipment which are appurtenant to a nontransportation-related facility or terminal facility and which are used to transfer oil in bulk to or from highway vehicles or railroad cars.

(J) Highway vehicles and railroad cars which are used for the transport of oil exclusively within the confines of a nontransportation-related facility and which are not intended to transport oil in interstate or intrastate commerce.

(K) Pipeline systems which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce, but excluding pipeline systems used to transfer oil in bulk to or from a vessel.

(2) "transportation-related onshore and offshore facilities" means:

(A) Onshore and offshore terminal facilities including transfer hoses, loading arms and other equipment and appurtenances used for the purpose of handling or transferring oil in bulk to or from a vessel as well as storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels, but excluding terminal waste treatment facilities and terminal oil storage facilities.

(B) Transfer hoses, loading arms and other equipment appurtenant to a nontransportation-related facility which is used to transfer oil in bulk to or from a vessel.

(C) Interstate and intrastate onshore and offshore pipeline systems including pumps and appurtenances related thereto as well as in-line or breakout storage tanks needed for the continuous operation of a pipeline system, and pipelines from onshore and offshore oil production facilities, but excluding onshore and offshore piping from wellheads to oil separators and pipelines which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce or to transfer oil in bulk to or from a vessel.

(D) Highway vehicles and railroad cars which are used for the transport of oil in interstate or intrastate commerce and the equipment and appurtenances related thereto, and equipment used for the fueling of locomotive units, as well as the rights-of-way on which they operate. Excluded are highway vehicles and railroad cars and motive power used exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended for use in interstate or intrastate commerce.

APPENDIX D

6NYCRR SUBPART 373-2.4

Section 373-2.4 Contingency Plan and Emergency Procedures

(a) Applicability.

The regulations in this Section apply to owners and operators of all hazardous waste facilities, except as subdivision 373-2.1(a) provides otherwise.

(b) Purpose and Implementation of contingency plan.

(1) Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(2) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(c) Content of contingency plan.

(1) The contingency plan must describe the actions facility personnel must take to comply with subdivisions 373-2.4(b) and 373-2.4(g) in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(2) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan as defined in subdivision 610.2(j) of this Title and 40 CFR 300, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Subpart (see 6NYCRR subdivision 370.1(e)).

(3) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to subdivision 373-2.3(g).

(4) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see subdivision 373-2.4(f)) and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates. For new facilities, this information must be supplied to the Commissioner at the time of certification, rather than at the time of permit application.

(5) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(6) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

(d) Copies of contingency plan.

A copy of the contingency plan and all revisions to the plan must be:

(1) Maintained at the facility; and

(2) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

(Note: The contingency plan must be submitted to the Commissioner with the permit application and, after modification or approval, will become a condition of any permit issued.)

(e) Amendment of contingency plan.

All amendments to the contingency plan must be approved by the Commissioner in accordance with section 373-1.7 (permit modifications). The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

(1) The facility permit is revised;

(2) The plan fails in an emergency;

(3) The facility changes - in its design, construction, operation, maintenance, or other circumstances - in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(4) The list of emergency coordinators changes; or

(5) The list of emergency equipment changes.

(Note: A change in the lists of facility emergency coordinators or equipment in the contingency plan constitutes a minor modification to the facility permit to which the plan is a condition.)

(f) Emergency coordinator.

At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

(Note: The emergency coordinator's responsibilities are more fully spelled out in subdivision 373-2.4(g). Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of waste(s) handled by the facility, and type and complexity of the facility.)

(g) Emergency Procedures.

(1) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

(i) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(ii) Notify appropriate State or local agencies with designated response roles if their help is needed.

(2) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests, and, if necessary, by chemical analysis.

(3) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

(4) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:

(i) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(ii) He must immediately notify both the Department (using the New York State 24-hour oil and hazardous material spill notification number (518)457-7362) and either the government official designated as the on-scene coordinator for that geographical area (in the applicable regional contingency plan under Part 300 of 40 CFR, see 6NYCRR subdivision 370.1(e)), or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:

(a) Name and telephone number of reporter;

(b) Name and address of facility;

(c) Time and type of incident (e.g., release, fire);

(d) Name and quantity of material(s) involved, to the extent known;

(e) The extent of injuries, if any; and

(f) The possible hazards to human health, or the environment, outside the facility.

(5) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

(6) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(7) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

(Comment: Unless the owner or operator can demonstrate, in accordance with subdivisions 371.1(d)(3) or (4) of this Title, that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Part 372 and Subpart 373-2 of this Title.)

(8) The emergency coordinator must ensure that, in the affected area(s) of the facility:

(i) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(ii) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(9) The owner or operator must notify the Commissioner, and appropriate State and local authorities, that the facility is in compliance with paragraph (8) of this subdivision before operations are resumed in the affected area(s) of the facility.

(10) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the Commissioner. The report must include:

(i) Name, address, and telephone number of the owner or operator;

(ii) Name, address, and telephone number of the facility;

(iii) Date, time, and type of incident (e.g., fire, explosion);

(iv) Name and quantity of material(s) involved;

(v) The extent of injuries, if any;

(vi) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(vii) Estimated quantity and disposition of recovered material that resulted from the incident.

CLOSURE PLAN

This Plan covers closure plans and costs for existing and proposed storage areas.

NAME AND ADDRESS: General Electric Company
175 Milens Road
Tonawanda, N.Y. 14150

EPA I.D. NO.: NYD067539940

Hazardous Waste Permit No. _____

Type of Facility: Storage

Facility Description:

1. This facility contains a fenced-in drum storage area and inside diked areas capable of storing the following types of hazardous wastes:

   Flammable solids and liquids
   Corrosive solids and liquids
   Acids
   Oxidizers
   Spent Solvents
   EP Toxicity materials
   Polycholrinated Biphenyls liquids, solids, items.

Closure Plan:

1. All Hazardous Wastes will be removed from storage areas and shipped to the appropriate treatment or disposal facility.

2. All PCB articles in storage will be decontaminated by draining and flushing. Articles will be removed to a secure chemical landfill. All drain and rinse materials will be removed to qualified incineration.

3. All PCB tanks will be triple rinsed with Kerosene. Each rinse will be 10 percent of the total tank volume and each rinse will be tested to insure that it contains less than 50 PPM PCB concentration. All rinse materials will be removed to qualified incineration.

4. All Hazardous Waste residues will be absorbed with absorbent material (speedi-dry) and placed in drums for disposal. The Storage areas will be scrubbed down, rinsed, and rinsings absorbed with absorbent material (speedi-dry) for disposal in drums.

CLOSURE COSTS

RCRA Hazardous Wastes

Testing and Waste Characterization 36 Drums x $100/Drum	$ 3,600.00
Removal and Disposal 36 Drums x $125/Drum	4,500.00
Decontaminate Storage Area	2,000.00

PCB Wastes

LIQUIDS:

PCB Analysis: 25 Drums x $60/Ea. 3 Tanks x $60/Ea.	$ 1,500.00 180.00
Transport to Incinerator 4 Loads x $1500/Ea.	6,000.00
Liquid Incineration 25 Drums (50-500 PPM x $180. Ea.	$ 4,500.00
Tank T1 5000 Gal. (>25000 PPM) x $4.00/Gal.	20,000.00
3 - 275 Gal. Tanks (>25000 PPM)x $4.00/Gal.	3,300.00
Tank T2 5000 Gal. (<25000 PPM) x $2.50/Gal.	12,500.00
Tank T3 3000 Gal. (>25000 PPM) x $4.00/Gal.	12,000.00
25 Drums PCB Caps 3000 lbs. ea. x .50/lb.	3,750.00

SOLIDS:

Transport to Landfill 2 Truck Loads x $250.00/Load	$ 500.00
60,000 lbs. x .10/lb.	6000.00
25 Drums x $80.00/Drum	2000.00

Decontamination

PCB Work and Storage Areas	$3,500.00
Storage Tanks - Triple Rinse	
New Flush 3000 Gals. x $1/Gal.	3,000.00
Flush Disposal 3000 x $2.80/Gal. Avg.	8,400.00
Transportation for Incineration	1,500.00
Total	$98,730.00
Administrative Costs (10%)	9,873.00
Contingency Costs (15%)	14,810.00
Total Closure Costs	$123,413.00

Closure Schedule

Approximately six weeks would be required to remove hazardous waste inventories and decontaminate hazardous waste storage areas.

When Closure is completed, certification of Closure signed by an Independent Professional Engineer Registered in New York State, will be submitted to NYDEC.

Post Closure

As this facility is engaged only in the storage of hazardous waste in drums, tanks, or PCB articles, there will be no post closure requirements.

Written by: A Hegmanowski Date: 4-25-86

Approved by: R Fulgar Date: 4/25/86

Bernard Elio

RF KF VPP

GE 1986 file

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-0001

Henry G. Williams
Commissioner

Date May 27, 1986

Firm Name General Electric Company

Address Corporate Environmental Programs

Fairfield, CT 06431

Attn: Irene Bozek, Analytical Consultant

EPA I.D. No. All New York State Facilities (10)

Dear XXX/Madam:

Thank you for your recent Financial Assurance/Liability Insurance submittal dated March 27, 1986.

Upon review of the submittal, we found the following to be complete and acceptable:

Financial assurance for closure	X
Financial assurance for post-closure	X
Sudden liability insurance	X
Non-sudden liability insurance	

Thank you for the information related to Schedule II. In future submittals, please cite New York State regulations.

For further information or assistance, please telephone (518) 457-3274 or write to:

Mr. Robert J. Haggerty, Jr.
Permit Section, Room 401
Bureau of Hazardous Waste Technology
Division of Solid and Hazardous Waste
NYS Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233

Sincerely,
Robert C. Kiddle
Robert C. Kiddle
Senior Economist

cc: Region 4,5,7,9
R. Haggerty
R. Kircher

GENERAL ELECTRIC

Letter from Chief Financial Officer to Demonstrate
Liability Coverage or to Demonstrate Both Liability Coverage
and Assurance of Closure or Post-Closure Care

April 16, 1986

Commissioner of New York State Department
of Environmental Conservation
50 Wolf Road
Albany, NY 518-457-6603

I am the chief financial officer of the General Electric Company, 1 River Road, Schenectady, New York 12345. This letter is in support of this firm's use of the financial test to demonstrate financial responsibility for liability coverage and closure and/or post-closure care as specified in sections 373-2.8 and 373-3.8.

The owner or operator identified above is the owner or operator of the following facilities for which liability coverage is being demonstrated through the financial test specified in sections 373-2.8 and 373-3.8. See Schedule I

1. The owner or operator identified above owns or operates the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: See Schedule II

2. The owner or operator identified above guarantees, through the corporate guarantee specified in Subpart H of 40 CFR Parts 264 and 265, the closure or post-closure care of the following facilities owned or operated by its subsidiaries. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: See Schedule III

3. In states where EPA is not administering the financial requirements of Subpart H of 40 CFR parts 264 and 265, this owner or operator is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by such a test or guarantee are shown for each facility: See Schedule IV

4. The owner or operator identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure, or if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: None

This owner or operator is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on December 31. The figures for the following items marked with an asterisk are derived from this owner's or operator's independently audited, year-end financial statements for the latest completed fiscal year, ended December 31, 1985.

Part B. Closure or Post-Closure Care and Liability Coverage.

Alternative II

	(Dollars in thousands)
1. Sum or current closure and post-closure cost estimates (total of all cost estimates for all estimates)	$ 46,097
2 Amount of annual aggregate liability coverage to be demonstrated	$ 28,000
3 Sum of lines 1 and 2	$ 74,097
4. Current bond rating of most recent issuance and name of rating service	Aaa - Moody's AAA - Standard & Poor's
5. Date of issuance of bond	May 1984
6. Date of maturity of bond	May 2004
*7. Tangible net worth (if any portion of the closure or post-closure cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line)	$13,682,000
*8. Total assets in the U.S. (required only if less than 90% of assets are located in the U.S.)	$22,733,000

	YES	NO
9. Is line 7 at least $10 million?	x	___
10. Is line 7 at least 6 times line 3?	x	___
*11. Are at least 90% of assets located in the U.S.? If not, complete line 12	___	x
10. Is line 8 at least 6 times line 3?	x	___

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 264151(g) as such regulations were constituted on the date shown immediately below.

Dennis D. Dammerman
Senior Vice President-Finance
April 16, 1986

	CLOSURE	POST-CLOSURE
SCHEDULE II	16380	7714
SCHEDULE III	1278	0
SCHEDULE IV	17423	3302
TOTAL	35081	11016

GRAND TOTAL FOR CLOSURE AND/OR POST-CLOSURE 46097

SCHEDULE I

REGION	EPA ID	LOCATION	STREET	CITY	STATE	ZIP
01	CTD000842492	DISTRIBUTION EQUIPMENT DIV.	SENT ST.	PLAINVILLE	CT	06062
	CTD001453711	BRIDGEPORT AREA RELATIONS OPR.	1285 BOSTON AVENUE	BRIDGEPORT	CT	06602
	MED051431906	DISTR EQMT - CIRCUIT PROT	RODMAN ROAD	AUBURN	ME	04210
	VTD002083434	ARMAMENT SYSTEMS DEPT	LAKESIDE AVENUE	BURLINGTON	VT	05401
02	NJD003918570	NEW YORK SERVICE SHOP	6001 TONNELLE AVENUE	NORTH BERGEN	NJ	07047
	NYD002080034	SILICONE PRODS DIV	260 HUDSON RIVER RD	WATERFORD	NY	14843
	NYD002080075	CAPACITOR TRADS DPT	8 JOHN STREET	HUDSON FALLS	NY	12839
	NYD002084135	SCHENECTADY UTILITIES OP	1 RIVER ROAD	SCHENECTADY	NY	12345
	NYD002231272	SEMICONDUCTOR PRODS DPT	W GENESEE ST. ROAD	AUBURN	NY	13021
	NYD002235182	AERO CONTROL SYS DPT	600 MAIN STREET	JOHNSON CITY	NY	13790
	NYD052987096	ELECTROMATERIALS BUS DEPT	1 CAMPBELL ROAD	SCHENECTADY	NY	12345
	NYD066832023	NORYL PRODUCTS DIVISION	NORYL AVENUE	SELKIRK	NY	12158
	NYD067539940	BUFFALO SERVICE SHOP	175 MILLENS ROAD	TONAWANDA	NY	14150
	NYD071094197	CORPORATE R&D	RIVER ROAD	NISKAYUNA	NY	12309
	NYD093256063	CAPACITOR PRODS DPT	7325 BROADWAY	FORT EDWARD	NY	12828
	PRD000692582	CARIBE GENERAL ELECTRIC PROD	ROUTE 993 BARRIO	VIEQUES	PR	00765
	PRD000692590	CARIBE GENERAL ELECTRIC PROD	LA BRISA NO 5	RIO PIEDRAS	PR	00924
	PRD090070459	CARIBE GENERAL ELECTRIC PROD	STATE RD 3 K 82	HUMACAO	PR	00762
	PRD090282757	CARIBE GENERAL ELECTRIC PROD	KM 67 CARRETARA 149	JUANA DIAZ	PR	00665
	PRD090306077	CARIBE GENERAL ELECTRIC PROD	EL TUQUE INDT PARK	PONCE	PR	00731
	PRD090383860	CARIBE GENERAL ELECTRIC PROD	RT 129, KM41	ARECIBO	PR	00612
	PRD090492109	CARIBE GENERAL ELECTRIC PROD	P.O. BOX 968	PATILLAS	PR	00723
	PRD090510793	CARIBE GENERAL ELECTRIC PROD	ROUTE 191 KM 5	PALMER	PR	00721
	PRD091019224	CARIBE GENERAL ELECTRIC PROD	EL RETIRO IND PRK	SAN GERMAN	PR	00745
03	MDD046279311	COLUMBIA R & U OPERATION	APPLIANCE PARK EAST	COLUMBIA	MD	21045
	PAD001680719	SPACE DIV-VALLEY FORGE	230 GODDARD BLVD.	KING OF PRUSSIA	PA	19406
	PAD005033055	TRANS SYST BUS OPS	2901 EAST LAKE ROAD	ERIE	PA	16531
	PAD059290908	TRANS SYS BUS OPS	INDUSTRIAL DRIVE	GROVE CITY	PA	18127
	PAD060682622	BRIDGEVILLE GLASS PLANT	MAYER STREET	BRIDGEVILLE	PA	15017
	VAD003132255	MOBILE COMM BUS DPT	MOUNTAIN VIEW ROAD	LYNCHBURG	VA	24502
	VAD070360219	WINCHESTER LAMP PLANT	ROUTE 3 BOX 310	WINCHESTER	VA	22601
	VAD980551782	INDUSTRIAL CONTROL DEPARTMENT	ROUTE 29N AT TR 6066	CHARLOTTESVILLE	VA	22901
04	ALD980600035	PLASTICS BUSINESS OP	ROUTE 1 BOX 21	BURKVILLE	AL	36725
	FLD001690924	SIMULATION & CNTL SYS DPT	1800 VOLUSIA AVENUE	DAYTONA	FL	32105
	FLD043860451	BATTERY BUS DPT	HIGHWAY 441 NORTH	GAINESVILLE	FL	32602
	GAD003308145	MEDIUM TRANSFORMER DPT	REDMOND CIRCLE	ROME	GA	30161
	KYD006387021	MA MANUFACTURING DIV	APPLIANCE PARK BLDG	LOUISVILLE	KY	42301
	KYD074047556	AEBG	US HIGHWAY 41A	MADISONVILLE	KY	42431
	NCD003237948	DIST TRANS BUS DPT	FAIRGROVE CHURCH RD	HICKORY	NC	28603
	NCD050409150	NUCLEAR ENERGY BUS OP	CASTLE HAYNE	WILMINGTON	NC	28401
	SCD067002147	MOBILE COMM BUS DIV	3001 W RADIO DRIVE	FLORENCE	SC	29501
	TND066709130	DISTRIBUTION EQMT DIV	EAST MORRIS BLVD	MORRISTOWN	TN	37814
	TND078565249	DISTRIBUTION EQMT DIV	S 4TH STREET	SELMER	TN	38375
05	ILD005272992	APPLIANCE CONTROL DPT	709 WEST WALL STREET	MORRISON	IL	60644
	ILD005443866	MATTON LAMP PLANT	1501 S 19TH STREET	MATTON	IL	61938
	ILD005453691	GENERAL PURPOSE CONTROL DEPT	VETERANS PARKWAY	BLOOMINGTON	IL	61701
	ILD062338694	SPENT FUEL SERVICE OPERATION	7555 EAST COLLINS RD	MORRIS	IL	60450
	ILD070015714	CHICAGO SERVICE SHOP	6045 S NOTTINGHAM AV	CHICAGO	IL	60638
	ILD980503023	MAJOR APPLIANCE	1540 S 54TH	CICERO	IL	60650
	IND000883726	MA MANUFACTURING DIV	301 NORTH CURRY PIKE	BLOOMINGTON	IN	47402

REGION	EPA ID	LOCATION	STREET	CITY	STATE	ZIP
	IND004557815	SPECIALTY TRANSF DPT	1701 COLLEGE STREET	FORT WAYNE	IN	46804
	IND005422084	GENL PURPOSE MOTOR DPT	500 NORTH 9TH STREET	DECATUR	IN	46733
	IND005448683	GENL PURPOSE MOTOR DPT	2000 TAYLOR STREET	FORT WAYNE	IN	46804
	IND006040299	GENERAL PURPOSE MTR DEPT	TWELFTH STREET SE	LINTON	IN	46804
	IND006376362	LEXAN PRODUCTS DIVISION	LEXAN LANE	MOUNT VERNON	IN	47620
	IND006392773	SPECIALTY MOTOR DEPT	13TH & PAYNE STREETS	TELL CITY	IN	47856
	MID044254423	CARBOLOY SYSTEMS DPT	11177 E 8 MILE ROAD	WARREN	MI	48089
	MID050616622	DETROIT SERVICE SHOP	18704 KRAUSE STREET	RIVERVIEW	MI	48192
	MNT280010398	MINNEAPOLIS SERVICE SHOP	2025 49TH AVENUE N	MINNEAPOLIS	MN	55430
	OHD000721456	AVIATION SERVICE DEPARTMENT	3024 SYMMES ROAD	HAMILTON	OH	45015
	OHD000817304	AVIATION SERVICE DEPARTMENT	1350 TENNESSEE AVE	CINCINNATI	OH	45229
	OHD000817312	AEBG	175 NEUMANN WAY	EVENDALE	OH	45215
	OHD004176046	NILES GLASS PLANT	403 N MAIN STREET	NILES	OH	44446
	OHD004224960	TRUMBULL LAMP PLANT	1313 W MARKET STREET	WARREN	OH	44485
	OHD004226171	YOUNGSTOWN LAMP PLANT	40 HUGHES STREET	YOUNGSTOWN	OH	44502
	OHD004227369	REFR METALS PROD DPT	21800 TUNGSTEN ROAD	EUCLID	OH	44117
	OHD004302428	ELECTROMATERIALS BUS DEPT	1360 S SECOND STREET	COSHOCTON	OH	43812
	OHD009101494	AVIATION SERVICE DEPARTMENT	333 W SEYMOUR AVE	CINCINNATI	OH	45216
	OHD048111090	JEFFERSON WELD PLANT	85 W ASTUBULA	JEFFERSON	OH	44047
	OHD048432975	LIGHTING REL & OPS	1122 E 152ND STREET	CLEVELAND	OH	44110
	OHD048433080	CHEMICAL PRODUCTS PLANT	1099 IVANHOE ROAD	CLEVELAND	OH	44110
	OHD059061317	RAVENNA LAMP PLANT	6880 N CHESTNUT ST	RAVENNA	OH	44110
	OHD066052804	OHIO LAMP- WARREN	1210 N PARK AVENUE	WARREN	OH	45660
	OHD074713561	CINCINNATI SERVICE SHOP	156 CIRCLE FREEWAY	CINCINNATI	OH	45246
	OHD085240133	NELA PARK FACILITY	NELA PARK, NOBEL RD	E CLEVELAND	OH	44112
06	ARD007037823	SPECIALTY MOTOR DEPARTMENT	101 GEE STREET	JONESBORO	AR	72401
	LAD043197284	DISTR TRANS BUS DPT	7000 FLOURNOY-LUCAS	SHREVEPORT	LA	71109
	LAD053782413	NEW ORLEANS SERVICE SHOP	1115 DE ARMAS STREET	NEW ORLEANS	LA	70114
	TXD060718269	HOUSTON SERVICE SHOP	8800 WALLISVILLE RD	HOUSTON	TX	77029
	TXD064114242	DALLAS SERVICE SHOP	3202 MANOR WAY	DALLAS	TX	75235
	TXD079400545	DISTRIBUTION EQUIPMENT DIV.	3530 W 12TH STREET	HOUSTON	TX	77008
07	IAD000678037	POWER DELIVERY	1404/18 W MT PLEASAN	W BURLINGTON	IA	52655
	IAD005272703	SWITCHGEAR BUSINESS DEPT	510 AGENCY ROAD	W BURLINGTON	IA	51401
	IAD075836130	APPLIANCE CONTROL DEPARTMENT	1803 RADIANTNCY	CARROLL	IA	51401
	KSD041917501	AVIATION SERVICE DEPARTMENT	STROTHER FIELD	ARKANSAS CITY	KS	67005
	MOD006312375	ST LOUIS LAMP PLANT	6251 ETZEL AVENUE	ST LOUIS	MO	63133
	MOD030709539	SPECIALTY MOTOR DEPARTMENT	2401 SUNSHINE STREET	SPRINGFIELD	MO	65804
08	COD062753702	DENVER SERVICE SHOP	4900 KINGSTON ST	DENVER	CO	80239
09	CAD000819680	MEDICAL SYSTEMS BUSINESS OPS	3920 SECURITY PARK	RANCHO CORDOVA	CA	95670
	CAD009208075	SAN FRANCISCO SERVICE SHOP	5441 E 14TH STREET	OAKLAND	CA	94601
	CAD009542721	AVIATION SERVICE DEPARTMENT	ONTARIO INTL AIRPORT	ONTARIO	CA	91761
	CAD030584502	LA SERVICE SHOP	3601 E LA PALMA ST	ANAHEIM	CA	92806
	CAD053914206	NUCLEAR ENERGY REL & UTIL	6705 VALLECITOS RD	SUNOL	CA	94566
	CAD980818512	AEBG ASO/ONTARIO-CHINO	13477 YORBA	CHINO	CA	91710
	CAT000611095	DISTRIBUTION EQUIPMENT DIV	11115 VANOWEN ST	N HOLLYWOOD	CA	91605
	CAT000613471	NUCLEAR ENERGY REL & UTIL	175 CURTNER	SAN JOSE	CA	95125
10	ORD001818442	PORTLAND SERVICE SHOP	2727 NW 29TH AVE	PORTLAND	OR	97210
	WAD009278706	AVIATION SERVICE DEPARTMENT	220 SOUTH DAWSON ST	SEATTLE	WA	98108
	WAD046207379	SEATTLE SERVICE SHOP	1031 4TH AVENUE N	KENT	WA	98031

SCHEDULE II

REGION	EPA ID	LOCATION	STREET	CITY	STATE	ZIP	CLOSURE85	PCLOSURE85
01	CTD000842492	DISTRIBUTION EQUIPMENT DIV.	SENT ST.	PLAINVILLE	CT	06062	1032	0
	CTD000842500	DISTRIBUTION EQUIPMENT DIV.	NEW BRITAIN AVENUE	PLAINVILLE	CT	06062	0	0
	CTD001453711	BRIDGEPORT AREA RELATIONS OPR.	1285 BOSTON AVENUE	BRIDGEPORT	CT	06602	195	480
	MED051429579		133 FICCICK	S PORTLAND	ME		0	0
	MED051431906	DISTR EQMT - CIRCUIT PROT	RODMAN ROAD	AUBURN	ME	04210	17	0
02	NYD000521971	AERO ELECT SYS DPT	FRENCH ROAD	UTICA	NY	13503	0	0
	NYD002080034	SILICONE PRODS DIV	260 HUDSON RIVER RD	WATERFORD	NY	14843	9830	3394
	NYD002080075	CAPACITOR TRADS DPT	8 JOHN STREET	HUDSON FALLS	NY	12839	215	0
	NYD002084135	SCHENECTADY UTILITIES OP	1 RIVER ROAD	SCHENECTADY	NY	12345	319	0
	NYD002084192	SCHENECTADY UTILITIES OP	1 NOTT STREET	SCHENECTADY	NY	12345	0	0
	NYD002221919	HOUSEWARES & AUDIO BUS	200 STATE STREET	BROCKPORT	NY	14420	0	0
	NYD002231272	SEMICONDUCTOR PRODS DPT	W GENESEE ST. ROAD	AUBURN	NY	13021	127	0
	NYD002235182	AERO CONTROL SYS DPT	600 MAIN STREET	JOHNSON CITY	NY	13790	6	0
	NYD002247377	ELECTRONIC SYS DIV	FARRELL ROAD PLANT	SYRACUSE	NY	13221	0	0
	NYD052987096	ELECTROMATERIALS BUS DEPT	1 CAMPBELL ROAD	SCHENECTADY	NY	12345	242	0
	NYD059385120	ELECTRONIC SYS R & U	ELECTRONICS PARKWAY	LIVERPOOL	NY	13088	0	0
	NYD066832023	NORYL PRODUCTS DIVISION	NORYL AVENUE	SELKIRK	NY	12158	441	3840
	NYD067539940	BUFFALO SERVICE SHOP	175 MILLENS ROAD	TONAWANDA	NY	14150	124	0
	NYD071094197	CORPORATE R&D	RIVER ROAD	NISKAYUNA	NY	12309	160	0
	NYD093256063	CAPACITOR PRODS DPT	7325 BROADWAY	FORT EDWARD	NY	12828	451	0
	NYD990763203	ELECTRONIC SYS DIV	COURT STREET PLANT	SYRACUSE	NY	13221	0	0
04	ALD078983301	DC MOTOR & GENERATOR DPT	HODGESVILLE ROAD	DOTHAN	AL	36301	0	0
	ALD980600035	PLASTICS BUSINESS OP	ROUTE 1 BOX 21	BURKVILLE	AL	36725	40	0
05	MID006407670	APPLIANCE & HERM MOTOR	570 E. 16TH STREET	HOLLAND	MI	49423	0	0
	MID044254423	CARBOLOY SYSTEMS DPT	11177 E 8 MILE ROAD	WARREN	MI	48089	7	0
	MID050616622	DETROIT SERVICE SHOP	18704 KRAUSE STREET	RIVERVIEW	MI	48192	5	0
	OHD000721456	AVIATION SERVICE DEPARTMENT	3024 SYMMES ROAD	HAMILTON	OH	45015	1	0
	OHD000817288	AEBG ASO -- TENN	1350 TENNESSEE AVE	CINCINNATI	OH	45229	0	0
	OHD000817304	AVIATION SERVICE DEPARTMENT	1350 TENNESSEE AVE	CINCINNATI	OH	45229	1	0
	OHD000817312	AEBG	175 NEUMANN WAY	EVENDALE	OH	45215	52	0
	OHD000817338	YOUNGSTONW LAMP PLANT	P.O. BOX 989	YOUNGSTOWN	OH	44501	0	0
	OHD004176046	NILES GLASS PLANT	403 N MAIN STREET	NILES	OH	44446	38	0
	OHD004211462	DOVER WIRE PLANT	200 WEST BROADWAY	DOVER	OH	44622	0	0
	OHD004224960	TRUMBULL LAMP PLANT	1313 W MARKET STREET	WARREN	OH	44485	16	0
	OHD004226171	YOUNGSTOWN LAMP PLANT	40 HUGHES STREET	YOUNGSTOWN	OH	44502	51	0
	OHD004227369	REFR METALS PROD DPT	21800 TUNGSTEN ROAD	EUCLID	OH	44117	148	0
	OHD004302428	ELECTROMATERIALS BUS DEPT	1350 S SECOND STREET	COSHOCTON	OH	43812	104	0
	OHD004303434	CIRCLEVILLE LAMP PLANT	559 E OHIO STREET	CIRCLEVILLE	OH	43113	0	0
	OHD004447694	WILLOUGHBY QUARTZ PLANT	EUCLID & CAMPBELL	WILLOUGHBY	OH	44094	0	0
	OHD009101494	AVIATION SERVICE DEPARTMENT	333 W SEYMOUR AVE	CINCINNATI	OH	45216	2	0
	OHD048111090	JEFFERSON WELD PLANT	85 W ASTUBULA	JEFFERSON	OH	44047	19	0
	OHD048432975	LIGHTING REL & OPS	1122 E 152ND STREET	CLEVELAND	OH	44110	347	0
	OHD048433080	CHEMICAL PRODUCTS PLANT	1099 IVANHOE ROAD	CLEVELAND	OH	44110	983	0
	OHD059061317	RAVENNA LAMP PLANT	6880 N CHESTNUT ST	RAVENNA	OH	44110	22	0
	OHD063971295	AVIATION SERVICE DEPT	ADAMS	PEEBLES	OH	45660	0	0
	OHD066052804	OHIO LAMP- WARREN	1210 N PARK AVENUE	WARREN	OH	45660	81	0
	OHD074713561	CINCINNATI SERVICE SHOP	156 CIRCLE FREEWAY	CINCINNATI	OH	45246	9	0
	OHD085240133	NELA PARK FACILITY	NELA PARK, NOBEL RD	E CLEVELAND	OH	44112	182	0

07	IAD000678037	POWER DELIVERY	1404/18 W MT PLEASAN	W BURLINGTON	IA	52655	150	0
	IAD005272703	SWITCHGEAR BUSINESS DEPT	510 AGENCY ROAD	W BURLINGTON	IA	51401	93	0
	IAD075836130	APPLIANCE CONTROL DEPARTMENT	1803 RADIANTNCY	CARROLL	IA	51401	8	0
09	CAD000819680	MEDICAL SYSTEMS BUSINESS OPS	3920 SECURITY PARK	RANCHO CORDOVA	CA	95670	25	0
	CAD009208075	SAN FRANCISCO SERVICE SHOP	5441 E 14TH STREET	OAKLAND	CA	94601	5	0
	CAD009208091	SMALL AC MOTOR DEPARTMENT	2155 SOUTH FIRST ST	SAN JOSE	CA	95112	0	0
	CAD009542721	AVIATION SERVICE DEPARTMENT	ONTARIO INTL AIRPORT	ONTARIO	CA	91761	21	0
	CAD030584502	LA SERVICE SHOP	3601 E LA PALMA ST	ANAHEIM	CA	92806	16	0
	CAD053914206	NUCLEAR ENERGY REL & UTIL	6705 VALLECITOS RD	SUNOL	CA	94566	69	0
	CAD980818512	AEBG ASO/ONTARIO-CHINO	13477 YORBA	CHINO	CA	91710	8	0
	CAT000611095	DISTRIBUTION EQUIPMENT DIV	11115 VANOWEN ST	N HOLLYWOOD	CA	91605	19	0
	CAT000613471	NUCLEAR ENERGY REL & UTIL	175 CURTNER	SAN JOSE	CA	95125	699	0

7714.00000 (Tot PCLOSURE85)

16380.00000 (Tot CLOSURE85)

SCHEDULE III

REGION	EPA ID	LOCATION	STREET	CITY	STATE	ZIP	CLOSURE85	PCLOSURE85
02	PRD000692582	CARIBE GENERAL ELECTRIC PROD	ROUTE 993 BARRIO	VIEQUES	PR	00765	38	0
	PRD000692590	CARIBE GENERAL ELECTRIC PROD	LA BRISA NO 5	RIO PIEDRAS	PR	00924	21	0
	PRD090070459	CARIBE GENERAL ELECTRIC PROD	STATE RD 3 K 82	HUMACAO	PR	00762	115	0
	PRD090282757	CARIBE GENERAL ELECTRIC PROD	KM 67 CARRETARA 149	JUANA DIAZ	PR	00665	42	0
	PRD090306077	CARIBE GENERAL ELECTRIC PROD	EL TUQUE INDT PARK	PONCE	PR	00731	3	0
	PRD090383860	CARIBE GENERAL ELECTRIC PROD	RT 129, KM41	ARECIBO	PR	00612	65	0
	PRD090492109	CARIBE GENERAL ELECTRIC PROD	P.O. BOX 968	PATILLAS	PR	00723	154	0
	PRD090510793	CARIBE GENERAL ELECTRIC PROD	ROUTE 191 KM 5	PALMER	PR	00721	830	0
	PRD091019224	CARIBE GENERAL ELECTRIC PROD	EL RETIRO IND PRK	SAN GERMAN	PR	00745	10	0
								0.00000 (Tot PCLOSURE85)
							1278.00000	(Tot CLOSURE85)

SCHEDULE IV

REGION	EPA ID	LOCATION	STREET	CITY	STATE	ZIP	CLOSURE85	PCLOSURE85
01	VTD002083434	ARMAMENT SYSTEMS DEPT	LAKESIDE AVENUE	BURLINGTON	VT	05401	77	0
03	MDD046279311	COLUMBIA R & U OPERATION	APPLIANCE PARK EAST	COLUMBIA	MD	21045	130	187
	PAD001680719	SPACE DIV-VALLEY FORGE	230 GODDARD BLVD.	KING OF PRUSSIA	PA	19406	66	0
	PAD005033055	TRANS SYST BUS OPS	2901 EAST LAKE ROAD	ERIE	PA	16531	84	184
	PAD059290908	TRANS SYS BUS OPS	INDUSTRIAL DRIVE	GROVE CITY	PA	18127	65	0
	PAD060682622	BRIDGEVILLE GLASS PLANT	MAYER STREET	BRIDGEVILLE	PA	15017	506	0
	VAD003132255	MOBILE COMM BUS DPT	MOUNTAIN VIEW ROAD	LYNCHBURG	VA	24502	40	0
	VAD070360219	WINCHESTER LAMP PLANT	ROUTE 3 BOX 310	WINCHESTER	VA	22601	28	0
	VAD980551782	INDUSTRIAL CONTROL DEPARTMENT	ROUTE 29N AT TR 6066	CHARLOTTESVILLE	VA	22901	51	0
04	FLD001690924	SIMULATION & CNTL SYS DPT	1800 VOLUSIA AVENUE	DAYTONA	FL	32105	97	0
	FLD043860451	BATTERY BUS DPT	HIGHWAY 441 NORTH	GAINESVILLE	FL	32602	6171	1309
	GAD003308145	MEDIUM TRANSFORMER DPT	REDMOND CIRCLE	ROME	GA	30161	200	0
	KYD006387021	MA MANUFACTURING DIV	APPLIANCE PARK BLDG	LOUISVILLE	KY	42301	144	0
	KYD074047556	AEBG	US HIGHWAY 41A	MADISONVILLE	KY	42431	40	0
	NCD003237948	DIST TRANS BUS DPT	FAIRGROVE CHURCH RD	HICKORY	NC	28603	70	344
	NCD050409150	NUCLEAR ENERGY BUS OP	CASTLE HAYNE	WILMINGTON	NC	28401	79	0
	SCD067002147	MOBILE COMM BUS DIV	3001 W RADIO DRIVE	FLORENCE	SC	29501	2933	507
	TND066709130	DISTRIBUTION EQMT DIV	EAST MORRIS BLVD	MORRISTOWN	TN	37814	660	0
	TND078565249	DISTRIBUTION EQMT DIV	S 4TH STREET	SELMER	TN	38375	373	0
05	ILD005272992	APPLIANCE CONTROL DPT	709 WEST WALL STREET	MORRISON	IL	60644	10	0
	ILD005443866	MATTON LAMP PLANT	1501 S 19TH STREET	MATTON	IL	61938	19	0
	ILD005453691	GENERAL PURPOSE CONTROL DEPT	VETERANS PARKWAY	BLOOMINGTON	IL	61701	33	0
	ILD062338694	SPENT FUEL SERVICE OPERATION	7555 EAST COLLINS RD	MORRIS	IL	60450	3	0
	ILD070015714	CHICAGO SERVICE SHOP	6045 S NOTTINGHAM AV	CHICAGO	IL	60638	8	0
	ILD980503023	MAJOR APPLIANCE	1540 S 54TH	CICERO	IL	60650	33	0
	IND000803726	MA MANUFACTURING DIV	301 NORTH CURRY PIKE	BLOOMINGTON	IN	47402	72	0
	IND004557815	SPECIALTY TRANSF DPT	1701 COLLEGE STREET	FORT WAYNE	IN	46804	5	0
	IND005422084	GENL PURPOSE MOTOR DPT	500 NORTH 9TH STREET	DECATUR	IN	46733	6	0
	IND005448683	GENL PURPOSE MOTOR DPT	2000 TAYLOR STREET	FORT WAYNE	IN	46804	20	0
	IND006040299	GENERAL PURPOSE MTR DEPT	TWELFTH STREET SE	LINTON	IN	46804	9	0
	IND006376362	LEXAN PRODUCTS DIVISION	LEXAN LANE	MOUNT VERNON	IN	47620	3640	564
	IND006392773	SPECIALTY MOTOR DEPT	13TH & PAYNE STREETS	TELL CITY	IN	47856	10	0
	MNT280010398	MINNEAPOLIS SERVICE SHOP	2025 49TH AVENUE N	MINNEAPOLIS	MN	55430	10	0
06	ARD007037823	SPECIALTY MOTOR DEPARTMENT	101 GEE STREET	JONESBORO	AR	72401	91	0
	LAD043197284	DISTR TRANS BUS DPT	7000 FLOURNOY-LUCAS	SHREVEPORT	LA	71109	941	207
	LAD053782413	NEW ORLEANS SERVICE SHOP	1115 DE ARMAS STREET	NEW ORLEANS	LA	70114	16	0
	TXD060718269	HOUSTON SERVICE SHOP	8800 WALLISVILLE RD	HOUSTON	TX	77029	318	0
	TXD064114242	DALLAS SERVICE SHOP	3202 MANOR WAY	DALLAS	TX	75235	8	0
	TXD079400545	DISTRIBUTION EQUIPMENT DIV.	3530 W 12TH STREET	HOUSTON	TX	77008	143	0
07	KSD041917501	AVIATION SERVICE DEPARTMENT	STROTHER FIELD	ARKANSAS CITY	KS	67005	14	0
	MOD006312375	ST LOUIS LAMP PLANT	6251 ETZEL AVENUE	ST LOUIS	MO	63133	5	0
	MOD030709539	SPECIALTY MOTOR DEPARTMENT	2401 SUNSHINE STREET	SPRINGFIELD	MO	65804	42	0
08	COD062753702	DENVER SERVICE SHOP	4900 KINGSTON ST	DENVER	CO	80239	6	0
10	ORD001818442	PORTLAND SERVICE SHOP	2727 NW 29TH AVE	PORTLAND	OR	97210	8	0
	WAD009278706	AVIATION SERVICE DEPARTMENT	220 SOUTH DAWSON ST	SEATTLE	WA	98108	31.0	0
	WAD046207379	SEATTLE SERVICE SHOP	1031 4TH AVENUE N	KENT	WA	98031	7	0
								3302.00000 (Tot PCLOSURE85)
							17423.00000 (Tot CLOSURE85)	

EXHIBIT 1

Site Plan

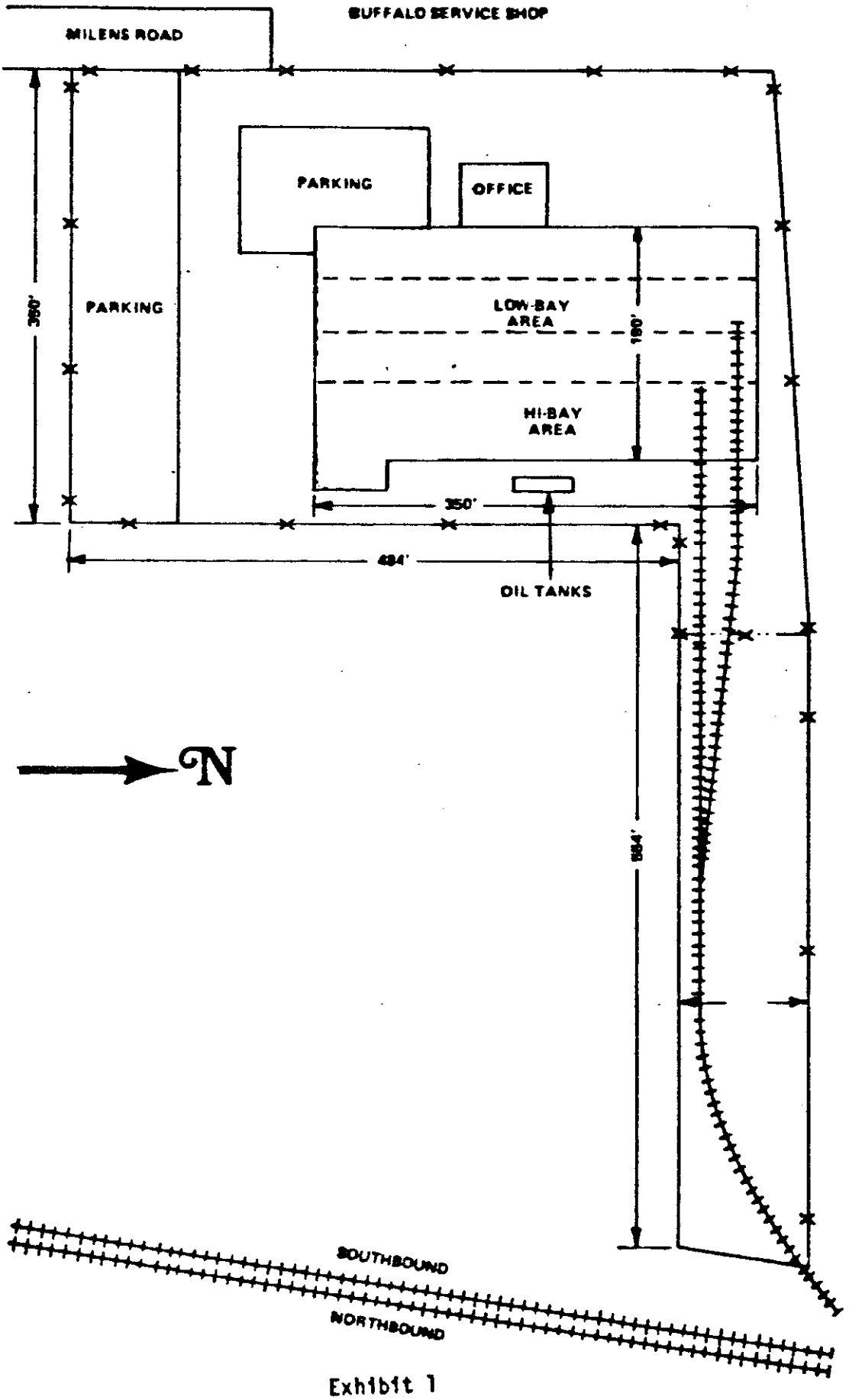

BUFFALO SERVICE SHOP
MILENS ROAD
PARKING
OFFICE
PARKING
350'
LOW-BAY AREA
180'
HI-BAY AREA
350'
484'
OIL TANKS
N
554'
SOUTHBOUND
NORTHBOUND

Exhibit 1

EXHIBIT 2

Liquid Waste Storage Facilities - Two (2) Drawings

A&ES APPROVED PCB DISPOSAL SITES

		Facility	Capacitors	Properly Drained PCB Electrical Equipment	Contaminated Soil, Rags, and Other Debris	Properly Drained Containers	Asphalt (Contaminated)	Liquid 50 to 499 ppm PCB	Liquid 500 ppm PCB or Greater
LAND FILLS	1	Chemical Waste Management, Inc. Rt. 17 at Marker 163, PO Box 55 Emelle, AL 35459 (205) 652-0531 Toll Free # (800) 241-7829		X	X	X	X		
	2	Chemical Waste Management, Inc. P.O. Box 471 Kettleman City, CA 93239 (209) 386-9711		X	X	X	X		
	3	Casmalia Disposal 539 Ysidro Road P.O. Box 4275 Santa Barbara, CA 93108 (805) 937-8449		X	X	X			
	4	Envirosafe Services of Idaho, Inc. P.O. Box 936 Mountain Home, ID 83647 (209) 587-8434		X	X	X	X		
	5	US Ecology, Inc. 9200 Shelbyville Rd. Suite 526, P.O. Box 7246 Louisville, KY 40207 (502) 426-7160	(Landfill Site is at Beatty, Nevada)	X	X	X			
	6	CECOS International 56th & Pine Ave. Niagara Falls, NY 14302 (716) 873-4200		X	X	X			
	7	SCA Chemical Services, Inc. 1550 Balmer Rd. Model City, NY 14107 (716) 754-8231		X	X	X			
	8	CECOS International, Inc. 5092 Aber Rd. Williamsburg, OH 45176 (513) 720-6114		X	X	X	X		
	9	Chemical Waste Management, Inc. (Chem-Security Systems) Star Route Arlington, OR 97812 (503) 454-2643		X	X	X	X		
INCINERATORS	1	General Electric Co. Large Transformer Business Div. 100 Woodlawn Avenue Pittsfield, MA 01201 (413) 494-1110 ext. 3378						X	X
	2	SCA Chemical Services, Inc. 11700 South Stoney Ave. Chicago, IL 60617 (312) 660-7200 800-SCA-9999						X	X
	3	Energy System Co. (ENSCO) P.O. Box 1975 El Dorado, AR 71730 (501) 863-7173	X					X	X
	4	Rollins Environ. Services (TX) Inc. P.O. Box 609 Deer Park, TX 77536 (713) 479-6001	X					X	X