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STORM WATER POLLUTION PREVENTION PLAN THOMPSON ROAD FACILITY

Prepared For:

Carrier Corporation
Syracuse, New York

September 1993

BLASLAND & BOUCK ENGINEERS, P.C.
BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

#20

Storm Water Pollution Prevention Plan
Thompson Road Facility

Prepared For:

Carrier Corporation
Syracuse, New York

September 1993

Prepared By:

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BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

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Syracuse, New York 13214
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Table of Contents

Certification

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Gregory S Lowe. Facilities, Maintenance, and Services Manager

Name: GREGORY S. LOWE

Date: 10/1/93

Certification

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Signature: _____ TR-1 Plant Manager

Name: Richard Marlatt III

Date: 9/30/93

Certification

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Signature: DE Boyle

TR-2 Operations Manager

Name: DE BOYLE

Date: 9/30/93

BLASLAND & BOUCK ENGINEERS, P.C.
BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

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Signature: Thomas F. Scarfone — TR-3 Plant Manager

Name: THOMAS F. SCARFONE

Date: SEPT. 30, 93

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Richard Laubenstein — TR-19/20 Plant Manager

Name: Richard Laubenstein

Date: 9/30/93

Section 1.0

Introduction

Section 1.0 - Introduction

1.1 General

This Storm Water Pollution Prevention Plan (SWPPP) has been prepared to prevent, or minimize the potential for, the release of significant amounts of toxic or hazardous waste pollutants to the waters of New York State from the Carrier Corporation (Carrier) Thompson Road (TR) manufacturing complex. The SWPPP outlines Best Management Practices (BMPs) that have been developed and will be implemented for all storm water discharges that are associated with industrial activity at the site. This SWPPP has been prepared to satisfy the following requirements:

- As a Special Condition to the State Pollutant Discharge Elimination System (SPDES) Permit No. NY-0001163 for the Thompson Road facility, modified on July 1, 1993, Carrier was required to submit a BMP Plan for Outfalls 001 and 002. This SWPPP contains BMPs for Outfalls 001 and 002 to satisfy that special condition of the SPDES permit.

- On September 30, 1992, Carrier submitted a individual storm water discharge permit application to the New York State Department of Environmental Conservation (NYSDEC). This individual storm water permit application covered Outfalls 004, 005, 006, 007, 008, 009, and 010. This permit application is currently under review by NYSDEC. In the interim, on July 14, 1993, NYSDEC issued the General SPDES Permit for Storm Water Discharges Associated with Industrial Activity. Carrier is currently evaluating whether they will withdraw their original individual permit application and elect to be covered under the General Storm Water Permit. In either case, a SWPPP is a stated requirement of the General Storm Water Permit, and would be a likely requirement of an individual storm water permit for the Carrier facility. This SWPPP covers the discharges from Outfalls 004 through 010.

1.2 Background

The Carrier TR facility is located outside the City of Syracuse in the Town of Dewitt, Onondaga County, New York (see Site Location Map presented as Figure 1). The site is bounded by Thompson Road to the west, New York State Route 298 to the north, Kinne Street to the east, and residential/commercial properties to the south. General facility information is summarized below:

Name:	Carrier Corporation
Mailing Address:	Carrier Parkway, Syracuse, NY 13221
Location:	Carrier Parkway, Syracuse, NY 13221
Telephone:	(315) 432-6000
Contacts:	Daniel Klaczany, Environmental Control Engineer Richard Bianchi, Jr., Plant Engineering Manager
USEPA ID No.	NYD001317072
SPDES Permit No.	NY-0001163

Onondaga County Industrial Wastewater Discharge Permit No.: 4

SIC Code: 3585 - Refrigeration and Heating Equipment

Applicable Effluent Guidelines: 40 CFR 433 - Metal Finishing

Latitude: 43° 05' 11"
Longitude: 76° 05' 20"

Receiving Water: Sanders Creek
Water Classification: D

Total Facility Area: 7,600,000 square feet
Impervious Surface Area: 5,100,000 square feet
Pervious Surface Area: 2,500,000 square feet

Carrier Corporation is a division of the United Technologies Corporation. The manufacturing operations that currently exist at the site are related to the production of air conditioning equipment. The total property covers approximately 175 acres with approximately 3,300,000 square feet, or 75 acres, of building space. The remainder of the site is primarily paved for roadways, parking areas, and storage areas with large areas of the southern portion, including a recreation area, covered by grass. On Table 1, the nature of the operation and the area covered by each of the 31 buildings on the property are described.

All storm water from the facility discharges into Sanders Creek, a Class D receiving stream that runs parallel to Route 298 at the north end of the property. On the Site Drainage Plan, included as Figure 2, approximate drainage areas and each storm water outfall are delineated. Outfalls 001 and 002 have associated pump stations to collect and transfer all dry-weather flow and a portion of the storm water to an on-site air stripping treatment system located in the northeast corner of Building TR-3. The discharge from the air stripper treatment system, designated as Outfall 01A, discharges into Outfall 001. Therefore, the discharges from Outfall 001 (other than Outfall 01A) and Outfall 002 consist only of storm water volumes greater than the NYSDEC-approved capacity of each of the two associated pump stations.

Outfalls 004, 005, 006, 007, 008, 009, and 010 discharge directly into an unnamed tributary to Sanders Creek that runs along Kinne Street on the east side of the Carrier property. As was certified in the September 30, 1992 individual storm water permit application, these outfalls discharge storm water only.

1.3 Purpose and Scope

The objectives of the SWPPP are:

1. Designate a pollution prevention team to develop and implement the SWPPP;

2. Assess all potential pollutant sources for storm water discharges from the facility; and

3. Identify and implement BMPs to prevent or minimize the potential for pollutant discharges from the facility.

This SWPPP is organized into five sections as follows:

- Section 1.0 - Presents background information on the Carrier TR facility and a discussion of the purpose and scope of this plan;

- Section 2.0 - Identifies the Pollution Prevention Team that developed and will implement the SWPPP;

- Section 3.0 - Discusses the assessment of potential pollutant sources that was conducted;

- Section 4.0 - Identifies BMPs that have been identified and will be implemented as part of this SWPPP; and

- Section 5.0 - Presents references used in preparing this SWPPP.

Section 2.0

Pollution Prevention Team

2.0 - Pollution Prevention Team

Carrier has designated the following personnel as members of the Pollution Prevention Team:

Position	Name of Present Incumbent	Office Telephone #
Environmental Control Engineer - SPDES Program Manager	Daniel Klaczany - Leader	432-6783
Plant Engineering Manager	Richard Bianchi	432-6259
Environmental Control Engineer (TR1/TR20)	Beth Hubben	432-6769
Environmental Control Engineer - SPDES Treatment Plant Supervisor	Bryan Houck	432-7801
TR-1 Environmental, Health & Safety Manager	Doug Bailey	433-4248
TR-2 Environmental, Health & Safety Manager	Ray Grabowski	433-4038
TR-3 Environmental, Health & Safety Manager	Bill Bader	433-4735
TR-19/20 Environmental, Health & Safety Manager	Kristine Price	432-3706

Due to the large size of the Carrier facility, overall site environmental management is a responsibility of the Central Plant Engineering Department. This department, which includes the Plant Engineering Manager and the Environmental Control Engineers, has overall site responsibility and specific responsibility for all non-manufacturing areas. Environmental management in the five main manufacturing buildings (TR-1, TR-2, TR-3, TR-19/20) is the responsibility of designated individuals in each building.

The pollution prevention team will be responsible for developing and implementing all BMPs included in this SWPPP. These duties will parallel the team members current responsibilities as defined under the existing Site Emergency Response Plan and Spill Prevention Control and Countermeasure (SPCC) Plan. These plans should be referred to for more detail on the responsibility of each individual under those plans.

In addition, the Plant Engineering Manager is a member of the Environmental Oversight Committee (EOC) which consists of the following positions:

Position	Name of Present Incumbent
Facilities, Maintenance, and Services Manager	Greg Lowe
TR-1 Plant Manager	Richard Marchetti
TR-2 Operations Manager	Daniel Boyle
TR-3 Plant Manager	Thomas Scarfone
TR-19/TR-20 Plant Manager	Richard Laubenstein

The EOC will receive monthly reports from the Pollution Prevention Team.

Section 3.0

Assessment of Potential Pollutant Sources

3.0 - Assessment of Potential Pollutant Sources

To determine what pollutants may potentially be present in storm water discharges from the facility, a detailed assessment was conducted jointly by Carrier personnel and by Blasland & Bouck Engineers, P.C. (Blasland & Bouck). This assessment phase consisted of the following:

1. Development of a Site Plan (see Figure 3) that includes:

    - General site plan including property lines, building outlines, and adjacent roadways/properties;
    - Location of existing structural control measures for storm water runoff;
    - Surface waters;
    - Location where significant materials are exposed to precipitation;
    - Locations where major spills or leaks have occurred;
    - Location of fueling stations;
    - Location of vehicle and equipment maintenance and/or cleaning areas;
    - Loading/unloading areas;
    - Less-than-90-day hazardous waste storage area; and
    - Petroleum storage tanks.

2. Inventory of materials that may be exposed to storm water.

3. Identification of past spills and leaks at the facility.

4. Review of the existing analytical data on storm water discharges from the facility.

5. Other potential pollutant sources.

This assessment was conducted based on a review of existing Carrier documents and a detailed site inspection of all the areas of the facility including building roof tops. This assessment also included a review of all permitted air emissions for the facility (see Table 2) and petroleum storage facilities (see Table 3).

Based on this assessment and the established and ongoing BMPs at the Carrier facility described in Section 4.0, the following materials were identified as significant potential pollutants from the facility:

- Petroleum products;
- Iron;
- Zinc; and
- Aluminum.

Trichloroethene is no longer used at the facility. There are plans for eliminating the use of 1,1,1-trichloroethane in all manufacturing processes at the facility by the end of April 1994. However, minor quantities of 1,1,1-trichloroethane may continue to be used in testing procedures and laboratories.

The BMPs described in detail in Section 4.0 specifically address the future potential presence of the above compounds in the storm water.

Section 4.0

Best Management Practices

Section 4.0 - Best Management Practices

A number of BMPs are currently established and ongoing for the general Carrier facility. Additional BMPs that are general to the facility or that are specific to individual buildings are also recommended. Each of these BMPs is described in detail in this section.

General Facility - Established and Ongoing BMPs

1. Waste Minimization - Carrier has an aggressive waste minimization program in place that has reduced hazardous waste generation by 67% from 1985 to 1992. The TR facility does not generate any acutely hazardous waste. By 1992, the use of trichloroethene was completely eliminated and there are plans for eliminating the use of 1,1,1-trichloroethane in all manufacturing processes at the facility by the end of April 1994. United Technologies Corporation, Carrier's parent corporation, has a stated corporate policy to reduce toxic air emissions by 50% and hazardous waste generation by 40% between 1989 and 1994 from the base year of 1986. Details of the Carrier TR waste minimization program are found in the Waste Minimization Plan submitted to NYSDEC on June 30, 1992.

2. Chemical Storage - With the exception of compressed gases, all storage of chemicals at the Carrier facility is either inside of the buildings or under cover. To minimize the quantity of chemicals stored on-site, Carrier also utilizes "just-in-time" inventory control.

3. Security - Carrier maintains security provisions to prevent accidental or intentional unauthorized entry into all areas of the facility so as to prevent vandalism, theft, and improper or illegal use of the plant's facilities. The security system also serves to reduce accidental or malicious acts that could cause discharge of any chemicals to the storm water. All main entrance roads into the Carrier facility are under surveillance 24 hours per day, 7 days per week, either directly by security attendants or remotely by television monitors. Security personnel also tour the facility and grounds each shift. The entire perimeter of the facility is surrounded by a security fence. Visitors to the Carrier facility are required to sign in at the appropriate reception offices and are issued identification badges by security personnel that must be worn at all times. Carrier personnel are also required to carry identification badges while in the facility. Access is allowed only after positive identification by security personnel.

4. Spill Response Procedures - Carrier utilizes a Spill Response Plan and an SPCC Plan to prevent or minimize any chemical or petroleum spills at the facility. The Spill Response Plan is currently under review and will be finalized by the end of October 1993. The SPCC Plan was last updated in December 1991. Each of these plans can be referred to for details on inspection, recordkeeping, and training procedures related to spill response for both chemical and petroleum products.

5. Housekeeping - Carrier has dedicated staff that effectively maintains routine housekeeping in each building and on the grounds. Additional housekeeping BMPs for specific buildings at the facility are described below.

6. Non-Storm Water Discharges to Storm Sewer - In 1992, Carrier completed a program of reviewing all discharges to the storm sewers to confirm that they were either storm water or process discharges allowed by the existing SPDES permit. Carrier currently has a procedure in place that all changes to both the plant sanitary and storm sewer systems must be reviewed by Plant Engineering prior to the change being made. A copy of this procedure is included in Appendix A.

7. Material Compatibility - Materials involved in construction projects at the facility are selected based on their compatibility with any chemicals that they may come in contact with. The Material Safety Data Sheets for all chemicals that will be used at the facility are reviewed by members of the Pollution Prevention Team. Any compatibility hazards are expressed to the engineer in charge of the project.

8. Preventative Maintenance - The air stripper treatment system for the dry-weather and a portion of the storm water from Outfalls 001 and 002 is equipped with 100% backup air stripper tower, blower, and pump station capacity. This allows routine preventative maintenance to be conducted without interrupting the operation of the treatment system. The air stripper system also has an alarm that rings to the continually-manned security station should the treatment system automatically switch over to a backup component. The system is visually-inspected at least once per shift by either operating or security personnel to confirm proper operation.

9. Sediment and Erosion Prevention - The Carrier facility is generally flat and well-developed. There is no indication that sediment or erosion BMPs are required for the facility.

General Facility - Future BMPs to be Implemented

1. Training - Carrier will develop a training program related to this SWPPP that will be used in conjunction with existing training programs at the site. The initial training will be done as part of an awareness newsletter to be distributed to all employees by the end of 1993. This newsletter will introduce the Pollution Prevention Team members and their purpose, along with a discussion of the importance of spill prevention/response, good housekeeping practices, and materials management. To supplement the newsletter, appropriate first-line supervisors and facility/production engineers will receive pollution prevention training as part of the existing environmental compliance training programs (i.e., spill response, air emission control, SPCC, etc.). Additionally, pollution prevention training will be included with training currently conducted for all employees that handle hazardous wastes. All hourly

employees will be trained in storm water pollution prevention awareness as part of Carrier's existing Environmental, Health, and Safety (EHS) Training Program. New employees will be trained within 6 months of commencement of employment. On a case-by-case basis, contract or temporary personnel will be informed of facility operation and design features in order to prevent discharges or spills from occurring. Records of training shall be documented and maintained by the appropriate facility and building EHS personnel. The training programs will be in place by the end of 1993 and all employees will be trained by the end of 1994.

2. Outside Storage of Unpainted Steel and Galvanized Metal Materials - Carrier will implement a procedure to eliminate, to the maximum extent possible, the outdoor storage of all unpainted steel and galvanized metal raw materials, intermediate products, and finished products. All existing materials will be either placed under covered storages or inside a building by the end of 1994. A copy of the interoffice letter that initiated this procedure on January 5, 1993 is included in Appendix B.

3. Housekeeping - Carrier will immediately implement a general housekeeping of all exterior areas of the facility, including rooftops. Once the initial housekeeping is completed, a formalized bi-annual inspection program will be implemented with follow-up housekeeping, as necessary. The initial housekeeping will be completed by the end of 1993.

Petroleum Tanks - Future BMPs to be Implemented

1. Plant Fuel Oil Storage Facility - Carrier is currently installing a lining in the earthen dike for the plant fuel oil storage facility. This project will also include containment for the fuel oil truck unloading area and rehabilitation of the double gate drain valve system for the diked area. This project is scheduled to be completed by the end of 1993.

2. TR-1 Bulk Compressor Oil Tank - Carrier will remove all materials currently stored on the unloading pad for tank truck deliveries to the TR-1 bulk compressor tank. This unloading pad will be utilized for all future deliveries. This work will be completed by the end of October 1993.

3. TR-1 and TR-3 Bulk Compressor Oil Tanks - Carrier is currently upgrading the double gate valve drain system on the storage containment area for the TR-1 and TR-3 bulk compressor oil tanks. This work is scheduled to be complete by the end of 1993.

4. Plant Underground Gasoline Tank - Carrier is currently replacing the plant underground gasoline tank with a new aboveground storage tank. The paved area in which plant vehicles are refueled will be

bermed with asphalt to contain spills before they enter the storm sewer system. This work is scheduled to be completed by the end of 1993.

5. TR-20 Diesel Fuel Tank - Carrier will move the dispensing pump for the TR-20 Diesel Fuel Tank inside the diked area. All the diesel oil stains on the containment wall will be cleaned. This work will be completed by the end of October 1993.

Building TR-1 - Future BMPs to be Implemented

1. Solvent-Based Paints - Carrier is planning on switching all paints used in TR-1 from solvent-based to water-based paints. This switch is targeted for the end of April 1994.

2. Empty Drum Storage Area - Carrier is undertaking a program to remove all empty drums that are currently stored adjacent to Building TR-11. This program will be completed by the end of 1993.

3. Materials on Roof - Carrier will implement a sampling program to determine if metallic materials found on the roof of Building TR-1 contribute metals (i.e., iron, zinc) potentially found in the storm water discharge. Based on the results of this sampling, Carrier will initiate a program to remove these materials from the roof. This program will be completed by the end of 1994.

Building TR-3 - Future BMPs to be Implemented

1. Modification to Chip Shed Operation - Carrier will be modifying the operation of the Building TR-3 chip shed. These modifications may include installation of an asphalt berm, implementation of a dumpster exterior washdown procedure, or similar modifications in order to reduce drag-out of metal chips into the plaza area between Buildings TR-2 and TR-3. This work will be completed by the end of April 1994.

2. Exhaust onto Roof - Carrier will reroute the existing roof exhaust from the pumpdown units for the dehydration ovens and the compressor test area located on the south side of Building TR-3. These are potential sources of oil onto the roof and subsequently into the storm water. This work will be completed by the end of April 1994.

3. Bulk Waste Area Tanks - Carrier is currently initiating a program to relocate all bulk waste tanks from the southwest corner of Building TR-3 into the TR-3 wastewater plant area. In this area, all off-loading of bulk waste materials into tank trucks will be completed inside of the building. This work will be completed by the end of April 1994.

4. Materials on Roof - Carrier will implement a sampling program to determine if metallic materials found on the roof of Building TR-3 contribute metals (i.e., iron, zinc) potentially found in storm water discharge. Based on the results of this sampling, Carrier will initiate a program to remove these materials from the roof. This program will be completed by the end of 1994.

Buildings TR-19/20 - Future BMPs to be Implemented

1. Paint Staining on Roof - Carrier will investigate the cause of visible paint staining on the stacks and roofing material apparently from several permitted air sources. Based on the results of this investigation, the need for modifications of the existing emission controls will be evaluated and installed as required.

2. Materials on Roof - Carrier will implement a sampling program to determine if metallic materials found on the roof of Building TR-19/20 contribute metals (i.e., iron, zinc) potentially found in the storm water discharge. Based on the results of this sampling, Carrier will initiate a program to remove these materials from the roof. This program will be completed by the end of 1994.

Section 5.0

References

Section 5.0 - References

Borrow, B.L., New York State Department of Environmental Conservation (NYSDEC), Letter to R. Jr., Bianchi, Carrier Corporation, Subject: Response to Comments on State Pollutant Discharge Elimination System (SPDES) Permit Draft Modification (Syracuse, NY: July 1, 1993).

Carrier Corporation, Spill Response Manual for Thompson Road Facility and Carlyle Compressor Facility, (Syracuse, NY: December 31, 1991).

Klaczany, Daniel, United Technologies Carrier, Letter to NYSDEC, Subject: SPDES Storm Water Permit Application (Syracuse, NY: September 30, 1992).

Lowe, Gregory, United Technologies Carrier, Letter to East Syracuse Fire Chief, East Syracuse, NY, Subject: Tier II Reports and Site Plans for Carrier Corporation's Facilities (Syracuse, NY: March 1, 1993).

Lowe, Gregory, United Technologies Carrier, Letter to Regional Hazardous Substance Engineer, NYSDEC, Subject: Carrier Corporation Hazardous Waste Reduction Plan Biennial Update Report (Syracuse, NY: June 30, 1993).

NYSDEC, SPDES General Permit for Storm Water Discharges Associated with Industrial Activity, Permit No. GP-93-05, Effective Date: August 1, 1993, Expiration Date: August 1, 1998 (Albany, NY: July 14, 1993).

United Technologies Carrier, Spill Prevention Control and Countermeasure (SPCC) Plan for United Technologies Carrier, Syracuse, NY (Syracuse, NY: December 27, 1991).

United States Environmental Protection Agency (USEPA), NPDES Best Management Practices Guidance Document, EPA/600-9-79-045, (Cincinnati, OH: December 1979).

USEPA, Storm Water Management for Industrial Activities, EPA/832-R-92-006, (Washington, DC: September 1992).

Tables

TABLE 1

CARRIER CORPORATION
THOMPSON ROAD FACILITY
SYRACUSE, NEW YORK

DESCRIPTION OF BUILDINGS

Building No.	Area (Square Feet)	Nature of Operation in Building
TR-1	710,087	Large industrial compressor, chillers, and storage tanks manufacturing
TR-2	608,730	Coil manufacturing and warehouse
TR-3	241,610	Carlyle - compressor manufacturing
TR-4	204,559	Offices, testing laboratories, and model shop
TR-5	190,321	Warehouse and offices
TR-6	15,648	Maintenance
TR-6A	6,132	Plant housekeeping offices and storage
TR-7	44,005	Offices and test laboratories
TR-8	42,365	Record storage
TR-9	4,000	Plant security offices
TR-10	18,246	Plant boilerhouse
TR-10A	135	Fuel oil pumphouse
TR-10B	130	Fuel oil pumphouse
TR-11	6,487	Storage
TR-12	6,429	Test laboratories
TR-12A	234	Office
TR-12B	308	Gas compressor building
TR-13	780	Storage
TR-14	1,049	Gas meter building
TR-18	24,000	Offices
TR-18S	28,000	Computer operations and offices
TR-19	332,931	Transicold - container refrigeration manufacturing
TR-20	470,400	Transicold - container refrigeration manufacturing
TR-21	50,000	Mechanical areas, test walls, and offices
TR-21A	1,435	Mechanical room
TR-23	3,500	Less than 90-day storage area
Engineering Research and Administration	170,252	Offices and research laboratories

TABLE 1

CARRIER CORPORATION
THOMPSON ROAD FACILITY
SYRACUSE, NEW YORK

DESCRIPTION OF BUILDINGS

Building No.	Area (Square Feet)	Nature of Operation in Building
Oil Tank Farm Control Building	836	Currently not used
Domestic Water Pumphouse	814	Pumps for domestic water supply

TABLE 2

CARRIER CORPORATION
THOMPSON ROAD FACILITY
SYRACUSE, NEW YORK

PERMITTED AIR EMISSIONS

Building	Emission Point ID No.	Description
TR-1	01002	Metal cleaning
	01003	Metal cleaning
	01007	Metal cleaning
	01008	Metal cleaning
	01013	Solder pot process
	01021	Leak test equipment
	01038	Paint booth
	01041	Metal cleaning
	01097	Paint booth
	01098	Paint booth
	01106	Paint booth
	01221	Leak test equipment
	01223	Leak test equipment
TR-2	02098	Cleaning tanks
	02106	Brazing operation
	02107	Solder pot
TR-3	03002	Cleaning tank
	03003	Single stage washer
	03006	Cleaning tanks
	03015	Washer (Spra-Con)
	03016A	AC parts washer (Blakeslee)
	03016B	AC parts washer (Vector)
	03024	Compressor run-in room
	03025	Compressor run-in room
	03026	Pit degreaser (Blakeslee)
	03027	Three-stage compressor washer
	03028	06E compressor paint spray booth
	03031	Shot blast dust collector
	03032	Paint spray booth

TABLE 2

CARRIER CORPORATION
THOMPSON ROAD FACILITY
SYRACUSE, NEW YORK

PERMITTED AIR EMISSIONS

Building	Emission Point ID No.	Description
TR-3 (cont'd)	03033	Spray booth with wash chamber
	03035	Pit degreaser
	03036	Aqueous washer
	03037	Infrared drying tunnel
	03040	Leak test equipment
	03041	Leak test equipment
	03043	Leak test equipment
	03050	Air stripper
	03051	Air stripper
TR-4	04002	Dry-off oven
	04014	Paint booth
TR-10	00101	Boilers
	00102	Boilers
TR-19	19004	Paint booth
	19005	East curing oven
	19006	West curing oven
	19011	Paint mixing room
	19025	Paint booth
	19027	Paint spray booth
	19029	Paint spray booth
TR-20	20013	Cleaning tanks
	20020	Oven
	20033	Paint booth
	20034	Paint booth
	20035	North paint bake oven
	20036	South paint bake oven
	20037	North paint bake oven north
	20038	South paint bake oven
	20039	Paint mixing room

TABLE 2

CARRIER CORPORATION
THOMPSON ROAD FACILITY
SYRACUSE, NEW YORK

PERMITTED AIR EMISSIONS

Building	Emission Point ID No.	Description
TR-20 (cont'd)	20040	Paint mixing room
	20041	Foam booth
	20042	Foam booth
	20043	6-stage washer
	20044	6-stage washer
	20045	Powder paint cure oven
	20047	7-stage washer
	20053	Helium test booth
	20055	Burn-off oven
	20057	Helium test booth
	20058	Helium test booth

TABLE 3

CARRIER CORPORATION
THOMPSON ROAD FACILITY
SYRACUSE, NEW YORK

PETROLEUM STORAGE FACILITIES

Description	Location	Tank Capacity (gallons)	Approximate Containment Capacity (gallons)
Plant fuel oil storage facility	South of TR-10	253,825	435,000
TR-1 waste oil tank	Inside TR-1	2,500	4,685
TR-1 bulk compressor oil	South of TR-1	10,000	12,600
Plant security gasoline	South of TR-2	250	300
TR-2 bulk compressor oil	South of TR-2	10,000	11,490
TR-3 waste oil	Inside TR-3	3,000	6,430
Plant underground gasoline tank	East of TR-6	4,000	Double-walled tank
TR-20 diesel fuel tank	South of TR-20	250	590
Storage yard diesel fuel tank	Chiller storage yard	600	495
TR-1 fuel oil tank	South of TR-1	2,000	2,200

Note:

Information from existing SPCC Plan

Figures

SANDERS CREEK

ROUTE 298

SANDERS CREEK

UNNAMED TRIBUTARY TO SANDER'S CREEK

002

001

01A

004

005

006

007

008

009

010

TR-1

TR-2

TR-3

TR-4

TR-5

TR-6

TR-6A

TR-7

TR-8

TR-9

TR-10

TR-10A

TR-10B

TR-11

TR-12

TR-12A

TR-12B

TR-13

TR-14

TR-18

TR-18S

TR-19

TR-20

TR-21

TR-21A

TR-23

AIR STRIPPER TREATMENT SYSTEM

ADMINISTRATION

ENGINERING

RESEARCH

CARRIER PARKWAY

THOMPSON ROAD

KINNE STREET

ELECTRICAL SUBSTATION

FUEL OIL STORAGE

DOMESTIC WATER PUMP HOUSE

OIL TANK FARM CONTROL BUILDING

LESS THAN 90 DAYS HAZARDOUS WASTE STROAGE AREA

PARKING

RECREATION AREA

LEGEND

- (P) PETROLEUM STORAGE FACILITY
- (V) VEHICLE WASH AREA
- OUTDOOR STORAGE AREAS
- 004 OUTFALL WITH DESIGNATION
- SECURITY FENCE

APPROXIMATE SCALE: 1"=300'

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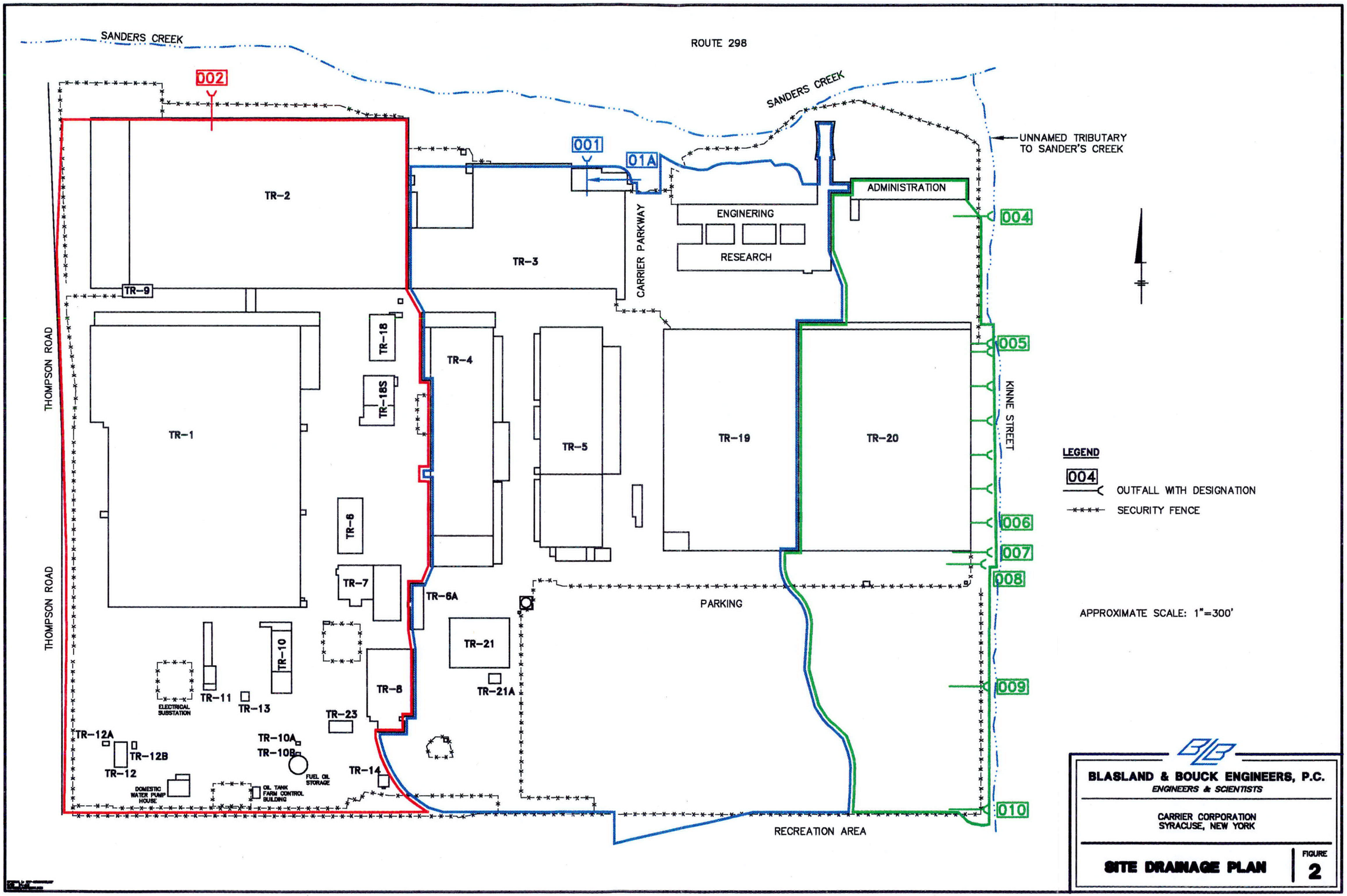
ENGINEERS & SCIENTISTS

CARRIER CORPORATION
SYRACUSE, NEW YORK

SITE PLAN

FIGURE
3



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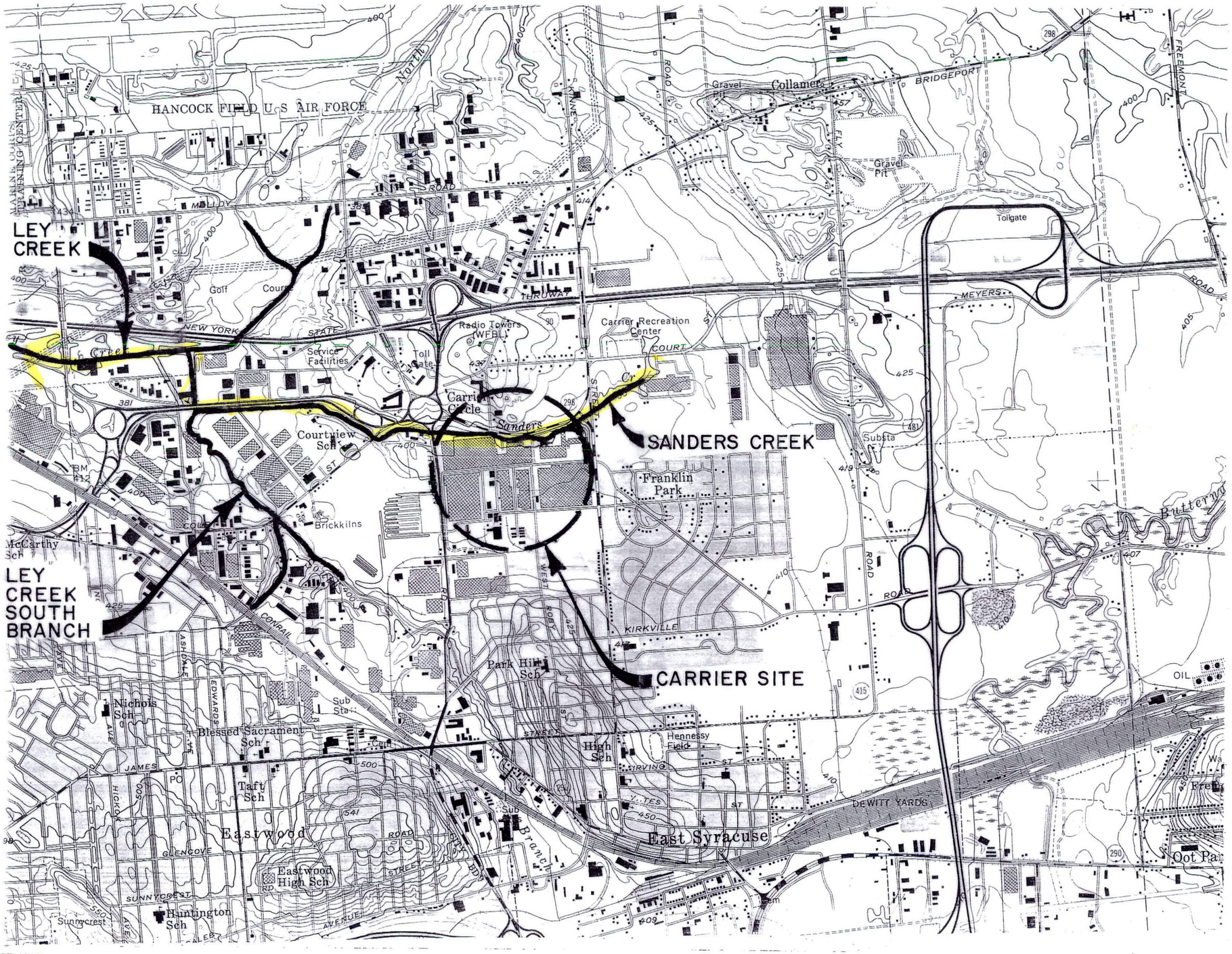
ENGINEERS & SCIENTISTS

CARRIER CORPORATION
SYRACUSE, NEW YORK

SITE DRAINAGE PLAN

FIGURE
2



2000' 0 2000'

APPROX. SCALE: 1" = 2000'

SEPT. 1993
507.02.32

REFERENCE: SYRACUSE EAST, USGS QUAD.

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SYRACUSE, NEW YORK

SITE LOCATION MAP | 1

Appendices

Appendix A

Site-Wide Procedure: Piping Tie-Ins to Storm/Sanitary Sewer Systems

SITEWIDE PROCEDURE:
PIPING TIE-INS TO STORM/SANITARY SEWER SYSTEMS

1. SCOPE: This procedure covers any temporary or permanent piping corrections made to the storm sewer or sanitary sewer system within the Syracuse operations. In order to insure that future or relocated tie ins are made to the correct system, the following procedure and/or guidelines are to be followed:

   a. All connections to sanitary and storm sewer system must be approved by Plant Engineering. submit the following information when requesting at tie in approval:

      1. Type of system connecting into (storm, sanitary)
      2. Description of waste-include chemical data, MSDS, flow rate
      3. Size and type of pipe
      4. Location - where source of waste is and when connection is being made.

      Submit to the department manager; we will turn around requests in 2-4 days.

   b. Some guidelines on what waste streams can be sent where (for estimating purposes):

      1. Storm - Clean water, a/c unit condensate, drinking fountain drains, city water cooling (non-contact)
      2. Sanitary -Sink drains, some washer tank overflows, contaminated cooling water
      3. Cooling tower water, steam condensate - pipe to return system lines; do not pipe to drains!

2. Some wastes cannot be sent to any drains and must be disposed of in another manner. These wastes will be classified by Site Environmental Engineers who will specify a disposal method.

Appendix B

Interoffice Letter Dated January 5, 1993 from
Richard Bianchi, Jr., Plant Engineering Manager,
Subject: Outdoor Storage and Storm Water Requirements

Interoffice Letter

CARRIER

To:
Mr. Bill Delaurier (A)
Mr. Andrew Demski (A)
Mr. Allen Gaboric (A)
Mr. Harry Hale (A)
Mr. Peter Hart (A)
Mr. Tom Kassouf (A)
Mr. Dick Laubenstein (A)

Mr. Gregory Lowe (B)
Mr. Dan Klaczany (B)
Mr. Dale Sweet (C)

Date: January 5, 1993

From: Richard Bianchi Jr.

Office: Plant Engineering

Subject: Outdoor Storage & Stormwater Requirements

Recent USEPA regulations have addressed stormwater runoff from industrial sites and their impact on water pollution. These regulations require regulated sites to submit Stormwater Pollution Prevention Plans (SWPPP) that address this pollution potential. Due to NYSDEC's policy of implementation of these regulations, we in Syracuse are not at present, required to prepare this plan. But, through discussions with various officials within NYSDEC, this "grace period" will eventually end. The SWPPP will challenge our management of site operations in the following areas:

a. Good housekeeping practices that keep the facility clean and orderly are to be described;
b. Training of employees to make them aware of spill response, housekeeping and material management practices;
c. Risk assessment and minimization - describe practices that reduce the potential and actual emissions of pollutants to the water that receives storm runoff. i.e. Sanders Creek;

What this distills down to is that practices that contribute significantly pollutant loading to Sanders Creek will no longer be permitted and must be phased out. For us, this boils down to eliminating outdoor storage of unpainted steel and galvanized metal. These materials when exposed to the acidic precipitation common in this area, leach zinc and iron into the stormwater runoff.

Also be aware that at present, CC-1 has been exempted from this regulation. This exemption is contingent on no manufacturing activities being performed at the facility. In addition, no outdoor storage of any kind is allowed. If this situation changes and it is management's desire to locate some type of manufacturing activity in the building, please contact this office immediately so a permit application may be compiled and submitted.

We will have some time to address this situation. I suggest you start planning now on how best to avoid outdoor storage of raw material or finished goods that fall into the categories described. A realistic time frame to complete this process would be two years.

If you or your staff have any questions, contact me (ext 6259) or Dan Klaczany (ext. 6783.)

Richard Bianchi

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