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AUTH.NAME AUTHOR AFFILIATION
RHODE,G.K. NIAGARA MOHAWK POWER CORP.
RECIP.NAME RECIPIENT AFFILIATION
IPPOLITO,T.A. OPERATING REACTORS BRANCH 3

SUBJECT: FORWARDS RESPONSES TO QUESTIONS IN NRC 790130 LTR RE RADWASTE SOLIDIFICATION & HANDLING SYS.INCLUDES SPILL PREVENTION CONTROL & COUNTERMEASURE PLAN & NY APPLICATION FOR UNIT CONST PERMIT,INDIRECT SOURCE. see Rpt

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	17 ENGR BR	1	1	18 REAC SFTY BR	1	1
	19 PLANT SYS BR	1	1	20 EEB	1	1
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MAR 7 1979

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NIAGARA MOHAWK

NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202/TELEPHONE (315) 474-1511

March 2, 1979

Director of Nuclear Reactor Regulation
Attn: Mr. Thomas Ippolito, Chief
Operating Reactors/Branch #3
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Ippolito:

Re: Nine Mile Point Unit 1
Docket No. 50-220
DPR-63

Attached are responses to the questions enclosed in your January 30, 1979 letter relating to the Radioactive Waste Solidification and Handling System.

Very truly yours,

NIAGARA MOHAWK POWER CORPORATION

Gerald K. Rhode, Vice President
System Project Management

LMM/szd

Attachment

A001 S 1/1

NIAGARA MOHAWK POWER CORPORATION

Nine Mile Point Unit 1

Docket No. 50-220

DPR-63

RADWASTE REDUCTION SYSTEM AND SOLIDIFICATION AND HANDLING SYSTEM

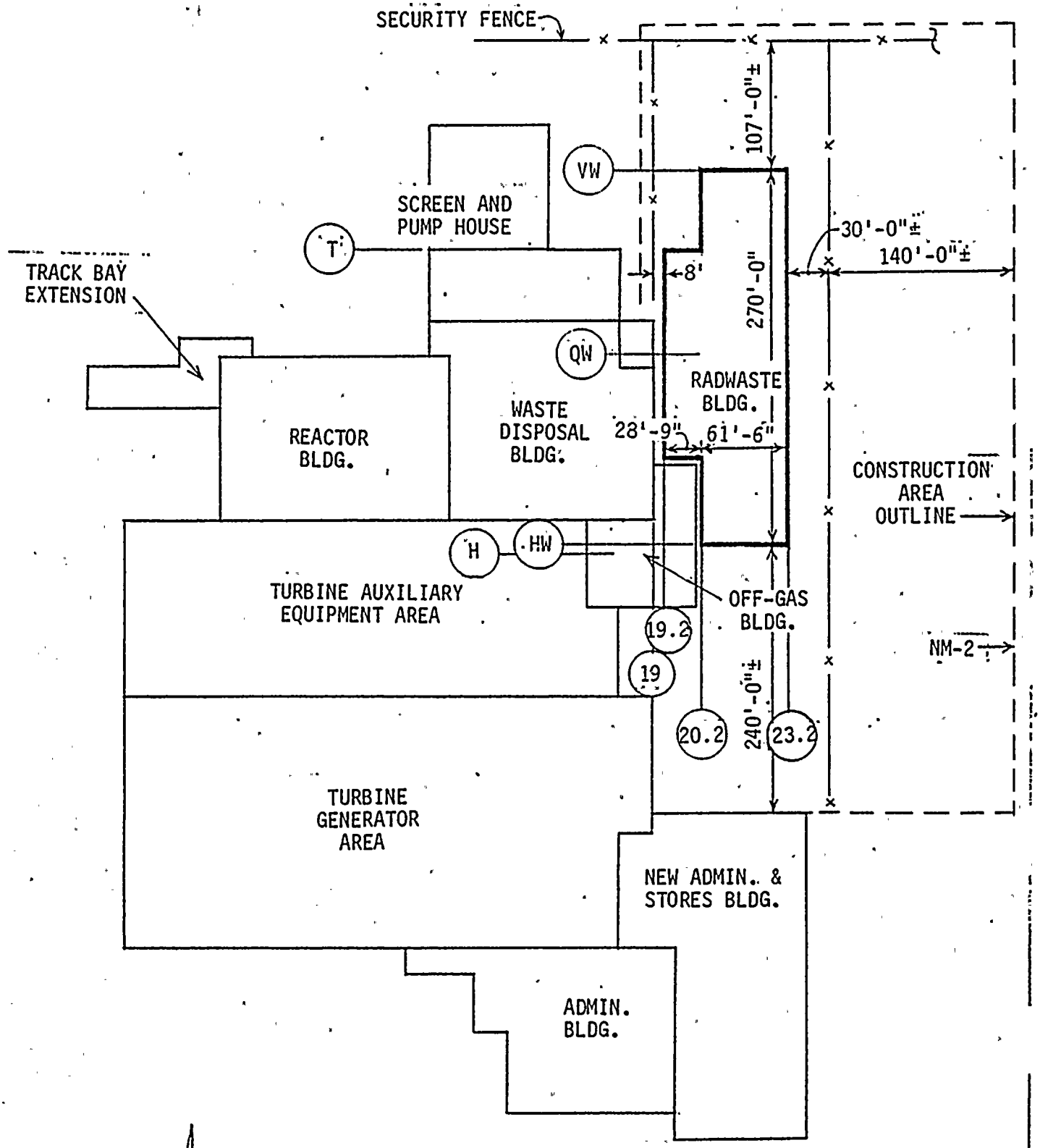
Additional Information

Question 1

Provide a sketch to scale and with dimensions showing location of construction site and proposed building in relation to other existing facilities for NMP-1.

Response

A sketch of the construction site and proposed building in relation to other existing facilities at Nine Mile Point Unit 1 is enclosed herein.



KEY PLAN

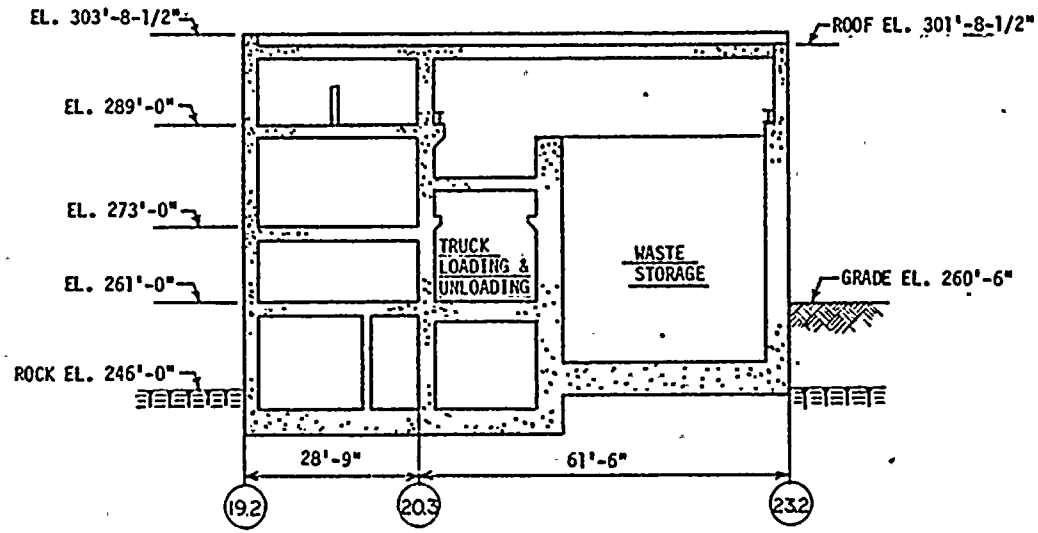
FIGURE 1

Question 2

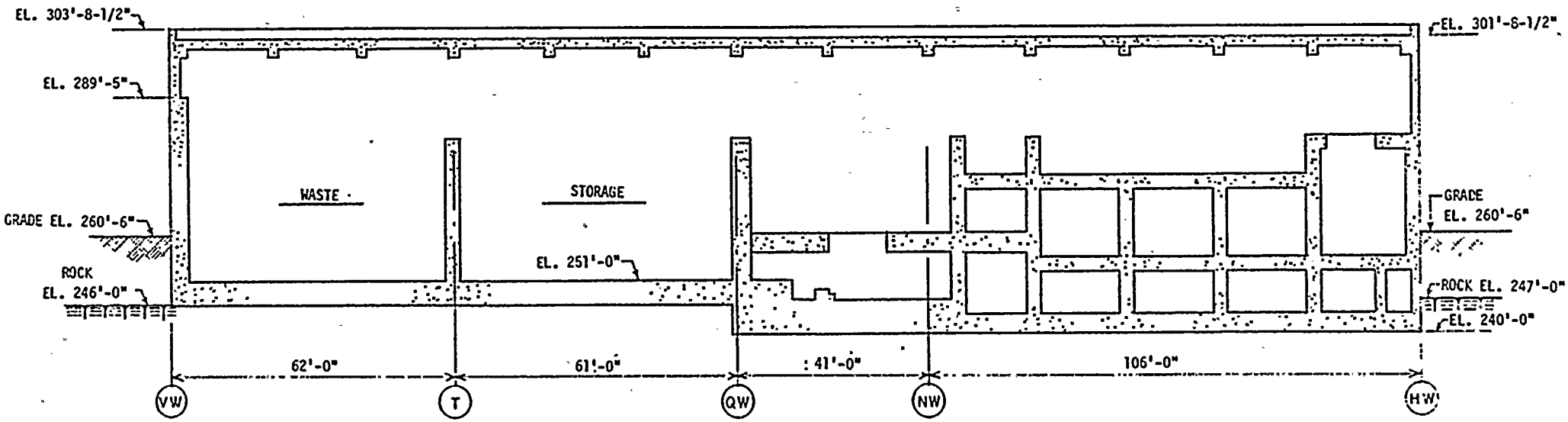
Provide a dimensioned sketch of the proposed building cross-section showing existing grade, depth of foundation with respect to surface soil and bedrock), and proposed finished grade.

Response

A sketch of the proposed building cross-section showing existing grade, finished grade and depth of foundation is enclosed herein.



SECTION 2-2
(ELEVATION)



SECTION 1-1 (ELEVATION) SCALE 1" = 40'

FIGURE 3

Question 3

How much spoil will be generated from the excavated area and how will it be disposed of?

Response

It is estimated that 15,000-20,000 yd^3 of spoil will be removed during excavation. A relatively small amount of this will be used as backfill (1,000-2,000 yd^3). Presently, spoil from Nine Mile Point Unit #2 construction is disposed of in areas on the Nine Mile Point Unit 1 & 2 site. These areas are located to the south of Lake Road. It is anticipated that spoil from this excavated area will be disposed of in the same manner; that is, on-site disposal.

Question 4

You indicate that discharges from the NMP-2 site runoff control system will be sampled in accordance with New York State Department of Environmental Conservation (NYSDEC) site runoff control criteria. What are these criteria? What parameters will be sampled and with what frequency?

Response

The criteria, samples to be taken and frequency are listed in Part I of the Nine Mile Point Unit 2 discharge permit (attached).

Copies: SPDES File
Region #7
Oswego Co. H.D.
Mr. Crandall
Mr. Pagano

Facility ID No. : NY 009 4463

Effective Date : August 1, 1977

Expiration Date : August 1, 1982

Attch: Part II-Gen'l Cond.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES)
DISCHARGE PERMIT

Special Conditions
(Part I)

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the provisions of the Federal Water Pollution Control Act, as amended by the Federal Water Pollution Control Act Amendments of 1972, P.L. 92-500, October 18, 1972, (33 U.S.C. §1251 et. seq.) (hereinafter referred to as "the Act").

Niagara Mohawk Power Corporation

is authorized to discharge from the facility described below:
Nine Mile Point Nuclear Station
Unit 2 Construction Site
Lake Road
Scriba, New York

Scriba (T), Oswego County
into receiving waters known as:

Lake Ontario Class (A - Special)

in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or written authorization is given by the Department. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by the Department of Environmental Conservation no later than 180 days prior to the expiration date.

By Authority of George K. Hansen, P.E., Chief, P.D.E.S. Permit Section
Designated Representative of Commissioner of the
Department of Environmental Conservation

7-7-77
Date

George K. Hansen
Signature

FINAL EFFLUENT LIMITATIONS

During the period beginning on effective date of permit and lasting until expiration date of permit, discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

TABLE I

Outfall Number	Effluent Limitations (Maximum Limits except where otherwise indicated)					
004 (Sanitary)	(X) Flow	30 day arithmetic mean	33,000 GPD	XXX		
	(X) BOD_5	30 day arithmetic mean	30 mg/l	and	_____	lbs/day*
	(X) BOD_5	7 day arithmetic mean	45 mg/l	and	_____	lbs/day
	( ) BOD_5	Daily	_____ mg/l	and	_____	lbs/day
	( ) TOD (See Note Below)	Daily	_____ mg/l	and	_____	lbs/day
	(X) Suspended Solids	30 day arithmetic mean	30 mg/l	and	_____	lbs/day*
	(X) Suspended Solids	7 day arithmetic mean	45 mg/l	and	_____	lbs/day
	( ) Suspended Solids	Daily	_____ mg/l	and	_____	lbs/day
	(X) Fecal Coliform	30 day geometric mean	200 /100 ml			
	(X) Fecal Coliform	7 day geometric mean	400 /100 ml			
	( ) Total Coliform	Daily	_____ /100 ml			
	( ) Total Kjeldahl Nitrogen	Daily	_____ /mg/l as N			
	( ) Ammonia	Daily	_____ /mg/l as NH_3			
	(X) Dissolved Oxygen	Minimum	greater than 4.0 mg/l			
	(X) pH	Range	6.0 to 9.0			
	(X) Settleable Solids	Daily	less than 0.3 ml/l			
	(X) Chlorine Residual	Minimum / Maximum	0.5/1.0 mg/l			
	( ) Phosphorus	Daily	_____ mg/l as P			
	( ) Total Nitrogen	Daily	_____ mg/l as N			
	( ) _____					

*and effluent values shall not exceed 15 % of influent values

TABLE 2

Monitoring Requirements

Parameter	Frequency	Sample Type	Sample Location: Influent		Sample Location: Effluent
(X) Total Flow, MGD	Monthly	Instantaneous	X	or	X
(X) BOD_5, mg/l	Monthly	Grab	X	and	X
(X) Suspended Solids	Monthly	Grab	X	and	X
(X) Fecal Coliform, No./100 ml	4/year	Grab			X
( ) Total Coliform, No./100 ml					
( ) Total Kjeldahl Nitrogen, mg/l as N					
( ) Ammonia, mg/l as NH_3					
(X) Dissolved Oxygen, mg/l	4/year	Grab			X
(X) pH	Monthly	Grab			X
(X) Settleable Solids, ml/l	Daily	Grab			X
(X) Residual Chlorine, mg/l	Daily	Grab			X
( ) Phosphorus, mg/l as P					
(X) Temperature, °C	Monthly	Grab			X
( ) Total Nitrogen, mg/l as N					
( ) _____					

NOTE: TOD (Total Oxygen Demand) shall be computed and reported as follows:
$TOD = 1\frac{1}{2} \times BOD_5 + 4\frac{1}{2} \times TKN$ (Total Kjeldahl Nitrogen)

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning effective date of permit and lasting until expiration of permit, the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number	Effluent Parameter	Discharge Limitations: kg/day (lbs/day) Daily Avg.	Discharge Limitations: kg/day (lbs/day) Daily Max.	Discharge Limitations: Other Units (Specify) Daily Avg.	Discharge Limitations: Other Units (Specify) Daily Max.	Monitoring Reqmts. Measurement Frequency	Monitoring Reqmts. Sample Type
005 (Cement batch Plant)							
	Flow*					Monthly	Instant-aneous
	Total Suspended Solids				50 mg/l	Monthly	Grab
	Oil & Grease			10 mg/l	15 mg/l	Monthly	Grab
	Settleable Solids				0.3 ml/l	Weekly	Grab
	*Monitoring requirement only						
006 (Total Discharge)							
	Flow*					Monthly	Instant-aneous
	Total Suspended Solids				50 mg/l	Monthly	Grab
	Oil & Grease			10 mg/l	15 mg/l	Monthly	Grab
	Settleable Solids				0.3 ml/l	Weekly	Grab

The pH shall not be less than 6.7 standard units nor greater than 8.5 standard units and shall be monitored as follows: on monthly grab samples for outfalls 005 and 006.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): one sample to be taken at the outfall of batch plant before mixing, and another sample at the total discharge before entering Lake Ontario.

The daily average discharge is the total discharge by weight or in other appropriate units as specified herein, during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges in appropriate units as specified herein divided by the number of days during the calendar month when the measurements were made.

The daily maximum discharge means the total discharge by weight or in other appropriate units as specified herein, during any calendar day.

MONITORING, RECORDING AND REPORTING

a) The permittee shall also refer to the General Conditions (Part II) of this permit for additional information concerning monitoring and reporting requirements and conditions.

b) The monitoring information required by this permit shall be summarized and reported by submitting a completed and signed Discharge Monitoring Report form once every 3 months to the Department of Environmental Conservation and other appropriate regulatory agencies at the offices specified below. The first report will be due no later than Dec. 28,1977 . Thereafter, reports shall be submitted no later than the 28th of the following month(s): March, June, Sept., Dec.

Chief, Waste Source Monitoring Section
New York State Department of Environmental Conservation
Room 300 - 50 Wolf Road - Albany, New York 12233

Regional Engineer
New York State Department of Environmental Conservation
Regional Office #7
100 Elwood Davis Road
North Syracuse, New York 13202

Oswego County Department of Health
252 West First Street
Oswego, New York 13126

c) If so directed by this permit or by previous request, Monthly Wastewater Treatment Plant Operator's Reports shall be submitted to the DEC Regional Office and county health department or county environmental control agency specified above.

d) Each submitted Discharge Monitoring Report shall be signed as follows:

1. If submitted by a corporation, by a principal executive officer of at least the level of vice president, or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the Discharge Monitoring Report originates;

2. If submitted by a partnership, by a general partner;

3. If submitted by a sole proprietor, by the proprietor;

4. If submitted by a municipality, State or Federal agency, or other public entity; by a principal executive officer, ranking elected official, commanding officer, or other duly authorized employee.

e) Unless otherwise specified, all information submitted on the Discharge Monitoring Form shall be based upon measurements and sampling carried out during the most recently completed reporting period.

f) Blank Discharge Monitoring Report Forms are available at the above addresses.

Question 5

Provide detailed references for the construction controls that are in the NMP-2 ER (Question 1.A.4) similar to those provided for questions 1.A.1 and 1.A.2.

Response

The Nine Mile Point Unit 2 Environmental Report generally describes construction effects and controls in Section 4.0. However, a more comprehensive discussion is contained in Sections 2, 3, 7, 8, 9, 10 and 11 of the "Construction Environmental Program." Information from these sections is enclosed.

CSI

STONE & WEBSTER ENGINEERING CORP.

B87806270004

CONSTRUCTION SITE INSTRUCTIONS

Title	Number
ENVIRONMENTAL MONITORING PROGRAM	CSI. 1.3
	Revision Rev. 3
	Date June 20, 1978
	Prepared By T. S. Farrell

NINE MILE POINT NUCLEAR STATION – UNIT 2

APPROVED: J F Barnett
Senior Site Representative

CONCURRENCE: Bruce J Hall
Superintendent of Field Quality Control

J. O. NO. 12187

CONTROL LEVEL 1

1.0 Purpose

To monitor the effect of construction activities on the environment and to insure compliance with laws, regulations, and guidelines established by regulatory agencies on construction activities.

2.0 References

2.1 Nine Mile Point Nuclear Station - Unit 2 Applicant's Environmental Report, Construction Permit Stage.

2.2 Final Environmental Statement - Nine Mile Point Nuclear Station - Unit 2 (Docket No. 50-410) dated June 1973, issued by the Directorate of Licensing, United States Atomic Energy Commission.

2.3 Construction Permit No. CPPR-112, issued to Niagara Mohawk Power Corporation for Nine Mile Point Nuclear Station - Unit 2.

2.4 Construction Environmental Program - Nine Mile Point Nuclear Station - Unit 2.

2.5 Construction Department Standards - Construction Environmental Program.

3.0 Attachments

3.1 Organizational Chart.

3.2 Construction Environmental Inspection Report. (Typical)

3.3 Environmental Inspection Log.

4.0 General

4.1 Site Environmental Committee

The Site Environmental Committee will be made up of the following personnel:

1. NMPC Site Representative
2. NMPC Environmental Affairs Department Representative
3. NMPC - Unit 1 Environmental Representative
4. SWEC Resident Manager
5. SWEC Superintendent of Field Quality Control
6. SWEC Lead Environmental Engineer
7. SWEC Site Environmental Engineer

4.2 Construction Environmental Program (Reference 2.4)

The Site Environmental Engineer shall develop an environmental program for the site which will include all aspects of environmental controls and permits applicable to the construction site.

This program shall be developed along the guidelines set forth in reference 2.5. This program shall be maintained and revised during the life of the project.

All members of the Site Environmental Committee shall be issued a copy of the Site Environmental Program and all the revisions made to it.

4.3 Environmental Permits and Reports

The Site Environmental Engineer shall prepare all environmental reports and applications which are necessary during construction operations.

4.4 Organization (see Attachment 3.1)

5.0 Procedures

5.1 Inspection of Construction Activities

5.1.1 The Site Environmental Engineer shall inspect all aspects of the construction activities to insure compliance with environmental regulations.

5.1.2 Inspections shall be made of all items required by environmental permits by the Site Environmental Engineer in accordance with the provisions of the permits.

5.1.3 Environmental Inspection Reports (Attachment 3.2) shall be initiated by the Site Environmental Engineer for any significant adverse or potential adverse condition observed during site inspections. The Site Environmental Engineer shall maintain a file of all inspection reports. A copy of the inspection report shall be sent to the appropriate Contractor and/or Construction Supervisor when an unsatisfactory condition exists. Recommendations as to the corrective action to be taken and the completion date of the corrective action may be included on the inspection report. This inspection report shall be returned to the Site Environmental Engineer when the necessary action has been completed. At that time the Site Environmental Engineer shall reinspect the particular activity and document its satisfactory completion.

5.1.4 For routine items a checklist shall be maintained to document the date of the inspection (see Attachment 3.3).

5.2 Site Environmental Committee (see Section 4.1)

5.2.1 The committee shall meet bimonthly to evaluate the effects of construction on the environment. As part of the responsibilities, the committee shall also evaluate the effectiveness of the pollution control systems. Recommendations shall be made for the improvement of the control devices used at the construction site if necessary.

5.2.2 The members of the committee shall be familiar with all commitments made for the protection of the environment (references 2.1, 2.2, 2.3, 2.4).

5.2.3 The Environmental Committee shall conduct site inspections as required. The inspections shall include all new construction activities which affect the environment. Other construction activities and environmental control devices shall also be inspected as needed by the determination of the Environmental Committee.

5.2.4 The Environmental Committee will evaluate all planned construction activities which affect the environment. Members of the committee shall provide input for the development of adequate control measures for these construction activities.

5.2.5 The Environmental Committee Meeting shall be documented by the issuance of the meeting notes. The Site Environmental Engineer shall prepare and issue the meeting notes. Included in the meeting notes shall be:

1. Outstanding Items for Previous Months
2. Environmental Sampling Program Results
   a. Water Quality Analysis
   b. Noise Level Survey
3. Discussions and Recommendations

5.2.6 Any member of the committee may convene a meeting to deal with an urgent problem.

5.2.7 The Site Environmental Engineer shall prepare and issue an agenda for the meeting. Any committee member may provide the Site Environmental Engineer items to be included on the agenda.

5.3 Reporting of Environmental Problems

5.3.1 Anyone who observes a condition which violates an environmental regulation or procedure or has an apparent adverse effect on the environment shall report this problem to the Site Environmental Engineer.

5.3.2 If a new construction activity is outside the scope of existing permits or a new construction activity will adversely affect the environment, the Site Environmental Engineer shall prepare a report assessing the effects of this activity and develop the necessary control measures and monitoring requirements. This information shall be reviewed with members of the committee and a plan of action decided upon. After a decision has been made, the Site Environmental Engineer shall prepare the necessary permit applications and/or reports for submittal to the appropriate federal, state, and local agencies. This information shall be forwarded to NMPC for submittal to the agencies.

5.3.3 If an unexpected event occurs which harms the environment, the Site Environmental Engineer shall take immediate corrective action to contain, control and/or clean up the accident. After initial action has been taken, the Site Environmental Engineer shall notify the other members of the committee. The committee shall make an assessment of the damage and determine the necessary action. If the accident requires the notification of federal, state, or local agencies, the Site Environmental Engineer shall prepare the necessary information and forward it to NMPC.

5.4 Environmental Sampling Programs

5.4.1 The Site Environmental Engineer shall be responsible to have all monitoring and testing required by the various environmental permits conducted. The Site Environmental Engineer may perform additional monitoring if it is deemed necessary for the control of construction activities.

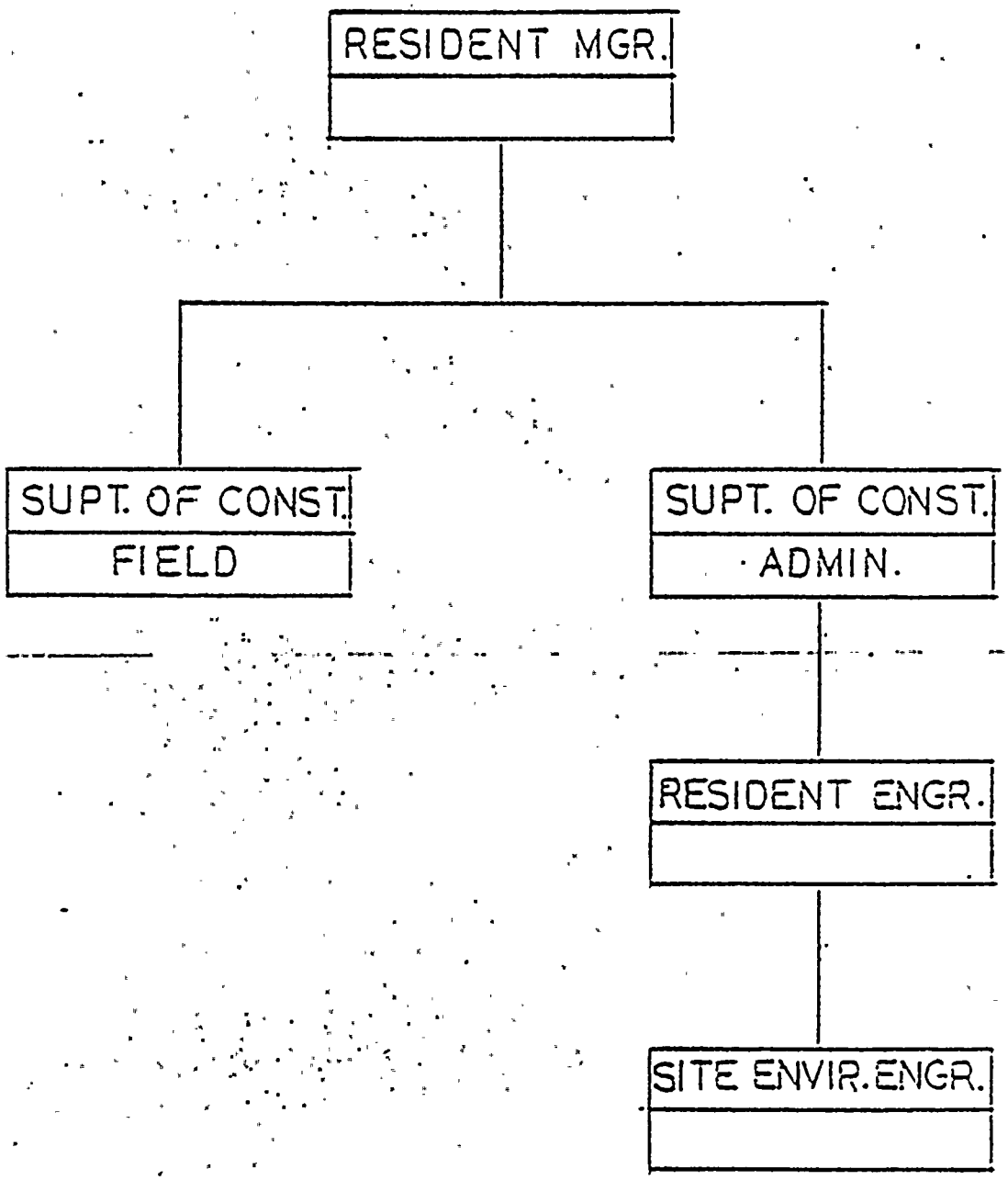
5.4.2 The results of the above monitoring program shall be distributed to the members of the Environmental Committee monthly.

5.4.3 The Site Environmental Engineer shall prepare the necessary monitoring reports required by the various environmental permits (i.e., Discharge Permit, quarterly reports; Landfill, annual report). The specific requirements for each permit will be documented in the Construction Environmental Program. (Reference 2.4)

5.4.4 The Site Environmental Engineer shall forward the monitoring reports to NMPC for review and submittal to the appropriate agency.

6.0 Effective Date

This instruction is effective upon receipt and will remain in force until modified or cancelled. Revision 2 of this instruction is void and must be removed from your manual and destroyed. Update your Table of Contents accordingly.



POWER INDUSTRY GROUP	TITLE	SCALE: NONE
CHECKED	SITE ENVIRONMENTAL ORGANIZATION CHART	DATE: 6/20/73
CORRECT		SKETCH NUMBER
APPROVED		12187-OFSK-23A-2
REVISIONS 2 3 4 5		

CONSTRUCTION ENVIRONMENTAL INSPECTION REPORT
STONE & WEBSTER ENGINEERING CORPORATION
NINE MILE POINT NUCLEAR STATION — UNIT 2
NIAGARA MOHAWK POWER CORPORATION

J.O. No. 12187

CSI 1.3
Rev. 3
Attachment 3.2

INSPECTION DESCRIPTION

ACTION REQUIRED

INSPECTED BY	DATE	ACTION COMPLETE	
		SIGNATURE	DATE

ENVIRONMENTAL INSPECTION LOG
For The
NINE MILE POINT NUCLEAR POWER STATION-UNIT #2
Construction Site

Week of _____

	M	T	W	T	F
I. Site Drainage System and Erosion Control Devices					
A) Sandbag Barriers					
B) Hay Bales					
C) Oil Booms					
D) Seeding					
E). Outfalls @ Lake					
Inspector					
II. Batch Plant					
A) Truck Wash Water Pond					
B) Aggregate Wash Water Pond					
C). Oil Storage Containment Berm					
D) Waste Concrete Area					
Inspector					
III. Settling Ponds					
A) Oil Booms					
B) Pond Operation					
Inspector					

ENVIRONMENTAL INSPECTION LOG (Cont'd)
For The
NINE MILE POINT NUCLEAR POWER STATION-UNIT #2
Construction Site

Week of _____

		M	T	W	T	F
IV.	Oil Storage Areas					
	A) Kerosene Storage Area					
	B) Lubricating Oil Storage Area					
	Inspector					
V.	Landfill					
	A) Waste Material Properly Covered					
	B) Drainage					
	C) Fill Within Design Limits					
	Inspector					
VI.	Scoil Areas					
	A) Fill Within Design Limits					
	B) Slopes Graded					
	C) Seeding					
	D) Drainage					
	E) Hay Bale Barriers					
	Inspector					
VII.	Condenser Cleaning Inspector					
VIII.	Dust Control Inspector					
IX.	Other Inspector					

STONE & WEBSTER ENGINEERING CORP.

B17809200011

CONSTRUCTION SITE INSTRUCTIONS

Title	Number
SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN	CSI 2.6
	Revision Rev. 2
	Date August 2, 1978
	Prepared By T. S. Farrell

NINE MILE POINT NUCLEAR STATION – UNIT 2

APPROVED: J. F. Barrett
Senior Site Representative

CONCURRENCE: [illegible]
Superintendent of Field Quality Control

J. O. NO. 12187

CONTROL LEVEL: 1

1.0 Purpose

To establish a method to safeguard against potential spills resulting from hazardous liquid storage at the Nine Mile Point - Unit 2 construction site.

2.0 References

2.1 Environmental Protection Agency regulations on oil pollution prevention, 40CFR112; 38 FR 3416, December 11, 1973; Amended by 39 FR 31602, August 29, 1974.

2.2 New York State Department of Environmental Conservation - Water Quality Accident Handbook, Chapter 200 and 300.

3.0 Attachments

3.1 Spill Prevention Control & Countermeasure Plan for the Niagara Mohawk Power Corporation, Nine Mile Point - Unit 2 Construction Site.

4.0 General

4.1 It shall be the responsibility of the Site Environmental Committee to monitor the Spill Prevention Control & Countermeasure Plan and update as necessary.

4.2 A log of all spills shall be maintained by the Site Environmental Engineer.

4.3 Spills - Spills shall be classified into two categories:

A. Spills which reach the site drainage system and cannot be contained before reaching the lake or spills directly into the lake.

B. Spills which are contained within the building excavation, on the ground, or in the settling ponds.

4.4 Spills Reporting - Category A and B spills must be immediately reported to the Site Environmental Engineer.

4.5 In the event the Site Environmental Engineer cannot be contacted, the SWEC Engineer or Supervisor responsible for construction activities shall be responsible to implement all procedures of CSI 2.6. When a Category A spill occurs, it shall be the responsibility of the Engineer or Supervisor to notify the agencies listed in section 3.5.5 of Attachment 3.1.

5.0 Procedure

See Attachment 3.1.

6.0 Effective Date

6.1 This instruction is effective upon receipt and shall remain in force until modified or cancelled.

6.2 Construction Site Instruction CSI 2.6, Spill Prevention Control & Countermeasure Plan, Revision 1, has been voided by the issuance of this instruction and must be removed from your manual and destroyed.

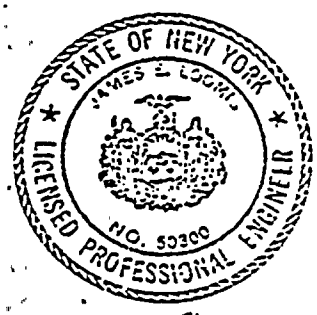
J. O. No. 12187

CSI 2.6
Rev. 2
Attachment 3.1

SPILL PREVENTION CONTROL & COUNTERMEASURE PLAN

FOR

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
CONSTRUCTION SITE



1.0 Purpose

Spill Prevention Control & Countermeasure (SPCC) Plan establishes procedures to safeguard against hazardous spills resulting from construction activities.

2.0 General

2.1 Spill History

No spills have occurred at the Nine Mile Point Nuclear Station - Unit 2 construction site.

2.2 The Site Environmental Engineer will be notified before any storage tank or container for oil, gasoline, kerosene, etc., is located on site. The Site Environmental Engineer will determine what precautions are required for the storage tanks or containers.

2.3 The Site Environmental Engineer will inspect all storage tanks and containers to ensure that they are in compliance with this plan.

2.4 The Site Environmental Engineer shall maintain a list of all tanks or storage areas with greater than 660 gallons capacity of storage (Attachment A).

2.5 Oil Sorbent Booms shall be placed in the site drainage ditches and settling ponds to contain accidental spills. These booms shall be inspected weekly. The location of these booms are shown on Attachment A. These booms shall remain in place as long as weather permits during the year.

3.0 Procedure

3.1 Construction Equipment

3.1.1 As part of normal maintenance, lines and fittings shall be checked to ensure that they are in proper working order. Repair or replacement shall be made if they are not in good condition.

3.2 Above Ground Storage Tanks

3.2.1 Dikes shall be provided around all above ground storage tanks to prevent accidental discharges to the site drainage system or lake.

3.2.2 All storage tanks must be surrounded by a bermed area which has a storage volume greater than the volume of the material stored within the berm. The berm shall have one foot of freeboard above the actual storage volume.

3.2.3 The ground surface within the bermed area shall be covered with a suitable material to allow only minimal infiltration of a spill into the ground. Storage tanks shall be placed in such a manner as to prevent rupture of the tanks by rough surfaces.

3.2.4 The dikes shall be constructed of material suitable for containing oil without leaking.

3.2.5 Drainage from the dike storage area shall be restrained by valves or other positive means to prevent a spill or other leakage of oil into the drainage system. Dike areas may be emptied by pumps or ejectors; however, these shall be manually activated after the condition of the accumulation has been examined to assure oil will not be discharged.

3.2.6 Flapper type drain valves shall not be used for draining diked areas. Valves used for the drainage of the diked areas shall be of manually operated tight closure type. Valves shall be left closed and, before opening, an inspection shall be made of all ponded water to assure that discharge of water is in compliance with applicable water quality standards. Finally, the valve will be opened and then resealed following drainage.

3.2.7 Diked areas shall be inspected before any discharge operation has begun and log maintained. The log shall include the following information: the date, the time, and the visual characteristics of the water when discharged.

3.2.8 Tank fill lines and pump supply lines shall have a shutoff valve located within the diked areas.

3.2.9 Above ground tanks shall be inspected monthly to ensure the tanks' shell, seams, pipe, and valves are in proper working order and that there is no deterioration of materials.

3.3 Underground Storage Tanks

3.3.1 Tanks shall be constructed of suitable material for the storage of a particular fuel. Tanks shall be designed to withstand backfill and uplift forces.

3.3.2 Tanks shall be provided with adequate bedding and covered to prevent damage after installation.

3.3.3 New tanks shall be purchased from an Underwriter's Laboratory approved vendor or have required testing to ensure the integrity of the tanks.

3.3.4 Used tanks shall be hydrostatically tested to ensure the integrity of the tanks.

3.3.5 Tanks shall be provided with coating or cathodic protection to prevent corrosion.

3.4 Lubrication Oil

3.4.1 Storage area or areas shall be designated for the storage of new or used oil.

3.4.2 All requirements of 3.2 shall apply.

3.5 Spills Reporting

3.5.1 All spills of hazardous materials shall immediately be reported to the Site Environmental Engineer.

3.5.2 The report of the spill to the Site Environmental Engineer shall include:

a. Time and date of spill

b. Source of spill

c. Location of spill

d. Potential health or fire hazard

e. Type of material spilled

f. Quantity of spill

g. Initial action taken to contain spill

3.5.3 The Site Environmental Engineer shall be contacted to determine the methods to be used to contain and clean up the spill.

3.5.4 The Site Environmental Engineer shall implement the corrective action by using available construction forces or by contacting a commercial waste collector (available firms listed in sections 3.6 and 3.7).

3.5.5 The Site Environmental Engineer shall notify immediately the following agencies when a spill reaches navigable waters.

1. Lt. Cmdr. J. A. MacDonald
United States Coast Guard
208 Federal Building
Oswego, N.Y. 13126
Telephone: (315) 343-6581

2. The Duty Officer
National Response Center
United States Coast Guard
400 7th Street, S.W.
Washington, D.C. 20590
Telephone: (800) 424-8802

3. New York State Department of Environmental Conservation
Water Quality Surveillance
Albany, N.Y.
Telephone: (518) 457-7362

4. Niagara Mohawk Power Corporation

a. Mr. J. M. Toennies
(315) 474-1551 extension 1580

b. Mr. J. L. Hilke
(315) 474-1511 extension 1041

c. Mr. S. H. Haybrook
(315) 342-4740 extension 263

3.5.6 A list of material and equipment available for the cleanup of hazardous spills will be issued by the Site Environmental Engineer. Lists will include the types and uses of equipment and material available from the Warehouse stock (see Attachment B).

3.5.7 When action has been taken to contain and clean up a spill, the Site Environmental Engineer shall prepare a report on the spill. This report is to be filed with the Regional Administrator of the Environmental Protection Agency within 60 days from the date of any spill into navigable waters.

a. If a discharge of 1,000 gallons or more of oil has entered navigable water in a single event.

b. If two oil spills have occurred within any 12 month period.

A copy of this report will also be filed with the New York State Department of Environmental Conservation.

Information to be included in this report shall include items listed in 3.5.2 above and

a. action taken to contain the spill

b. action taken to clean up the spill

c. personnel notified

d. personnel at the site of the spill

3.5.8 The Site Environmental Engineer will transmit this report to the Niagara Mohawk Power Corporation Field Representative who will, in turn, forward this to the EPA and DEC.

3.5.9 A final report will be prepared by the Site Environmental Engineer which will include:

a. The extent of contamination and evaluation of adverse effects that resulted from the spill.

b. Recommendations to prevent recurrence of similar spills.

c. Items in 3.5.2 and 3.5.7 above.

d. DEC and EPA recommendations and evaluation of the spill.

3.5.10 The Site Environmental Committee will, at their next meeting, re-evaluate precautionary measures implemented for a spill and evaluate other possible sources of spills of hazardous substances on site.

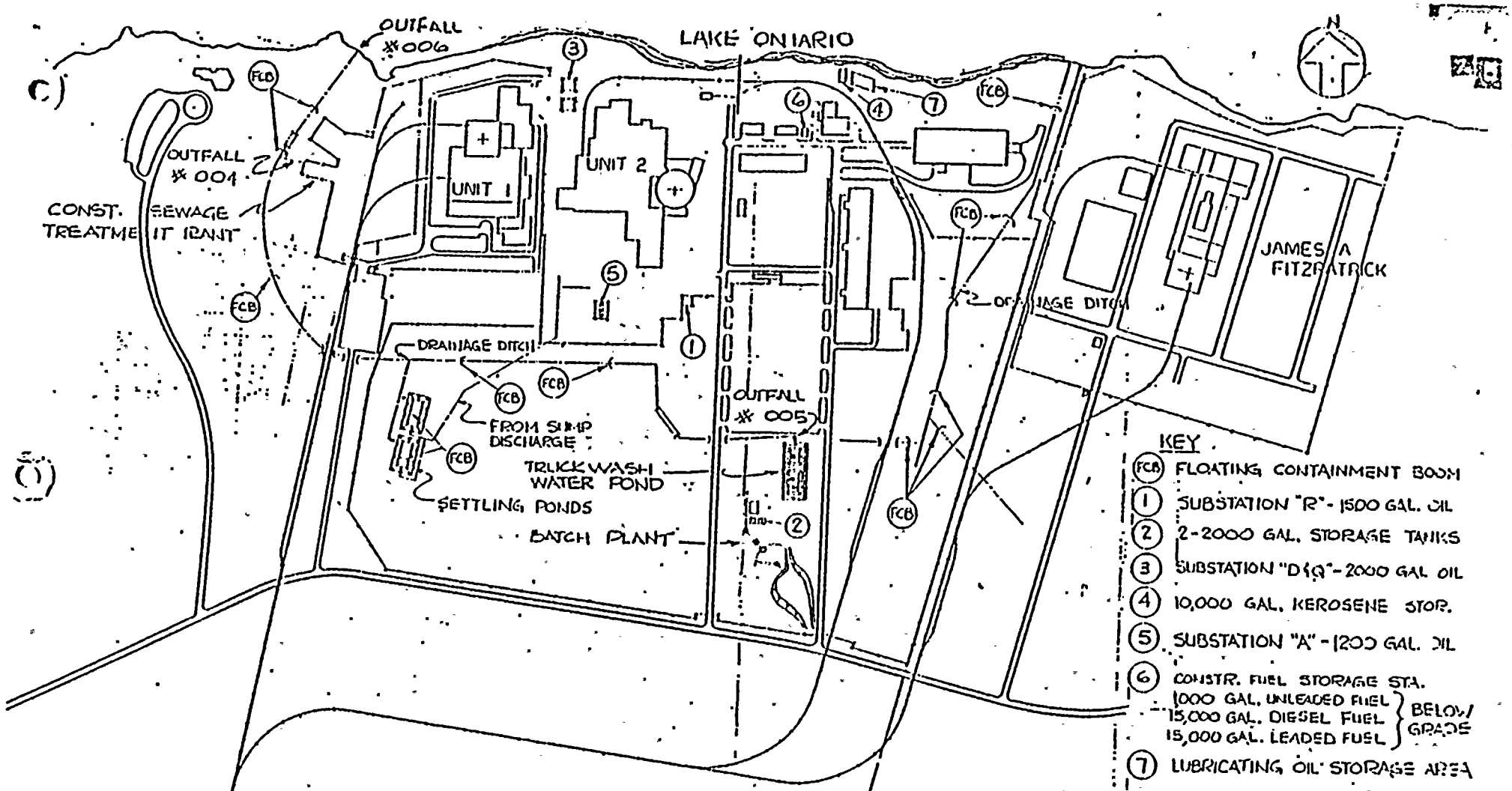
3.6 Commercial Waste Collectors

	Products Handled	Phone
Stage Construction	Land spills only	(607) 785-2141 (24 hr.) (607) 785-2681
Haz-o-waste	Petrochemical solvents Disposal only	(315) 682-2160

	Products Handled	Phone
Northeast Oil Co.	Most liquids (call on case by case basis)	(315) 422-2941 (315) 422-1930 (315) 469-7456 (24 hr.)
Coastal Pollution Control Services, Inc.	Cleanup and disposal	(315) 472-8111 (24 hr.) (518) 465-8856 (24 hr.)
Sea Land Restoration, Inc.	Cleanup and disposal	(315) 342-2183 (24 hr.) (315) 686-5561 (24 hr.) (315) 782-6500
Fourth Coast Pollution Control	Cleanup and disposal	(315) 388-5909 (315) 388-5571 (315) 265-3100 (24 hr.)

3.7 Commercial Emergency Assistance

Chemtrek	Technical assistance in handling chemical emergencies	(800) 424-9300 (toll free)
Nat. Agric. Chemicals Assn.	Assistance in handling pesticide and Class B poison emergencies	(513) 961-4300
American Assn. of Railroads	Assistance in hazardous materials incidents involving trains	(202) 293-4000



REFERENCE DWG.

1.) 12187-TFSK-65B
2.) 12187-SK-030277A
3.) 12187-SK-030377A

ATTACHMENT - "A"

SPCC PLAN
OIL BOOM & FUEL OIL
STORAGE LOCATIONS

NINE MILE POINT NUCLEAR STAT.
UNIT - 2

DATE	DRAWN	STONE & WEBSTER
8-2-78	JBC	12187-YFSK-59A-1

Materials On Site For The Containment And Cleanup Of Hazardous Soills

1) Oil Sorbent Rolls - (3/8" x 36" x 150') to be used in the cleaning up of a spill from the ground surface or water course.

2) Oil Sorbent Sheets - (3/8" x 18" x 18") to be used in the cleaning up of a spill from the ground surface or water course.

3) Oil Sorbent Booms - (8" Ø x 10') to be used in containing spills.

STONE & WEBSTER ENGINEERING CORP.

CONSTRUCTION SITE INSTRUCTIONS

CSI/2.5

B1771012000 2

Title	Number
SETTLING POND OPERATION	CSI 2.5
	Revision Rev. 2
	Date October 3, 1977
	Prepared By T. S. Farrell/S. M. Ryan

NINE MILE POINT NUCLEAR STATION – UNIT 2

APPROVED: J. F. Bennett
Senior Site Representative

CONCURRENCE: Bruce W. Hall
Superintendent of Field Quality Control

I. O. NO. 12187
CONTROL LEVEL 1

1.0 Purpose

To establish a procedure for the specific operation of the two NMP-2 Settling Ponds.

2.0 References

2.1 Erosion Control Program for the Nine Mile Point Nuclear Station - Unit 2

2.2 Construction Site Discharge Permit SPDES #NY-0094463 - August 1, 1977

3.0 Attachments

3.1 Settling Pond Location Plan (sketch #12187-YFSK-23A-2)

3.2 Settling Pond Valve Location Plan (Dwg. #12187-YFSK-4E-5)

3.3 Settling Pond Operation Log

4.0 General

4.1 The Site Environmental Committee will monitor the operation of the settling ponds to insure that the discharge meets the requirements of the Discharge Permit.

4.2 All construction waste water (excluding any acidic, caustic, chemical rinses, etc.) shall be discharged into the settling ponds.

5.0 Procedure

5.1 Location

5.1.1 The settling ponds are located south of NMPNS-Unit 1 along the east side of the Unit 1 Access Road, with access being from the gate on the north side of Lake Road, as shown on Attachment 3.1.

5.1.2 The settling pond influent and effluent valves are located as shown on attachment 3.2.

5.2 Operation

5.2.1 The Site Environmental Engineer or his designee will determine when it is necessary to open or close the Settling Pond valves. The Site Environmental Engineer or his designee will notify the appropriate SWEC supervisor, to make the necessary change to valve positions. The Site Environmental Engineer or his

designee will verify that the change to valve positions has been made. A log (Att. 3.3) will be maintained by the Site Environmental Engineer or his designee, noting all changes to valve positions along with the time and water elevations in both ponds.

5.2.2 No pumpline valve shall be in the open position when the discharge valve to that specific pond is in the open position.

5.2.3 Under normal operations, a minimum of eight hours detention time shall be provided before discharge of a settling pond.

5.2.4 Effluent samples from the pond shall be taken monthly and analyzed for total suspended solids by the Site Environmental Engineer.

5.2.5 If any deleterious material or substance contaminates the discharge water the Site Environmental Engineer shall be notified immediately. If the water in the settling ponds becomes contaminated, it shall be cleaned up before discharge.

5.2.6 On weekends or other non-working shifts, arrangements for pond operation shall be made by the Site Environmental Engineer through the cognizant craft supervision.

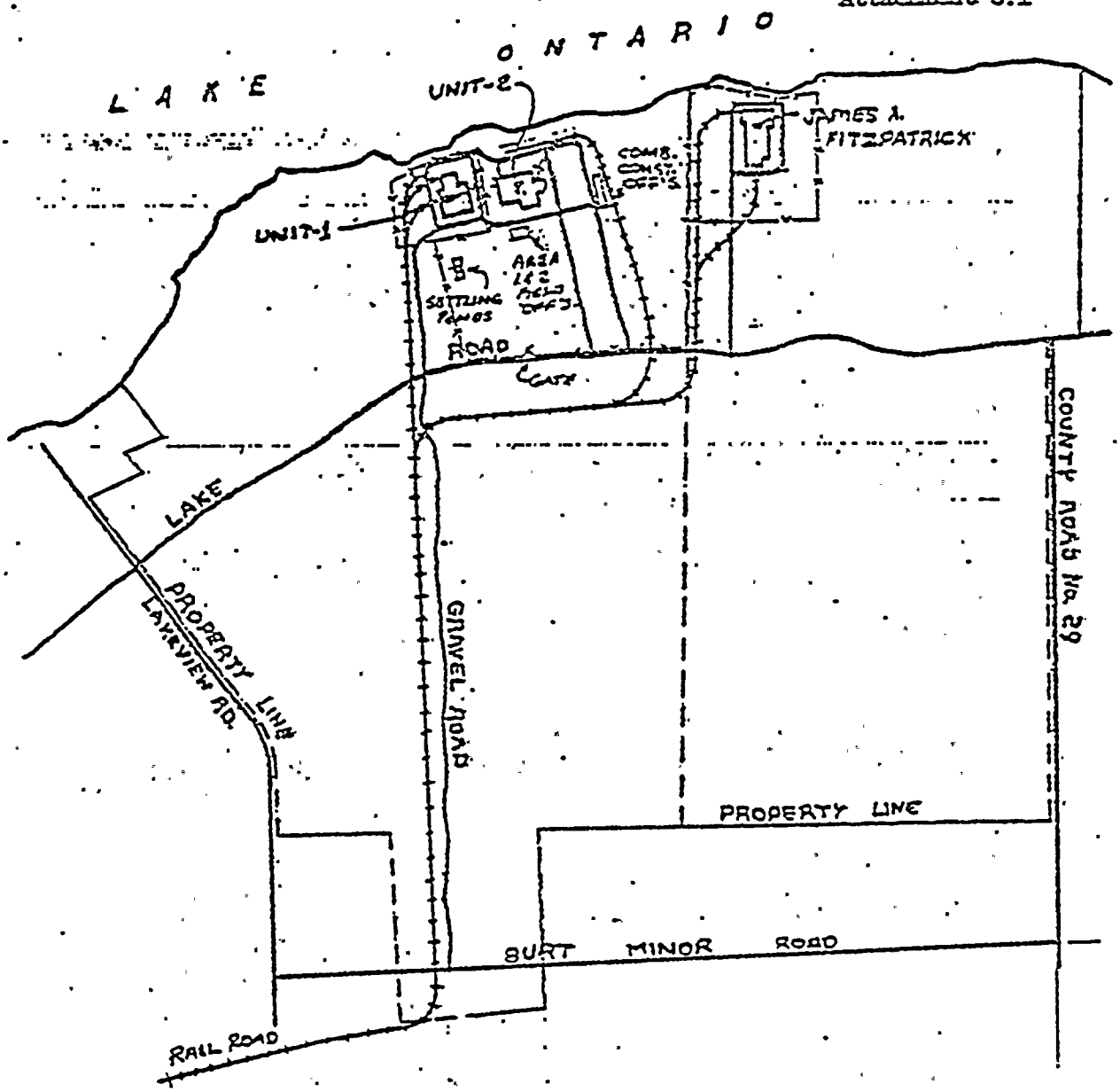
5.2.7 The Settling Pond Monthly Operation Log Sheets shall be forwarded to the Site Environmental Engineer at the end of the month.

6.0 Effective Date

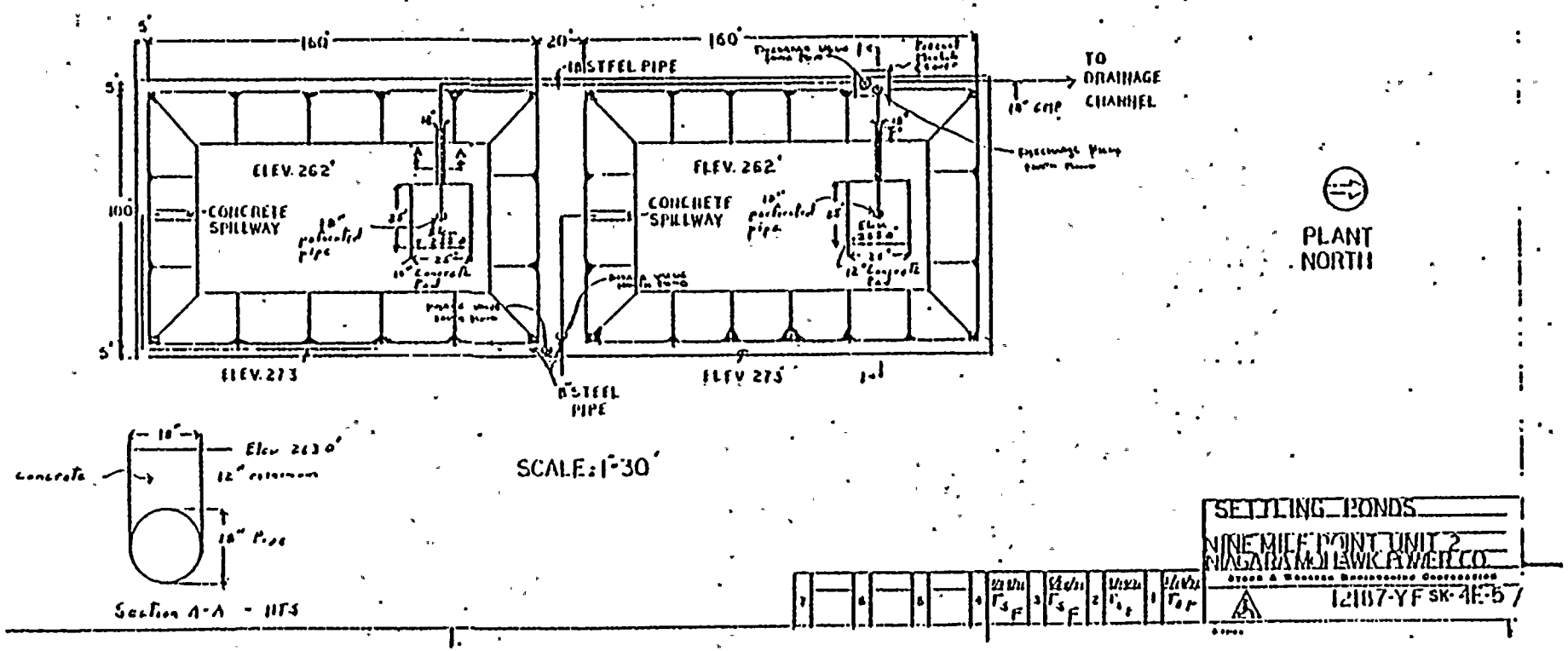
This instruction is effective upon receipt and will remain in force until modified or cancelled. Revision 1 has been voided by the issuance of this revision and must be removed from your manual and destroyed. Update your Table of Contents accordingly.

STONE & WEBSTER ENGINEERING CORPORATION CST 2 5

Rev. 2
Attachment 3.1



POWER INDUSTRY GROUP	TITLE		SCALE: NONE
CHECKED	SITE ROADS.		DATE: 5 27 76
CORRECT			
APPROVED			SKETCH NUMBER
REVISIONS	② ASCAD SETTLING PONDS + FENCE	③ ④ ⑤	12187-YFSK-23A-2



CSI 2.5
Rev. 2
Att. 3.2

SETTLING POND OPERATION LOG MONTH OF _____

		NORTH POND					SOUTH POND					
		WATER	PUMPLINE VALVE		DISCHARGE LINE VALVE		WATER	PUMPLINE VALVE		DISCHARGE LINE VALVE		
DATE	TIME	ELEV.	OPENED	CLOSED	OPENED	CLOSED	ELEV.	OPENED	CLOSED	OPENED	CLOSED	REMARKS
1												
2												
3												
4												
5												
6												

J.O.No. 12177

EROSION CONTROL PROGRAM

FOR

NINE MILE POINT NUCLEAR STATION - UNIT 2

NIAGARA MOHAWK POWER CORPORATION

Stone & Webster Engineering Corporation
Boston, Massachusetts

TABLE OF CONTENTS

INTRODUCTION

Located in Scriba, New York, adjacent to Unit 1, the Nine Mile Point Nuclear Station - Unit 2 is presently in the construction stage. The site has been cleared and grubbed. Construction personnel have begun the excavation work.

In an effort to control any pollution which may result from the continued construction activities, the program described herein for control of erosion during the construction activities was developed. The purpose and intent of this erosion control plan is to define the areas where erosion problems may occur and to provide the appropriate processes, procedures, and methods to control the erosion problems.

The erosion control program is divided into three sections:

1. The temporary grading and drainage of the construction area to control erosion.

2. The temporary revegetation to stabilize the soil of areas disturbed by construction activities.

3. The removal of suspended material from the water removed from the excavation.

SECTION 1

TEMPORARY GRADING AND DRAINAGE

Objective

The objective of this section is to grade the construction area in such a manner as to reduce the amount of overland erosion while effectively providing for the control of rainfall runoff during the construction activities.

Site Preparation

a. Drainage ditches will be constructed as shown on Figure 1, Sediment and Erosion Control Plan, to provide for the removal of rainfall runoff from the construction area.

b. The construction area will be graded with slopes away from the excavated area and toward the drainage ditches as shown on the Sediment and Erosion Control Plan. Where possible, the graded areas shall have a slope of less than two percent to reduce erosion losses. For areas where slopes are greater than two percent, erosion control structures shall be provided. (See Section 1, Site Preparation, Part c.)

c. Erosion will be controlled onsite.. Straw or hay bales, sand bags, interception/diversion dikes and ditches will be constructed onsite to protect all areas disturbed by construction

activities. These structures will be installed concurrently with the associated construction activity. Special attention will be given to spoil areas where severe erosion can occur. The spoil areas will be encircled by baled hay or straw barriers to check the transportation of sediment away from the spoil area. Drawings illustrating typical applications of straw or hay bales, sand bags, interception/diversion dikes and ditches are provided as Figures 2 through 5.

d. The temporary stabilization of all graded and exposed soils by revegetation to reduce damage from wind and water erosion will be performed. (See Section 2).

Operation

Upon completion of the work described in Section 1, Site Preparation, the following operation procedures will be performed to provide a continuous control of erosion during the construction period.

a. All erosion control structures (see Section 1, Site Preparation, Part c) will be inspected periodically to ensure the proper operation of the control structure.

b. All erosion control structures (see Section 1, Site Preparation, Part c) will be inspected periodically to determine whether maintenance should be performed on any of the erosion control structures.

c. Maintenance will be performed to assure proper operation of the erosion control structures during rainfall activity. All debris will be removed from drainage ditches and from the other control devices. Sediment shall be removed when necessary and disposed of onsite in areas where the sediment can be stabilized and kept from re-entering the drainage ditches. Hay or straw bales will be replaced when rotten or disintegrating.

SECTION 2

TEMPORARY REVEGETATION

Objectives

The objectives of this section are to temporarily stabilize the soil and reduce damage from wind and water erosion during construction until permanent stabilization is accomplished. The soil stabilization procedures will apply on all graded and exposed soils.

Site Preparation

All areas for temporary vegetative cover will be graded as described in Section 1, Site Preparation, Part b.

Surface Preparation for Seeding

a. Lime and fertilizer will be applied in accordance with the results of soil nutrient analysis recommendations from the soil testing results.

Application will be as follows:

Fertilizer (15-15-15)	300 to 400 lb/acre
Lime	4 tons/acre

b. Fertilizer, lime, seed, and mulch will be applied in one application by use of a hydroseeder (for a complete description of the type of seed and mulch, refer to the seeding and mulching parts of Section 2).

Seeding

Quality seed with good germination, less weed, and certified by the local or state governing authority will be used. The grass mixture (Forage Conservation Mix No. 2) for the temporary vegetative cover will consist of the following:

Creeping Red Fescue	35 percent
Kentucky Bluegrass	20 percent
Annual Rye	19 percent
Perennial Rye	15 percent
Red Top	6 percent
White Clover	5 percent

Seeds will be applied uniformly with a hydroseeder at a rate of 50 lb per acre. (See Section 2, Surface Preparation for Seeding, Part b.)

Mulching

a. Mulch will be distributed on all seeded areas by means of a hydroseeder. (See Section 2, Surface Preparation for Seeding, Part b.)

b. Mulching material will include hay or straw. Application of the mulch will be 1.5 to 2.5 tons/acre (90 to 120 bales) or 75 to 100 lb/1,000 sq ft (2 to 3 bales). This material will be air dried and free from coarse materials.

c. Mulch anchoring will be applied by use of chemical mulch binder (CURASOL AE). Thirty gal of CURASOL AE per 1,000 gal of water will be prepared and applied with a hydroseeder at the rate of 0.5 gal/sq yd. Technical Information on CURASOL AE is provided in Appendix A.

SECTION 3

EXCAVATION DEWATERING

Objective

The objective of this section is to provide for the removal of any suspended materials that may be in the water removed from the excavation, while providing for the continuous dewatering of the excavation.

Background

The amount of water in the excavation can be attributed to three sources: rainfall, infiltration, and drilling dust control. Rock dust from the rock excavation activities combines with the water to form a liquid high in suspended solids. Earlier methods to effectively remove the suspended material failed, and subsequent tests have provided a versatile and practical method of treatment.

Site Preparation

a. All areas adjacent to the excavation area will be graded as described in Section 1, Site Preparation, Part b.

b. A sump area will be provided in the excavation to collect the water for removal.

c. A dual earthen basin system will be constructed in the spoil area south of the excavation (see Figure 1).

Operation

a. Settling

1. Water pumped from the sump area will be collected in one of two earthen basins on a rotational basis.

2. As the second basin is being filled, the suspended material in the first basin will be allowed to settle.

3. Total suspended solids in the basin supernatant will be monitored.

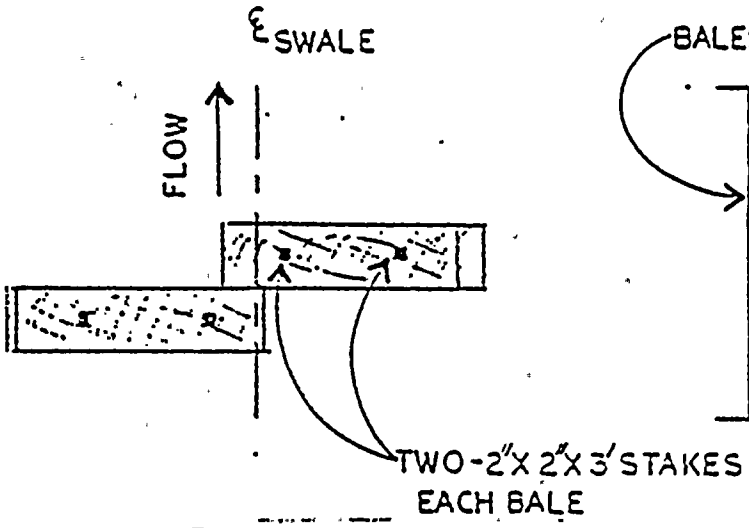
4. When the water in the basin clears to a level of less than 50 ppm of suspended solids, the water will be discharged to the ditch south of Unit 1. Special attention will be made to ensure that the settled materials will not be resuspended.

5. The use of a dual system allows one basin to be filling while the alternate is settling.

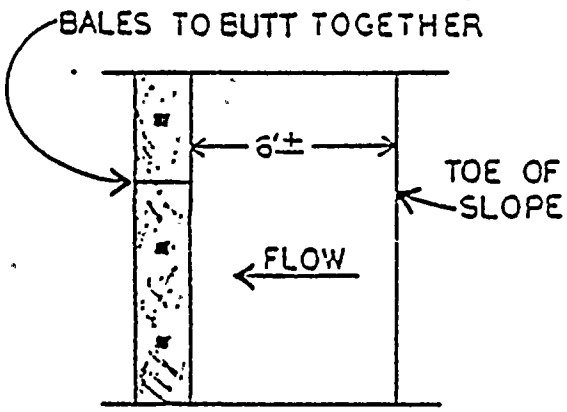
6. If the settling process does not reduce the amount of suspended material to a level less than 50 ppm, then, an alternative method of treatment utilizing the same earthen basin system will be used. (See Section 3, Operation, Part b.)

b. Chemical Addition and Settling

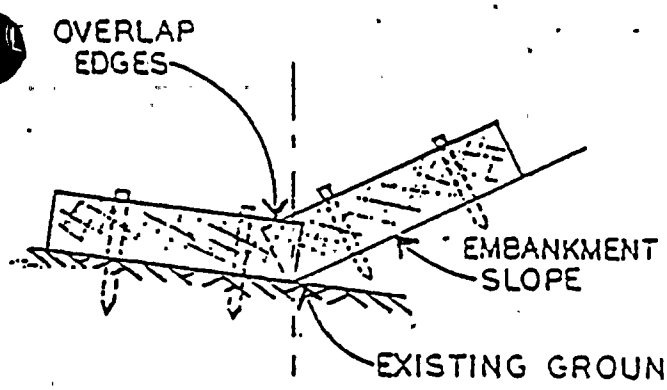
As an alternative treatment method, if the settling method does not reduce the suspended solids concentration, a coagulant to enhance settling of suspended solids will be added in the amount of approximately 5 ppm to the water in the earthen basin (dependent on the amount of suspended material). After mixing, the suspended material will be allowed to settle. Aside from the addition of the primary coagulant, the method of operation will be the same as that described in Section 3, Operation, Part a. The characteristics of the primary coagulant are described in Appendix B.



PLAN

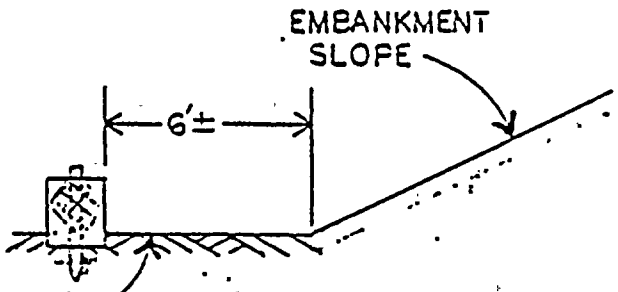


PLAN



TYPE "A"

To be used in locations where the existing ground slopes in toward the toe of the embankment.

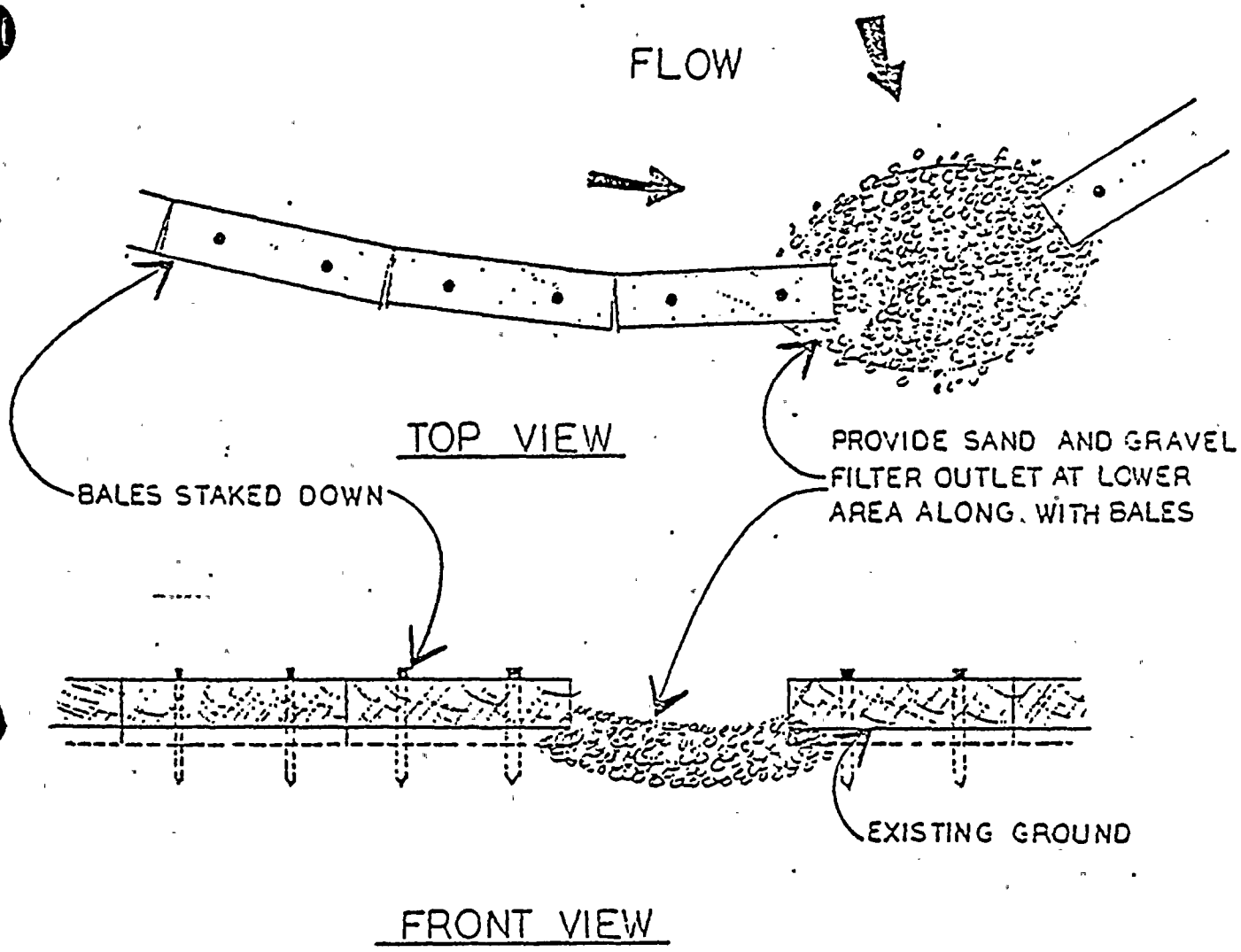


TYPE "B"

To be used where existing ground slopes away from the toe of the embankment.

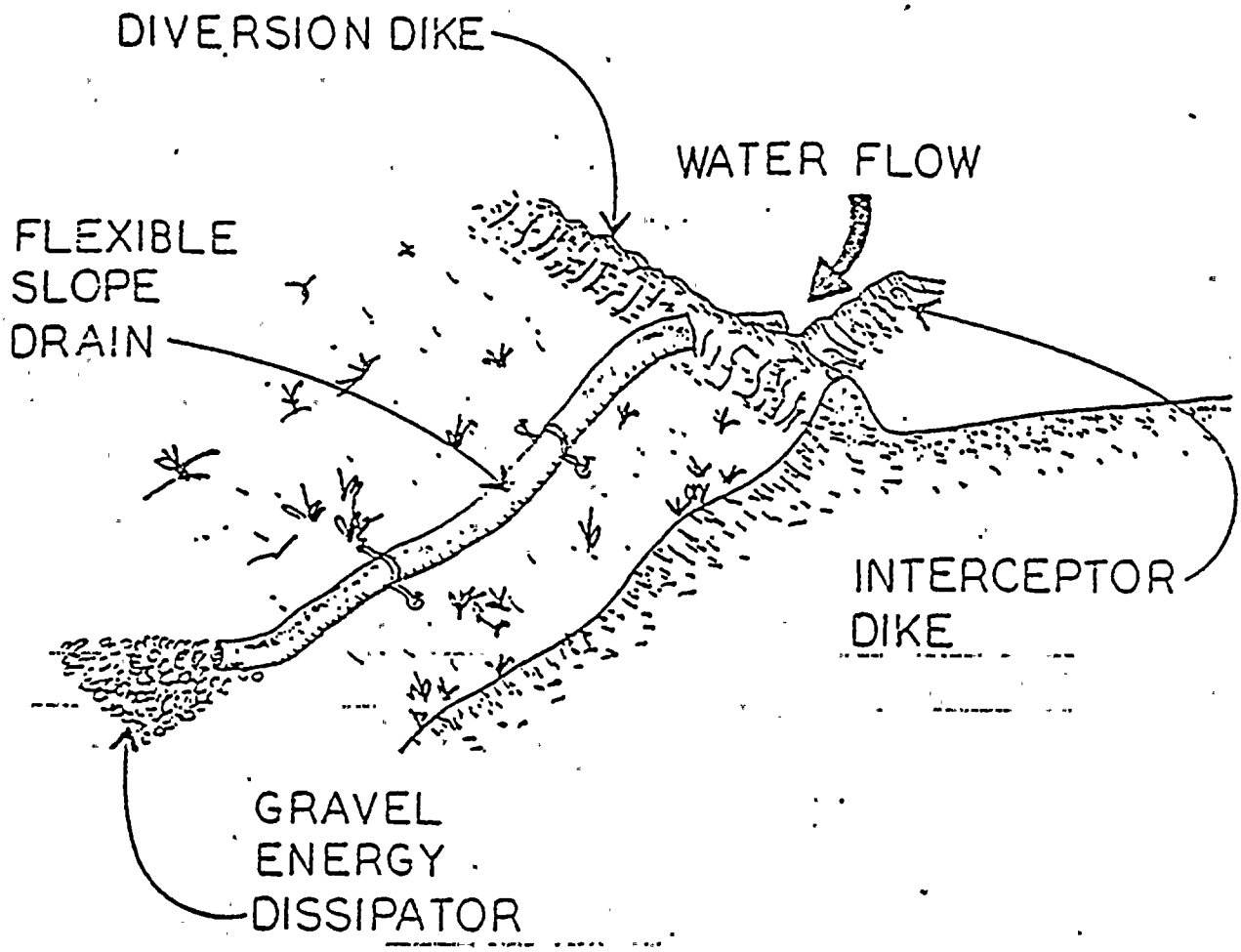
NOTE:
SAND BAGS CAN BE USED IN THE SAME MANNER.

FIGURE 2
BALED HAY OR STRAW
EROSION CHECKS



NOTE:
FOR A MORE IMPERVIOUS BARRIER, SAND BAGS MAY BE USED INSTEAD OF BALES.

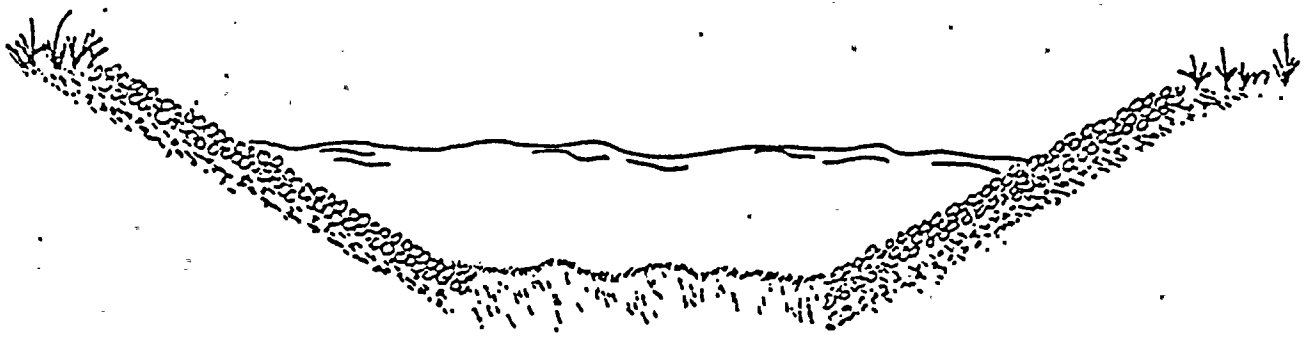
FIGURE 3
BALED HAY OR STRAW BARRIER WITH SAND AND GRAVEL SPILLWAY



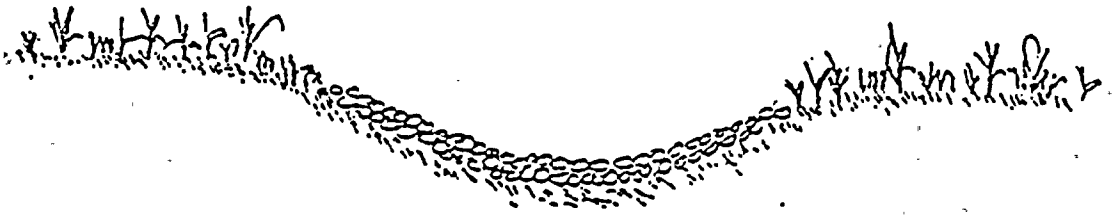
NOTE:

SAND BAGS CAN BE USED TO CONSTRUCT THE DIKES.

FIGURE 4
EMBANKMENT PROTECTION



GRAVEL LINED DIVERSION CHANNEL



GRAVEL LINED DIVERSION DITCH

FIGURE 5
GRAVEL LINED CHANNELS
AND DITCHES

APPENDIX A

CURASOL AE
TECHNICAL INFORMATION*

DESCRIPTION

CURASOL AE is a milky-white, polyvinyl acetate copolymer emulsion. It is physiologically harmless and has no phytotoxic properties. The pH value is 4 - 5 and it is water dispersible.

OBJECTIVE

CURASOL AE will temporarily bind surface soil in denuded areas to stabilize the soil and reduce erosion.

As a chemical mulch, CURASOL AE will partially bind surface soil to reduce the amount of erosion and evaporation losses to aid in the development of a permanent vegetative cover. CURASOL AE may be used in hydroseeder slurries or on areas already seeded. CURASOL AE will also bind natural fiber mulches to reduce losses caused by wind and rain.

*Guidelines for Erosion and Sediment Control Planning and Implementation, pp. 85 and 86, Environmental Protection Agency, August, 1972.

GENERAL APPLICATION

CURASOL AE can be used on all types of soil. The amounts of CURASOL AE and water generally required per acre of area are as follows:

Flat Areas - Thirty gal CURASOL AE to 1,000 gal of water for moist soil. For dry soil use 2,000 gal of water.

3:1 to 2:1 Slopes - Forty to 55 gal CURASOL AE to 1,000 gal of water for moist soil. For dry soil, use 2,000 gal of water.

2:1 to 1:1 Slopes - Fifty-five to 65 gal CURASOL AE to 1,000 gal of water for moist soil. For dry soil, use 2,000 gal of water.

Swales and Ditches - Ninety to 100 gal CURASOL AE to 1,000 gal of water for moist soil. For dry soil, use 2,000 gal of water.

MEANS OF APPLICATION

CURASOL AE may be applied with a hydroseeder along with the seed, mulch, lime, and fertilizer. Spraying equipment that normally is used for applying asphalt emulsions or water can also be used, with little or no modification, to apply the binder.

CURING TIME

Depending on the weather conditions, the curing time is generally two to six hours after application.

HANDLING LIMITATIONS

The freezing point of CURASOL AE is 23 F. This binder can be applied at temperatures above 34 F. Treated surfaces should be traffic free, except when very high concentrations of material are used. The binder may be sprayed on wet or dry soil. The material can be stored for at least six months but should not be stored in extreme heat, sunlight, or subfreezing conditions.

MANUFACTURER

American Hoechst Corporation
1041 Route 202-206 North
Bridgewater, New Jersey 08876

APPENDIX B

PRIMARY COAGULANT

INTRODUCTION

Most colloidal particles in natural water, such as those at the Nine Mile site carry a net negative electrical charge. Because the particles all carry the same charge, they repel each other and will not coalesce to form particles sufficiently large to settle. The particles can be made to settle through the mechanism of coagulation (the neutralization of particle charges). Neutralization of particle charges can be accomplished by the addition of a cationic polyelectrolyte. Gentle stirring of the water will then cause collisions of the particles which will grow into sufficient size to settle rapidly in a sedimentation basin.

VARIOUS COAGULANTS

1. Cat-Floc T (Calzon Corporation Product)

Cat-Floc T is a liquid cationic polyelectrolyte used as a primary coagulant in water clarification operation. It is accepted by the Environmental Protection Agency (EPA) for treating drinking water supplies at concentrations of up to 5 ppm.

TYPICAL PROPERTIES

Physical Form - Clear to pale yellow liquid

Solubility - Soluble in water in all proportions

Bulk Density - 8.6 lb/gal

pH (as supplied) - 3.5 ± 0.2

Freezing Point - 27 F

Undiluted Cat-Floc T is moderately corrosive to iron and copper. Chemical feed systems should be constructed of stainless steel or plastic. Cat-Floc T can be supplied in nonreturnable steel drums (450 lb/net). The optimal application dosage for the dewatering effluent is approximately 5 ppm.

2. Cat-Floc (Calgon Corporation Product)

Cat-floc is a viscous liquid cationic polyelectrolyte. It is accepted by the EPA for use in the treatment of drinking water supplies at concentrations of up to 5 ppm.

TYPICAL PROPERTIES

Physical Form - Water white to pale yellow viscous liquid

Solubility - Soluble in water in all proportions

Bulk Density - 8.6 lb/gal

pH (as supplied) - 4.2 ± 0.5

Freezing Point - 27 F

Undiluted Cat-Floc is moderately corrosive to iron and copper. It is available in 55 gal drums (450 lb/net). The optimal application dosage for the dewatering effluent is approximately 5 ppm.

3. Purifloc C31 (Dow Chemical Product)

Purifloc C31 is a highly viscous liquid cationic polyelectrolyte (polyalkylene polyamine). It has been approved by EPA for use in potable water treatment at concentrations of up to 5 ppm.

TYPICAL PROPERTIES

Physical Form - Dark amber viscous liquid

Solubility - All proportions in water

pH (20 percent solution, 20 C) - 8.9

Bulk Density - 9.5 lb/gal

Pour Point - 26 F

Solutions of Purifloc C31 floculant are relatively noncorrosive to common materials of construction, with the exceptions of aluminum and zinc. However, black iron or carbon steel tanks with rubber coatings are recommended for concentrated solutions. The optimum application dosage for the dewatering effluent is approximately 3 to 4 ppm.

4. XFS-4145L (Dow Chemical Product)

XFS-4145L is a liquid cationic polyelectrolyte. It has been approved by the EPA for use in potable water treatment at concentrations of up to 5 ppm.

TYPICAL PROPERTIES

Physical Form - Clear amber liquid

Solubility - All proportions in water

pH - (20 percent solution, 20 C) - 7.1

Bulk Density - 9 lb/gal

XFS-4145L flocculant is essentially noncorrosive to most common materials of construction, with the exceptions of aluminum and zinc. However, black iron or carbon steel tanks with rubber coatings are recommended for concentrated solutions.

The optimal application dosage for the dewatering effluent is approximately 4 ppm.

1572

EXPIRATION DATE
October 31, 1981

Y38S14

PERMIT

.: the Environmental Conservation Law, Article 27, Title 7, Part 360

☐ CONSTRUCTION ☐ INITIAL ISSUE ☐ REISSUANCE
☒ OPERATION ☒ RENEWAL ☐ MODIFICATION

PERMIT ISSUED TO	ADDRESS OF PERMITTEE	TELEPHONE NO.
Niagara Mohawk Power Corporation	300 Erie Boulevard West, Syracuse, NY	(315) 474-1511

LOCATION OF PROJECT Town	County	Environmental Conservation Regional Office
Scriba	Oswego	7481 Henry Clay Boulevard, Liverpool, NY

DESCRIPTION OF PROJECT	ON-SITE SUPERVISOR
Construction related waste disposal - Nine Mile Pt. Unit 2	Mr. T. S. Farrell III

GENERAL CONDITIONS

1. The permittee shall file in the office of the Environmental Conservation Region specified above, a notice on intention to commence work at least 48 hours in advance of the time of commencement and shall also notify said office promptly in writing of the completion of the work.
2. The permitted work shall be subject to inspection by an authorized representative of the Department of Environmental Conservation who may order the work suspended if the public interest so requires.
3. As a condition of the issuance of this permit, the applicant has accepted expressly, by the execution of the application, the full legal responsibility for all damages, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein, and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from the said project.
4. All work carried out under this permit shall conform to the approved plans and specifications. Any amendments must be approved by the Department of Environmental Conservation prior to their implementation.
5. The permittee is responsible for obtaining any other permits, approvals, easements and rights-of-way which may be required for this project.
6. By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with Part 360 and the special conditions. Any variances granted by the Department of Environmental Conservation to Part 360 must be in writing and attached hereto.

SPECIAL CONDITIONS

1. No liquid wastes, sludges or hazardous wastes nor wastes not generated by the Nine Mile Point Unit 2 construction activities will be accepted.
2. Closure of the landfill will follow Department guidelines including establishment of a cover crop and final slopes not greater than 1 on 3.
3. No expansion of the waste concrete area will be undertaken without prior approval by the Department.
4. A minimum of 100 feet will be maintained between the southern extent of the landfill and the existing drainage way.
5. An annual report will continue to be submitted by the permittee. The report will include, as a minimum, the volume of refuse landfilled, estimated volume of landfill remaining, and sufficient information to demonstrate that the landfill is operating in conformance with approved plans and specifications.

NOTED NOV T.S.Farrell

DATE	ISSUING OFFICER	SIGNATURE
10/31/78	Patrick M. Snyder, Sanitary Engineer	X Patrick M. Snyder

PERMITTEE COPY

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

APPROVAL TO CONSTRUCT A SOLID WASTE MANAGEMENT FACILITY

The Owner, Niagara Mohawk Power Corporation, of a solid waste management facility, known as Construction Landfill - Nine Mile Pt. Nuclear Station Unit 2 and located in the Town of Scriba in Oswego County, is granted approval to construct the above-named solid waste management facility in accordance with plans and specifications enclosed with the application for approval dated May 28, 1976 as provided for in Title 5 of Article 27 of the Environmental Conservation Law (Chapter 399 of the Laws of 1973). This approval does not relieve the applicant of the responsibility of complying with any applicable Federal, State or municipal ordinances, regulations and laws.

This approval is not transferrable and is subject to the following conditions:

1. The construction and operation of this facility shall conform to the plans and specifications approved this day.

2. The wastes to be landfilled at this disposal area are to be restricted to construction materials such as wood, concrete block, various metals, plastics, cardboard, paper and construction workers lunch wastes. The lunch wastes are to be the only material containing any garbage.

3. Luncheon type wastes are to be segregated from other wastes and when placed in the landfill, they are to be compacted and covered on a daily basis with a minimum of six inches of compacted soil.

4. A water monitoring program which is the sole responsibility of the owner may be required by the Department. The monitoring program should it be required, may include installation of groundwater monitoring wells and periodic sampling of wells and surface water in the area.

5. Finished side slopes on the site shall not be steeper than 1 (vertical) on 3 (horizontal).

6. The final contours of the site shall not exceed those shown on the approved plans.

7. Cover material shall be applied to comply with the following as a minimum: 6 inch thickness - same day as lunch wastes are deposited at landfill and at 24 inch thickness final cover.

8. The top six inches of the final cover (minimum 2') on the final lift completing the site shall be topsoil.

9. A grass cover crop shall be established on all exposed cover within one year after placement of the final cover.

10. Care shall be taken during the construction and operation of the sanitary landfill to preclude ponding on adjacent landowners' property.

11. Amendments to the plans and specifications must be approved by the New York State Department of Environmental Conservation prior to their implementation.

12. During the life of the landfill, an annual report will be submitted to the New York State Department of Environmental Conservation. The report will include, as a minimum, the volume of refuse landfilled, estimated volume of landfill remaining, and sufficient information to demonstrate that the landfill is operating in conformance with the approved plans and specifications.

13. In the event that it becomes necessary for any liquid to be discharged directly or indirectly from the site into surface and/or groundwaters, prior approval of the New York State Department of Environmental Conservation shall be required.

14. The above conditions shall be subject to change in the event that they become inconsistent with future modifications of the rules and regulations of the New York State Department of Environmental Conservation.

7-7-76
Date

Larry Gross
Larry Gross, P.E.
Senior Sanitary Engineer
Solid Waste Management

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
APPROVAL TO CONSTRUCT A SOLID WASTE MANAGEMENT FACILITY

The owner, Niagara Mohawk Power Corporation of a solid waste management facility known as Waste Concrete Landfill - Nine Mile Point Unit 2 Nuclear Station and located in the Town Scriba in Oswego County, is granted approval to construct the above named solid waste man ment facility in accordance with plans and specifications enclosed with the application f approval dated November 4, 1976, as provided for in Title 5 of Article 27 of the Environm Conservation Law (Chapter 399 of the laws of 1973). This approval does not relieve the applicant of the responsibility of complying with any applicable Federal, State or munici ordinances, regulations and laws.

This approval is not transferrable and is subject to the following conditions:

1. The construction and operation of this facility shall conform to the plans and specifi tions approved this day.

2. The waste to be landfilled at this disposal area is to be restricted to waste concrete

3. Finished side slopes on the site shall not be steeper than 1 (vertical) on 3 (horizont

4. The final contours of the site shall not exceed those shown on the approved plans.

5. Final cover material thickness shall be 24 inches thick.

6. The top six inches of final cover shall be topsoil.

A grass cover crop shall be established on all exposed cover within one year after placement of the final cover.

8. Amendments to the plans and specifications must be approved by the New York State Department of Environmental Conservation prior to their implementation.

9. The above conditions shall be subject to change in the event that they become inconsis with future modifications of the rules and regulations of the New York State Department of Environmental Conservation.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

INDIRECT SOURCE

APPLICATION FOR PERMIT TO CONSTRUCT

A. [X] NEW SOURCE
B. [ ] MODIFICATION

OP LOCATION FACILITY: 3 5 4 2 0 0 0 1 4 1

1. NAME OF SOURCE OWNER: Niagara Mohawk Power Corporation			9. NAME OF AUTHORIZED AGENT (ATTACH LETTER OF AUTHORIZATION): NA		10. TELEPHONE: NA
2. NUMBER AND STREET ADDRESS: 300 Erie Blvd. West			11. NUMBER AND STREET ADDRESS: NA		
3. CITY - TOWN - VILLAGE: Syracuse	4. STATE: NY	5. ZIP: 13202	12. CITY - TOWN - VILLAGE: NA	13. STATE: NA	14. ZIP: NA

Complete this form in triplicate and forward to appropriate field representative. (see Form AIR 51)

Any person knowingly making any false statement or false report in connection with this application shall be liable for penalties as prescribed by law

6. OWNER CLASSIFICATION
A. [ ] COMMERCIAL C. [X] UTILITY E. [ ] MUNICIPAL I. [ ] RESIDENTIAL
B. [ ] INDUSTRIAL D. [ ] FEDERAL G. [ ] EDUC.INST J. [ ] OTHER
F. [ ] STATE H. [ ] HOSPITAL

15. NAME OF P.E. OR ARCHITECT PREPARING PLANS:
16. N.Y.S. P.E. OR ARCH. LIC. NO.:
17. TELEPHONE:
25. DATE APPLICATION COMPLETED: 12/16/76

7. NAME & TITLE OF OWNER'S REPRESENTATIVE (EMPLOYEE OF FIRM): J.M. Toennies, Env. Aff. Dir.
8. TELEPHONE: 474-1511 x1580
18. SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT: J M Toennies
26. EXPECTED DATE OF OPERATION: 1976 - 1982

19. FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM): Nine Mile Point Unit 2 Construction Site
20. FACILITY LOCATION (NUMBER AND STREET ADDRESS): P.O. Box 32
21. CITY - TOWN - VILLAGE: Lycoming, 13093
22. COUNTY: Oswego

23. TYPE OF FACILITY OR MODIFICATION (CHECK ONLY ONE) 1. [X] PARKING FACILITY 2. [ ] AIRPORT 3. [ ] RECREATIONAL FACILITY
4. [ ] SHOPPING CENTER 5. [ ] DRIVE IN THEATER 6. [ ] HIGHWAY 7. [ ] OTHER _____ (DESCRIBE)

24. TOTAL AREA OF INDIRECT SOURCE 13 ACRES
27. TOTAL FLOOR SPACE OF BUILDING(S) 0 SQUARE FEET

28. MAXIMUM DAILY INDUCED AUTOMOBILE TRIPS DURING NEXT TEN YEARS 1800

29. EXISTING PARKING SPACES AT FACILITY 0
30. PARKING SPACES TO BE ADDED BY PROJECT 1800

31. DESCRIBE PARKING FACILITIES TO BE UTILIZED BUT NOT UNDER OWNERSHIP OR CONTROL OF OWNER: NA

32. BRIEFLY INDICATE NUMBER AND SIZE OF DIRECT AIR CONTAMINATION SOURCES TO BE INCLUDED IN PROJECT: NA

33. INCLUDE A DETAILED ANALYSIS OF IMPACT OF USE OF FACILITY ON AIR QUALITY IN ACCORDANCE WITH GUIDELINES. (see attached shee

34. DRAWING NUMBERS OF PLANS SUBMITTED: Sketch No. 12187-YESK-23A-3, Attachment No. 4 (no sketch numbe
Sketch No. 12187-2FSK-10A, Drawing No. 12187-SK-0526763-1

FOR AGENCY USE ONLY

143. LOCATION CODE	144. FACILITY ID. NO.	145. U T M (E)	146. U T M (N)	147. SIC NUMBER	148. DATE APPL. RECEIVED	149. DATE APPL. REVIEWED
3 5 4 2 0 0	0 1 4 1	3 7 6 1	3 1 2 7	4 7 9 4	12/ / 76	3/ / 77

REVIEWED BY: Marie Ann Smith

PERMIT TO CONSTRUCT

150.	151. DATE	152. SIGNATURE	
[ ] DENIED	4/8/77		FAILURE TO OBTAIN PERMITS TO CONSTRUCT FOR DIRECT AIR CONTAMINATION SOURCES INCLUDED IN PROJECT PRIOR TO CONSTRUCTION SHALL VOID THIS PERMIT
[X] APPROVED	/ /	153. EXPIRATION DATE 4-8-78	

CONDITIONS:

AIR 100 X (11/73)

33. Impact of Use of Facility on Air Quality

Location

The Nine Mile Point Unit 2 construction site is located on the southeast shore of Lake Ontario in a rural sector of Oswego County, New York, about 40 miles north-northwest of the City of Syracuse. The nearest population center is the City of Oswego, approximately seven miles southwest of the site.

The major travel routes to and from the site are shown on Attachment 1. Attachment 2 shows the estimated traffic flows (numbers in parenthesis) during the peak construction year at the beginning and end of the day shift.

Site Roadways

The Nine Mile Point roadways are shown on Attachment 2, and the Construction Site Roadways are displayed on Attachment 3. The beginning and end of work shifts for the Nine Mile Point Unit 1 facility and for the J. A. Fitzpatrick Power Plant do not coincide with the Nine Mile Point Unit 2 construction site shift changes; therefore, traffic flows indicated are estimates for the Unit 2 construction site only. Historic observations at the site indicate that the construction traffic flows have been approximately 50 percent to the east and 50 percent to the west.

Construction Parking Requirements

The number of workers scheduled for the Nine Mile Point Unit 2 construction site is expected to increase from 600 in 1976 to a maximum of 2200 in 1979, and subsequently decrease to 50 workers in 1982 when construction will terminate. During construction, it is estimated that no more than 1800 workers will be on site during any one shift.

A traffic study was conducted at the Unit 2 construction site in 1976. Data analysis has established that there are approximately 1.5 riders/car at the site. Using the scheduled manpower estimates outlined above, the following table has been developed.

YEAR	NUMBER OF CARS - DAY SHIFT
1976	400
1977	900
1978	1,100
1979	1,200
1980	1,100
1981	700
1982	400

Attachment 3 shows the location and size of the four construction parking lots. The four lots will be completely utilized during the peak years of construction. During non-peak years, parts of the lots will be utilized as storage areas.

The size of the parking lots was based on 1,200 cars maximum during the day shift and 600 spaces for shift change parking. The four construction parking lots will provide approximately 1,800 spaces for parking. All paved lots will have painted parking spaces and the unpaved lots will be marked as required to facilitate parking.

Traffic Control

The major site roads have centerline markings and stop signs where required to control traffic. As construction traffic flow increases, various methods of channelization will be used to optimize traffic flow (e.g. flagmen). Based on experience during the construction of the Nine Mile Point Unit 1 and the James A. Fitzpatrick Plants, the workers themselves aid traffic flow in an effort to exit the site as quickly as possible.

In addition, a bus service plan from Oswego has been arranged with CENTRO Transit, Inc. The bus service will become available starting December 6, 1976, and will reduce the amount of traffic to and from the site.

Site Meteorology

The prevailing winds range from west to south to southeast at the Nine Mile Point site. The annual wind "rose" showing percentages of winds from each direction at the site is shown in Attachment 4. The site is near the mean path of many cyclonic wind systems which cross North America at a rate of approximately 10 per month. Therefore, substantial tropospheric mixing occurs during most of the year. Stagnant conditions occur infrequently.

Receptors

The nearest dwelling in proximity to the project is located on Lakeview Road about one mile southwest of the site. (See Attachment 2). Significant concentrations of workers adjacent to the parking lot facilities are not expected during shift changes. The primary on-site receptors will be the occupants of the vehicles.

Impact Analyses

The meteorological conditions characteristic of the Nine Mile Point Unit 2 site indicate that air emissions resulting from vehicular travel to and from the proposed parking facilities will generally be dispersed rapidly. Total air emissions will increase between 1976 and 1979 (the peak construction year) and then decrease as the construction work force decreases progressively until 1982. Traffic flow entering and exiting the parking lots will be facilitated through the access roads by any measures necessary (e.g. flagmen) to minimize concentrations of carbon monozide and other deleterious exhaust emissions at the site. The bus service which will be available from Oswego should reduce the impact resulting from vehicular traffic between the site and this population center.

The major area of impact which will result from the construction of the parking facilities will be the immediate areas of the lots. Since vehicles will normally only be entering and exiting the site during shift changes, the primary on-site receptors will be the occupants of the vehicles. The nearest dwelling in this rural environment is located approximately one mile from the site.

Even during worst-case meteorological conditions, it is expected that the following National Air Quality Standards will be complied with as a result of construction and utilization of the proposed indirect source of air pollution:

1-hour carbon monoxide - 35ppm, not to be exceeded more than once per year.

8-hour carbon monoxide - 9ppm, not to be exceeded more than once per year.

POWER INDUSTRY GROUP

CHECKED

CONTRACT

APPROVED

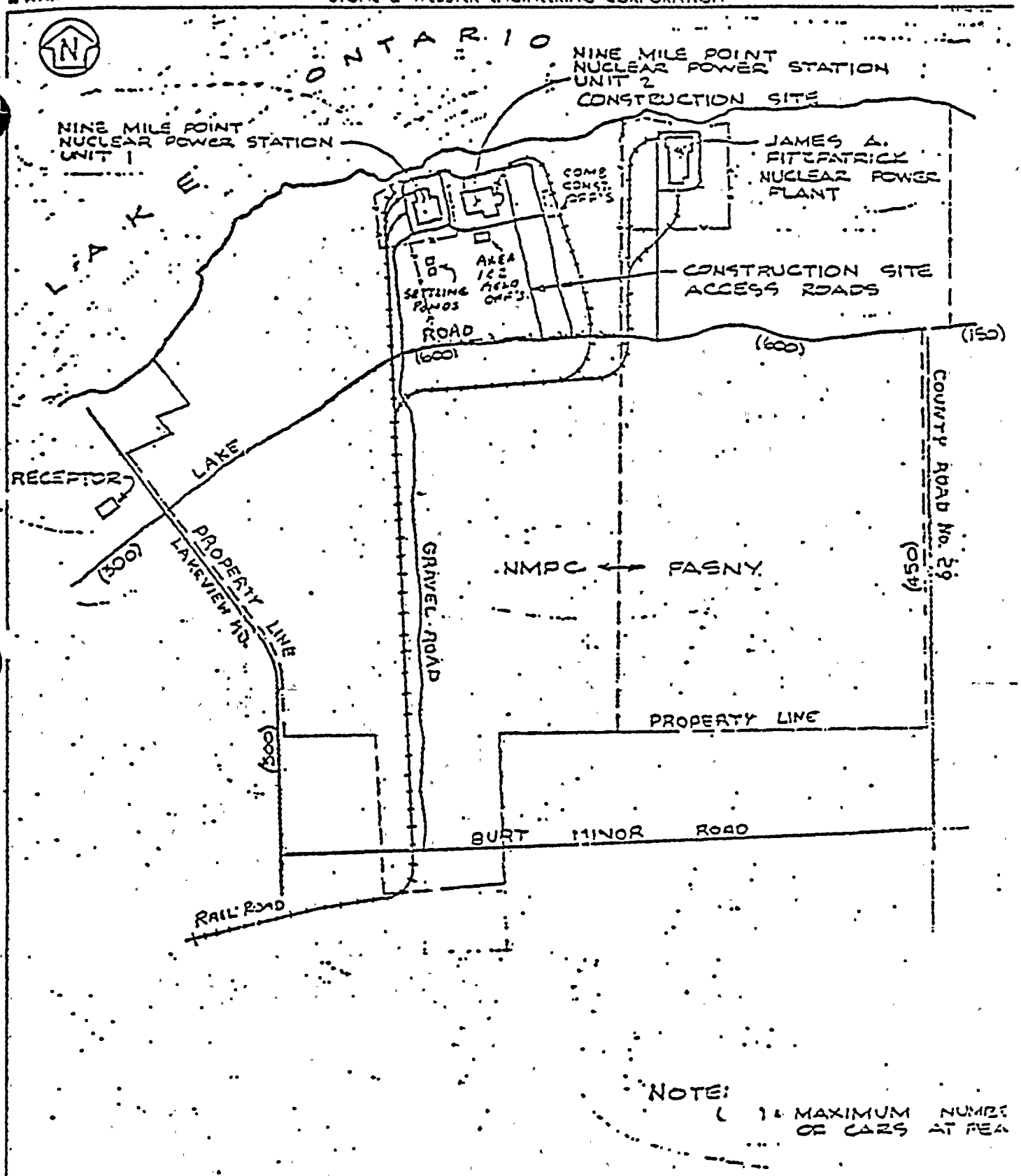
TITLE MAJOR ROADWAYS TO NINE MILE POINT - UNIT 2 CONSTRUCTION SITE

SCALE NONE

DATE 11-19-76

ATTACHMENT #1

STONE & WEBSTER ENGINEERING CORPORATION



ATTACHMENT # 2

POWER INDUSTRY GROUP	TITLE NINE MILE POINT SITE ROADS	SCALE: NONE
CHECKED		DATE: 5-27-76
CORRECT		SKETCH NUMBER
APPROVED		

Question 6

Compare the airborne, non-radiological emissions from the proposed radwaste incinerator/calciner to emissions from other sources at the NMP-1 site, particularly startup boilers, emergency diesels and station heating.

Response

A comparison of the RWR-1 non-radiological emissions to other sources is given below. The resin incineration mode is listed for the RWR-1. In this mode, all emissions listed are higher than other modes of operation.

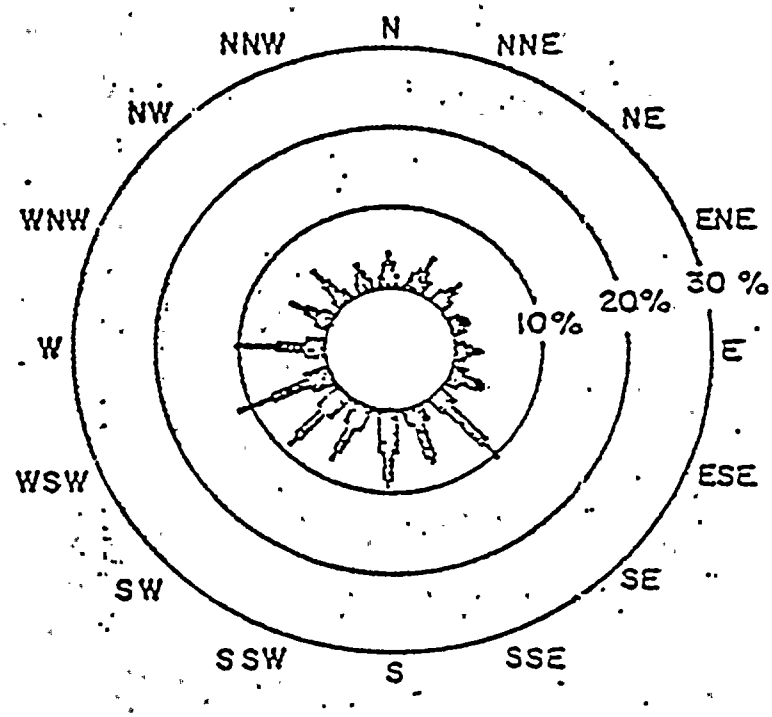
	RWR-1	One NMP#1 Diesel Generator	Heavy Duty Truck (8 mi/hr)	Car (8 mi/hr)
CO	0 lbs/hr.	30 lbs/hr.	5.33 lbs/hr.	0.61 lbs/hr.
Hydro-carbons	0 lbs/hr.	10 lbs/hr.	0.25 lbs/hr.	0.06 lbs/hr.
NO_x	2 lbs/hr.	100 lbs/hr.	0.23 lbs/hr.	0.05 lbs/hr.
SO_x	5 lbs/hr.	8 lbs/hr.	0.01 lbs/hr.	0 lbs/hr.
Particu-lates	0 lbs/hr.	9 lbs/hr.	0.02 lbs/hr.	0.01 lbs/hr.

Note: The RWR-1 System is projected to operate 70% of the time. A diesel generator operates 1 hr/month under normal conditions (more frequent under abnormal conditions).

Background in the area is dominated by the Oswego Steam Station. Figures for that station are as follows:

CO	0.08 lb/hr.
Hydrocarbons	0 lb/hr.
NO_x	6,840 lb/hr.
SO_x	33,125 lb/hr.
Particulates	825 lb/hr.

The RWR-1 emissions cannot be compared to the station boilers or heating system since these are both electric powered.



TOTAL WIND

1-10 MPH
11-20 MPH
21-100 MPH

1963-1964 NINE MILE POINT

FIGURE

AVERAGE WIND ROSES

ATTACHMENT #4