

BRIEFING ON NIAGARA FALLS STORAGE SITE (NFSS) AND OTHER
NEW YORK FORMERLY UTILIZED — REMEDIAL ACTION PROGRAM SITES FOR
NEW YORK STATE AGENCIES

11:00 a.m.
May 9, 1984

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Room 604 - 50 Wolf Road
Albany, New York 12233

List of Attendees

NAME	AFFILIATION	TELEPHONE NUMBER	
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ED DELANEY	DOE DIV. OF REMEDIAL ACTION PROTECTS	301-353-4716	
Jim Shanley	NYS DEC Albany	518-457-2223	
Paul Merges	" " "	" " "	
John E. Baublik	U.S. DOE / HQ	301-353-5272	
Lowell F. Campbell	U.S. DOE / OR / TSD	615-576-1052	
Joseph F. Nemec	Bechtel National	615-482-1552	
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Richard N. Coy	UFC Superfund Facility Management Program	509-376-6712	
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Charlie Seehorn	DOE / Oak Ridge	(615) 576-1200	
JAMES HUANG	NYS DEPT. OF HEALTH	518 / 473 3621	
WILLIAM CONDON	"	"	

ADVANCED TECHNOLOGY DIVISION
COMMUNICATION DISTRIBUTION
FUSRAP PROJECT

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FROM L. Campbell TO F. Hyscher

SUBJECT Briefing on the NFSS for Citizen's Oversight Committee

FILE NO. 130 WBS 202-K AFF. DOC. NO. _____

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RETURN TO PDCC FOR CORRECTION



18778

Department of Energy

Oak Ridge Operations

P. O. Box E

Oak Ridge, Tennessee 37831

MAY 1 1984

Mr. Frank Luscher
P. O. Box 218
Niagara Falls, NY 14302

Dear Mr. Luscher:

BRIEFING ON THE NIAGARA FALLS STORAGE SITE (NFSS) FOR CITIZEN'S OVERSITE COMMITTEE

This is written confirmation that the Department of Energy will provide a briefing on the NFSS for the Oversight Committee on May 9, 1984 at 7:30 p.m. in the Administration Building near the Lewiston Porter High School located at 4061 Creek Road, Youngstown, New York.

Sincerely,

E. H. Hardison
for Lowell F. Campbell, Deputy Director
Technical Services Division

CE-53:Campbell

cc: E. G. Delaney, NE-24, GTN
Gale Turi, NE-24, GTN
C. E. Miller, SFMPO, RL
R. W. Vocke, ANL
R. L. Rudolph, BNI
J. Nemec, BNI

115-120

DEPARTMENT OF ENERGY (DOE) UPDATE OF NIAGARA FALLS STORAGE SITE (NFSS) ACTIVITIES

- INTERIM STORAGE
- ENVIRONMENTAL MONITORING
- LONG RANGE PLANNING
- CHANGES SINCE JUNE, 1983 BRIEFING

BRIEFING ON NFSS

I. OVERVIEW

JOHN E. BAUBLITZ, DIRECTOR
DIVISION OF REMEDIAL ACTION PROJECTS
DOE HEADQUARTERS
WASHINGTON, D.C.

II. PROJECT ACTIVITIES SUMMARY

LOWELL F. CAMPBELL, DOE NFSS PROJECT MANAGER
TECHNICAL SERVICES DIVISION
DOE OPERATIONS OFFICE
OAK RIDGE, TENNESSEE

III. PROJECT DETAILS

JOSEPH F. NEMEC, NFSS TASK MANAGER
BECHTEL NATIONAL, INC.
OAK RIDGE, TENNESSEE

OVERVIEW

NEAR-TERM

- REMEDIAL ACTIONS ONSITE AND OFFSITE
- PROVIDE INTERIM STORAGE ADEQUATE FOR 25 YEARS
- MONITOR SITE AND SURROUNDINGS FOR RADIOACTIVITY

STATUS

- COMPLETION SCHEDULED FOR 1985
- AFRIMET SETTLEMENT COMPLETED
- FY 84 FUNDING SETTLED; FY 85 FUNDING FIRM

OVERVIEW (continued)

LONG-TERM

- ENGINEERING ANALYSIS OF ALTERNATIVES
- ENVIRONMENTAL ANALYSIS OF ALTERNATIVES
- DOE DECISION—1985
- CONGRESSIONAL ACTION—AFTER 1985

STATUS

- EIS PREPARATION UNDERWAY
- ENGINEERING ANALYSIS COMPLETED
- DOE PROJECT MANAGEMENT PLAN
UPDATED—BASELINE COST AND SCHEDULE

PROJECT ACTIVITIES SUMMARY INTERIM STORAGE

- **CORRECT EXISTING CONDITIONS**
 - A. CLEAN UP OFFSITE CONTAMINATION AND STABILIZE MATERIALS TO PREVENT FUTURE RUNOFF; REDUCE RADON EMISSIONS
 - B. ASSURE COMPLIANCE WITH ALL APPLICABLE STANDARDS
 - C. GOAL—COMPLETE IN 1985

1984 PLANS

- STABILIZATION - BUILDING 411 RESIDUES
- STABILIZATION - BUILDING 434 RESIDUES
- DEMOLITION - BUILDINGS 410, 415, AND 434
- DECONTAMINATE - BUILDINGS 409 AND 430
- CLEANUP - CENTRAL DITCH (BALMER TO LUTTS ROAD)
- ON-SITE PROPERTY CLEANUP (COMPLETED)
- OFF-SITE PROPERTY CLEANUP (PARTIAL)

SUMMARY SCHEDULE - INTERIM STORAGE

ACTIVITY	PRIOR YEARS	FISCAL YEAR		
		1984	1985	1986
SURVEILLANCE & MAINTENANCE				
PREVENT OFFSITE MIGRATIONS				
UPGRADE STORAGE QUALITY				
RETRIEVE OFFSITE WASTES				

ESTIMATED COST BY FISCAL YEAR (\$ in millions)	13.8	11.2	4.2	1.1
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TOTAL ESTIMATED COST \$ 30.3 M

NFSS ENVIRONMENTAL MONITORING

- **ONSITE AND OFFSITE**
- **AIR MONITORING FOR RADON AND PARTICULATES**
- **WATER MONITORING FOR RADIUM-226 AND URANIUM; OTHER TESTING FOR NY STATE SPDES PERMIT**
- **GAMMA RADIATION MONITORING**

ENVIRONMENTAL MONITORING CONCLUSIONS

- RADON EMISSIONS AT BOUNDARY WITHIN DOE LIMIT. APPROXIMATELY 20% REDUCTION IN 1983 EMISSIONS AS COMPARED TO 1982 QUARTERLY AVERAGE.
- WATER RUNOFF IN CENTRAL DITCH IS WITHIN DOE LIMIT FOR RADIUM-226. RADIUM-226 SEDIMENTS REMOVED TO BALMER ROAD. REMAINDER OF SEDIMENTS WILL BE REMOVED DURING 1984 AND 1985.
- GAMMA RADIATION AT BUILDING 434 SITE BOUNDARY WITHIN DOE LIMIT.

NFSS LONG-RANGE PLANNING

- **ENGINEERING ANALYSIS OF ALTERNATIVES—
COMPLETE JANUARY 1984**
- **ENVIRONMENTAL ANALYSIS OF ALTERNATIVES—
COMPLETE DRAFT EIS SUMMER, 1984**
- **PUBLIC REVIEW OF DRAFT EIS DOCUMENT**
- **COMPLETE FINAL EIS—1985**
- **PUBLIC REVIEW OF FINAL EIS DOCUMENT**
- **DOE RECORD OF DECISION—1985**

LONG-TERM MANAGEMENT SCENARIOS

- **CONTINUE INTERIM STORAGE**
- **UPGRADE STORAGE FACILITY AT NFSS FOR LONG-TERM MANAGEMENT**
- **TRANSPORT ALL RADIOACTIVE MATERIAL TO A DOE DISPOSAL SITE**
- **TRANSPORT RESIDUES TO A DOE DISPOSAL SITE; CONTAMINATED SOIL REMAIN AT NFSS IN UPGRADED STORAGE FACILITY OR ARE REMOVED FOR OCEAN DISPOSAL**

NFSS PROJECT DETAILS





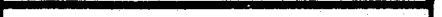


- **INTERIM STORAGE**
- **ENVIRONMENTAL MONITORING**
- **LONG-RANGE PLANNING**

**J. F. NEMEC
BECHTEL NATIONAL, INC.**

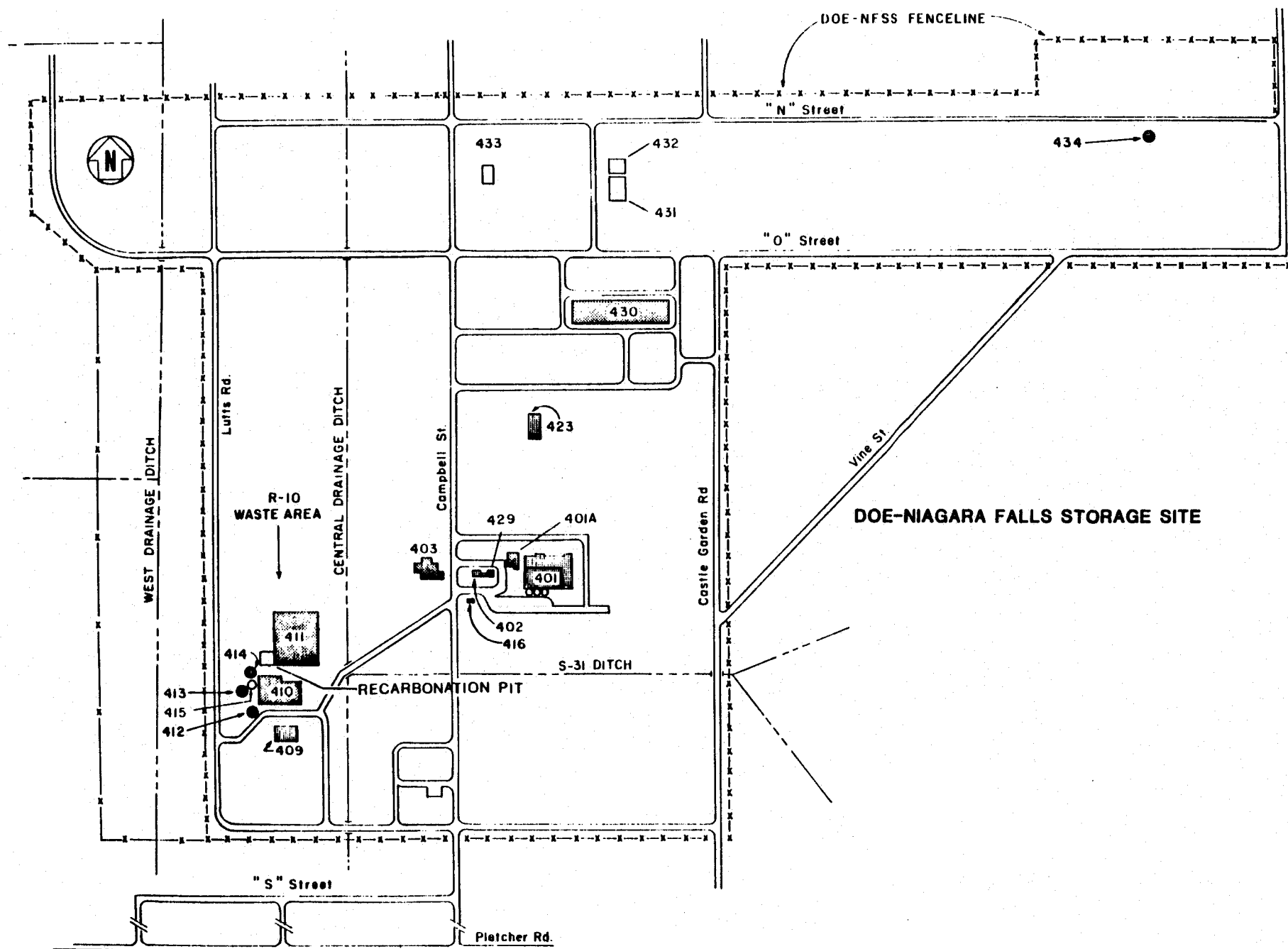
NFSS OBJECTIVES—INTERIM STORAGE

- **CONTROL RADIOLOGICAL SOURCE MATERIAL AND PREVENT MIGRATION**
- **RECOVER MIGRATED MATERIALS (SOIL)**
- **MINIMIZE RADIOLOGICAL RELEASES WITHIN ESTABLISHED GUIDELINES**
- **ASSURE HEALTH AND SAFETY ONSITE AND OFFSITE**

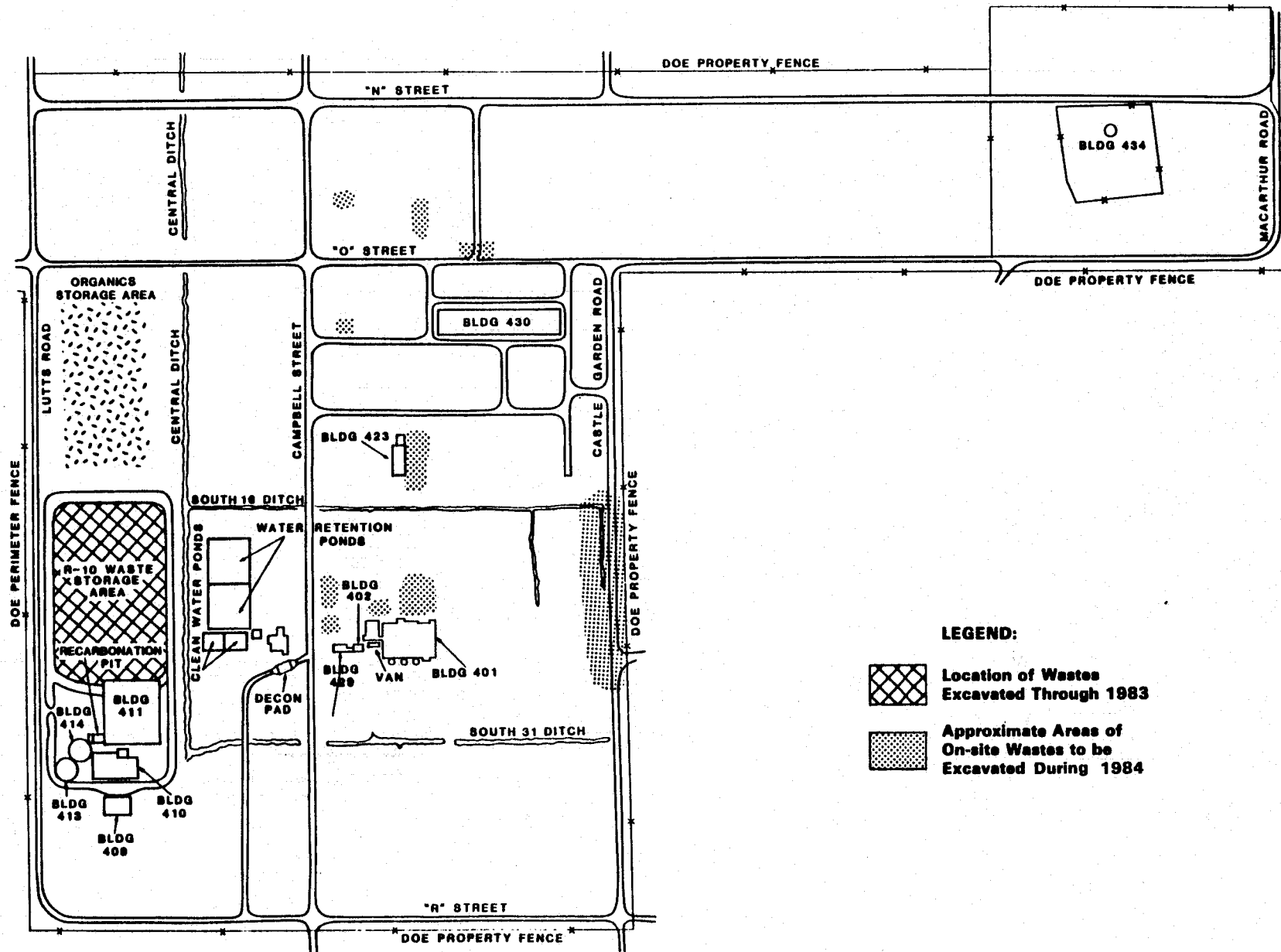
NFSS PROJECT SCHEDULE SUMMARY

MILESTONE DESCRIPTION	FY 1984	FY 1985	FY 1986
PRELIMINARY ENGINEERING			LEGEND: ▲ START ▼ COMPLETE
DESIGN ENGINEERING			
REMEDIAL ACTIONS <ul style="list-style-type: none"> • RESIDUE TRANSFER & DEWATERING 			
<ul style="list-style-type: none"> • DEMOLITION & RAD. CLEANUP 			
<ul style="list-style-type: none"> • ONSITE PROPERTY CLEANUP 			
<ul style="list-style-type: none"> • OFFSITE PROPERTY CLEANUP 			
<ul style="list-style-type: none"> • INTERIM CAP INSTALLATION 			
SURVEILLANCE & MAINTENANCE			

NFSS SHOWING STRUCTURES AND FEATURES OF THE SITE PRIOR TO INTERIM REMEDIAL ACTIONS



NFSS FOLLOWING COMPLETION OF INTERIM REMEDIAL ACTIONS THROUGH 1983



REMEDIAL ACTION SITE PLAN ON-SITE

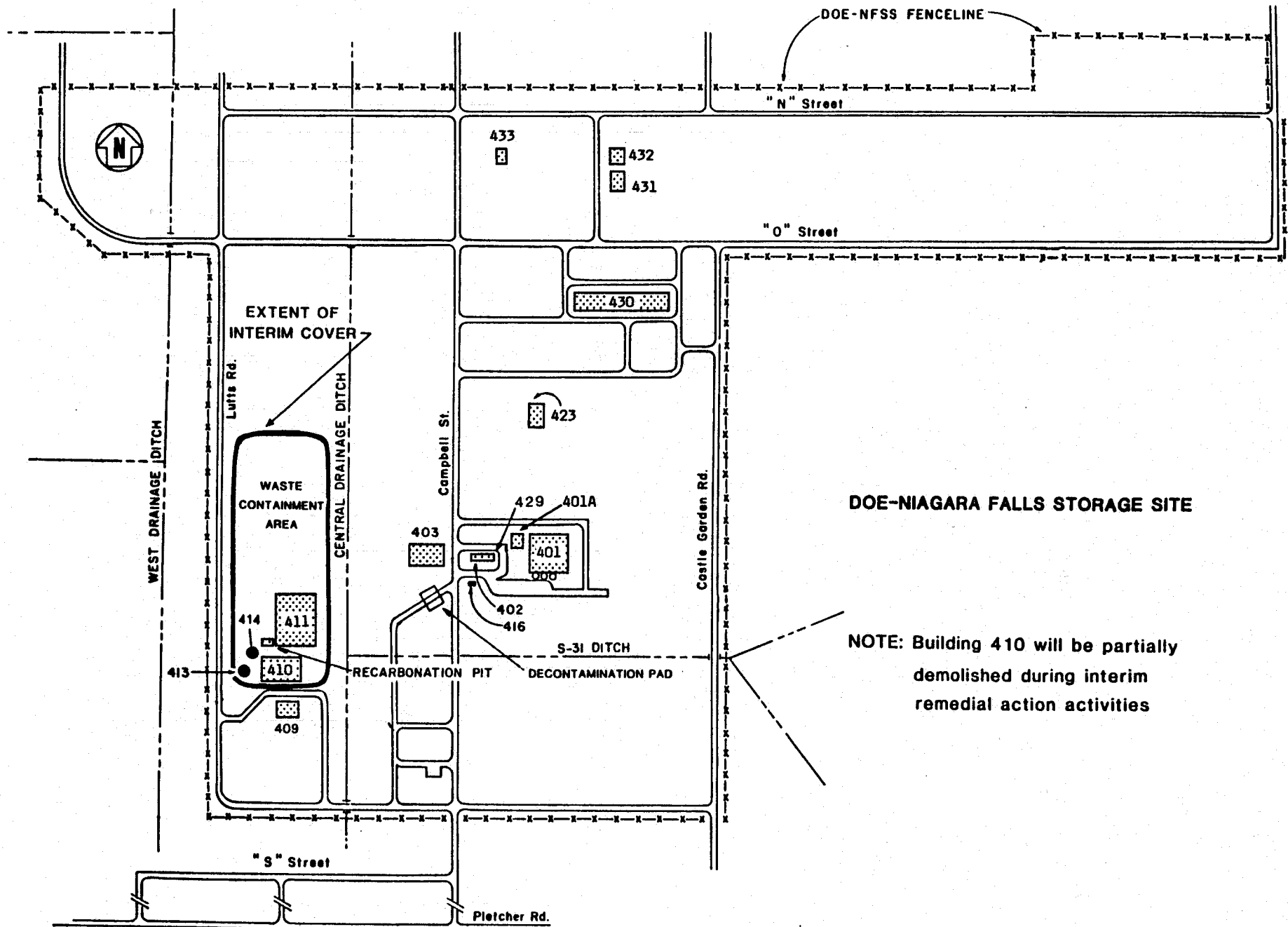
- 1984
 - TRANSFER ALL RESIDUES TO BUILDING 411 AND BEGIN DEWATERING
 - DEMOLISH BUILDINGS 410, 415, AND 434
 - DECONTAMINATE BUILDINGS 409 AND 430
 - CLEANUP ON-SITE PROPERTY
 - INITIATE INTERIM CAP INSTALLATION
- 1985
 - DISPOSAL OF ORGANIC MATERIAL
 - COMPLETE INTERIM CAP INSTALLATION

REMEDIAL ACTION SITE PLAN OFF-SITE

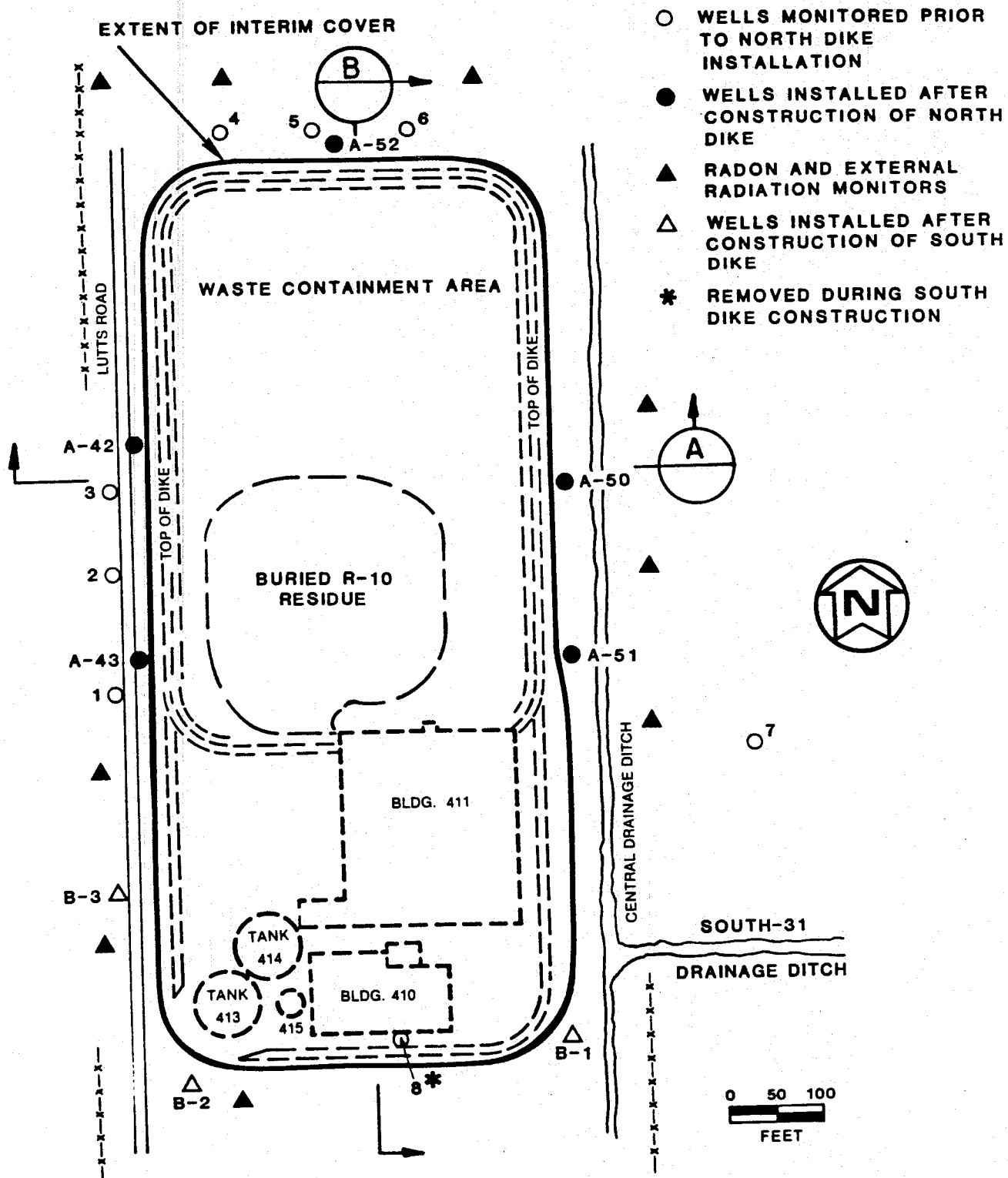
- 1984
 - CLEANUP OF CENTRAL DITCH; BALMER TO LUTTS ROAD
 - CLEANUP OF FOURTEEN VICINITY PROPERTIES

- 1985
 - CLEANUP OF CENTRAL DITCH; LUTTS ROAD TO FOUR MILE CREEK
 - CLEANUP REMAINING VICINITY PROPERTIES

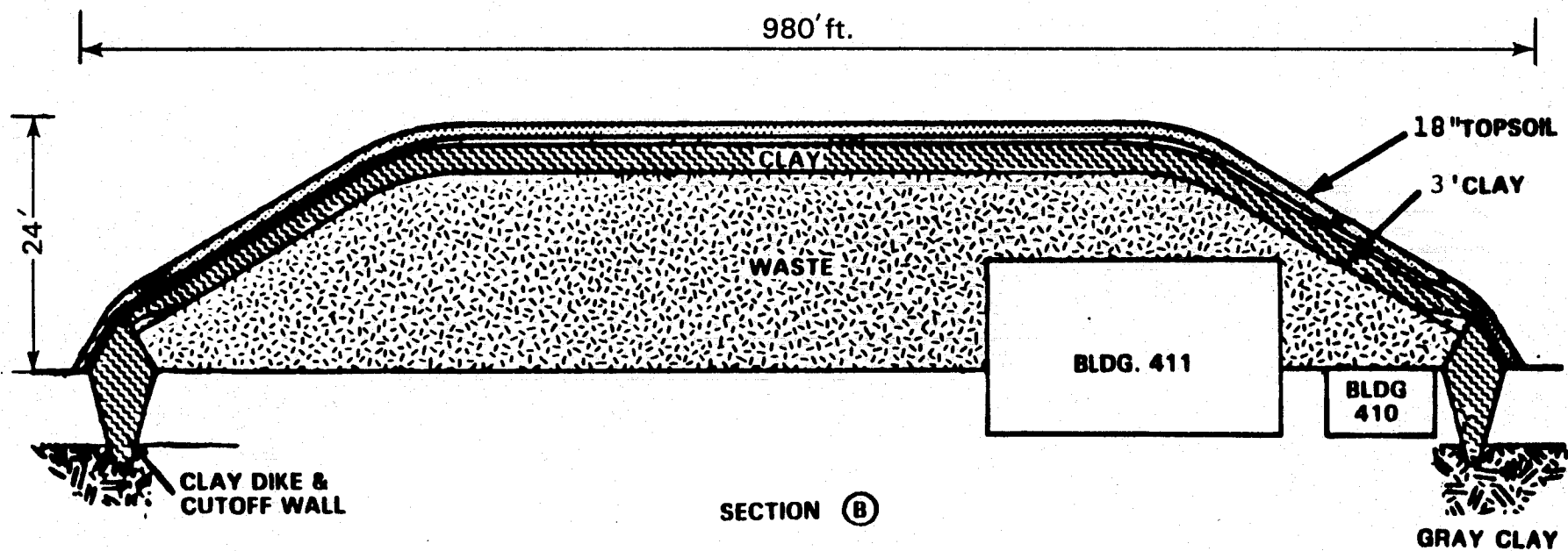
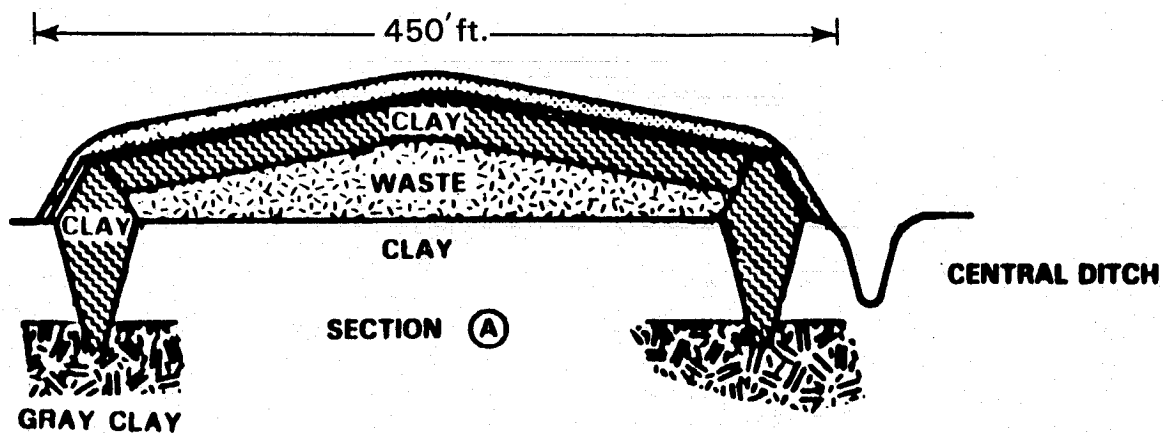
NFSS AFTER COMPLETION OF INTERIM REMEDIAL ACTIONS



WASTE CONTAINMENT AREA AFTER COMPLETION OF INTERIM REMEDIAL ACTIONS



CROSS-SECTIONS OF INTERIM STORAGE PILE



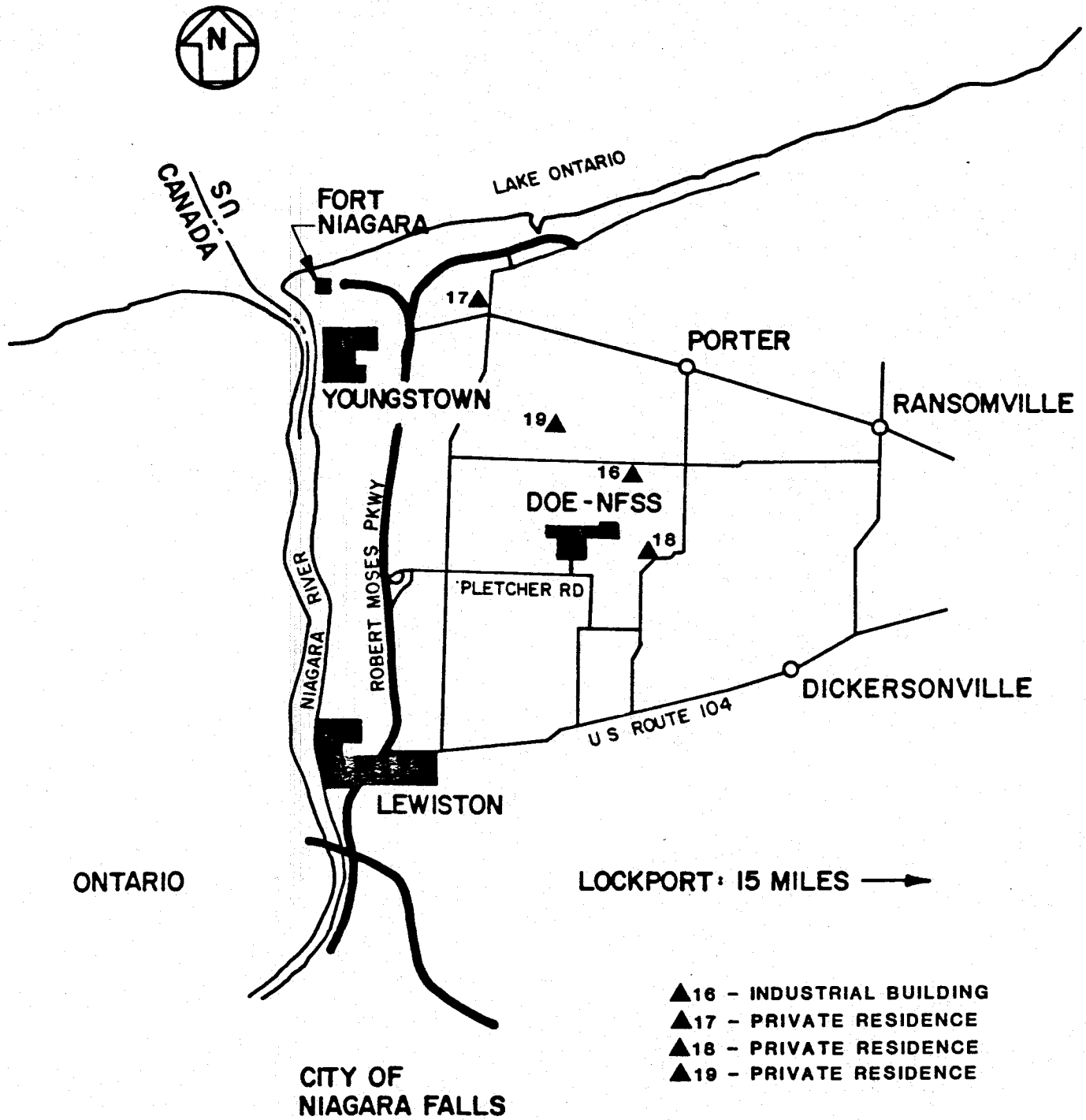
INTERIM STORAGE DESIGN

- **PREVENT LATERAL MIGRATION**
- **PREVENT WATER INFILTRATION
AND DOWNWARD MIGRATION**
- **LIMIT RADON RELEASE**
- **25 YEAR DESIGN LIFE**

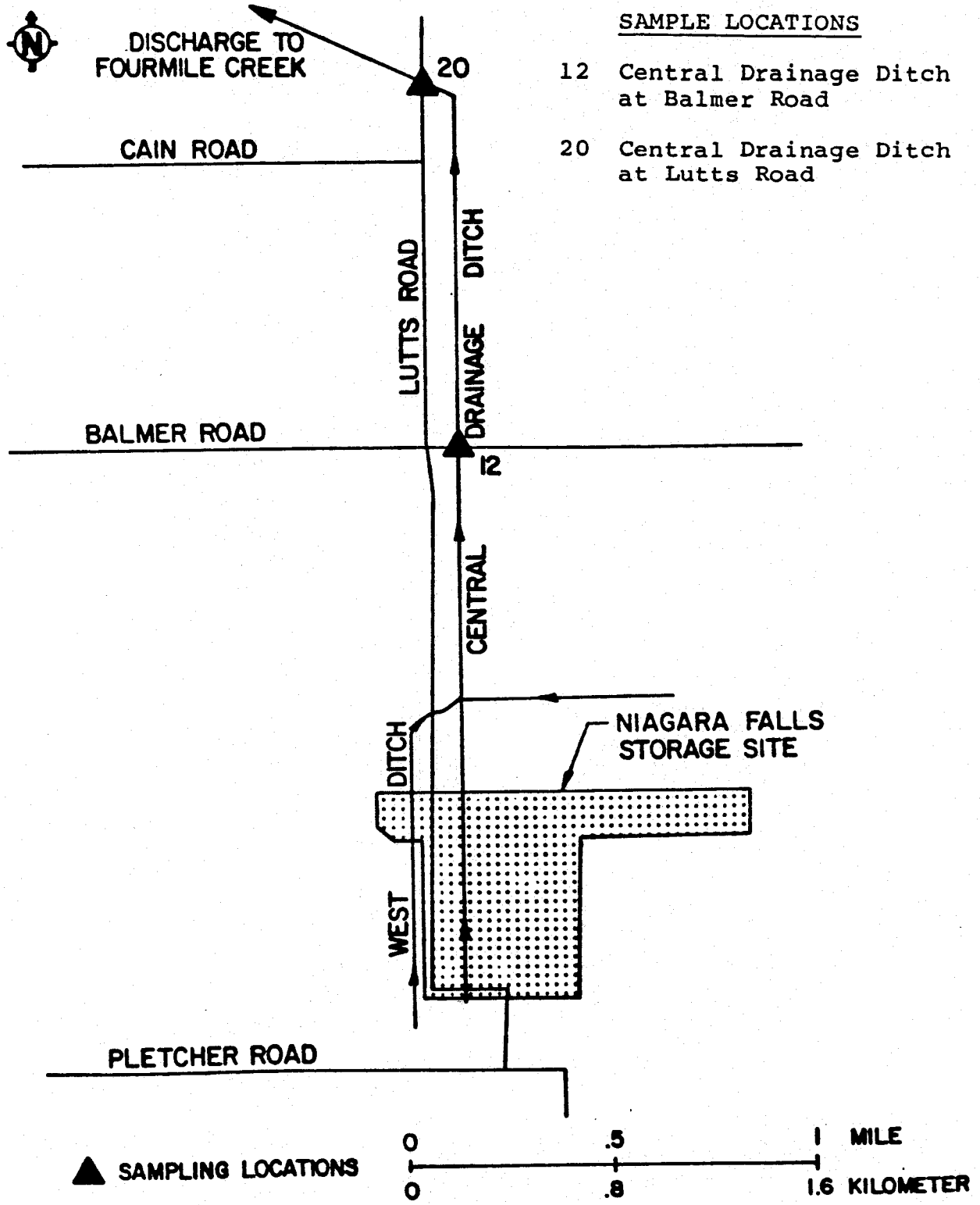
NFSS ENVIRONMENTAL MONITORING

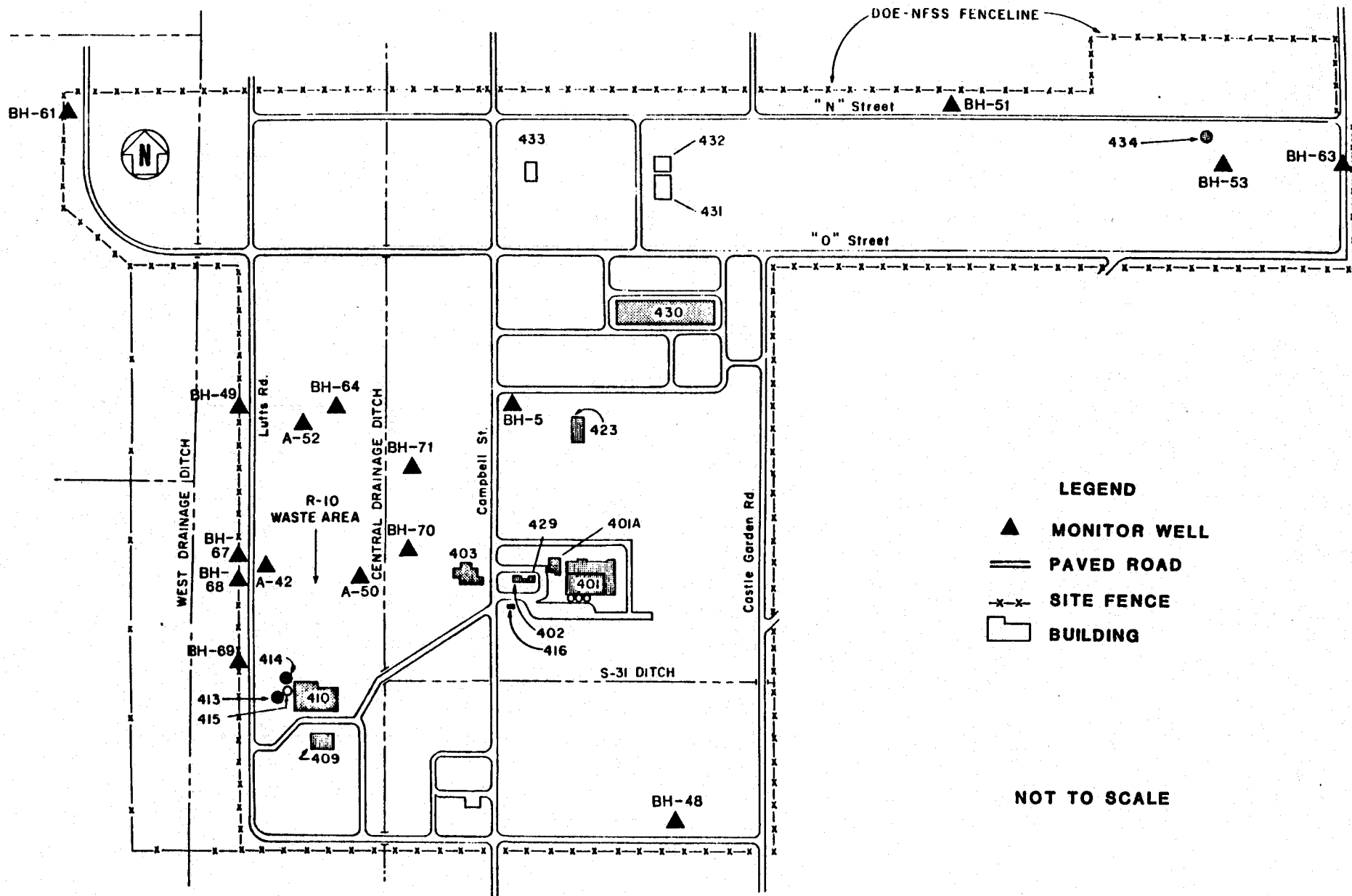
- **ONSITE AND OFFSITE**
- **AIR MONITORING FOR RADON AND PARTICULATES**
- **WATER MONITORING FOR RADIUM-226 AND URANIUM; OTHER TESTING FOR NY STATE SPDES PERMIT**
- **GAMMA RADIATION MONITORING**

LOCATION OF OFF-SITE GROUNDWATER SAMPLE POINTS



OFF-SITE SURFACE WATER AND SEDIMENT SAMPLE LOCATIONS

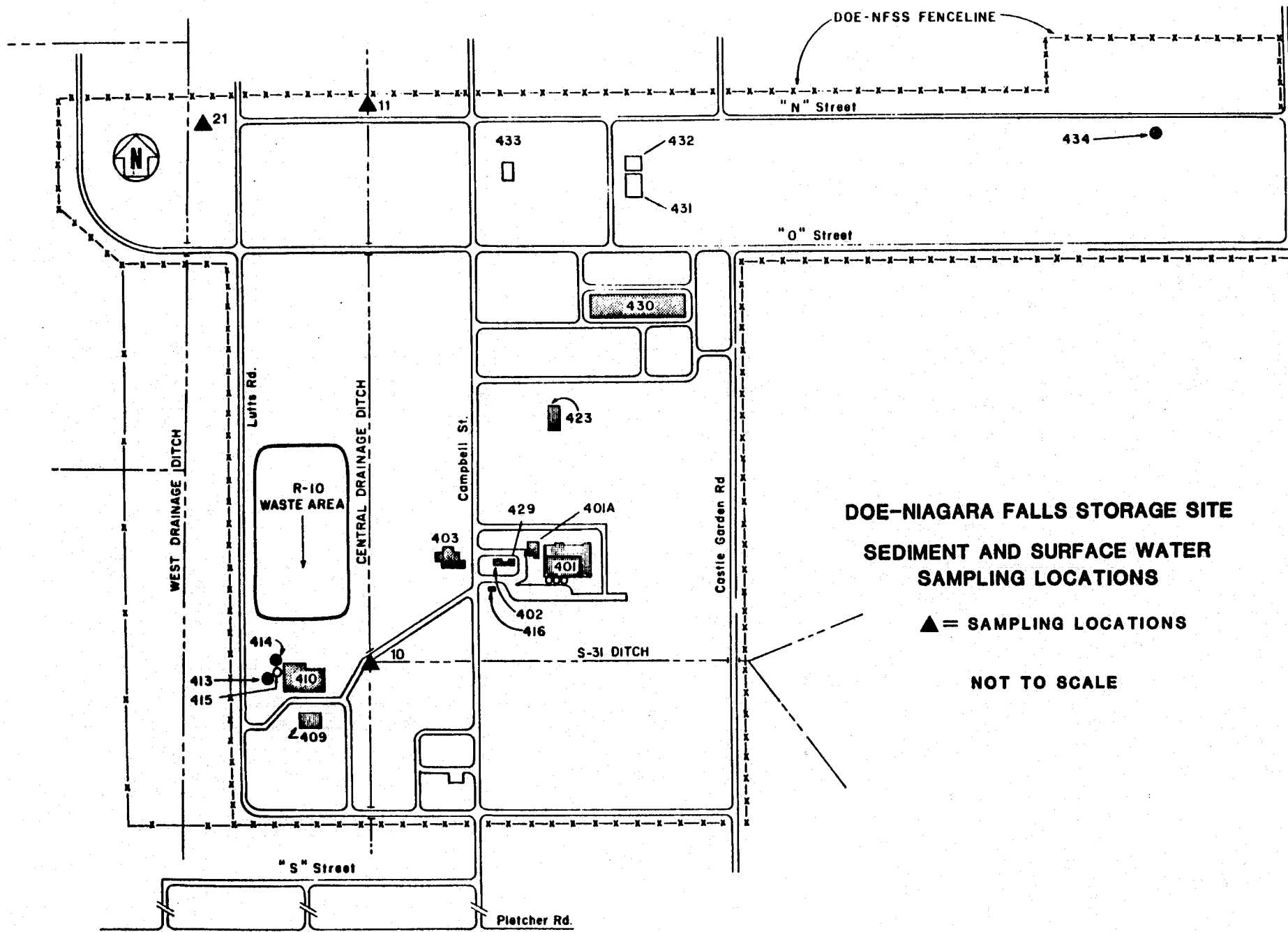


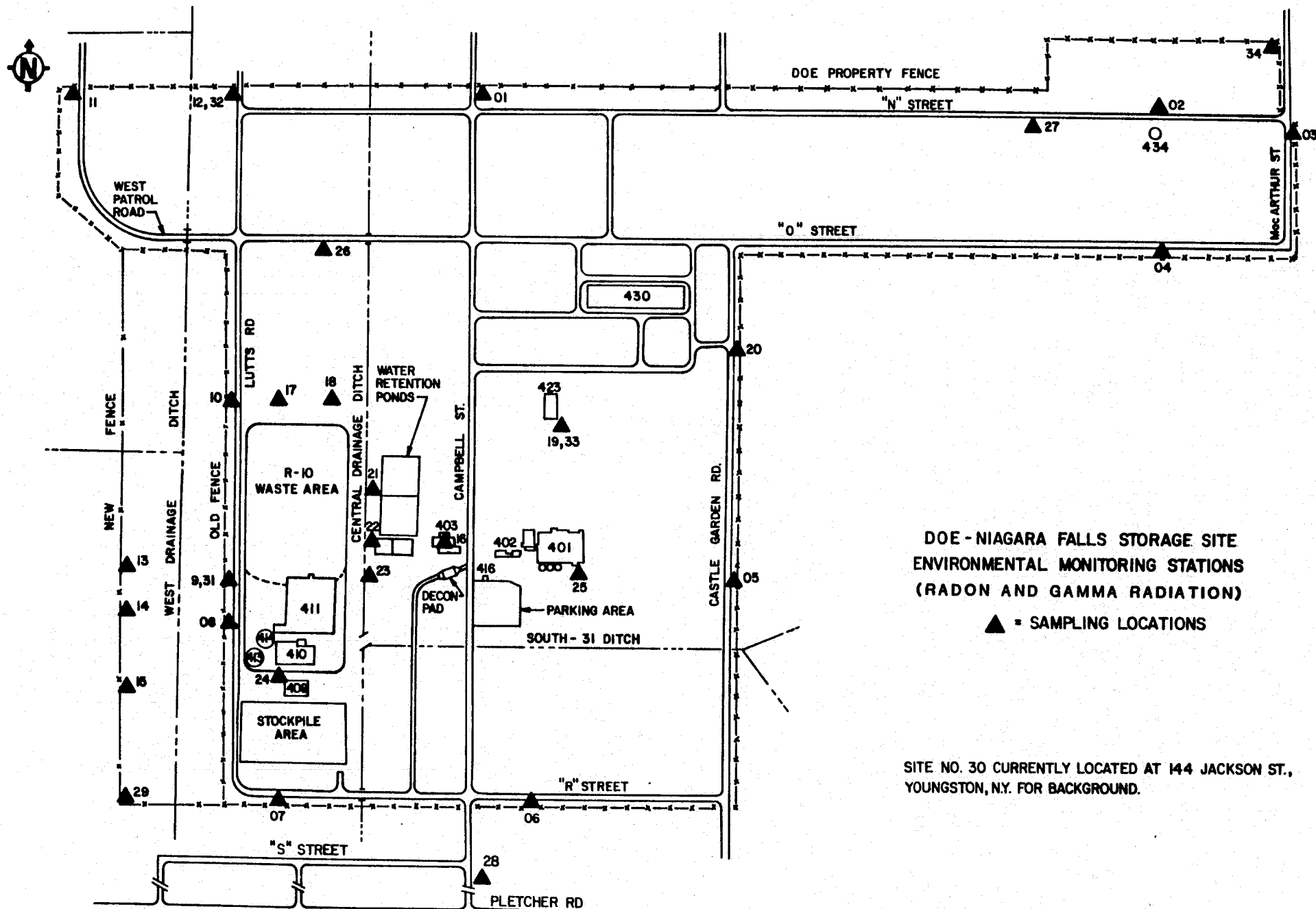


- LEGEND**
- ▲ MONITOR WELL
 - == PAVED ROAD
 - x-x- SITE FENCE
 - BUILDING

NOT TO SCALE

NFSS GROUNDWATER SAMPLING LOCATIONS



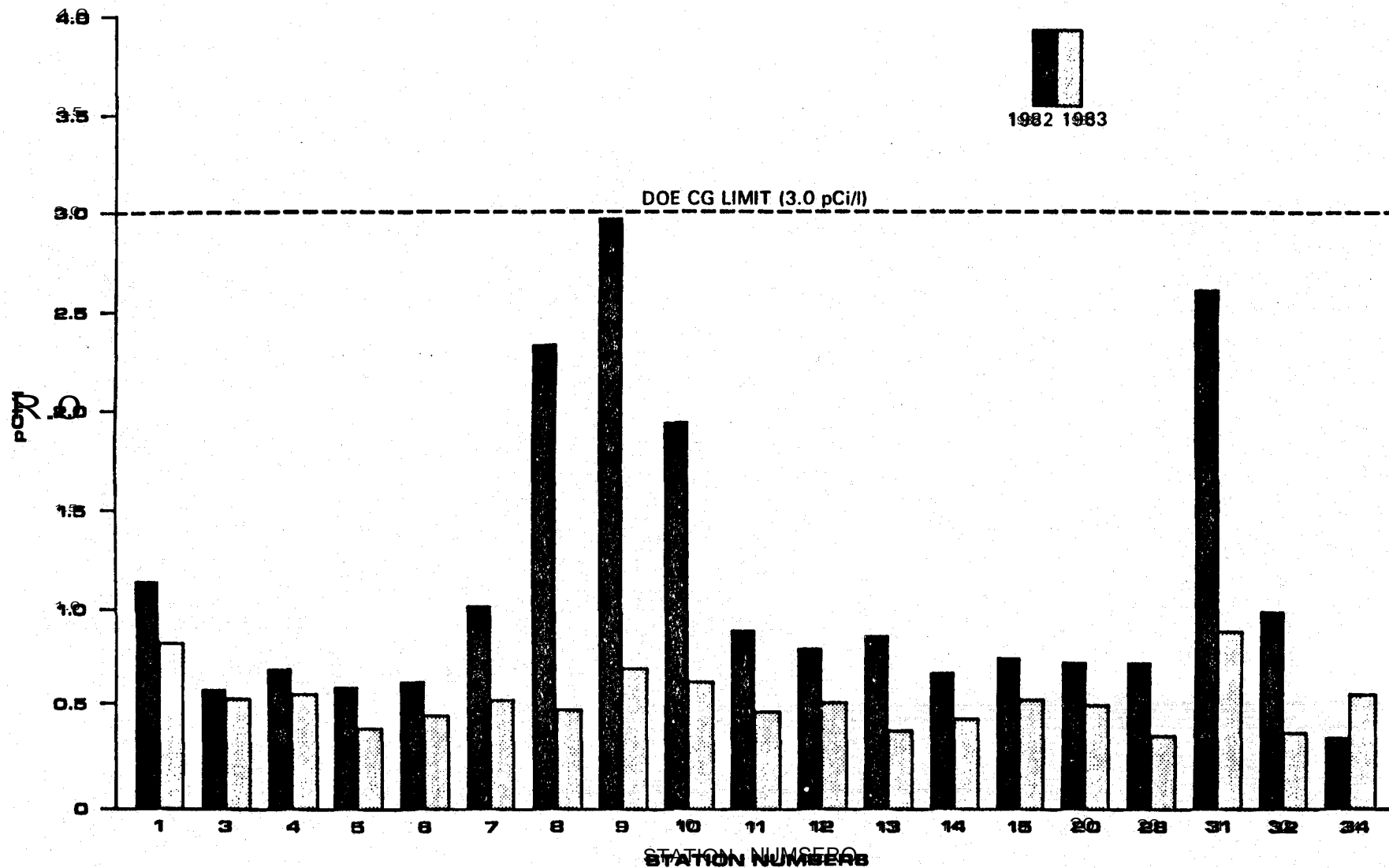


DOE - NIAGARA FALLS STORAGE SITE
ENVIRONMENTAL MONITORING STATIONS
(RADON AND GAMMA RADIATION)

▲ = SAMPLING LOCATIONS

SITE NO. 30 CURRENTLY LOCATED AT 144 JACKSON ST.,
YOUNGSTON, N.Y. FOR BACKGROUND.

COMPARISON OF RADON-222 ANNUAL AVERAGES, CALENDAR YEARS 1982 AND 1983



LONG-TERM MANAGEMENT SCENARIOS

- CONTINUE INTERIM STORAGE
- RETAIN AND MANAGE
- DECONTAMINATE AND RELEASE
- PARTIAL DECONTAMINATION

ASSUMPTIONS

- INTERIM REMEDIAL ACTIONS AT NFSS COMPLETED
- ONLY ONSITE AND VICINITY PROPERTIES MATERIALS ARE STORED AT NFSS
- CRITERIA CONSISTENT WITH DOE ORDERS AND APPLICABLE PORTIONS OF 40CFR192
- NFSS TECHNICALLY SUITABLE FOR LONG-TERM STORAGE

ALTERNATIVES FOR RETAIN AND MANAGE SCENARIO

- UPGRADE WASTE CONTAINMENT
- IMMOBILIZE RESIDUES AND UPGRADE CONTAINMENT
- PROCESS AND IMMOBILIZE RESIDUES AND UPGRADE CONTAINMENT

ALTERNATIVE FOR DECONTAMINATE AND RELEASE SCENARIO

- TRANSPORT ALL WASTES TO DOE BURIAL SITE
- IMMOBILIZE RESIDUES AND THEN TRANSPORT ALL WASTES TO DOE BURIAL SITE
- PROCESS AND IMMOBILIZE ALL RESIDUES, AND THEN TRANSPORT ALL WASTES TO DOE BURIAL SITE
- CONSIDER DOE BURIAL SITES IN THE EASTERN AND WESTERN U.S. AND OCEAN DISPOSAL OF CONTAMINATED SOIL

DECONTAMINATE AND RELEASE SCENARIO WASTE REMOVAL

- SITE PREPARATION
- REMOVE INTERIM CAP
- REMOVE WASTE MATERIALS
- PREPARE WASTE FOR TRANSPORTATION
- RESTORE SITE

VOLUME OF MATERIALS TO BE TRANSPORTED

RESIDUES	15,000 CY
CONTAMINATED SOIL + 20% CONTINGENCY	189,000 CY
CONTAMINATED RUBBLE + 20% CONTINGENCY	14,000 CY
CONTAMINATED PORTIONS OF ENGINEERED BARRIERS + 20% CONTINGENCY	35,000 CY
TOTAL	253,000 CY

ALTERNATIVES FOR PARTIAL DECONTAMINATION SCENARIO

- TRANSPORT K-65, L-30, L-50, AND F-32 RESIDUES TO DOE BURIAL SITE (EASTERN AND WESTERN U.S.)
- UPGRADE WASTE CONTAINMENT FOR STORAGE OF OTHER CONTAMINATED SOILS AT NFSS

COMPARISON OF ALTERNATIVES FOR THE FINAL DISPOSITION OF THE NFSS RESIDUES AND WASTES

ALTERNATIVE	OCCUPATIONAL RADIATION EXPOSURE (MAN-REM)		SCHEDULE (YRS)	COSTS (\$ x 1000)
	ONSITE	TRANSPORT		
INTERIM STORAGE	8	NA	0	400/YR
UPGRADE STORAGE	2	NA	5.5	12,000
IMMOBILIZE; UPGRADE STORAGE	211	NA	9	41,000
PROCESS; UPGRADE STORAGE	261	NA	9	38,000
TRANSPORT ALL EASTERN SITE	110	6	8	168,000
IMMOBILIZE; TRANSPORT EASTERN SITE	180	6	8	185,000
PROCESS; TRANSPORT EASTERN SITE	240	6	8	181,000
TRANSPORT ALL— WESTERN SITE	110	20	8	221,000
IMMOBILIZE; TRANSPORT WESTERN SITE	180	20	8	242,000
PROCESS; TRANSPORT WESTERN SITE	240	20	8	240,000
TRANSPORT RESIDUES; EASTERN SITE; UPGRADE STORAGE	101	6	10	27,000
TRANSPORT RESIDUES; WESTERN SITE; UPGRADE STORAGE	101	19	10	29,000

10 copies:

115-120

6: DOE

4: harker

1: DH file

MEETING: NPSS 5/9/84 7³⁰ PM - WITH OWSITE COMMITTEENameOrganization

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DOE/HQ

E. G. DELANEY

DOE/HQ

Lowell F. Campbell

DOE/OR

JOE NEMEC

BECHTEL NATIONAL

Rich Cox

UNC/Richland

Steve Miller

DOE/H.Q.

Rich Lee

Lang John LaFale

Frank Lucher

LOW Oversight Comm

Don Healy

" "

John Beedy

" "

John C. Matuchok

" "

Dick Jackson

" "

M. Bradshaw

" "

FRED BRAUN

" "

CARL H. MCMURTRY

" "

CHARLIE SEEHORN**DOE - Oak Ridge**

A. F. ZIMBRICH

BECHTEL NATIONAL

PAMELA MERRY-LIBBY

ARGONNE NATIONAL LABORATORY