FILE NUMBER: _____ Revised On: August 31, 2007 APPLICATION NUMBER: _____

SEPTIC FEE: _____
DATE: _____

MECKLENBURG COUNTY GROUNDWATER & WASTEWATER SERVICES
APPLICATION FOR A RESIDENTIAL SITE IMPROVEMENT PERMIT/ CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER SYSTEM, NEW WELL INSTALLATION, OR REPAIR OF EXISTING WELL

WELL FEE: _____
DATE: _____

1. SEPTIC / TYPE APPLICATION: ☐ NONE ☒ NEW SYSTEM ☐ ALTERATION ☐ REPAIR ☐ MODIFIED PLOT PLAN

2. WELL / TYPE APPLICATION: ☐ NONE ☒ NEW WELL ☐ MAJOR REPAIR ☐ ABANDONMENT

3. JOB LOCATION INFORMATION:
TAX PARCEL NUMBER: 217-201-22
STREET ADDRESS: 16521 Munson Hill Rd
CITY: Charlotte
STATE: NC ZIP: 28278
SUBDIVISION NAME: N/A
LOT #: 160 LOT SIZE (acres): 1.13 Acres
TOWNSHIP:
☒ 0-MECKLENBURG ☐ 3-CORNELIUS ☐ 6-HUNTERSVILLE
☐ 1-CHARLOTTE ☐ 4-PINEVILLE ☐ 7-MINT HILL
☐ 2-DAVIDSON ☐ 5-MATTHEWS

4. BUILDING INFORMATION:
BUILDING TYPE:
☐ SINGLE MOBILE HOME ☐ MODULAR HOME
☐ DOUBLE WIDE ☐ MULTIPLE FAMILY
☒ HOUSE ☐ OTHER _____
HEATED SQUARE FOOTAGE:
NUMBER OF BEDROOMS: ☒ 4
NUMBER OF OCCUPANTS: ☒ max 8
FOUNDATION TYPE:
☐ CONCRETE SLAB ☒ BASEMENT WITH PLUMBING
☐ CRAWL SPACE ☐ BASMENT WITH NO PLUMBING

5. IF PLANNING TO EXPAND OR ALTER THE EXISTING SYSTEM PLEASE COMPLETE THE FOLLOWING SECTION: ☒ N/A
NUMBER OF BEDROOMS TO BE ADDED: _____ NUMBER OF ADDITIONAL OCCUPANTS IN THE RESIDENCE: _____

6. WATER SUPPLY: ☐ MUNICIPAL ☐ PUBLIC WELL ☒ PRIVATE WELL ☐ SHARED WELL ☐ SPRING

7. PROPOSED USE OF WELL: ☐ N/A ☐ IRRIGATION ☒ POTABLE ☐ GEOTHERMAL ☐ OTHER

8. PLEASE INDICATE AND RANK DESIRED SEPTIC SYSTEM TYPE(S) IN ORDER OF PREFERENCE *(1-MOST DESIRED 5-LEAST DESIRED)*:
☐ ANY TYPE ☒ CONVENTIONAL ☒ ACCEPTED ☒ INNOVATIVE ☒ ALTERNATIVE ☐ OTHER _____
8A. RANK: 1 2 3 4 _____

9. DO ANY OF THE FOLLOWING APPLY TO THE PROPERTY IN QUESTION? IF "YES" PLEASE ATTACH SUPPORTING DOCUMENTATION.

BURIED CABLES, LANDFILLS, STUMPHOLES	☐ YES ☒ NO	GRADING/SOIL REMOVAL PERFORMED	☒ YES ☐ NO
EXISTING WASTEWATER (SEPTIC) SYSTEMS	☐ YES ☒ NO	JURISDICTIONAL WETLANDS	☐ YES ☒ NO
WELLS, SPRINGS, OR WATER LINES	☐ YES ☒ NO	APPROVAL REQUIRED BY ANY OTHER PUBLIC AGENCY	☐ YES ☒ NO
EASEMENTS OR RIGHT-OF-WAYS	☐ YES ☒ NO	WASTEWATER OTHER THAN DOMESTIC SEWAGE	☐ YES ☒ NO

10. PROPERTY OWNER:
NAME: Half Moon Cove, LLC
ADDRESS: 5520 Shannview Rd
CITY: Charlotte
STATE: NC ZIP: 28226
HOME PHONE: WORK PHONE:
MOBILE PHONE: FAX:

11. OWNER'S LEGAL REPRESENTATIVE, IF APPLICABLE:
NAME: S+ME, Inc (Patrick Mitchell)
ADDRESS: 385 Timber Rd Suite 104
CITY: Mooresville
STATE: NC ZIP: 28115
HOME PHONE: WORK PHONE: 704-662-8625
MOBILE PHONE: 704-998-8047 FAX: 704-662-8735

12. WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? March 1, 1976
13 WHAT IS THE ANTICIPATED CLOSING DATE FOR THIS PROPERTY? ?

14. SEPTIC SYSTEM PERMIT APPLICATION SIGNATURE SECTION:
If the information in this application is falsified, changed, or the site is altered, then the Improvement Permit and Authorization to Construct shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for either 60 months or is non-expiring depending upon the documentation submitted: complete site plan = 60 months, complete plat = non-expiring.

Kathleen Saunders 4/15/08
Property Owner's or Owner's Legal Representative Signature Date

15. WELL PERMIT APPLICATION SIGNATURE SECTION:
If the information in this application is falsified, changed, or the site is altered, then the Well Permit shall become invalid. I have read this application and certify that the information provided herein is true, complete and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed. The permit is valid for a period of 12 months from the date of issuance.

Kathleen Saunders 4/15/08
Property Owner's or Owner's Legal Representative Signature Date

☐ SURVEY PLAT TO SCALE SUBMITTED ☒ SCALED SITE PLAN SUBMITTED ☐ UN-SCALED SITE PLAN SUBMITTED

File #
2418

1" = 40'

Proposed 1.130 Acres

Tax # 21725 / 331-201-22

Carolina Campers, LLC

50' Lake Buffer

Well

25'

100'

60'

241.42'

N 28°18'57" E

Drive

30' Buffer

NC

Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

Sheet: 1 of 3
Property ID: 217-201-22
Lot #: 160
File #: 824B
AppID: 3453

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Half Moon Cove, LLC
Applicant: S&ME, Inc. (Patrick Mitchell)
Address: 5520 Sharonview Rd., Charlotte, NC 28226
Date Evaluated: 4/29/2008
Proposed Facility: Residence
Design Flow (.1949): 480 gpd
Property Size: 1.13a
Location of Site: 16521 Munson Hill Rd
Property Recorded:
Water Supply: [ ] Public [x] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [ ] Auger Boring [x] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS;10	0-9	GR/SL	FR/SS/SP/SEXP	10YR 7/1@ 22"	56	NA	NA	US
		9-56	WK/SBK/ABK/C	FI/S/P/SEXP					
2	"	0-4	GR/SL	FR/SS/SP/SEXP	>53" TO SOIL WETNESS	28	S	"	PS,IV
		4-28	WK/SBK/ABK/C	FI/S/P/SEXP					.25 GPD/FT2
		28-53	M/SAP/SL	FR/SS/SP/SEXP					
3	"	0-8	GR/SL	FR/SS/SP/SEXP	>70" TO SOIL WETNESS	60	S	"	"
		8-17	GR/SCL	FR/SS/SP/SEXP					
		17-37	WK/SBK/ABK/C	FI/S/P/SEXP					
		37-60	WK/SBK/SCL	FR/S/P/SEXP					
		60-70	M/SAP/SL	FR/SS/SP/SEXP					
4	"	0-7	GR/SL	FR/SS/SP/SEXP	>43" TO SOIL WETNESS	43	NA	"	"
		7-43	ABK/SBK/C	FI/S/P/SEXP					
					SITE LTAR				.25 GPD/FT2

Description	Initial System	Repair System
Available Space (.1945)	PS	NA
System Type(s)	IV a	
Site LTAR	.25 GPD/FT2	

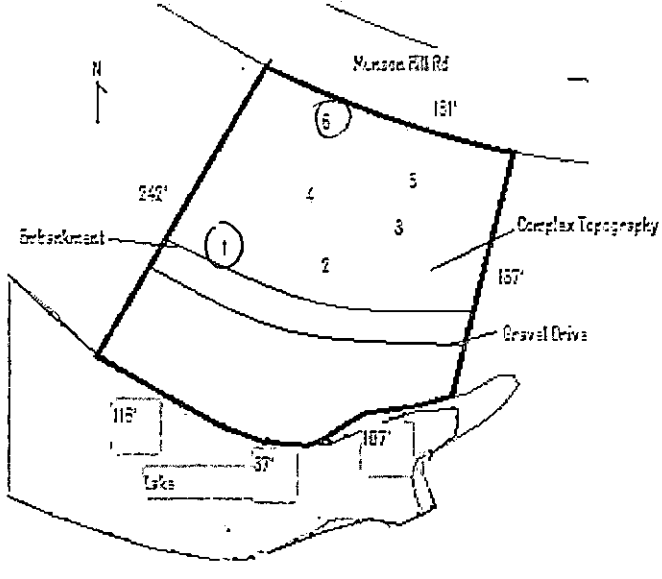
Other Factors (.1946):
Soil Evaluation By: C.Sherrill, RS,LSS
Others Present: No
Site Classification (.1948): PS
Site Evaluation By: C.Sherrill, RS,LSS
Others Present: No

COMMENTS: Site Does Not Require 100% Repair

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		M-Massive
LS-Linear Slope				CR-Crumb
FS-Foot Slope	II	SL-Sandy Loam	0.8 - 0.6	GR-Granular
NS-Nose Slope		L-Loam		SBK-Subangular Blocky
HS-Head Slope				ABK-Angular Blocky
CC-Concave Slope	III	SI-Silt	0.6 - 0.3	PL-Platy
CV-Convex Slope		SICL-Silty Clay Loam		PR-Prismatic
T-Terrace				
FP-Flood Plain		CL-Clay Loam		
		SCL-Sandy Clay Loam		
	IV	SC-Sandy Clay	0.4 - 0.1	
		SIC-Silty Clay		
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	NS-Non-Sticky	SEXP-Slightly Expansive
FR-Friable	SS-Slightly Sticky	EXP-Expansive
FI-Firm	S-Sticky	
VFI-Very Firm	VS-Very Sticky	
EFI-Extremely Firm	NP-Non-Plastic	
	SP-Slightly Plastic	
	P-Plastic	
	VP-Very Plastic	

Sketch of Soil Evaluation Locations

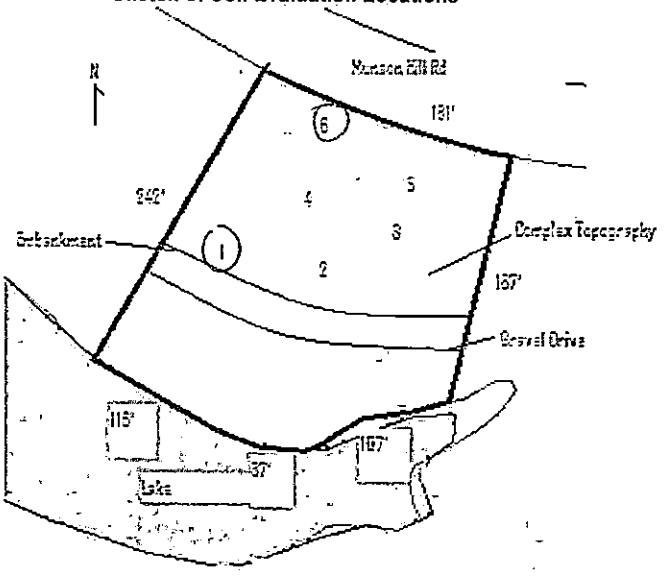


COMMENTS: Site Does Not Require 100% Repair

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
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NS-Nose Slope		L-Loam		SBK-Subangular Blocky
HS-Head Slope				ABK-Angular Blocky
CC-Concave Slope	III	SI-Silt	0.6 - 0.3	PL-Platy
CV-Convex Slope		SICL-Silty Clay Loam		PR-Prismatic
T-Terrace		CL-Clay Loam		
FP-Flood Plain		SCL-Sandy Clay Loam		
	IV	SC-Sandy Clay	0.4 - 0.1	
		SIC-Silty Clay		
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	NS-Non-Sticky	SEXP-Slightly Expansive
FR-Friable	SS-Slightly Sticky	EXP-Expansive
FI-Firm	S-Sticky	
VFI-Very Firm	VS-Very Sticky	
EFI-Extremely Firm	NP-Non-Plastic	
	SP-Slightly Plastic	
	P-Plastic	
	VP-Very Plastic	

Sketch of Soil Evaluation Locations



Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

Sheet: 3 of 3
File #: 824B

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM
CONTINUED

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
5	LS,10	0-3	GR/SL	FR/SS/SP/SEXP	>60" TO SOIL WETNESS	53	S	NA	PS,IV
		3-20	ABK/SBK/C	FI/S/P/SEXP					.25 GPD/FT2
		20-53	WK/SBK/SCL	FR/S/P/SEXP					
		53-60	M/SAP/SL	FR/SS/SP/SEXP					
6	"	0-4	GR/SL	FR/SS/SP/SEXP	10YR 7/1@24"	48	NA	NA	US,IV
		4-39	ABK/SBK/C	FI/S/P/SEXP					.1 GPD/FT2/LPP
		39-48	SBK/SCL	FR/S/P/SEXP					

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30003453** GWS File #: **824B** Tax Parcel #: **217-201-22**

- This IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be NO grading, filling, or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. The Construction Authorization is **NOT** transferable. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
- Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 5/8/2013

Type of Installation: Residential - New System Lot Number: 160

Structure Type: HOUSE Size (ft^2): 0 # Bedrooms: 4 # Occupants: 8

Building Foundation: Basement With Plumbing Water Supply: Private Well

II. Initial System Type: PPBPS (pressurized) **System Classification:** IVa

Initial System Specifications:

Design Flow (gpd):	480	LTAR (gpd/ft^2):	0.25	Septic Tank Size (gal):	1500	Pump Tank Size (gal):	1500
Trench Width (ft):	3	Trench Spacing (ft):	9	Absorption Area (ft^2):	960	Total Trench Length (ft):	320
Maximum Trench Depth (in):	36	Depth of Media (in):	24	Distribution Device:	Manifold (LPP Distri		

III. Repair System Type: N/A **System Classification:**

Repair System Specifications:

Design Flow (gpd):	0	LTAR (gpd/ft^2):	0	Septic Tank Size (gal):	0	Pump Tank Size (gal):	0
Trench Width (ft):	0	Trench Spacing (ft):	0	Absorption Area (ft^2):	0	Total Trench Length (ft):	0
Maximum Trench Depth (in):	0	Depth of Media (in):	0	Distribution Device:	N/A		

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment, and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Chris Sherrill Owner/Legal Agent: Patrick F. Brown

Print Name

Signature: Signature:

Date Issued: 5/8/2008

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30003453** GWS File #: **824B**

IV. Permit Conditions/Comments:

- This type of septic system requires an inspection once every 3 years by our office. The system owner is responsible for any fees, as determined by the Mecklenburg County Board of Commissioners, associated with this inspection.
- This type of septic system requires a Certified Operator to maintain the system. A system maintenance contract with a Certified Operator must be on file prior to issuance of an Operation Permit.
- 100% repair area is not required for this property. However, the maximum feasible area shall be allocated for a repair area.
- The septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.
- All components of the septic system must be located at least 100 ft. (50 ft. minimum) from all private wells.
- The system must be water tested during the final inspection to verify proper operation and set system pressure.

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Chris Sherrill
Signature: Chris Sherrill
Date Issued: 5/8/2008

Owner/Legal Agent: Patrick F. Brown
Print Name
Signature: Patrick F. Brown

S&ME

GWS Septic System Design Review

GWS File #: 824B

	Approved	Disapproved
Design Review: TCT 4-30-08	☒	☐
Field Review: CMS 5-8-08	☑	☐

*Projects are not considered "APPROVED" until both sections above are completed and indicate an APPROVED status.

Date: April 21, 2008

To: Mr. Chris Sherrill, RS, LSS
Mecklenburg County Environmental Health

From: Patrick L. Mitchell, RS, LSS-IT
Toney C. Jacobs, LSS

RE: Request for an Improvement Permit for Parcel B (Lot 160), Munson Hill Road:
MCHD File # 824B

Half Moon Cove, LLC is requesting an Improvement Permit for the above referenced lot. S&ME, Inc (S&ME) has reviewed the soils and flagged a proposed septic system and partial repair for the 1.13 acre lot off Munson Hill Road. Lot 160 was recorded on March 1, 1976 and predates the repair area requirement (see attached plat). Mr. Chris Sherrill with the Mecklenburg County Health Department (MCHD) will evaluate the soils on the lot. The soils in the primary system area were described as provisionally suitable. The attached sketch and specifications are not an Improvement Permit and are intended only to assist the MCHD in permitting the referenced lot.

We understand that a building permit cannot be issued until your office issues an Authorization to Construct (ATC). The buyer will apply for the ATC. If the buyer's house pad does not fit in the "building envelope" shown on the Improvement Permit, we understand that the proposed system may have to be modified prior to your office issuing the ATC. **No grading shall take place on the lot prior to obtaining the ATC from the MCHD.**

Please review the attached system sketch and design specifications for the Improvement Permit. Any additions or revisions you feel are necessary can be made on the Improvement Permit. Please call if you have and questions or comments.

Attachments:
1. **Site Plan**
2. **System Specifications**
3. **S&ME Soil Profile Descriptions**
4. **Plat with Date of Recordation**
5. **MCHD Improvement Permit Application**

)ENR/DEH

)N-SITE WASTEWATER SECTION

Sheet 1 of 3
PROPERTY ID #:
COUNTY:

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

)WNER: Half Moon Cove, LLC — APPLICATION RECEIVED: 02/21/08
ADDRESS: — DATE EVALUATED: 03/13/08
'ROPOSED FACILITY: 4 BR SFD — PROPOSED DESIGN FLOW (.1949): 480 GPD — PROPERTY SIZE: 1.13 Ac.
.OCATION OF SITE: Parcel B - (Lot #160) off Musson Hill Rd — PROPERTY RECORDED:
VATER SUPPLY: X Private • Public • X Well • Spring • Other
:VALUATION METHOD: X Auger Boring X Pit • Cut — TYPE OF WASTEWATER: X Sewage • Industrial Process • Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	Auger	0-4	Wk, Gr, SL	VFr, NS, NP	(Brwn.)				
		4-8	Wk, Gr, SCL	Fr, SS, SP	(Lt. Brwn.)				
		8-14	Wk, Sbk, SC	Fr, SS, SP	(Yell.-Red)	F-C Y/B	+ Chroma 4, F-Sap.		US
		14-36+	Wk, Abk, SC	Fi/Fr, S, P	(Yell.-Red)	F-C Gray Mottles			
2	Auger	0-5	Wk, Gr, SL	VFr, SS, NP	(Brwn.)				
		5-15	Wk, Sbk, SC	Fr, SS, SP/P	(Yell.-Red)	F-C Y/B	+ Sap. Inclus.		
		15-35+	Wk, Abk, C	Fi/Fr, S, P	F-M-Gray Mottles				US
3	Auger	0-4	Wk, Gr, SL	VFr, NS, NP	(Brwn.)				
		4-8	Wk, Abk, SC	Fr/Fi, S, P	(Yell.-Red)	F-Sap. + Y/B			<36" 0.25
(BC)		8-21	Wk, Abk, SC	Fr, SS, SP	w/ M-Sap. Inclus.				
(CB)		21-36	Mass., SL-Sap.	Fr, SS, SP	w/ C-SC Pockets				>36" 0.40
(C)		36-48	Mass., SL-Sap.	Fr, NS, NP					
4	Auger	0-5	Wk, Gr, SL	VFr, NS, NP	(Brwn.)				
		5-12	Wk, Gr, SCL	Fr, SS, SP	(Lt. Brwn.)				<28" 0.25
		12-28	Wk, Abk, SC	Fr, SS, SP	(Red) F-Brwn. Mottles				
(BC/CB)		28-48	Wk to Mass., SL	Sap. Fr, SS, SP	w/ C-Clay Pockets				>28" 0.35

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)	LP-PPBPS	
Site LTAR	0.25	

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: P. Mitchell
OTHER(S) PRESENT: C. Sherrill (part of time on pits)

COMMENTS:

ENR/DEH

N-SITE WASTEWATER SECTION

Sheet 2 of 3
PROPERTY ID #:
COUNTY:

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

WNER:
DDRESS:
ROPOSED FACILITY: (See Sheet #1)
OCATION OF SITE:
PROPOSED DESIGN FLOW (.1949):
APPLICATION DATE
DATE EVALUATED:
PROPERTY SIZE:
PROPERTY RECORDED:
ATER SUPPLY: • Private • Public • Well • Spring • Other
VALUATION METHOD: • Auger Boring • Pit • Cut
TYPE OF WASTEWATER: • Sewage • Industrial Process • Mixed

.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
#5 AUGER	0-6	Wk, Gr, SL/SCL	Fr, SS, NP/SP	(Brwn.)				
	6-17	Wk, Abk, C	Fr/Fi, S, P	(Red) F- Brwn. Mottles				<38" 0.25 - 0.35
	17-38	Mass., SL-Sap.	Fr, SS, SP	w/ F- Clay Pockets				
	38-48	Mass, SL-Sap.	Fr, NS, NP					>38" 0,40
#6 AUGER	0-5	Wk, Gr, SL	VFr, NS, NP	(Brwn.)				
	5-14	Wk, Gr, SCL	Fr, SS, SP	(Lt. Brwn.)				
	14-30	Wk, Abk, C	Fi/Fr, SS/S, SP/P	(Red) F- Sap. Inclus.				0,30
	30-38	Wk, Abk, CL	Fr, SS, SP	w/ M- Sap. Inclus.				
	38-48	Mass, SL-Sap.	Fr, SS, SP	w/ F- CL Pockets				
#7 PIT	0-24	Wk, Abk, C	Fi, S/VS, P/VP	C- Y/B + Sap, F- Gray Mottles				<24" 0.5
	24-36	Mass, SCL/SL	Sap.	w/ C- Clay Pockets				
	36-64	Mass, SCL/SL	Sap. Fr, SS, SP	F- Gray Mottles in root channel				
Auger	64-100	Mass, SL-Sap.	Fr, NS, NP					>24" 0,25 w/ Sand Lined Trench
#8 PIT	0-5	Wk, Gr, SL	VFr/Fr, SS, SP	(Brwn.)				0.275 -
	5-24	Mo, Abk, C	Fr, S, P	(Red) F- Sap. Inclus.				<36" 0.30
	24-36	Wk, Sbk, CL	Fr, SS, SP	(Red) C-M Sap. Inclus.				
	36-44	Mass, SL-Sap.	Fr, NS, NP	w/ C-CL Pockets				>36" 0.40
Auger	44-80	Mass, SL-Sap.	Fr, NS, NP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
vailable Space (.1945)		
/stem Type(s)		
te LTAR		

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948):
EVALUATED BY:
OTHER(S) PRESENT:

MMENTS:

ENR/DEH

N-SITE WASTEWATER SECTION

Sheet 3 of 3
PROPERTY ID #:
COUNTY:

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

WNER:
DDRESS: See Sheet #1
ROPOSED FACILITY: PROPOSED DESIGN FLOW (.1949):
OCATION OF SITE:
/ATER SUPPLY: • Private • Public • Well • Spring • Other
VALUATION METHOD: • Auger Boring • Pit • Cut

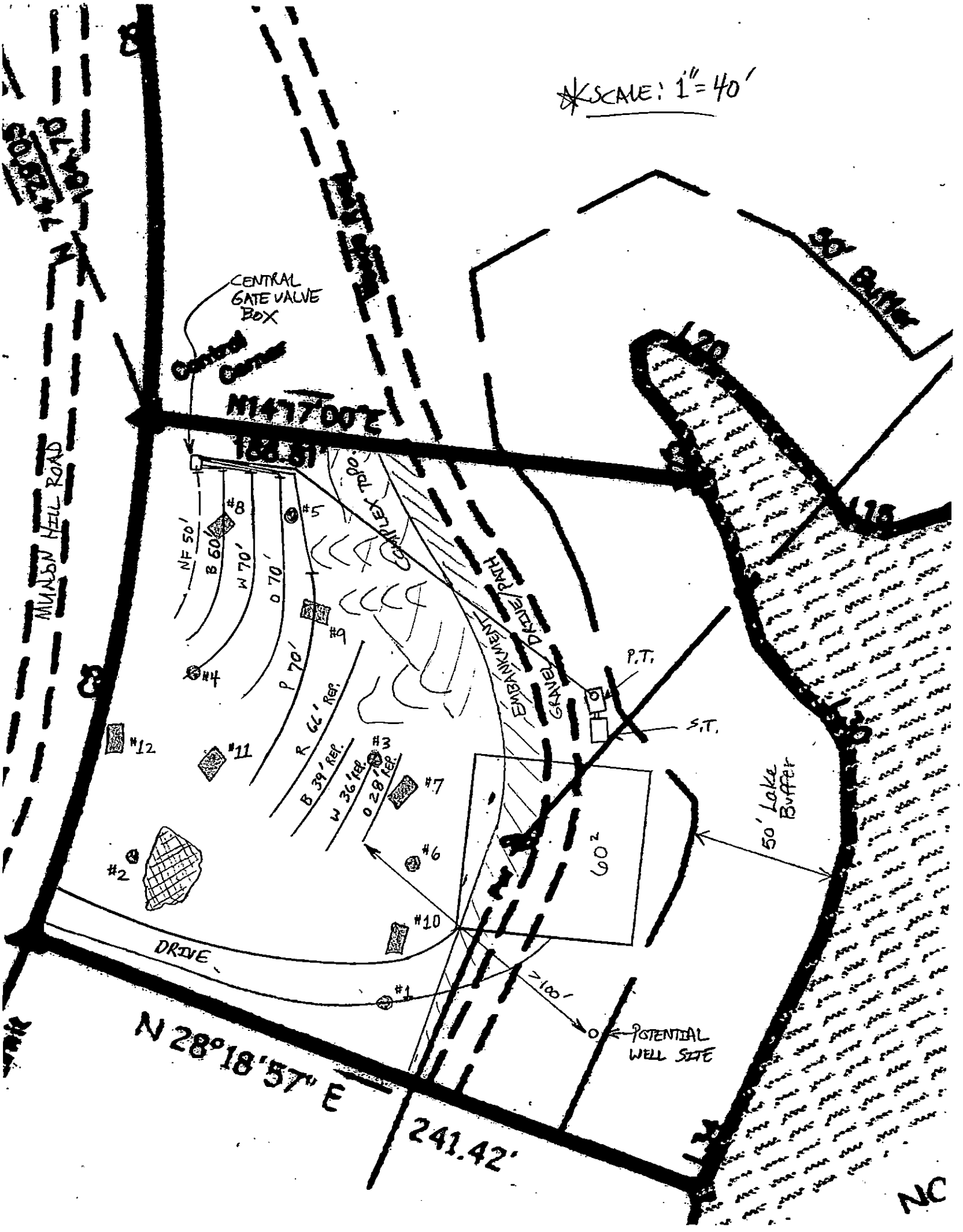
APPLICATION DATE
DATE EVALUATED:
PROPERTY SIZE:
PROPERTY RECORDED:
TYPE OF WASTEWATER: • Sewage • Industrial Process • Mixed

.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
#9 PIT (BC) Auger →	0-7	Mo, Gr, SL	VFr, NS, NP	(Brown)				<44" 0.275-0.30
	7-26	Wk, Abk, C	Fr, S, P	(Red) F-Sap. Inclus.				
	26-44	Wk, sbk, CL	Fr, SS, SP	(Red) M-Sap. Inclus.				
	44-60	Wk, sbk, CL	W/ M-Sap. Pockets					>44" 0.45
	60-100	Mass., SL-	Sap. Fr, NS, NP					
#10 PIT	0-20	Mo, Gr, SL	VFr, NS, NP	(Brown)				US
	20-57	Wk, Abk, C	Fi, S/US, P/VP	C-M Gray Mottles				
	57-64	Wk, Abk, SC	Fr, S, P	(Red) C-Sap + Y/B Mottles				
#11 PIT Auger →	0-8	Mo, Gr, SL	VFr, NS, NP	(Brown)				<36" 0.25
	8-36	Wk, Abk, C	Fr, S, P	(Red) C-M Y/B Mottles				
	36-51	Wk, Abk, C	Fr, SS, SP	(Red) C-M Sap. Inclus				
	51-100	Mass., SL-	Sap. Fr, SS, NP	W/ F-Clay Pockets				>36" 0.40
#12 PIT	0-21	Wk, Abk, SC	Fr/Fi, S/US, P/VP	F-Gray Mottles				US (Improves w/ depth 750"
	21-37	Wk, Abk, C	Fi, S, P/VP	C-M Gray Mottles				
	37-50	SC/C	F-Gray + F-C Sap.					
	50-56	Wk, Sbk, SCL	Fr, SS, SP	M-Sap.				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
.vailable Space (.1945)		
ystem Type(s)		
ite LTAR		

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948):
EVALUATED BY:
OTHER(S) PRESENT:

MMENTS:


SCALE: 1" = 40'
MUNSON HILL ROAD
CENTRAL GATE VALVE BOX
Control Corner
N 17° 00' E
132.51'
NF 50'
B 60'
W 70'
O 70'
P 70'
R 66' REF.
B 39' REF.
W 36' REF.
O 28' REF.
#1
#2
#3
#4
#5
#6
#7
#8
#9
#10
#11
#12
Complex Path
Embankment
Gravel Path
P.T.
S.T.
50' Lake Buffer
60'
DRIVE
≥100'
POTENTIAL WELL SITE
N 28° 18' 57" E
241.42'
NC

Design Specifications for Parcel B (Lot 160) – Munson Hill Road
MCHD File #

√TCT 4-30-08

Daily Design Flow:	480 gpd
Number Bedrooms:	4 bedroom
Basement or Crawl Space:	Basement
Septic Tank Size:	1,500 gal
Pump Tank Size:	1,500 gal
Primary System Loading Rate:	**0.25 gpd/ft^2**
Primary System:	**LP PPBPS**
Number and length of laterals:	5 (50', 60', & 3 @ 70')
Total ft. of primary system:	320 ft.
Trench bottom depth:	48 inches (NOTE: use extra 12" of sand below panels)
Number of T&J Panels:	74 panels (50'= 12, 60'= 14, 70'= 16 = total of 74 panels)
Flow Rate through system:	37 gpm – use 5/32 in. holes with 3 ft. head pressure
Pump Requirements:	to be calculated by installer when specific house and pump tank locations are available
Dosing Volume:	approx. 266 gal. – (3.6 gal per panel)*
Depth of effluent pumped per dose:	calculated to specific tank by measure or dealer engineering specifications (1 cubic ft. of water equals 7.48 gal.)
Check Valve:	yes
Siphon break hole:	yes

Note: Gullied areas must be properly filled as needed

Note: Before placement of cap block, one panel on each line, near the center of the field should be observed filling to make certain that it does not overflow the top chamber into the air chambers. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.

Groundwater & Wastewater Services
Septic Project File & Data Review Worksheet

GWS File #: 824B WASPS App #: 3453

Primary ES assigned to project: CS

Secondary ES assigned to project: _____

Project Type: New System ☑ Alteration ☐ Repair ☐ Modified Plot Plan ☐

I. File Review:

Rule or Law	Permit Application			
.1937(d)	Is the Application complete	Yes ☑	No ☐	N/A ☐
.1937(d)	Is there a Site plan/Plat with application	Yes ☑	No ☐	N/A ☐
.1937(d)	Is the Facility shown?	Yes ☑	No ☐	N/A ☐
.1937(d)	Are appurtenances shown	Yes ☑	No ☐	N/A ☐
	Site Evaluation Information			
.1939 (a)(1)	Topography and Landscape Position Recorded?	Yes ☑	No ☐	N/A ☐
.1940 (a-g)	Slope % Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Texture Class Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Structure type Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Consistence Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(2)	Mineralogy Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(3)	Soil Wetness Condition Recorded?	Yes ☑	No ☐	N/A ☐
.1939 (a)(4)	Soil Depth to Rock or Parent Material Recorded When Encountered	Yes ☑	No ☐	N/A ☐
.1939 (a)(5)	Depth to Restrictive Horizons Recorded When Encountered?	Yes ☐	No ☐	N/A ☑
.1939 (a)(6)	Sufficient Available Space Recorded?	Yes ☑	No ☐	N/A ☐
.1937(m)	Are the Profile Locations Shown?			
.1939(a)	Are the S/PS Profiles in system & in repair area?	Yes ☑	No ☐	N/A ☐
& .1945(b)	Number of auger borings made: 6 Were sufficient auger borings made?	Yes ☑	No ☐	N/A ☐
.1939(d), .1955, .1956, .1957	LTAR .25	Yes ☑	No ☐	N/A ☐
	Improvement Permit/Construction Authorization			
.1937(g) 130A-336(a)	Proposed System Type stated-Initial	Yes ☑	No ☐	N/A ☐
.1945(b)	Proposed System Type stated-Repair	Yes ☐	No ☐	N/A ☑
130A-336 (a)(3)	System location identifiable by setbacks - Initial	Yes ☑	No ☐	N/A ☐
.1937(g) .1945(b)	System components shown – Initial	Yes ☑	No ☐	N/A ☐
.1945(b)	Repair area shown	Yes ☐	No ☐	N/A ☑
.1937 (f)(g)	Does System design match facility, flow & WWcharacteristics?	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Is System design consistent with soil/site conditions?	Yes ☑	No ☐	N/A ☐
.1937 (f)(g)	Is the System located in the approved area?	Yes ☑	No ☐	N/A ☐
130A-336(a)	Is the Design flow (gpd) indicated?	Yes ☑	No ☐	N/A ☐

130A-336(a)	Number of Bedrooms, employees, seats, etc. indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench depth indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench width indicated?	Yes ☑	No ☐	N/A ☐
.1937(g)	Trench length indicated?	Yes ☑	No ☐	N/A ☐
130A-336(a)(1)	Proposed/existing well shown?	Yes ☑	No ☐	N/A ☐
130A-336(a)(1)	Property line lengths shown?	Yes ☐	No ☐	N/A ☐
130A-336(a)	Facility/appurtenance setbacks shown from fixed points?	Yes ☑	No ☐	N/A ☐
	Operation Permit			
.1937(i)	System type as described in table V(a) of rule .1961	Yes ☐	No ☐	N/A ☐
.1937(i)	Conditions for system performance, operation, maintenance, monitoring and reporting.	Yes ☐	No ☐	N/A ☐

II. WASPS Review:

Construction authorization issued	Yes ☑	No ☐	N/A ☐
Installation approval issued	Yes ☐	No ☐	N/A ☐
Operation permit issued	Yes ☐	No ☐	N/A ☐
Other related documentation	Yes ☐	No ☐	N/A ☐

Items requiring correction/modification: _____

Comments: ATC - FILE 824B

IA issued date: _____

OP issued date: _____

Review performed by: IL Date performed: 5 9 07