

DRAFT

SLUDGE COMPOST MARKETING AND DISTRIBUTION REGULATORY REQUIREMENTS IN THE UNITED STATES

**Prepared for
United States
Environmental
Protection Agency
Region I**

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Volume II: Appendices



Appendix A

APPENDIX A

**REGULATIONS AND GUIDELINES FOR LAND
APPLICATIONS AND REUSE OF SLUDGE IN
THE UNITED STATES**

GLOSSARY

As -	Arsenic
B -	Boron
Cd -	Cadmium
CEC -	Cation exchange capacity
Cr -	Chromium
Cu -	Copper
Fe -	Iron
Hg -	Mercury
K -	Potassium
Kg/ha -	Kilograms/hectare
LA -	Land application
Land Rec. -	Land Reclamation
lb/ac -	Pounds per acre
mg/kg -	Miligrams per kilogram
Mo -	Molybdenum
NA -	Not addressed
NH ₃ -N -	Ammonia
Ni -	Nickel
NO ₃ -N -	Nitrogen Nitrate
NO ₂ -N -	Nitrogen Nitrite
P -	Phosphorus
Pb -	Lead
PCB -	Polychlorinated biphenyl
PFRP -	Process to further reduce pathogens
POTW -	Publicly operated treatment works

GLOSSARY (Continued)

Ppm - Parts per million

PSRP - Process to significantly reduce pathogens

Zn - Zinc

FEDERAL
LAND APPLICATION

SLUDGE CLASSIFICATION		
STATE CONTROL	FEDERAL LAW SEC 1008(A)3	
LAWS, TITLE & DATE	AND 4004(A); PUBLIC LAW	
	94-580, 90 STAT 2803	
	AND 2815, SEC405(D)	
	PUBLIC LAW 95-217, STAT 1606	
REGULATIONS, TITLE, DATE	40 CFR 257.3 CRITERIA FOR	
	CLASSIFICATION OF SOLID WASTE	
	DISPOSAL FACILITIES AND PRACTICES	
	AMENDED 10/23/81	
GUIDELINES, TITLE&DATE		
CONTROLLING AGENCY	ENVIRONMENTAL PROTECTION AGENCY	

**FEDERAL
LAND APPLICATION**

ACCEPTABILITY OF SLUDGE

PERMIT OR APPROVAL

APPLICATION SUBMITTALS

FEDERAL
LAND APPLICATION

SAMPLING SLUDGE PARAMETERS

FEDERAL
LAND APPLICATION

MAXIMUM SLUDGE CONSTITUENT	
CONDUCTIVITY (SALT)	
NUTRIENTS (% BY DRY WEIG	
N	
P	
K	
METALS (MG/KG SLUDGE DRY	
AS	
CD	<2 PPM UNLESS ADJUSTED SOIL PH <6.5
PB	
NI	
ZN	
CU	
CR	
HG	
MO	
B	
FE	
ORGANICS	
PCB	<10 PPM UNLESS INCORPORATED OR NOT INCORPORATED IF: PCB IN FEED < .2 PPM

FEDERAL
LAND APPLICATION

PCB IN MILK < 1.5 PPM FAT BASIS

WATER

OTHER CONTAMINANTS

RECORDS

	FEDERAL LAND APPLICATION	
REPORTS		
NOTIFICATIONS		
STORAGE (IF APPLIC)		
LAND APPLICATION		

FEDERAL
LAND APPLICATION

APPROVAL OR PERMIT

APPLICATION SUBMITTALS

FEDERAL LAND APPLICATION	
CRITERIA FOR USE	
DEGREE OF STABILIZATION	PROCESS TO SIGNIFICANTLY REDUCE PATHOGENS: PROCESS TO FURTHER REDUCE PATHOGENS FOR CROPS FOR DIRECT HUMAN CONSUMPTION WHERE EDIBLE PART CONTACTS SLUDGE WITHIN 18 MO
SOIL	
CROPS	

FEDERAL
LAND APPLICATION

SURFACE WATER		
GROUNDWATER	SEE APPENDIX CRITERIA FOR GW PROTECTION.	
MAXIMUM SLUDGE LOADING LIM (CEC IN MEQ/100G SOIL) SLUDGE APPLICATION WILL BE SLUDGE		
N (ANNUAL)		

FEDERAL
LAND APPLICATION

METALS

CD

ANNUAL

< .5 KG/HA--TOBACCO, LEAFY VEGS,
OR ROOTS FOR HUMAN CONSUMPTION
< 1.25 KG/HA--BEFORE 1/1/87
< .5 KG/HA--AFTER 1/1/87
MAX. CUMULATIVE
< 5 KG/HA--SOIL PH < 6.5
< 5 KG/HA--SOIL PH > 6.5 AND CEC < 5
< 10 KG/HA--SOIL PH > 6.5 AND 5<CEC<10
< 20 KG/HA--SOIL PH > 6.5 AND CEC>10
UNLIMITED IF:
FOOD CHAIN CROPS ARE ANIMAL FEED
PH>6.5 FOR FOOD CHAIN CROPS
PLAN TO PREVENT HUMAN CONSUMPTION
FUTURE OWNERS NOTIFIED BY DEED

PB

ZN

CU

	FEDERAL LAND APPLICATION	
CR		
NI		
HG		
ORGANICS PCBS		
LAND USE RESTRICTIONS		
CROPS		
GRAZING OR GREENCHOP	NO GRAZING BY ANIMALS WHOSE PRODUCTS ARE CONSUMED BY HUMANS--1 MO.	

FEDERAL
LAND APPLICATION

PUBLIC ACCESS	NO PUBLIC ACCESS--12 MO.
PH OF SOIL & SLUDGE OR PH OF SOIL	6.5
SITING RESTRICTIONS SOIL CONDITIONS	
BUFFER REQUIREMENTS DIST. TO PRIVATE WELL	
DIST. TO PUBLIC WELL	
DIST TO RESIDENCE	
DIST TO OTHER BUILDINGS	
DIST TO PROPERTY LINE	
GROUND WATER PROTECTION	NOT TO CONTAMINATE GROUNDWATER BEYOND SITE BOUNDARY
DEPTH TO HIGH GROUNDWATER LEVEL	

FEDERAL
LAND APPLICATION

DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING		
DIST TO SURFACE WATER		
DIST. TO DRY RUN		
RUNOFF AND EROSION CONTROL		
MAXIMUM SLOPE LIMIT		

FEDERAL
LAND APPLICATION

RECORDS

REPORTS

NOTIFICATIONS

STORAGE

Federal

FEDERAL
LAND APPLICATION

TRANSPORTATION

UNCONTROLLED USE

DEDICATED SITES

FILE 3.5

**FEDERAL
LAND APPLICATION**

COMMENTS

FILE 2.6

	ALABAMA
	LAND APPLICATION
SLUDGE CLASSIFICATION	
STATE CONTROL	
LAWS, TITLE & DATE	ALABAMA SOLID WASTE DISPOSAL ACT NO. 771, 1969. AMENDED 1975
REGS, TITLE & DATE	ALABAMA SOLID WASTE MANAGEMENT REGS CHAPTER 4, PART 1 12/18/81; AMENDED 7/13/83
GUIDELINES, TITLE & DATE	GUIDELINES ARE IN PROCESS OF BEING DRAFTED
CONTROLLING AGENCY	ALABAMA DEPT OF ENVIRONMENTAL MANAGEMENT MUNICIPAL WASTE CONTROL SECTION WATER QUALITY CONTROL PROGRAM MONTGOMERY, ALABAMA 36130
	205/271/7700

[illegible]

	ALABAMA	
	LAND APPLICATION	
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS	NOT ADDRESSED	
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT)		
N		
P		
K		
METALS (MG/KG SLUDGE DRY WEIGHT)		
AS		
CD		
PB		

	ALABAMA	
	LAND APPLICATION	
NI		
ZN		
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB		
WATER		
OTHER CONTAMINANTS		
RECORDS		

	ALABAMA	
	LAND APPLICATION	
REPORTS		
NOTIFICATIONS		
STORAGE (IF APPLICABLE)		
LAND APPLICATION		

	ALABAMA
	LAND APPLICATION
APPROVAL OR PERMIT	G
APPLIC. SUBMITTAL	PERMIT IS REQUIRED
	SUBMITTAL INCLUDES:
	FACILITY DESIGN PLANS INCLUDING
	LAND USE AND ZONING WITHIN 1400 FT,
	AIRPORTS WITHIN 10000 FT, GEOLOGIC
	SITE FEATURES, LEGAL PROP MAP,
	TOPO MAP, BUFFER ZONES, DRAINAGE
	PATTERNS, OPERATION METHOD, DETAIL
	OF ALL WEATHER ACCESS ROADS
CRITERIA FOR USE	
DEGREE OF STABILIZATION	PFPR IF CROPS FOR DIRECT
	HUMAN CONSUMPTION WITHIN 18 MOS
	PSRP IF NO CONTACT BETWEEN SLUDGE
	AND EDIBLE PORTION OF CROP,
	PUBLIC ACCESS CONTROLLED FOR 12 MOS,
	NO GRAZING BY ANIMALS WHOSE
	PRODUCTS FOR HUMAN CONSUMPTION FOR
	1 MO
SOIL SAMPLING	
PRE-APPLICATION	

	ALABAMA	
	LAND APPLICATION	
POST-APPLICATION		
WATER QUALITY MONITORING		
GROUND WATER		
SURFACE WATER		
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED		
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)		

	ALABAMA
	LAND APPLICATION
PH	
METALS	
CD	
ANNUAL	
MAX CUMULATIVE	
PB	

	ALABAMA	
	LAND APPLICATION	
ZN		
CU		
CR		
NI		
HG		

	ALABAMA	
	LAND APPLICATION	
ORGANICS		
PCB		
LAND USE RESTRICTIONS		
CROPS	NO CONTACT BETWEEN SLUDGE AND EDIBLE PORTION OF CROP	
GRAZING OR GREENCHOP	NO GRAZING BY ANIMALS WHOSE PRODUCTS ARE CONSUMED BY HUMANS FOR 1 MO	

	ALABAMA	
	LAND APPLICATION	
PUBLIC ACCESS	CONTROLLED FOR 12 MOS	
PH OF SOIL		
SITING RESTRICTIONS		
SOIL CONDITIONS		
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL		
DIST TO PUBLIC WELL		
DIST TO RESIDENCE		

	ALABAMA	
	LAND APPLICATION	
DIST TO OTHER BLDGS.		
DIST TO PROPERTY LINE		
GROUNDWATER PROTECTION	MUST PROTECT WATER QUALITY	
DEPTH TO HIGH GW	5 FT	
DEPTH TO BEDROCK	5 FT	
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		

	ALABAMA	
	LAND APPLICATION	
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT TO RESTRICT FLOW OF BASE FLOOD OR REDUCE TEMP WATER STORAGE CAPACITY OF FLOODPLAIN	
DIST TO SURFACE WATER		
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL		
MAXIMUM SLOPE LIMIT		
RECORDS		

	ALABAMA	
	LAND APPLICATION	
REPORTS		
NOTIFICATIONS	NOTIFY BOARD WHEN CHANGE IN PROCEDURE OR OWNERSHIP	
STORAGE		
TRANSPORTATION		

NOT ADDRESSED

FILE 2.6

COMMENTS

|ALABAMA
|LAND APPLICATION

STATE IS IN PROCESS OF PREPARING
LAND APPLICATION GUIDELINES.
GUIDELINES ESTAB REVIEW PROCEDURE
FOR DETERMINING APPLIC RATE

FILE 2.6

	ALASKA	
	LAND APPLICATION	
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	ALASKA STATUTE 46.03.020,100,296, 820,080, 1971 AS AMENDED	
REGS, TITLE & DATE	ALASKA SOLID WASTE MANAGEMENT REGS AAC TITLE 18, CHAPTER 60 7/19/73, AMENDED 8/21/78;10/9/83	
GUIDELINES, TITLE & DATE		
CONTROLLING AGENCY	ALASKA DEPT OF ENVIRONMENTAL CONSERVATION AIR AND SOLID WASTE SECTION JUNEAU,ALASKA 99811 907/465/2666	

FILE 2.6

[illegible]

	ALASKA	
	LAND APPLICATION	
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS	MIN 10% SOLIDS BY WEIGHT	
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT)		
N		
P		
K		
METALS (MG/KG SLUDGE DRY WEIGHT)		
AS		
CD		
PB		

	ALASKA	
	LAND APPLICATION	
NI		
ZN		
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB	<10 MG/KG	
WATER		
OTHER CONTAMINANTS		
RECORDS		

	ALASKA	
	LAND APPLICATION	
REPORTS		
NOTIFICATIONS		
STORAGE (IF APPLICABLE)		
LAND APPLICATION		

	ALASKA LAND APPLICATION
APPROVAL OR PERMIT APPLIC. SUBMITTAL	DISPOSAL PERMIT IS REQUIRED SUBMITTAL INCLUDED: DETAILED SPECS OF SITE, SITE LOCATION MAP, OPERATING METHOD, WATER POLLUTION POTENTIAL, CERTIF OF COMPLIANCE WITH LOCAL ZONING, LANDOWNER'S PERMISSION, SURFACE WATER QUALITY MAY BE REQUIRED
CRITERIA FOR USE DEGREE OF STABILIZATION	PFPR IF CROPS FOR DIRECT HUMAN CONSUMPTION WITHIN 18 MOS
SOIL SAMPLING PRE-APPLICATION	MAY BE REQUIRED

	ALASKA	
	LAND APPLICATION	
POST-APPLICATION		
WATER QUALITY MONITORING	MAY BE REQUIRED, DEPENDS ON SIZE	
GROUND WATER	OF DISPOSAL SITE	
SURFACE WATER	MAY BE REQUIRED, SPECIFIED IN PERMIT	
CROP MONITORING	MAY BE REQUIRED	
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED		
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)		

FILE 2.6

ALASKA
LAND APPLICATION

PH

METALS

CD
ANNUAL

10.6 KG/HA

MAX CUMULATIVE

15 KG/HA

PB

ALASKA
LAND APPLICATION

ZN

CU

CR

NI

HG

	ALASKA	
	LAND APPLICATION	
ORGANICS		
PCB		
LAND USE RESTRICTIONS		
CROPS		
GRAZING OR GREENCHOP	NO GRAZING BY ANIMALS WHOSE PRODUCTS CONSUMED BY HUMANS FOR 1 MO	

	ALASKA	
	LAND APPLICATION	
PUBLIC ACCESS	CONTROLLED ACCESS FOR 12 MOS	
PH OF SOIL		
SITING RESTRICTIONS		
SOIL CONDITIONS	SOILS MUST BE THAWED AND WORKABLE	
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL		
DIST TO PUBLIC WELL		
DIST TO RESIDENCE		

	ALASKA	
	LAND APPLICATION	
DIST TO OTHER BLDGS.		
DIST TO PROPERTY LINE		
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW	6 FT	
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		

	ALASKA	
	LAND APPLICATION	
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT IN 100 YR FLOODPLAIN	
DIST TO SURFACE WATER	100 FT	
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL	CONTROL SURFACE RUNOFF	
MAXIMUM SLOPE LIMIT		
RECORDS	ANNUALLY: LOCATION AND VOLUME OF WASTE DEPOSITED	

	ALASKA	
	LAND APPLICATION	
REPORTS	RECORDS MUST BE FILED WITH DEPT WHEN	
	SITE IS CLOSED	
NOTIFICATIONS		
STORAGE		
TRANSPORTATION		

FILE 2.6

ALASKA
LAND APPLICATION

UNCONTROLLED USE

DEDICATED SITES

Alaska

FILE 2.6

COMMENTS

ALASKA
LAND APPLICATION
THEY DO NOT HAVE SPECIFIC
CONSTITUENT LIMITS OR LOADING
LIMITS FOR OTHER THAN CD

	ARIZONA	
	LAND APPLICATION	
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	ARIZONA STAT 36-2841 ET SEQ 1982, as amended	
REGS, TITLE & DATE		
GUIDELINES, TITLE & DATE	GUIDELINES FOR THE AGRICULTURAL APPLICATION OF WASTEWATER SLUDGE 1984	
CONTROLLING AGENCY	ARIZONA DEPARTMENT OF HEALTH SERVICES SOLID WASTE UNIT PHOENIX, ARIZONA 85007 602/257/2238	

[illegible]

	ARIZONA	
	LAND APPLICATION	
	2,4,5-TP (SILVEX)	
	FREQUENCY: IF PSRP, WEEKLY FOR pH;	
	MONTHLY FOR PLANT NUTRIENTS, HEAVY	
	METALS, AND OTHERS; 6/YR FOR MINERAL-	
	IZATION RATE	
	SPECIAL MONITORING FOR SLUDGE	
	APPLIED TO LAND FROM LAGOONS	
	OR STOCKPILES	
MAXIMUM SLUDGE CONSTITUENT		
CONCENTRATIONS		
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT)		
N		
P		
K		
METALS (MG/KG SLUDGE DRY WEIGHT)		
AS		
CD		
PB		

	ARIZONA	
	LAND APPLICATION	
NI		
ZN		
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB		
WATER		
OTHER CONTAMINANTS		
RECORDS		

	ARIZONA
	LAND APPLICATION
REPORTS	
NOTIFICATIONS	
STORAGE (IF APPLICABLE)	SLUDGE STORAGE FACILITIES AT PRODUCERS FACILITY ARE INCLUDED IN GENERATORS GROUND WATER PERMIT
LAND APPLICATION	

	ARIZONA	
	LAND APPLICATION	
APPROVAL OR PERMIT	APPROVAL NECESSARY. MUST SUBMIT	
APPLIC. SUBMITTAL	BOTH APPLICATION SITE PLAN AND	
	OPERATION PLAN	
	APPLIC SITE PLAN:	
	SITE LOCATION AND DESCRIPTION,SOIL	
	CHARAC, GEOHYDRAULIC CHARAC,OWNER	
	RELEASE,SLUDGE CHARAC,SLUDGE	
	MINERAL RATE, pH, AND SOLIDS	
	CONCENTRATION	
	OPERATION PLAN:	
	SLUDGE HAULING, STORAGE, APPLIC	
	METHOD	
	APPROVALS MUST BE RENEWED MAX 10 YRS	
CRITERIA FOR USE		
DEGREE OF STABILIZATION	PSRP UNLESS SLUDGE FROM LAGOON	
	WITH GREATER THAN 3 YR CLEANING	
	PFRP IF LAND RECLAMATION OR	
	HORTIC OR SILVIC. THESE GUIDE-	
	LINES DO NOT ADDRESS THESE	
SOIL SAMPLING		
PRE-APPLICATION	CHARACTERIZATION OF SOIL TO DEPTH	
	OF 12 IN:PLANT NUTRIENTS,HEAVY	

FILE 2.6

	ARIZONA	
	LAND APPLICATION	
	METALS, TOXIC ORGANICS, pH,CEC	
POST-APPLICATION	MUST BE ANALYZED ANNUALLY PRIOR TO	
	SUBSEQUENT APPLIC FOR PLANT	
	NUTRIENTS,HEAVY METALS,TOXIC	
	ORGANICS	
WATER QUALITY MONITORING		
GROUND WATER	MONITORING MUST BE DONE	
SURFACE WATER	MONITORING MUST BE DONE	
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT	MAX ANNUAL RATE: 8 DRY T/AC	
KG/HA UNLESS OTHERWISE NOTED	MAX HYDRAULIC RATE:27,000 G/AC	
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)	NOT TO EXCEED N REQUIREMENT OF CROP	
	GROWN WITH THAT APPLIC	
	MUST CONSIDER RESIDUAL N IN SOIL	

	ARIZONA	
	LAND APPLICATION	
PH	NOT TO EXCEED AGRONOMIC REQUIREMENT	
	OF CROP	
METALS	<10% OF MACMA ANNUALLY	
CD		
ANNUAL	0.5 KG/HA	
MAX CUMULATIVE	IF CEC<5: 6 KG/HA	
	IF 5<CEC<15: 11 KG/HA	
	IF CEC>15: 22 KG/HA	
PB	IF CEC<5: 561 KG/HA	
	IF 5<CEC<15: 1121 KG/HA	
	IF CEC>15: 2242 KG/HA	

	ARIZONA	
	LAND APPLICATION	
ZN	IF CEC<5: 280 KG/HA	
	IF 5<CEC<15: 561 KG/HA	
	IF CEC>15: 1121 KG/HA	
CU	IF CEC<5: 140 KG/HA	
	IF 5<CEC<15: 280 KG/HA	
	IF CEC>15: 561 KG/HA	
CR		
NI	IF CEC<5: 56 KG/HA	
	IF 5<CEC<15: 11 KG/HA	
	IF CEC>15: 224 KG/HA	
HG		

	ARIZONA
	LAND APPLICATION
ORGANICS	
PCB	
LAND USE RESTRICTIONS	
CROPS	NO CROPS FOR DIRECT HUMAN CONSUMPTION CROP MUST BE GROWN WITH EACH APPLIC
GRAZING OR GREENCHOP	NO GRAZING FOR 30 DAYS

	ARIZONA	
	LAND APPLICATION	
PUBLIC ACCESS	CONTROLLED FOR 12 MOS	
PH OF SOIL	pH = OR > 6.5	
SITING RESTRICTIONS		
SOIL CONDITIONS		
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL	250 FT	
DIST TO PUBLIC WELL	1000 FT	
DIST TO RESIDENCE	500 FT IF OCCUPIED	

	ARIZONA	
	LAND APPLICATION	
DIST TO OTHER BLDGS.	500 FT IF OCCUPIED	
DIST TO PROPERTY LINE	25 FT TO PROPERTY LINE AND ROAD	
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW	40 FT TO MEAN ANNUAL	
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		

FILE 2.6

	ARIZONA
	LAND APPLICATION
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	IF IN 100 YR FLOODPLAIN, MUST NOT RESTRICT FLOODWATER, REDUCE TEMP STORAGE CAPACITY OF FLOODPLAIN OR RESULT IN WASHOUT
DIST TO SURFACE WATER	
DIST TO DRY RUN	
RUNOFF AND EROSION CONTROL	MUST BE INCORP WITHIN 24 HRS CONTROLS FOR 24 HR, 25 YR STORM NO APPLIC ON FROZEN OR SNOW- COVERED OR SATURATED SOILS
MAXIMUM SLOPE LIMIT	<6%
RECORDS	RECORDS: DATES OF APPLIC, WEATHER CONDITIONS, AMOUNTS APPLIC, QUALITY OF SLUDGE, SOURCE OF SLUDGE, LOCATIONS ON

FILE 2.6

	ARIZONA
	LAND APPLICATION
	SITE, CUM AMTS OF NUTRIENTS AND HEAVY METALS
REPORTS	SUBMIT ABOVE RECORDS MONTHLY TO OWNER OR WWT
NOTIFICATIONS	PRESENT AND FUTURE OWNERS MUST BE NOTIFIED THAT SLUDGE WAS APPLIED IF APPLIC COULD RESULT IN HAZARD
STORAGE	SUBJECT TO GROUNDWATER PERMIT REQUIRE- MENT. MAX 72 HR STORAGE AT SITE NOT RESULT IN ODOR ,DUST, OR VECTOR NUISANCE, OR PUBLIC HEALTH HAZARD, OR ALLOW CONTAMINATION OF SOIL OR GW OR SW
TRANSPORTATION	TRUCKS MUST BE SEALED OR COVERED WITH

UNCONTROLLED USE

DEDICATED SITES

ARIZONA
LAND APPLICATION
TARPS
NOT TO RESULT IN HAZARD OR NUISANCE
ROUTES NOT THROUGH POPULATED AREAS
NOT FOR DEPOSIT ON PUBLIC ROADWAY
EQUIPMENT MUST BE CLEAN

NO SPECIFIC GUIDELINES FOR DISTRIBUTION OR USE OF COMPOSTED SLUDGE

ARIZONA
LAND APPLICATION

COMMENTS

FILE 1

	CALIFORNIA	CALIFORNIA
	LAND APPLICATION	DISTRIBUTION AND MARKETING
		FOR UNRESTRICTED USE
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	CWC DIVISION 7, CHP 482 1969, AS AMENDED	CWC DIVISION 7, CHP 482 1969, AS AMENDED
REGS, TITLE & DATE	NO SPECIFIC REGS DEALING WITH LAND APPLICATION; OTHER: WASTE DISPOSAL TO LAND, TITLE 23 SUBCHAPTER 15, ART 1,2510	NO SPEC REGS FOR D&M; OTHER: WASTE DISPOSAL TO LAND, TITLE 23 SUBCH 15,ARTICLE 1
GUIDELINES, TITLE & DATE	MANUAL OF GOOD PRACTICE FOR LANDSPREADING OF SEWAGE SLUDGE APRIL 1983	MANUAL OF GOOD PRACTICE FOR LANDSPREADING OF SEWAGE SLUDGE APRIL 1983
CONTROLLING AGENCY	CALIFORNIA DEPT OF HEALTH SERVICES SANITARY ENGINEERING BRANCH BERKLEY, CALIF 415/571/2154	CALIFORNIA DEPT OF HEALTH SERVICES SANITARY ENGINEERING BRANCH BERKLEY, CALIF 415/571/2154
ACCEPTABILITY OF SLUDGE	ALL CRIT FROM GUIDELINES UNLESS SPEC	ALL CRIT ARE FROM GUIDELINES UNLESS NOTED
PERMIT OR APPROVAL APPLIC. SUBMITTAL	INITIAL ENGIN REPORT IS REQUIRED. SEE SUBMITTAL	NO SPECIF PERMIT OR APPROVAL IS MENTIONED; CONTRACTUAL

SLUDGE SAMPLING PARAMETERS

CALIFORNIA
LAND APPLICATION

UNDER LAND APPLICATION

PRODUCER SHOULD ANALYZE FOR:
CD,PB,ZN,CU,NI,PCB, TOTAL N,
TOTAL SOLIDS, AND pH
FREQUENCY:
<1.0 MGD: SEMIANNUALLY
1.0-10.0 MGD: QUARTERLY
>10.0 MGD: MONTHLY
IF NECESSARY FREQ AND PARAM MAY
BE CHANGED

CALIFORNIA
DISTRIBUTION AND MARKETING
FOR UNRESTRICTED USE
AGREEMENT BETWEEN USER AND
PRODUCER IS RECOMMENDED TO
PROTECT HEALTH AND SAFETY

PRODUCER MUST SAMPLE FOR:
CD,PB,ZN,CU,NI,PCB,
TOTAL N, TOTAL SOLIDS, pH
FREQUENCY:
<1.0 MGD: SEMIANNUALLY
1.0-10.0 MGD: QUARTERLY
> 10.0 MGD: MONTHLY

	CALIFORNIA LAND APPLICATION	CALIFORNIA DISTRIBUTION AND MARKETING FOR UNRESTRICTED USE
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS		IF IT CAN BE DEMONSTRATED THAT USE NOT SUBJ TO INTENSE PUBLIC USE, LA LEVELS MAY APPLY
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT)		
N		
P		
K		
METALS (MG/KG SLUDGE DRY WEIGHT)		
AS		
CD	25 MG/KG	50 MG/KG
PB	500 MG/KG	500 MG/KG
NI		
ZN		

	CALIFORNIA LAND APPLICATION	CALIFORNIA DISTRIBUTION AND MARKETING FOR UNRESTRICTED USE
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB	5 MG/KG	2 MG/KG
WATER		
OTHER CONTAMINANTS		
RECORDS	SLUDGE DISTRIBUTOR MUST RECORD: AMTS SOLD OR DISTRIB, DESTIN OF SLUDGE, TYPE OF TREATMENT AND LABELING, ALL REQUIRED ANALYSES	SLUDGE DISTRIBUTOR MUST RECORD AMT SOLD OR DISTRIBUTED, DESTIN OF SLUDGE, TYPE OF TREATMENT AND LABELING USED, AND ALL REQUIRED ANALYSES

	CALIFORNIA	CALIFORNIA
	LAND APPLICATION	DISTRIBUTION AND MARKETING
		FOR UNRESTRICTED USE
REPORTS	ABOVE RECORDS MUST BE AVAIL FOR INSPECTION BY REGULATORY AGENCIES	RECORDS MUST BE AVAILABLE FOR REVIEW BY REGULATORY AGENCIES
NOTIFICATIONS	IF PRODUCER DOES NOT HAVE DIRECT CONTROL OVER APPLIC AND USE, CONTACTURAL AGREEMENT SHD BE DEVELOPED TO INSURE PUBLIC HEALTH AND SAFE ENVT	MUST BE ADEQUATELY LABELED TO INFORM USER OF CONTENTS AND TO ADVISE OF REASONABLE PRECAUTIONS IN ALLOWING ACCESS BY YOUNG CHILDREN LABEL MUST BE CLEARLY DISPLAYED ON BAG OR ON POSTER
STORAGE (IF APPLICABLE)		
LAND APPLICATION		
APPROVAL OR PERMIT APPLIC. SUBMITTAL	SHOULD CONSULT REGIONAL WATER QUALITY BOARD, AND SOLID WASTE MGNT BOARD AND LOCAL HEALTH DEPT FOR	

CRITERIA FOR USE
DEGREE OF STABILIZATION

CALIFORNIA	CALIFORNIA
LAND APPLICATION	DISTRIBUTION AND MARKETING
	FOR UNRESTRICTED USE
PARTICULAR REQUIREMENTS	
INITIAL ENGIN REPORT REQUIRED:	
SOIL AND SLUDGE ANALYSES, DESC	
OF SLUDGE TREATMENT PROCESS, ID	
OF PERSON RESP FOR LA AND DIST	
OF SLUDGE, DESC OF LA AREA	
(INCLUDING MAPS, AND CROPS), SOIL	
DEPTH, WATER TABLE, BUFFER ZONES,	
WELL LOCATION, SW BODIES, DRAINAGE	
PSRP FOR PROCESSED FOOD CROPS,	PFRP
ORCHARDS, VINEYARDS, AND ANIMAL	MUST MONITOR STAB AND DISINFECTION
FEED (NOT FOR MILKING ANIMALS)	PROCESSES: OPERATING TIMES, TEMPS,
IF NO PUBLIC ACCESS FOR 12 MOS;	VOL SOLIDS, pH, AND OTHERS
NO GRAZING BY ANIMALS CONSUMED	AS NEEDED. IF COMPOSTING, DAILY
BY HUMANS FOR 1 MO;AND NO GRAZING	RECORD OF OPERATING TEMP IS REQ
BY MILKING ANIMALS FOR 12 MOS;	
AND UNPROCESSED FOOD CROPS FOR 3 YR	
PFRP (EXCEPT THERMO COMPOSTING, OR	
SUPPLEM DISINFECTION) OK FOR USE	
ON ANY LAND	
IF THERMO COMPOSTING, NO APPLIC TO	
GRAZING LAND OF MILKING ANIM OR	
FOR PROD OF UNPROCESSED FOOD CROP	
PROCESS MONIT REQUIRED: OPERATING	
TIMES, VOL SOLIDS, TEMPS,pH.	
IF COMPOSTING, DAILY TEMP REQ	

	CALIFORNIA LAND APPLICATION	CALIFORNIA DISTRIBUTION AND MARKETING FOR UNRESTRICTED USE
SOIL SAMPLING		
PRE-APPLICATION		
POST-APPLICATION		
WATER QUALITY MONITORING		
GROUND WATER		
SURFACE WATER		
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED		

	CALIFORNIA LAND APPLICATION	CALIFORNIA DISTRIBUTION AND MARKETING FOR UNRESTRICTED USE
(CEC IN MEQ/100G SOIL) ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)	SHOULD NOT EXCEED AGRONOMIC RATES	
P		
METALS		
CD ANNUAL	< 0.5 KG/HA IF FOOD CROPS FOR HUMAN CONSUMPTION	
MAX CUMULATIVE	IF CEC<5: 5 KG/HA IF 5<CEC<15: 10 KG/HA IF CEC>15: 20 KG/HA	
PB	IF CEC<5: 400 KG/HA	

	CALIFORNIA	CALIFORNIA
	LAND APPLICATION	DISTRIBUTION AND MARKETING
		FOR UNRESTRICTED USE
	IF 5<CEC<15: 800 KG/HA	
	IF CEC>15: 800 KG/HA	
	IF CEC<5: 250 KG/HA	
ZN	IF 5<CEC<15: 500 KG/HA	
	IF CEC>15: 1000 KG/HA	
CU	IF CEC<5: 125 KG/HA	
	IF 5<CEC<15: 250 KG/HA	
	IF CEC>15: 500 KG/HA	
CR		
NI	IF CEC<5: 50 KG/HA	
	IF 5<CEC<15: 100 KG/HA	
	IF CEC>15: 200 KG/HA	
HG		

	CALIFORNIA LAND APPLICATION	CALIFORNIA DISTRIBUTION AND MARKETING FOR UNRESTRICTED USE
ORGANICS		
PCB		
LAND USE RESTRICTIONS		
CROPS	WARNING OF CD ACCUM IN LEAFY VEG AND ROOT CROPS IF APPLIED TO ORCHARDS AND VINEYDS, SHOULD BE AIR DRIED OR COMPOSTED AND INCRP INTO SOIL NOT IMMED BEFORE OR AFTER FRUIT HARVEST IF LIQUID SLUDGE, INCRP WITHIN 48 HRS ONLY CROP FOR DIRECT APPLIC IS HAY	COMPOSTED SLUDGE MAY NOT BE SUITABLE FOR HOME VEG GARDENS
GRAZING OR GREENCHOP		

	CALIFORNIA LAND APPLICATION	CALIFORNIA DISTRIBUTION AND MARKETING FOR UNRESTRICTED USE
PUBLIC ACCESS		
PH OF SOIL	6.5 (SLUDGE AND SOIL MIXTURE) AT TIME OF EACH APPLIC UNLESS CD<2MG/KG IF pH<6.5, CUM CD <5 KG/HA	
SITING RESTRICTIONS		
SOIL CONDITIONS		
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL	500 FT	
DIST TO PUBLIC WELL	500 FT	
DIST TO RESIDENCE	500 FT	

	CALIFORNIA LAND APPLICATION	CALIFORNIA DISTRIBUTION AND MARKETING FOR UNRESTRICTED USE
DIST TO OTHER BLDGS.		
DIST TO PROPERTY LINE		
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW		
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		

	CALIFORNIA LAND APPLICATION	CALIFORNIA DISTRIBUTION AND MARKETING FOR UNRESTRICTED USE
SURFACE WATER PROTECTION		
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING		
DIST TO SURFACE WATER		
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL	MEASURES MUST BE TAKEN TO PREVENT SURFACE WATER RUNOFF	
MAXIMUM SLOPE LIMIT		

FILE 1

	CALIFORNIA	CALIFORNIA
	LAND APPLICATION	DISTRIBUTION AND MARKETING
		FOR UNRESTRICTED USE
RECORDS	LA RECORDS: ALL REQUIRED ANALYSES, AMTS OF SLUDGE USED, APPLIC RATES, RECORDS SHOWING COMPLIANCE WITH TREATMENT REQUIREMENTS, PLANT AND EQUIP BREAKDOWNS, AND ALL CORRECTIVE ACTION TAKEN	
REPORTS	ALL OF ABOVE MUST BE AVAIL FOR REGULATORY AGENCY REVIEW	
NOTIFICATIONS		
STORAGE	STORAGE PONDS MUST HAVE IMPERMEABLE BOTTOMS AND SIDES, AND BE PROTECTED FROM FLOODING AND HAVE 3 FT OF FREEBOARD. STORAGE PILES MUST MINIMIZE LEACHATE	

	CALIFORNIA LAND APPLICATION	CALIFORNIA DISTRIBUTION AND MARKETING FOR UNRESTRICTED USE
TRANSPORTATION		
UNCONTROLLED USE	SEE SEPARATE PROGRAM FOR D&M PROGRAM WITH UNRESTRICTED USE	
DEDICATED SITES	FEWER PRECAUTIONS FOR USE ON NON- FOOD CROP LAND IF NO PUBLIC ACCESS, STABILIZ ONLY IS ALLOWED, BUT INCORP WITHIN 48 HR IF POTENTIAL FOR FUTURE FOOD CROP, NO EXCEEDING OF CUM METAL RATES, AND NO CROPS FOR 3 YRS AIR DRIED, OR COMPOSTED SLUDGE CAN BE APPLIED TO LAND SUBJ TO OCCAS PUBLIC ACCESS	

FILE 1

| CALIFORNIA
| LAND APPLICATION

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COMMENTS

1 CALIFORNIA
2 DISTRIBUTION AND MARKETING
3 FOR UNRESTRICTED USE

1	0
1	1
1	4
1	0

FILE 1

	COLORADO	
	LAND APPLICATION	
SLUDGE CLASSIFICATION	I,II,III,IV	
STATE CONTROL		
	COLORADO SW DISPOSAL SITES LAW	
LAWS, TITLE & DATE	C.R.S. 1973, 30-20-109 AND	
	25-1-107 (AS AMENDED)	
REGS, TITLE & DATE	DOMESTIC SEWAGE SLUDGE REGS	
	ADOPTED 1/16/85	
	EFFECTIVE: 8/1/86	
GUIDELINES, TITLE & DATE		
CONTROLLING AGENCY	COLORADO DEPT OF HEALTH	
	WATER QUALITY CONTROL DIVISION	
	DENVER, COLORADO 80220	
	303/320/8333	
ACCEPTABILITY OF SLUDGE		
PERMIT OR APPROVAL	LETTER OF INTENT IS REQUIRED TO APPLY	
APPLIC. SUBMITTAL	SLUDGE FOR BENEFICIAL USE	

Colorado

SLUDGE SAMPLING PARAMETERS

COLORADO
LAND APPLICATION
SEE SUBMITTAL REQUIREMENTS UNDER LAND APPLICATION (THIS MAY BE GENERATOR OF SLUDGE)
INITIAL SCREENING REQUIRED AS PART OF LETTER OF INTENT. PARAMETERS: pH, VOL ACIDS, TOTAL N, ORG N, AMMONIA N, NITRATE N, TOTAL P,K, CONDUCTIVITY, ALUM, ARSENIC, CD, CR, CU, FE, PB, HG, MOLYBDENUM, NI,SE, SILVER, PCB, GR I: 0-10 MGD: 1/5YR; > 10MGD:1/3YR GR II: < 1MGD: 1/5YR; 1-10 MGD: 1/3YR > 10 MGD: 1/YR GR III: 1/YR SAME PARAMETERS REGULARLY AFTER APPLIC: GR I:< 1 MGD: 1/6MO; 1-10 MGD: 1/3MO; > 10 MGD: 1/2MO GR II: < 1MGD: 1/3MO; 1-10 MGD: 1/2MO;

	COLORADO	
	LAND APPLICATION	
	> 10MGD: 1/MO	
	GR III: 0-10 MGD: 1/MO;>10 MGD: 1/2WK	
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS		
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT)		
N		
P		
K		
METALS (MG/KG SLUDGE DRY WEIGHT)	GRADE IV SLUDGE DOESN'T MEET THESE LEVELS:	
AS		
CD	GRADE I: 25 MG/KG GRADE II: 70 MG/KG GRADE III: 125 MG/KG	
PB	GRADE I: 1000 MG/KG GRADE II: 2500 MG/KG GRADE III: 5000 MG/KG	
NI	GRADE I: 250 MG/KG GRADE II: 650 MG/KG GRADE III: 1250 MG/KG	
ZN	GRADE I: 1250 MG/KG GRADE II: 3325 MG/KG GRADE III: 6250 MG/KG	

[illegible]

	COLORADO	
	LAND APPLICATION	
REPORTS		
NOTIFICATIONS	IF PRODUCER SELLS, DISTRIBUTES, OR SUPPLIES SLUDGE TO USER, PRODUCER MUST OBTAIN PERMISSION TO DO MONI- TORING AS REQUIRED, AND MUST MAKE AVAILABLE TO USER COPY OF REGS	
STORAGE (IF APPLICABLE)	REQ APPLY TO ALL STORAGE SITES: MUST BE STABILIZED, NO CONTAMINATION OF STATE WATERS, ANN HGW MIN 5 FT, 1 YR MAX STORAGE TIME FOR LIQUID OR DEWATERED SLUDGE, AND 2 YRS FOR DEWATERED OR DRIED SLUDGE	
LAND APPLICATION		
APPROVAL OR PERMIT APPLIC. SUBMITTAL	LETTER OF INTENT MUST BE FILED WITH DEPT AND LOCAL HEALTH DEPT: LEGAL SITE DESCRIPTION,; 3/AC TO BE	

CRITERIA FOR USE
DEGREE OF STABILIZATION

COLORADO
LAND APPLICATION
APPLIED; CROP TYPE; SLUDGE GRADE;
STABILITY OF SLUDGE MET; GW MONITOR-
ING RESULTS; DEPTH TO BEDROCK;
ALTERNATE SLUDGE DISPOSAL PLANS; NAME,
ADDRESS OF PRODUCER AND USER;
SCREENING ANAL OF SLUDGE; SOIL ANAL
SLUDGE MUST MEET CRITERIA FOR
STABILIZ. SPEC REQUIREMENTS FOR
AEROBIC, ANAEROBIC, COMPOSTING, OR
OTHER MEANS
PFRP IF GRAZING BY LACTATING ANIMALS
PSRP IF LACTATING ANIMALS AND 30 DAY
WAIT

	COLORADO	
	LAND APPLICATION	
SOIL SAMPLING		
PRE-APPLICATION	PARAMETERS:pH, AMMONIA N, NITRATE N,	
	P, CONDUCTIVITY, CD,CU,PB,MB,ZN,	
	TEXTURE, CEC,ORG MATTER,P	
POST-APPLICATION	SAME PARAMETERS	
	GR I: 1/YR	
	GR II:1/YR	
	GR III:0-10 MGD: 1/6MO; >10MGD:1/3MO	
	NO MONIT REQ FOR GR I IF PFRP, OR IF	
	DEWATERED AND STORED FOR 1 YR	
WATER QUALITY MONITORING		
GROUND WATER	MONITORING REQUIRED UNLESS HIST HIGH	
	GW IS > 10 FT	
	(SPECIFIC DETAILS IN REGS)	
	GW QUALITY MONITORING ALSO REQUIRED	
SURFACE WATER		
CROP MONITORING	MONITORING REQUIRED: TOTAL N,	
	NITRATE N, P,CD,CU,PB,NI,ZN	
	GR I: 0-10 MGD: 1/3YR; > 10 MGD: 1/2YR	
	NOT REQUIRED IF PFRP, OR IF DEWATERED	
	AND STORED FOR 1 YR	
	GR II:< 1MGD: 1/3YR; 1-10 MGD: 1/2YR;	
	> 10 MGD: 1/YR	
	GR III: 1/YR; (3 CONSEC YR AFTER FINAL)	
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED		

	COLORADO	
	LAND APPLICATION	
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)	NOT TO EXCEED AGRONOMIC RATE FOR AVAIL N OF CROPS	
P	< 448 KG/HA	
METALS		
CD		
ANNUAL	IF pH > 6.5: 0.56 KG/HA IF pH 4-6.5: 0.28 KG/HA	
MAX CUMULATIVE	IF pH >6.5 AND CEC<5: 5 KG/HA 5<CEC<15: 11 KG/HA CEC>15: 22 KG/HA IF PH 4-6.5: 5.6 KG/HA MAX	
PB	IF pH > 6.5 AND	

COLORADO	
LAND APPLICATION	
	CEC<5: 560 KG/HA 5<CEC<15: 1121 KG/HA CEC>15: 2242 KG/HA IF pH 4-6.5: 560 KG/HA
ZN	IF pH > 6.5 AND CEC<5: 280 KG/HA 5<CEC<15: 560 KG/HA CEC>15: 1121 KG/HA IF pH 4-6.5: 280 KG/HA
CU	IF pH > 6.5 AND CEC<5: 140 KG/HA 5<CEC<15: 280 KG/HA CEC>15: 560 KG/HA IF pH 4-6.5: 140 KG/HA
CR	
NI	IF pH > 6.5 AND CEC<5: 56 KG/HA 5<CEC<15: 112 KG/HA CEC<15: 224 KG/HA IF pH 4-6.5: 56 KG/HA
HG	

	COLORADO	
	LAND APPLICATION	
ORGANICS		
PCB		
LAND USE RESTRICTIONS		
CROPS	GRADE I: ALL LANDS	
	GRADE II: ONLY AGRICULTURAL OR	
	DISTURBED LANDS	
	GRADE III: NO FOOD CHAIN CROPS	
	FOR 3 YRS AFTER APPLIC	
	GRADE IV: NOT FOR BENEFICIAL USE	
	NO ROOT CROPS OR LOW-GROWING	
	FRUITS AND VEG FOR DIRECT HUMAN	
	CONSUMPTION UNLESS PFRP, OR 18 MO	
	WAIT BEFORE PLANTING	
GRAZING OR GREENCHOP	LACTATING LIVESTOCK OK IF	
	PFRP	

FILE 1

	COLORADO	
	LAND APPLICATION	
	PSRP AND 30 DAY WAIT	
	SUBSURF INCORP OR IMMED INCORP	
PUBLIC ACCESS		
PH OF SOIL	SEE SPECIFICS IN LOADING RATES	
SITING RESTRICTIONS		
SOIL CONDITIONS	NOT TO LOAMY SAND OR COARSER MATERIAL AS DEFINED BY USDA	
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL		
DIST TO PUBLIC WELL	1 MI UNLESS SITE DOES NOT DRAIN TO SW AND MEASURES TAKEN TO PREVENT RUNOFF	
DIST TO RESIDENCE		

Colorado

	COLORADO	
	LAND APPLICATION	
DIST TO OTHER BLDGS.		
DIST TO PROPERTY LINE		
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW	> 5 FT IF APPLIC WITHIN 100 FT OF DOMESTIC WATER SUPPLY WELL PROHIBITED < 5 FT IF 5-10 FT, MONITORING REQ	
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		

	COLORADO	
	LAND APPLICATION	
SURFACE WATER PROTECTION		
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT ALLOWED	
DIST TO SURFACE WATER	300 FT OF CLASS I REC USE 200 FT UNLESS IMMED INCORP OR SUBSURF INJECTION 50 FT FROM WATER BODY WITH STANDING WATER	
DIST TO DRY RUN	20 FT UNLESS STREAMBED IS UNDER CULTIVATION	
RUNOFF AND EROSION CONTROL	NOT ON FROZEN, ICE-COVERED, OR SNOW COVERED LAND	
MAXIMUM SLOPE LIMIT	IF < 6% NO LT ON % SOLIDS, OR TYPE OF APPLICATION IF 6-8%, IMMED INCORP OR VEG COVER REQ IF 8-15% MUST BE SUBSURFACE INJECTION IF SOLIDS <16% NO SLUDGE ON AG LAND >15% IF DISTURBED LAND WITH 15-30% SLOPE, SLUDGE MUST BE IMMED INCORP	

	COLORADO	
	LAND APPLICATION	
RECORDS	NO SLUDGE ON DISTURBED LAND >30%	
REPORTS	EVERY 180 DAYS PRODUCER REPORTS: RESULTS OF ALL ANALYSES, TOTAL AMT SLUDGE APPLIED, LOCATION OF APPLIC,	
NOTIFICATIONS	SEE NOTIFICATION ABOVE	
STORAGE	SEE ABOVE	

COLORADO

LAND APPLICATION

TRANSPORTATION

UNCONTROLLED USE

GRADE I SLUDGE WHICH HAS BEEN DEWATERED,
AND WHICH HAS BEEN EITHER STORED FOR
ONE YR, OR PFRP, MAY BE APPLIED
TO ANY LAND FOR BENEFICIAL USE

DEDICATED SITES

FILE 1

COLORADO
LAND APPLICATION

COMMENTS

	CONNECTICUT UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	CONNECTICUT AGRICULTURAL LAND APPLICATION
SLUDGE CLASSIFICATION		
STATE CONTROL LAWS, TITLE & DATE	PUBLIC ACT NO. 57, 1967 CONNECTICUT WATER POLLUTION CONTROL ACT CGS TITLE 22a, CHP. 446K AMENDED	PUBLIC ACT NO 57, 1967 CONNECTICUT WATER POLLUTION CONTROL ACT CGS TITLE 22A, CHP. 446K AMENDED
REGULATIONS, TITLE, DATE	CGS 22A-428 POLLUTION ABATEMENT ORDER CGS 22a-430 DISCHARGE PERMIT REGULATIONS (12/18/84)	CGS 22A-428 POLLUTION ABATEMENT ORDER CGS 22a-430 DISCHARGE PERMIT REGULATIONS (12/18/84)
GUIDELINES, TITLE&DATE	GUIDELINES FOR LAND APPLICATION OF MUNICIPAL SLUDGE(6/8/83) NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE GUIDELINES UNLESS NOTED	GUIDELINES FOR LAND APPLICATION OF MUNICIPAL SLUDGE(6/8/83) NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE GUIDELINES UNLESS NOTED
CONTROLLING AGENCY	DEPT. OF ENVIRONMENTAL PROTECTION	DEPT. OF ENVIRONMENTAL PROTECTION

CONNECTICUT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

CONNECTICUT
AGRICULTURAL LAND APPLICATION

SAMPLING SLUDGE PARAMETERS

| SLUDGE ANALYSIS: |
| N, NH₄-N, P, K, |
| CA, MG, MN, FE, |
| ZN, CU, NI, PB, CD, CR, HG, |
| % TOTAL SOLIDS, FIXED & VOL. SOLIDS, |
| PH, PCBS, VOLATILE ORGANICS |
| SAMPLES: 3 COMPOSITE SAMPLES AT |
| 30 DAY INTERVALS |
| LAB: HEAVY METALS IN STATE APPROVED |
| LABORATORY |
| IF TOTAL SOLIDS VARY >30% FROM MEAN, |

CONNECTICUT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

CONNECTICUT
AGRICULTURAL LAND APPLICATION

| IT MUST BE TESTED FOR EACH BATCH
| FREQUENCY: QUARTERLY
| IF ANY PARAMETER IS EXCESSIVE, WEEKLY
| ANALYSIS IS REQUIRED. IF 3
| CONSECUTIVE WEEKLY SAMPLES EXCEED
| LIMITS, SLUDGE USE MUST BE
| DISCONTINUED

MAXIMUM SLUDGE CONSTITUENT

CONDUCTIVITY (SALT)

NUTRIENTS (% BY DRY WEIG

N

P

K

METALS (MG/KG SLUDGE DRY

AS

CD

| 25

PB

| 1000

NI

| 200

ZN

| 2500

CU

| 1000

CR

| 1000

HG

| 10

MO

B

FE

ORGANICS

PCB

| 10 MG/KG DRY

CONNECTICUT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

CONNECTICUT
AGRICULTURAL LAND APPLICATION

WATER

OTHER CONTAMINANTS

OTHER ELEMENTS OR COMPOUNDS CONSIDERED
ON A CASE BY CASE BASIS

RECORDS

APPLICATION LOG:
APPLICATION RATES
DATES APPLIED
PREVAILING WINDS DURING APPLICATION

	CONNECTICUT UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	CONNECTICUT AGRICULTURAL LAND APPLICATION
		COMMENTS
REPORTS		
NOTIFICATIONS		LAND APPLICATION TO RENTED LAND MUST HAVE CONCURRENCE OF LANDOWNER
STORAGE (IF APPLIC)		
LAND APPLICATION		

CONNECTICUT UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	CONNECTICUT AGRICULTURAL LAND APPLICATION
APPROVAL OR PERMIT	PERMIT REQUIRED FOR SEPARATE SLUDGE TREATMENT SITE APPROVAL REQUIRED
APPLICATION SUBMITTALS	TOPO MAP SHOWING FEATURES, ADJACENT LANDOWNERS, ON-SITE DWELLINGS, SURFACE WATER, WATER SUPPLIES, DRAINAGE, SWALES, GW FLOW DIRECTION, ACCESS ROADS, GW MONITOR WELLS, SOIL TEST PITS SOILS MAP SHOWING SITE WRITTEN OPERATIONS NARRATIVE: CROP MGMNT PROGRAM APPLICATION RATES & BASIS OF DESIGN HANDLING & INCORPORATION METHODS PERIODS OF OPERATION DURING YEAR OPERATION RECORD PROCEDURE CONTINGENCY PLAN EROSION AND SEDIMENTATION CONTROL ODOR AND NUISANCE CONTROL SOIL, SLUDGE, WATER, & CROP MONITORING, STORAGE TASKS OF ALL PARTIES SLUDGE ANALYSIS

CONNECTICUT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

CONNECTICUT
AGRICULTURAL LAND APPLICATION

CRITERIA FOR USE
DEGREE OF STABILIZATION

PROCESS TO SIGNIFICANTLY REDUCE
PATHOGENS ACCORDING TO 40 CFR
257

SOIL

SOIL MONITORING:
CD, HG, CA, PB, NI, CR, ZN, P, PH, K, PH
PERSISTENT ORGANICS
FREQUENCY: ANNUAL

CROPS

MONITORING AS REQUIRED:
HEAVY METAL UPTAKE

CONNECTICUT AGRICULTURAL LAND APPLICATION

| PCB CONTENT

MONITORING SYSTEM INSTALLED AS
AS REQUIRED:
CL, NO3, ALKALINITY, CO, HG, CU,
PB, NI, CR, ZN, P
FREQUENCY: ANNUAL

RECOMMENDED FERTILIZER N FOR
CURRENT CROP, BASED ON:

FILE 3.5

CONNECTICUT UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	CONNECTICUT AGRICULTURAL LAND APPLICATION
CR	 (ANNUAL) 67.4 KG/HA (60 LB/AC) (MAX. CUM. EXCL. SOIL BACKGR.) 337 KG/HA (300 LB/AC)
NI	 (ANNUAL) 6.7 KG/HA (6 LB/AC) (MAX. CUM. EXCL. SOIL BACKGR.) 33.7 KG/HA (30 LB/AC)
HG	
ORGANICS PCBS	
LAND USE RESTRICTIONS	 NOT USED FOR TOBACCO PRODUCTION NO CROPS FOR DIRECT HUMAN CONSUMPTION WITHIN 18 MO OF APPLICATION NOT APPLIED TO FOOD CHAIN CROPS WHICH ARE NORMALLY GROWN AT PH < 5.5 NO GRAZING BY LACTATING ANIMALS WITHIN 12 MO AFTER APPLICATION NO GRAZING BY OTHER ANIMALS--1 MO
GRAZING OR GREENCHOP	

FILE 3.5

CONNECTICUT UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	CONNECTICUT AGRICULTURAL LAND APPLICATION
PUBLIC ACCESS	PASTURE MUST BE MOWED OR CLOSE GRAZED BEFORE APPLICATION
PH OF SOIL & SLUDGE OR PH OF SOIL	SOIL PH > 6.5 AT TIME OF APPLICATION UNLESS APPROVED SOIL PH > 5.5 WITH APPROVAL NOT ALLOWED TO DROP TO BELOW 6.2 AS LONG AS LAND IS USED FOR CROPS
SITING RESTRICTIONS SOIL CONDITIONS	MUST BE SOMEWHAT EXCESSIVELY WELL, OR MODERATELY WELL DRAINED NO SANDS OR LOAMY SANDS
BUFFER REQUIREMENTS DIST. TO PRIVATE WELL	300 FT
DIST. TO PUBLIC WELL	
DIST TO RESIDENCE	300 FT
DIST TO OTHER BUILDINGS	300 FT TO BUSINESS
DIST TO PROPERTY LINE	50 FT
GROUND WATER PROTECTION	NOT APPLIED TO CLOSED DEPRESSION WHERE BEDROCK IS LIMESTONE NO APPLICATION IN AREAS MAPPED GAA (CGS 22A-426)
DEPTH TO HIGH GROUNDWATER LEVEL	18 IN TO HIGH

CONNECTICUT UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	CONNECTICUT AGRICULTURAL LAND APPLICATION
DEPTH TO BEDROCK PERMEABILITY INFILTRATION SURFACE WATER PROTECTION	20 IN; NOT IN CLOSED DEPRESSIONS
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NO APPLICATION IN AREAS PRONE TO ACTIVE FLOODING INCORPORATION W/ 48 HRS UNLESS STABILIZED OR SURFACE WATER RUNOFF IS CONTROLLED
DIST TO SURFACE WATER	100 FT
DIST. TO DRY RUN	25 FT TO DRAINAGE SWALE
RUNOFF AND EROSION CONTROL	NO APPLICATION TO FROZEN, SNOW COVERED, OR SATURATED SOIL SOIL & WATER CONSERVATION PRACTICES MUST BE EMPLOYED APPLIED SO AS TO MINIMIZE NUISANCE
MAXIMUM SLOPE LIMIT	8% UP TO 15% IF SOIL CONSERVATION PRACTICES ARE USED

	CONNECTICUT UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	CONNECTICUT AGRICULTURAL LAND APPLICATION
RECORDS		
REPORTS		
NOTIFICATIONS		
STORAGE		

CONNECTICUT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

CONNECTICUT
AGRICULTURAL LAND APPLICATION

TRANSPORTATION

UNCONTROLLED USE

DEDICATED SITES

CONNECTICUT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

CONNECTICUT
AGRICULTURAL LAND APPLICATION

COMMENTS

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FILE 2.6

	DELAWARE
	LAND APPLICATION
	NOT ADDRESSED
SLUDGE CLASSIFICATION	
STATE CONTROL	
LAWS, TITLE & DATE	TITLE 7 DEL CODE, CHPT 60
REGS, TITLE & DATE	DELAWARE SOLID WASTE DISPOSAL REGS CHPT 1, DISPOSAL REGS, 8/29/74 SOLID WASTE LICENSING AND DISP REGS, ADOPTED 6/21/84
GUIDELINES, TITLE & DATE	
CONTROLLING AGENCY	DEPT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL WATER RESOURCES SECTION SOLID WASTE BRANCH DOVER, DE 302/736/4781

Delaware

FILE 2.6

	DELAWARE
	LAND APPLICATION
	NOT ADDRESSED
ACCEPTABILITY OF SLUDGE	
PERMIT OR APPROVAL APPLIC. SUBMITTAL	TECHNICALLY, RECYCLING OF SLUDGE IS CASE WOULD BE EVAL INDIV (PER CONV WITH REP FROM DEPT)
SLUDGE SAMPLING PARAMETERS	

	DELAWARE
	LAND APPLICATION
	NOT ADDRESSED
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS	
CONDUCTIVITY (SALT)	
NUTRIENTS (% BY DRY WEIGHT)	
N	
P	
K	
METALS (NG/KG SLUDGE DRY WEIGHT)	
AS	
CD	
PB	

	DELAWARE LAND APPLICATION NOT ADDRESSED
NI	
ZN	
CU	
CR	
HG	
MO	
B	
FE	
ORGANICS	
PCB	
WATER	
OTHER CONTAMINANTS	
RECORDS	

	DELAWARE
	LAND APPLICATION
	NOT ADDRESSED
REPORTS	
NOTIFICATIONS	
STORAGE (IF APPLICABLE)	
LAND APPLICATION	

	DELAWARE
	LAND APPLICATION
	NOT ADDRESSED
POST APPLICATION	
WATER QUALITY MONITORING	
GROUND WATER	
SURFACE WATER	
CROP MONITORING	
MAXIMUM SLUDGE LOADING LIMIT	
KG/HA UNLESS OTHERWISE NOTED	
(CEC IN MEQ/100G SOIL)	
ANNUAL OR CUMULATIVE	
NUTRIENTS	
N (ANNUAL)	

	DELAWARE
	LAND APPLICATION
	NOT ADDRESSED
PH	
METALS	
CD	
ANNUAL	
MAX CUMULATIVE	
P8	

ZN

CU

CR

NI

HG

DELAWARE
LAND APPLICATION
NOT ADDRESSED

	DELAWARE
	LAND APPLICATION
	NOT ADDRESSED
ORGANICS	
PCB	
LAND USE RESTRICTIONS	
CROPS	
GRAZING OR GREENCHOP	

	DELAWARE
	LAND APPLICATION
	NOT ADDRESSED
PUBLIC ACCESS	
PH OF SOIL	
SITING RESTRICTIONS	
SOIL CONDITIONS	
BUFFER REQUIREMENTS	
DIST TO PRIVATE WELL	
DIST TO PUBLIC WELL	
DIST TO RESIDENCE	

	DELAWARE
	LAND APPLICATION
	NOT ADDRESSED
DIST TO OTHER BLDGS.	
DIST TO PROPERTY LINE	
GROUNDWATER PROTECTION	
DEPTH TO HIGH GW	
DEPTH TO BEDROCK	
PERMEABILITY	
INFILTRATION	
SURFACE WATER PROTECTION	

	DELAWARE
	LAND APPLICATION
	NOT ADDRESSED
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	
DIST TO SURFACE WATER	
DIST TO DRY RUN	
RUNOFF AND EROSION CONTROL	
MAXIMUM SLOPE LIMIT	
RECORDS	

	DELAWARE
	LAND APPLICATION
	NOT ADDRESSED
REPORTS	
NOTIFICATIONS	
STORAGE	
TRANSPORTATION	

DELAWARE
LAND APPLICATION
NOT ADDRESSED

UNCONTROLLED USE

DEDICATED SITES

FILE 2.6

COMMENTS

| DELAWARE
| LAND APPLICATION
| NOT ADDRESSED
|
|
| PER REP OF DEPT OF NATURAL RES AND
| ENVT CONTROL, STATE IS IN
| PROCESS OF PUTTING SOME
| REGS TOGETHER WHICH SPECIFICALLY
| ADDRESS LAND APPLIC

	DISTRICT OF COLUMBIA	
	USE AND DISTRIBUTION OF	
	COMPOSTED SLUDGE	
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	WATER POLLUTION CONTROL ACT OF 1984	
	D.C.LAW 5,188, SECTION 15	
	ALSO, MAYOR'S ORDER NO. 85-152	
	12/8/85	
REGS, TITLE & DATE	TITLE 21, CHAPTER 13	
	DRAFT, 1985	
GUIDELINES, TITLE & DATE		
CONTROLLING AGENCY	DEPARTMENT OF CONSUMER AND	
	REGULATORY AFFAIRS	
	WASHINGTON D.C. 20023	
	202/767/7370	

	DISTRICT OF COLUMBIA	
	USE AND DISTRIBUTION OF	
	COMPOSTED SLUDGE	
	FREQUENCY OF SAMPLING DEPENDS	
	UPON USE AND WHETHER USER	
	IS DOMESTIC OF COMMERCIAL/	
	PUBLIC	
MAXIMUM SLUDGE CONSTITUENT	CAN NOT BE HAZ AS DEFINED IN	
CONCENTRATIONS	40 CFR 261	
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT)		
N		
P		
K		
METALS (MG/KG SLUDGE DRY WEIGHT)		
AS		
CD		
PB		

	DISTRICT OF COLUMBIA
	USE AND DISTRIBUTION OF
	COMPOSTED SLUDGE
NI	
ZN	
CU	
CR	
HG	
MO	
B	
FE	
ORGANICS	
PCB	
WATER	
OTHER CONTAMINANTS	
RECORDS	SLUDGE SAMPLING ANALYSES

	DISTRICT OF COLUMBIA	
	USE AND DISTRIBUTION OF	
	COMPOSTED SLUDGE	
REPORTS		
NOTIFICATIONS	TO USER OF PHYSICAL, CHEMICAL, AND	
	MICR-BIOLOGICAL ANALYSES	
	LABEL REQUIRED FOR NON-BULK USERS	
	LABEL READS: "THIS ORGANIC SLUDGE	
	IS DERIVED FROM MUNICIPAL SEWAGE	
	SLUDGE. PLEASE READ THE INSTRUCTIONS	
	BEFORE USE."	
STORAGE (IF APPLICABLE)	NOT IN ACCESSIBLE UNPROTECTED PILE,	
	RUNOFF MUST BE CONTROLLED,	
	NOT NEAR WELLS	
LAND APPLICATION		

	DISTRICT OF COLUMBIA USE AND DISTRIBUTION OF COMPOSTED SLUDGE	
APPROVAL OR PERMIT APPLIC. SUBMITTAL	IF APPLIC > 10 AC, SITE INSPECTION MAY BE REQUIRED	
CRITERIA FOR USE DEGREE OF STABILIZATION	MUST BE = OR < TO THAT OF LAND IF TO BE USED IN VEG GARDENS	
SOIL SAMPLING PRE-APPLICATION		

	DISTRICT OF COLUMBIA	
	USE AND DISTRIBUTION OF	
	COMPOSTED SLUDGE	
POST-APPLICATION		
WATER QUALITY MONITORING		
GROUND WATER		
SURFACE WATER		
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED	GUIDED BY CRITERIA OF HEAVY METAL	
(CEC IN MEQ/100G SOIL)	UPTAKE BY VARIOUS VEG	
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)		

	DISTRICT OF COLUMBIA USE AND DISTRIBUTION OF COMPOSTED SLUDGE	
PH		
METALS		
CD ANNUAL		
MAX CUMULATIVE		
-		
P8		

DISTRICT OF COLUMBIA
USE AND DISTRIBUTION OF
COMPOSTED SLUDGE

ZN

CU

CR

NI

HG

	DISTRICT OF COLUMBIA
	USE AND DISTRIBUTION OF
	COMPOSTED SLUDGE
ORGANICS	
PCB	
LAND USE RESTRICTIONS	
CROPS	USE IN VEG GARDENS DEPENDS UPON
	STABILIZ CRITERIA
	PREFER DOMESTIC USE ON LAWNS,
	FLOWER GARDENS, SHRUBS, AND POTTING
	MIXTURES
	PREFER COMM. AND PUBLIC USE IN
	LAND RECLAM, PARKLAND, GOLF
	COURSES, NON-DAIRY LIVESTOCK FEED,
	GREENHOUSES, AND NURSERIES
	NOT IN PICNIC AREAS, SCHOOLYARDS,
	ORCHARDS, OR NEAR FOOD CROPS UNLESS
	APPROVED
GRAZING OR GREENCHOP	

	DISTRICT OF COLUMBIA	
	USE AND DISTRIBUTION OF	
	COMPOSTED SLUDGE	
PUBLIC ACCESS		
PH OF SOIL		
SITING RESTRICTIONS		
SOIL CONDITIONS		
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL		
DIST TO PUBLIC WELL		
DIST TO RESIDENCE		

	DISTRICT OF COLUMBIA	
	USE AND DISTRIBUTION OF	
	COMPOSTED SLUDGE	
DIST TO OTHER BLDGS.	PROXIMITY TO HEALTH RELATED	
	INSTITUTIONS EVAL ON CASE BY	
	CASE BASIS	
DIST TO PROPERTY LINE		
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW		
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		

	DISTRICT OF COLUMBIA USE AND DISTRIBUTION OF COMPOSTED SLUDGE
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	
DIST TO SURFACE WATER	
DIST TO DRY RUN	
RUNOFF AND EROSION CONTROL	IF EROSION A PROBLEM: BULKING MATERIAL SHOULD REMAIN AND RESEEDING SHOULD OCCUR
MAXIMUM SLOPE LIMIT	
RECORDS	

REPORTS

NOTIFICATIONS

STORAGE

TRANSPORTATION

District of Columbia

FILE 2.6

|DISTRICT OF COLUMBIA
|USE AND DISTRIBUTION OF
|COMPOSTED SLUDGE

UNCONTROLLED USE

DEDICATED SITES

District of Columbia

FILE 2.6

DISTRICT OF COLUMBIA
USE AND DISTRIBUTION OF
COMPOSTED SLUDGE

COMMENTS

THE DISTRICT DOES NOT HAVE ANY
SPECIFIC LAND APPLICATION
REGULATIONS

	FLORIDA GRADE I PROCESSED LAND APPLICATION	FLORIDA GRADE I LAND APPLICATION	FLORIDA GRADE II LAND APPLICATION
SLUDGE CLASSIFICATION	GRADING SYSTEM BASED ON METALS: GRADE I--LOWEST LEVEL GRADE II--INTERMEDIATE GRADE III--HIGHEST, NOT TO BE LAND APPLIED	GRADING SYSTEM BASED ON METALS: GRADE I--LOWEST LEVEL GRADE II--INTERMEDIATE GRADE III--HIGHEST, NOT TO BE LAND APPLIED	GRADING SYSTEM BASED ON METALS: GRADE I--LOWEST LEVEL GRADE II--INTERMEDIATE GRADE III--HIGHEST, NOT TO BE LAND APPLIED
STATE CONTROL LAWS, TITLE & DATE	STATUTES, SECTS. 403.061, 403.701, 403.713 AMENDED 5/24/79	STATUTES, SECTS. 403.061, 403.701, 403.713 AMENDED 5/24/79	STATUTES, SECTS. 403.061, 403.701, 403.713 AMENDED 5/24/79
REGULATIONS, TITLE, DATE	FLORIDA RESOURCE RECOVERY MGNT RULES, PART IV. (7/1/85) 17-7.54 CRITERIA FOR LAND APPLICATION OR DISPOSAL OF DOMESTIC 17-7.57 CRIT. FOR L.A. OR DISP. OF PROCESSED DOMESTIC SLUDGE 17-7.58 CRIT FOR L.A. OR DISP. OF COMPOSTED DOMESTIC SLUDGE NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE REGULATIONS UNLESS NOTED	FLORIDA RESOURCE RECOVERY MGNT RULES, PART IV. (7/1/85) 17-7.54 CRITERIA FOR LAND APPLICATION OR DISPOSAL OF DOMESTIC 17-7.57 CRIT. FOR L.A. OR DISP. OF PROCESSED DOMESTIC SLUDGE 17-7.58 CRIT FOR L.A. OR DISP. OF COMPOSTED DOMESTIC SLUDGE NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE REGULATIONS UNLESS NOTED	FLORIDA RESOURCE RECOVERY MGNT RULES, PART IV. (7/1/85) 17-7.54 CRITERIA FOR LAND APPLICATION OR DISPOSAL OF DOMESTIC 17-7.57 CRIT. FOR L.A. OR DISP. OF PROCESSED DOMESTIC SLUDGE 17-7.58 CRIT FOR L.A. OR DISP. OF COMPOSTED DOMESTIC SLUDGE 17-4.64 GENERAL PERMIT FOR L.A. OF GRADE II DOM. WW. TRTMENT SLUDGE NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE REGULATIONS UNLESS NOTED
GUIDELINES, TITLE&DATE			
CONTROLLING AGENCY	DEPT. OF ENVIRONMENTAL REGULATIONS	DEPT. OF ENVIRONMENTAL REGULATIONS	DEPT. OF ENVIRONMENTAL REGULATIONS

	<div>FLORIDA GRADE 1 PROCESSED LAND APPLICATION</div> <div>JACKSONVILLE, FL (904) 488-8163</div>	<div>FLORIDA GRADE 1 LAND APPLICATION</div> <div>JACKSONVILLE, FL (904) 488-8163</div>	<div>FLORIDA GRADE 11 LAND APPLICATION</div> <div>JACKSONVILLE, FL (904) 488-8163</div>
ACCEPTABILITY OF SLUDGE			
PERMIT OR APPROVAL	<div>OPERATE UNDER WASTEWATER TREATMENT PERMIT APPROVAL REQUIRED</div>	<div>OPERATE UNDER WASTEWATER TREATMENT PERMIT APPROVAL REQUIRED</div>	<div>OPERATE UNDER WASTEWATER TREATMENT PERMIT APPROVAL REQUIRED</div>
APPLICATION SUBMITTALS			<div>SEE SUBMITTALS UNDER L.A.</div>

FLORIDA
GRADE I PROCESSED
LAND APPLICATION

FLORIDA
GRADE I
LAND APPLICATION

FLORIDA
GRADE II
LAND APPLICATION

SAMPLING SLUDGE PARAMETERS

SLUDGE ANALYSIS
TOT. N, TOT. P, TOT. K, CD, CU, NI, ZN,
PB, PH, TOT. SOLIDS
OTHERS AS REQUIRED
FREQUENCY:
4/YR FOR > .5 MGD PLANT
2/YR FOR .1-.5 MGD PLANT
1/YR FOR .002-.1 MGD PLANT
MAY BE LESS FREQUENT AS APPROVED
LOCATION, SAMPLING PROC.
SPECIFIED IN WASTEWATER

SLUDGE ANALYSIS

TOT. N, TOT. P, TOT. K, CD, CU, NI, ZN,
PB, PH, TOT. SOLIDS
OTHERS AS REQUIRED
FREQUENCY:
4/YR FOR > .5 MGD PLANT
2/YR FOR .1-.5 MGD PLANT
1/YR FOR .002-.1 MGD PLANT
MAY BE LESS FREQUENT AS APPROVED
LOCATION, SAMPLING PROC.
SPECIFIED IN WASTEWATER

SLUDGE ANALYSIS

TOT. N, TOT. P, TOT. K, CD, CU, NI, ZN,
PB, PH, TOT. SOLIDS
OTHERS AS REQUIRED
FREQUENCY:
4/YR FOR > .5 MGD PLANT
2/YR FOR .1-.5 MGD PLANT
1/YR FOR .002-.1 MGD PLANT
MAY BE LESS FREQUENT AS APPROVED
LOCATION, SAMPLING PROC.
SPECIFIED IN WASTEWATER

FLORIDA
GRADE I PROCESSED
LAND APPLICATION

TREATMENT PERMIT

FLORIDA
GRADE I
LAND APPLICATION

TREATMENT PERMIT

FLORIDA
GRADE II
LAND APPLICATION

TREATMENT PERMIT

MAXIMUM SLUDGE CONSTITUENT

CONDUCTIVITY (SALT)

NUTRIENTS (% BY DRY WEIG

N

P

K

METALS (MG/KG SLUDGE DRY

AS

CD 30

PB 1000

NI 100

ZN 1800

CU 900

CR

HG

MO

B

FE

ORGANICS

PCB

**FLORIDA
GRADE 1 PROCESSED
LAND APPLICATION**

**FLORIDA
GRADE I
LAND APPLICATION**

FLORIDA
GRADE II
LAND APPLICATION

RECORDS

GENERATOR MAY KEEP
RECORDS WITH MONTHLY SUMMARIES:
AMOUNTS DELIVERED, APPLIED,
GRADE, DESCRIPTION OF LAND

DAILY LOG MUST BE KEPT 5 YEARS BY
LAND OPERATOR:
DATE, WEATHER, LOCATION, AMOUNT
APPLIED, GRADE OF SLUDGE,

DAILY LOG MUST BE KEPT 5 YEARS BY
LAND OPERATOR:
DATE, WEATHER, LOCATION, AMOUNT
APPLIED, SLUDGE ANALYSIS (OBTAINED

	FLORIDA GRADE I PROCESSED LAND APPLICATION	FLORIDA GRADE I LAND APPLICATION	FLORIDA GRADE II LAND APPLICATION
REPORTS	PROCESSED SLUDGE GENERATORS MUST FILE QUARTERLY SLUDGE ANALYSIS REPORT AND QUARTERLY SHIPPING AND SALES REPORT	SLUDGE USE AGREEMENT, SITE AREA AND LOCATION, DESIGNATED FUTURE USE, PH, WATER TABLE, SLOPE, VEGETATION, INCORPORATION, DEPTH OF SOIL EXEMPT: USERS OF LESS THAN 3 CY/MO IN THE CASE OF PROCESSED SLUDGE, GENERATOR MAY KEEP RECORDS WITH MONTHLY SUMMARIES: AMOUNTS DELIVERED, APPLIED, GRADE, DESCRIPTION OF LAND PROCESSED SLUDGE GENERATORS MUST FILE QUARTERLY SLUDGE ANALYSIS REPORT AND QUARTERLY SHIPPING AND SALES REPORT	FROM GENERATOR), SLUDGE QUALITY, SLUDGE USE AGREEMENT, SITE AREA AND LOCATION, DESIGNATED FUTURE USE, PH, WATER TABLE, SLOPE, VEGETATION, INCORPORATION, DEPTH OF SOIL IN THE CASE OF PROCESSED SLUDGE, GENERATOR MAY KEEP RECORDS WITH MONTHLY SUMMARIES: AMOUNTS DELIVERED, APPLIED, GRADE, DESCRIPTION OF LAND PROCESSED SLUDGE GENERATORS MUST FILE QUARTERLY SLUDGE ANALYSIS REPORT AND QUARTERLY SHIPPING AND SALES REPORT
NOTIFICATIONS	COMMERCIAL FERTILIZER CONTAINING SLUDGE MUST LIST MAXIMUM APPLICATION RATES	COMMERCIAL FERTILIZER CONTAINING SLUDGE MUST LIST MAXIMUM APPLICATION RATES	PUBLIC NOTICE OF INTENDED LAND APPL. COMMERCIAL FERTILIZER CONTAINING SLUDGE MUST LIST MAXIMUM APPLICATION RATES
STORAGE (IF APPLIC)			
LAND APPLICATION			

	FLORIDA GRADE I PROCESSED LAND APPLICATION	FLORIDA GRADE I LAND APPLICATION	FLORIDA GRADE II LAND APPLICATION
APPROVAL OR PERMIT	PERMIT FOR LA NOT REQUIRED IF PERFORMED ACCORDING TO ABOVE CRITERIA	PERMIT FOR LA NOT REQUIRED IF PERFORMED ACCORDING TO ABOVE CRITERIA OPERATE UNDER WASTEWATER TREATMENT PERMIT	PERMIT REQUIRED FOR L.A. OF SLUDGE (EXCEPT PROCESSED SLUDGE)
APPLICATION SUBMITTALS			GENERAL PERMIT APPLICATION FOR GRADE II SLUDGES MUST HAVE SOIL CONSERVATION PLAN FOR RUNOFF CONTROL

	FLORIDA GRADE I PROCESSED LAND APPLICATION	FLORIDA GRADE I LAND APPLICATION	FLORIDA GRADE II LAND APPLICATION
CRITERIA FOR USE			
DEGREE OF STABILIZATION	MUST BE STABILIZED	MUST BE STABILIZED	MUST BE STABILIZED
	COMPOSTED SLUDGE MUST UNDERGO	COMPOSTED SLUDGE MUST UNDERGO	COMPOSTED SLUDGE MUST UNDERGO
	COMPOSTING CONDITIONS EQUAL TO	COMPOSTING CONDITIONS EQUAL TO	COMPOSTING CONDITIONS EQUAL TO
	PROCESS TO FURTHER REDUCE PATHOGENS	PROCESS TO FURTHER REDUCE PATHOGENS	PROCESS TO FURTHER REDUCE PATHOGENS
	PROCESSED SLUDGE IS DISINFECTED,	PROCESSED SLUDGE IS DISINFECTED,	PROCESSED SLUDGE IS DISINFECTED,
	STABILIZED, AND DISTRIBUTED AS	STABILIZED, AND DISTRIBUTED AS	STABILIZED, AND DISTRIBUTED AS
	SOIL CONDITIONER OR FERTILIZER	SOIL CONDITIONER OR FERTILIZER	SOIL CONDITIONER OR FERTILIZER
SOIL	PH TESTED SEMIANNUALLY WHEN GROWING	PH TESTED SEMIANNUALLY WHEN GROWING	PH TESTED SEMIANNUALLY WHEN GROWING
	FOOD CHAIN CROPS, ANNUALLY OTHERWISE	FOOD CHAIN CROPS, ANNUALLY OTHERWISE	FOOD CHAIN CROPS, ANNUALLY OTHERWISE
CROPS			

FILE 3.5

	FLORIDA GRADE 1 PROCESSED LAND APPLICATION	FLORIDA GRADE 1 LAND APPLICATION	FLORIDA GRADE 11 LAND APPLICATION
SURFACE WATER	TESTING MAY BE REQUIRED	TESTING MAY BE REQUIRED	TESTING MAY BE REQUIRED
GROUNDWATER	TESTING MAY BE REQUIRED	TESTING MAY BE REQUIRED	TESTING MAY BE REQUIRED
MAXIMUM SLUDGE LOADING LIM (CEC IN MEQ/100G SOIL)			
SLUDGE APPLICATION WILL BE			
SLUDGE	6 T/AC (DRY)	6 T/AC (DRY)	6 T/AC (DRY)
	30 T/AC FOR LAND RECLAMATION	30 T/AC FOR LAND RECLAMATION	30 T/AC FOR LAND RECLAMATION
	(MUST BE APPLIED WITHIN 12 MO)	(MUST BE APPLIED WITHIN 12 MO)	(MUST BE APPLIED WITHIN 12 MO)
N (ANNUAL)	562 KG/HA (500 LB/AC)	562 KG/HA (500 LB/AC)	562 KG/HA (500 LB/AC)

	FLORIDA GRADE I PROCESSED LAND APPLICATION	FLORIDA GRADE I LAND APPLICATION	FLORIDA GRADE II LAND APPLICATION
METALS			
CD			
ANNUAL			.562 KG/HA (.5 LB/AC)
MAX. CUMULATIVE			5 KG/HA (4.45 LB/AC)
PB			(ANNUAL) 50 KG/HA (44.5 LB/AC) (MAX. CUMULATIVE) 500 KG/HA (445 LB/AC)
ZN			(ANNUAL) 25 KG/HA (22.2 LB/AC) (MAX. CUMULATIVE) 250 KG/HA (222 LB/AC)
CU			(ANNUAL) 12.5 KG/HA (11.1 LB/AC) (MAX. CUMULATIVE) 125 KG/HA (111 LB/AC)

	FLORIDA GRADE I PROCESSED LAND APPLICATION	FLORIDA GRADE I LAND APPLICATION	FLORIDA GRADE II LAND APPLICATION
CR			
NI			(ANNUAL) 12.5 KG/HA (11.1 LB/AC) (MAX. CUMULATIVE) 125 KG/HA (111 LB/AC)
HG			
ORGANICS PCBS			
LAND USE RESTRICTIONS			
CROPS	NOT APPLIED FOR CULTIVATION OF FOOD CHAIN CROPS OF ROOTS, LEAFY VEGIES, OR THOSE EATEN RAW, TOBACCO NO HARVEST OF FOOD CHAIN CROPS WITHIN 2 MO EXCEPT ORCHARD, SILAGE, OR HAY NO APPLICATION TO EDIBLE PART OF FOOD CHAIN CROP EXCEPT HAY	NOT APPLIED FOR CULTIVATION OF FOOD CHAIN CROPS OF ROOTS, LEAFY VEGIES, OR THOSE EATEN RAW, TOBACCO NO HARVEST OF FOOD CHAIN CROPS WITHIN 2 MO EXCEPT ORCHARD, SILAGE, OR HAY NO APPLICATION TO EDIBLE PART OF FOOD CHAIN CROP EXCEPT HAY	NOT APPLIED FOR CULTIVATION OF FOOD CHAIN CROPS OF ROOTS, LEAFY VEGIES, OR THOSE EATEN RAW, TOBACCO NO HARVEST OF FOOD CHAIN CROPS WITHIN 2 MO EXCEPT ORCHARD, SILAGE, OR HAY NO APPLICATION TO EDIBLE PART OF FOOD CHAIN CROP EXCEPT HAY
GRAZING OR GREENCHOP	NOT TO BE USED FOR GRAZING OR FEED FOR 1 MO.	NOT TO BE USED FOR GRAZING OR FEED FOR 1 MO.	NOT TO BE USED FOR GRAZING OR FEED FOR 1 MO.

FILE 3.5

FLORIDA GRADE I PROCESSED LAND APPLICATION		FLORIDA GRADE I LAND APPLICATION	FLORIDA GRADE II LAND APPLICATION
PUBLIC ACCESS		NO PUBLIC ACCESS FOR 12 MO., AND APPLICATION PROHIBITED WHERE PUBLIC ACCESS IS UNRESTRICTED, UNLESS PROCESSED OR COMPOSTED	NO PUBLIC ACCESS FOR 12 MO., AND APPLICATION PROHIBITED WHERE PUBLIC ACCESS IS UNRESTRICTED, UNLESS PROCESSED OR COMPOSTED
PH OF SOIL & SLUDGE OR PH OF SOIL	6.5 AT TIME OF APPLICATION	6.5 AT TIME OF APPLICATION	6.5 AT TIME OF APPLICATION
SITING RESTRICTIONS SOIL CONDITIONS			
BUFFER REQUIREMENTS			
DIST. TO PRIVATE WELL		300 FT FROM SHALLOW WELL (COMPOSTED OR PROCESSED IS EXEMPT)	300 FT FROM SHALLOW WELL (COMPOSTED OR PROCESSED IS EXEMPT)
DIST. TO PUBLIC WELL		500 FT FROM SHALLOW WELL (COMPOSTED OR PROCESSED IS EXEMPT)	500 FT FROM SHALLOW WELL (COMPOSTED OR PROCESSED IS EXEMPT)
DIST TO RESIDENCE		300 FT (COMPOSTED OR PROCESSED IS EXEMPT)	300 FT (COMPOSTED OR PROCESSED IS EXEMPT)
DIST TO OTHER BUILDINGS		300 FT TO OCCUPIED BUILDING (COMPOSTED OR PROCESSED IS EXEMPT)	300 FT TO OCCUPIED BUILDING (COMPOSTED OR PROCESSED IS EXEMPT)
DIST TO PROPERTY LINE			
GROUND WATER PROTECTION	NOT APPLIED LESS THAN 200 FT FROM SUBSURFACE FRACTURES, CAVITIES, SINKHOLES	NOT APPLIED LESS THAN 200 FT FROM SUBSURFACE FRACTURES, CAVITIES, SINKHOLES	NOT APPLIED LESS THAN 200 FT FROM SUBSURFACE FRACTURES, CAVITIES, SINKHOLES
DEPTH TO HIGH GROUNDWATER LEVEL	2 FT (AT TIME OF APPLICATION)	2 FT (AT TIME OF APPLICATION)	2 FT (AT TIME OF APPLICATION)

	FLORIDA GRADE I PROCESSED LAND APPLICATION	FLORIDA GRADE I LAND APPLICATION	FLORIDA GRADE II LAND APPLICATION
DEPTH TO BEDROCK	2 FT LAYER OF PERMEABLE SOIL	2 FT LAYER OF PERMEABLE SOIL	2 FT LAYER OF PERMEABLE SOIL
PERMEABILITY	WHERE BEDROCK IS PREDOMINANTLY		
INFILTRATION	LIMESTONE		
SURFACE WATER PROTECTION			
WETLANDS OR AREAS			
SUBJECT TO PONDING OR			
FLOODING			
DIST TO SURFACE WATER		3000 FT FROM CLASS I WATER	3000 FT FROM CLASS I WATER
		200 FT FROM OTHER WATER	200 FT FROM OTHER WATER
		EXCEPT FOR IRRIGATION CANALS	EXCEPT FOR IRRIGATION CANALS
DIST. TO DRY RUN			
RUNOFF AND EROSION	NO APPLICATION DURING RAIN, OR	MUST BE INJECTED OR INCORPORATED	MUST BE INJECTED OR INCORPORATED
CONTROL	TO SATURATED SOILS	WITHIN 48 HOURS IF AREA IS	WITHIN 48 HOURS IF AREA IS
		UNVEGETATED (PROCESSED EXEMPT)	UNVEGETATED (PROC. AND COMP. EXEMPT)
		NO APPLICATION DURING RAIN, OR	STORM WATER MUST BE
		TO SATURATED SOILS	PREVENTED FROM ENTERING OR
			LEAVING AREA
			NO APPLICATION DURING RAIN, OR
			TO SATURATED SOILS
MAXIMUM SLOPE LIMIT	8 %	8 %	8 %

	FLORIDA GRADE 1 PROCESSED LAND APPLICATION	FLORIDA GRADE 1 LAND APPLICATION	FLORIDA GRADE 11 LAND APPLICATION	
RECORDS				
REPORTS				
NOTIFICATIONS				
STORAGE				

FLORIDA GRADE I PROCESSED LAND APPLICATION	FLORIDA GRADE I LAND APPLICATION	FLORIDA GRADE II LAND APPLICATION	
TRANSPORTATION			
UNCONTROLLED USE			
DEDICATED SITES			

	FLORIDA GRADE I PROCESSED LAND APPLICATION	FLORIDA GRADE I LAND APPLICATION	FLORIDA GRADE II LAND APPLICATION	
COMMENTS		 	 	

FILE 1

	GEORGIA
	LAND APPLICATION
SLUDGE CLASSIFICATION	
STATE CONTROL	
LAWS, TITLE & DATE	TITLE 12, CHP 8, ART 2,1972 AS AMENDED
REGS, TITLE & DATE	
GUIDELINES, TITLE & DATE	GUIDELINES FOR LAND APPLICATION OF MUNICIPAL SLUDGE 9/83
CONTROLLING AGENCY	GEORGIA DEPT OF NATURAL RESOURCES ENVIRONMENTAL PROTECTION DIVISION 30334 404/656/4887
ACCEPTABILITY OF SLUDGE	ACCEPTABILITY OF SLUDGE IS PART OF OF APPROVAL NECESSARY FOR LAND
PERMIT OR APPROVAL APPLIC. SUBMITTAL	APPLICATION OF SLUDGE . SEE INFOR- MATION REQUIREMENTS UNDER LAND

Georgia

APPLICATION APPROVAL

| SLUDGE ANALYSIS:

% SOLIDS, % VOL. SOLIDS, pH, CD, PB
% SOLIDS MUST BE DETERMINED ON > OR =
10% OF SLUDGE

FILE 1

GEORGIA
LAND APPLICATION

MAXIMUM SLUDGE CONSTITUENT
CONCENTRATIONS

CONDUCTIVITY (SALT)

NUTRIENTS (% BY DRY WEIGHT)

N

P

K

METALS (MG/KG SLUDGE DRY WEIGHT)

AS

CD

PB

NI

ZN

Georgia

	GEORGIA	
	LAND APPLICATION	
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB		
WATER		
OTHER CONTAMINANTS		
RECORDS	RECORDS OF SLUDGE ANALYSIS MUST BE MAINTAINED	

	GEORGIA	
	LAND APPLICATION	
REPORTS		
NOTIFICATIONS		
STORAGE (IF APPLICABLE)		
LAND APPLICATION		
APPROVAL OR PERMIT	APPROVAL BY DIVISION IS REQUIRED	
APPLIC. SUBMITTAL	SUBMITTAL INCLUDES:	
	SOIL CHAR, TOPO CHAR, AVAIL ACRES,	

GEORGIA

LAND APPLICATION

LOCATION MAP, STMT OF LAND USE OR
CROPS TO BE GROWN, SLUDGE ANAL,
METHOD OF APPLIC, SLUDGE SOURCE,
DESIGN AVG DAILY FLOW OF SLUDGE
SOURCE

CRITERIA FOR USE

DEGREE OF STABILIZATION

PSRP IF CROPS FOR DIRECT HUMAN
CONSUMPTION DO NOT DIRECTLY
CONTACT SLUDGE
PFRP IF CROPS FOR DIRECT HUMAN
CONSUMPTION PLANTED WITHIN 18 MOS,
AND IF EDIBLE PORTION OF CROPS FOR
DIRECT HUMAN CONSUMPTION TOUCH
SLUDGE

	GEORGIA	
	LAND APPLICATION	
SOIL SAMPLING		
PRE-APPLICATION	TEXTURAL CLASSIF AND pH	
POST-APPLICATION	pH ANNUALLY IF DOMESTIC WASTE ONLY	
	AND IF WWTP DESIGN <1.0 MGD;	
	ADDITIONAL MONITORING IF WWTP	
	DESIGN = OR > 1.0 AND IF SOME	
	PORTION INDUSTRIAL	
WATER QUALITY MONITORING		
GROUND WATER	MAY BE REQUIRED IF WWTP = OR >1.0 MGD	
	OR IF SOME PORTION INDUSTRIAL	
SURFACE WATER	MAY BE REQUIRED IF WWTP = OR > 1.0 MGD	
	OR IF SOME PORTION INDUSTRIAL	
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED		

GEORGIA	
	LAND APPLICATION
(CEC IN MEQ/100G SOIL)	
ANNUAL OR CUMULATIVE	
NUTRIENTS	
N (ANNUAL)	BASED ON N REQUIREMENT OF CROP DETERMINE FROM TOTAL AND INORGANIC N, N REQUIREMENT OF CROP, AND SOIL TEST
P	
METALS	
CD	
ANNUAL	UNTIL 12/86: 1.25 KG/HA AFTER 1/87: 0.5 KG/HA IF TOBACCO, LEAFY VEG, OR ROOT CROPS: 0.5 KG/HA
MAX CUMULATIVE	IF CEC < 5: 5 KG/HA IF 5 < CEC < 15: 10 KG/HA IF CEC > 15: 20 KG/HA SOIL pH MUST BE = OR > 6.5
PB	IF CEC < 5: 561 KG/HA

	GEORGIA	
	LAND APPLICATION	
	IF 5<CEC<15: 1121 KG/HA	
	IF CEC>15: 2242 KG/HA	
	? MAX CUM < 800 KG/HA IF CEC>5	
	(STATE AWARE OF CONFLICT)	
ZN	IF CEC<5: 280 KG/HA	
	IF 5<CEC<15: 561 KG/HA	
	IF CEC>15: 1121 KG/HA	
CU	IF CEC<5: 140 KG/HA	
	IF 5<CEC<15: 280 KG/HA	
	IF CEC>15: 561 KG/HA	
CR		
NI	IF CEC<5: 57 KG/HA	
	IF 5<CEC<15: 112 KG/HA	
	IF CEC>15: 224 KG/HA	
HG		

LAND APPLICATION

PCB

CROPS

GRAZING OR GREENCHOP

NO GRAZING BY ANIMALS WHOSE PRODUCTS
ARE CONSUMED BY HUMANS FOR 1 MO

	GEORGIA
	LAND APPLICATION
PUBLIC ACCESS	NO PUBLIC ACCESS FOR 12 MOS
PH OF SOIL	FOR FOOD CHAIN CROPS MUST BE = OR > 6.5 UNLESS CD = OR < 2.0 MG/KG
SITING RESTRICTIONS	
SOIL CONDITIONS	NOT SANDY SOIL
BUFFER REQUIREMENTS	
DIST TO PRIVATE WELL	300 FT IF INJECTED 500 FT IF SURFACE APPLIC
DIST TO PUBLIC WELL	1000 FT
DIST TO RESIDENCE	300 FT IF INCORP OF INJECTED

	GEORGIA	
	LAND APPLICATION	
	1000 FT IF RIDGED OR LOW PRES SPRAY	
	500 IF SPLASH PLATE TO SURFACE	
	2000 FT IF HIGH PRES SPRAY	
DIST TO OTHER BLDGS.		
DIST TO PROPERTY LINE	20 FT TO ROAD IF INCORP, INJECTED, RIDGED, OR SPLASH PLATE TO SURF. 200 FT TO ROAD IF LOW PRES SPRAYED 1000 FT TO ROAD IF HIGH PRES SPRAYED	
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW	4 FT	
DEPTH TO BEDROCK		
PERMEABILITY	NOT TOO PERMEABLE	
INFILTRATION		

	GEORGIA	
	LAND APPLICATION	
SURFACE WATER PROTECTION		
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT ON SATURATED SOIL	
DIST TO SURFACE WATER	200 FT IF INCORP, INJECTED, RIDGED, SPLASHED, OR LOW-PRES SPRAYED 1000 FT IF HIGH-PRES SPRAYED	
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL	NOT ON HILLTOPS, NOT DURING RAIN, DENSE VEG COVER IN BUFFER ZONE IF SURFACE APPLIC	
MAXIMUM SLOPE LIMIT	5% IF SURFACE APPLIC >5% IF INCORPORATED	

	GEORGIA	
	LAND APPLICATION	
RECORDS	RECORDS MUST BE MAINTAINED:	
	SLUDGE, SOIL, AND WATER MONITORING;	
	APPLIC SITES, DATES, QUANTITY AND	
	WEATHER CONDS	
REPORTS	ALL RECORDS SUBMITTED TO EPD	
NOTIFICATIONS		
STORAGE		

GEORGIA	
	LAND APPLICATION
TRANSPORTATION	
UNCONTROLLED USE	

DEDICATED SITES

FILE 1

GEORGIA
|LAND APPLICATION
|
|

|
|
|

COMMENTS

	HAWAII	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	HRS STAT 342, PART V, CHP 100	
	1972, AS AMENDED	
REGS, TITLE & DATE	TITLE 11, CHAPTER 58 OF THE	
	DEPT OF HEALTH, SOLID WASTE	
	MANAGEMENT CONTROL	
GUIDELINES, TITLE & DATE		
CONTROLLING AGENCY	HAWAII DEPT OF HEALTH	
	ENVIRONMENTAL PERMITS BRANCH	
	HONOLULU, HAWAII 96801	
	808/548/6410	

[illegible]

HAWAII	
LAND APPLICATION/UNCONTROLLED	
DISTRIBUTION	
NOT ADDRESSED	

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MAXIMUM SLUDGE CONSTITUENT
CONCENTRATIONS

CONDUCTIVITY (SALT)

NUTRIENTS (% BY DRY WEIGHT)

N

P

K

METALS (MG/KG SLUDGE DRY WEIGHT)

AS

CD

PB

	HAWAII	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
NI		
ZN		
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB		
WATER		
OTHER CONTAMINANTS		
RECORDS		

	HAWAII	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
REPORTS		
NOTIFICATIONS		
STORAGE (IF APPLICABLE)		
LAND APPLICATION		

[illegible]

	HAWAII	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
POST-APPLICATION		
WATER QUALITY MONITORING		
GROUND WATER		
SURFACE WATER		
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED		
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)		

	HAWAII
	LAND APPLICATION/UNCONTROLLED
	DISTRIBUTION
	NOT ADDRESSED
PH	
METALS	
CD	
ANNUAL	
MAX CUMULATIVE	
PB	

	HAWAII	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
ZN		
CU		
CR		
NI		
HG		

	HAWAII	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
ORGANICS		
PCB		
LAND USE RESTRICTIONS		
CROPS		
GRAZING OR GREENCHOP		

	HAWAII	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
PUBLIC ACCESS		
PH OF SOIL		
SITING RESTRICTIONS		
SOIL CONDITIONS		
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL		
DIST TO PUBLIC WELL		
DIST TO RESIDENCE		

	HAWAII	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
DIST TO OTHER BLDGS.		
DIST TO PROPERTY LINE		
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW		
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		

	HAWAII	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING		
DIST TO SURFACE WATER		
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL		
MAXIMUM SLOPE LIMIT		
RECORDS		

	HAWAII	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
REPORTS		
NOTIFICATIONS		
STORAGE		
TRANSPORTATION		

| HAWAII
| LAND APPLICATION/UNCONTROLLED
| DISTRIBUTION
| NOT ADDRESSED

UNCONTROLLED USE

DEDICATED SITES

FILE 2.6

COMMENTS

| HAWAII
 | LAND APPLICATION/UNCONTROLLED
 | DISTRIBUTION
 | NOT ADDRESSED

THE STATE DOES NOT HAVE ANY
REGULATIONS OR GUIDELINES
ADDRESSING LAND APPLICATION OR
GIVE-AWAY PROGRAMS

FILE 1

	ILLINOIS LAND APPLICATION	ILLINOIS PUBLIC DISTRIBUTION PROGRAM	ILLINOIS LAND RECLAMATION
SLUDGE CLASSIFICATION	NON-HAZARDOUS	NON-HAZARDOUS	
STATE CONTROL			
LAWS, TITLE & DATE	SECTION 4(G) OF THE ENVIRONMENTAL PROTECTION ACT (ILL REV. STAT.1981 CH.111 1/2 PAR.1004(G)) AND BY 35 ILL ADM CODE 309.155, 309.208(E), AND 309.262. 1983	SECTION 4(G) OF THE ENVIRONMENTAL PROTECTION ACT (ILL REV. STAT.1981 CH.111 1/2 PAR.1004(G)) AND BY 35 ILL ADM CODE 309.155, 309.208(E), AND 309.262. 1983	SECTION 4(G) OF THE ENVIRONMENTAL PROTECTION ACT (ILL REV. STAT.1981 CH.111 1/2 PAR.1004(G)) AND BY 35 ILL ADM CODE 309.155, 309.208(E), AND 309.262. 1983
REGS, TITLE & DATE	TITLE 35, SUBTITLE C, CHAPTER II, PART 391, 12/14/83. INCLUDES AMENDMENTS THROUGH 1/84	TITLE 35, SUBTITLE C, CHAPTER II, PART 391, 12/14/83. INCLUDES AMENDMENTS THROUGH 1/84	TITLE 35, SUBTITLE C, CHAPTER II, PART 391, 12/14/83. INCLUDES AMENDMENTS THROUGH 1/84
GUIDELINES, TITLE & DATE			
CONTROLLING AGENCY	ILLINOIS ENVIRONMENTAL PROTECTION AGENCY SPRINGFIELD, ILLINOIS 217/782/0610	ILLINOIS ENVIRONMENTAL PROTECTION AGENCY SPRINGFIELD, ILLINOIS 62706 217/782/0610	ILLINOIS ENVIRONMENTAL PROTECTION AGENCY SPRINGFIELD, ILLINOIS 62706 217/782/0610
ACCEPTABILITY OF SLUDGE			
PERMIT OR APPROVAL APPLIC. SUBMITTAL	APPROVAL OF SLUDGE MGNT PLAN IS PAR OF PERMIT FOR LAND APPLIC. THOSE WH	GENERATOR MUST HAVE AN APPROVED SLUDGE MANAGEMENT PLAN,WHICH	AGENCY PERMIT REQUIRED SEE SUBMITTAL REQUIREMENTS UNDER

Illinois

	ILLINOIS	ILLINOIS	ILLINOIS
	LAND APPLICATION	PUBLIC DISTRIBUTION PROGRAM	LAND RECLAMATION
	MUST OBTAIN PERMITS INCLUDE:	IS PART OF THE AGENCY PERMIT	PERMIT FOR LAND APPLICATIONS
	GENERATORS INTENDING TO APPLY		
	SLUDGE ON AGRIC. LAND, TREATMENT		
	PLANT GROUND, DISTURBED SOILS, SOD		
	FARMS, OR HAVE A PUBLIC		
	DISTRIBUTION PROGRAM;		
	DISTRIBUTORS WHO SELL OR GIVE AWAY		
	>1500 DRY TONS/YEAR		
	USERS WHO APPLY TO SITES >300 ACRES		
	OR APPLY > 1500 DRY TONS/YEAR;		
	USERS, IF NECESSARY TO PROTECT PUBL		
	HEALTH		
	SUBMITTAL REQUIREMENTS ARE LISTED		
	UNDER PERMIT FOR LAND APPLICATION		
SLUDGE SAMPLING PARAMETERS	SLUDGE ANALYSIS: %TOTAL SOLIDS,		
	% VOLATILE SOLIDS, pH, VOL.ACIDS,		
	TOTAL KJELDAHL N, AMMONIA NITROGEN		
	PH, K, CD, DU, PB, MANGANESE, NI, ZN		
	FREQUENCY: SYSTEMS DESIGNED FOR		
	POP. >100,000: MONTHLY		
	POP 10,000-100,000: QUARTERLY		
	POP 1,000-9,999: SEMI-ANNUALLY		
	POP <1,000: ANNUAL		

	ILLINOIS	ILLINOIS	ILLINOIS
	LAND APPLICATION	PUBLIC DISTRIBUTION PROGRAM	LAND RECLAMATION
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS	NO CONCENTRATION LEVELS ARE SET	NO CONCENTRATION LEVELS ARE SET	NO CONCENTRATION LEVELS ARE SET
CONDUCTIVITY (SALT)			
NUTRIENTS (% BY DRY WEIGHT)			
N			
P			
K			
METALS (MG/KG SLUDGE DRY WEIGHT)			
AS			
CD		25MG/KG	
PB			
NI			
ZN			

	ILLINOIS LAND APPLICATION	ILLINOIS PUBLIC DISTRIBUTION PROGRAM	ILLINOIS LAND RECLAMATION
CU			
CR			
HG			
MO			
B			
FE			
ORGANICS			
PCB			
WATER		ONLY DRIED SLUDGE (15% SOLIDS) CAN BE GIVEN AWAY.	
OTHER CONTAMINANTS			
RECORDS	GENERATOR MUST KEEP FOR TWO YRS AFT THE EXPIRATION OF PERMIT THE SIGNED USER INFORMATION SHEET. SLUDGE RECORDS SHALL INCLUDE: DATE OF SLUDGE SHIPMENT OR APPLICA TION, WEATHER CONDITIONS WHEN DELIVERED, LOCATION OF SLUDGE DESTINATION, AMOUNT OF SLUDGE	GENERATOR MUST KEEP USER INFOR- MATION SHEETS FOR UP TO TWO YEARS AFTER THE EXPIRATION DATE OF THE PERMIT FOR USERS WHO RECEIV > 25CY/YEAR. NO USER RECORD REQUIRED FOR USER RECEIVING <25CY PER YEAR.	

	ILLINOIS	ILLINOIS	ILLINOIS
	LAND APPLICATION	PUBLIC DISTRIBUTION PROGRAM	LAND RECLAMATION
	APPLIED OR DELIVERED, AND ANALYSIS OF SLUDGE		
	NO RECORDS REQUIRED IF <25CY DIS- TRIBUTED TO USER PER YEAR		
REPORTS	GENERATOR MUST REPORT TO AGENCY AS REQUIRED IN PERMIT GENERATORS MUST NOTIFY USERS OF SLUDGE QUALITY AND SHALL RECOMMEND APPLIC. RATES FOR SPECIFIC NEED		
NOTIFICATIONS		GENERATOR MUST NOTIFY USER AS TO TYPE OF SLUDGE AND HOW TO APPLY	
STORAGE (IF APPLICABLE)	SEE REQUIREMENTS UNDER LAND APPLI- CATION		
LAND APPLICATION			
APPROVAL OR PERMIT APPLIC. SUBMITTAL	PERMIT APPLICATIONS MUST INCLUDE: SCHEDULE WPC-PS-1 SCHEDULE G	GENERATOR MUST HAVE APPROVED MGNT PLAN	AGENCY PERMIT REQUIRED FOR SITE APPLICATION: OWNER OF SITE,

	ILLINOIS	ILLINOIS	ILLINOIS
	LAND APPLICATION	PUBLIC DISTRIBUTION PROGRAM	LAND RECLAMATION
	LABORATORY ANALYSIS SHEET		SITE CONDITIONS,
	AGRONOMIC CALCULATIONS		METHOD OF SITE PREPARATION,
	SLUDGE MANAGEMENT PLAN NARRATIVE		TRANSPORTATION AND STORAGE METHOD,
	METHOD OF APPLIC.		DIST TO HABITATION AND POTABLE
	SITE CHARACTERISTICS		WATER SUPPLIES,
	CONTINGENCIES		SLUDGE APPLICATION CRITERIA,
	SLUDGE USER INFORMATION		SITE OPERATION AND MAINTENANCE,
	HEAVY METALS LOADINGS AT PROPOSED		RECORDKEEPING PROCEDURES,
	APPLICATION RATE		COMPLIANCE WITH FEDERAL AND
	IF SPECIFIC SITE HAS BEEN CHOSEN:		STATE MINING LAWS,
	LOCATION OF SITE, SOIL MAP,CROP		
	YIELDS, SLOPE,DEPTH TO MEAN		
	TABLE,SOIL pH AND CEC,AND		
	SPECIAL CONSIDERATIONS		
CRITERIA FOR USE			
DEGREE OF STABILIZATION	MUST BE STABILIZED OR DIGESTED.	MUST BE STABILIZED OR DIGESTED	SHOULD BE STABILIZED, NOT NECES-
	METHODS INCLUDE AEROBIC DIGESTION,		SARILY DIGESTED
	ANAEROBIC DIGESTION, COMPOSTING,		
	AND LIME STABILIZATION		
	COMPOSTING AND LIME STABILIZ.MUST		
	MEET 40 CFR 257, APP 11,		
	SECTION A (1983)		

	ILLINOIS LAND APPLICATION	ILLINOIS PUBLIC DISTRIBUTION PROGRAM	ILLINOIS LAND RECLAMATION	
SOIL SAMPLING				
PRE-APPLICATION				
POST-APPLICATION				
	FOR PROJECTS >5 YRS,AND IF >100	FOR PROJECTS >5 YRS,AND IF >100		
	DRY TONS PER ACRE APPLIED OVER LIFE	DRY TONS PER ACRE APPLIED OVER LIFE		
	OF SITE,COMPLETE SOILS ANALYSIS:	OF SITE,COMPLETE SOILS ANALYSIS:		
	CEC,HEAVY METALS(TOTAL OR PLANT	CEC,HEAVY METALS(TOTAL OR PLANT		
	AVAILABLE),pH,PH,ORGANIC CARBON	AVAILABLE),pH,PH,ORGANIC CARBON		
	CONTENT,SOLUBLE SALTS BY ELECTRICAL	CONTENT,SOLUBLE SALTS BY ELECTRICAL		
	CONDUCTIVITY	CONDUCTIVITY		
WATER QUALITY MONITORING	IF REQUIREMENTS OF APPLICATION CAN	IF REQUIREMENTS OF APPLICATION CAN		
GROUND WATER	NOT BE MET,GROUNDWATER MONITORING	NOT BE MET,GROUNDWATER MONITORING		
	MAY BE REQUIRED.	MAY BE REQUIRED.		
SURFACE WATER				
CROP MONITORING	IF REQUIREMENTS OF APPLICATION CAN	IF REQUIREMENTS OF APPLICATION CAN		
	NOT BE MET, CROP MONITORING MAY	NOT BE MET, CROP MONITORING MAY		
	BE REQUIRED.	BE REQUIRED.		
MAXIMUM SLUDGE LOADING LIMIT				
KG/HA UNLESS OTHERWISE NOTED		SLUDGE APPLIC RATES NOT TO EXCEED	IN MOST CASES, RATE IS GREATER THAN	

	ILLINOIS LAND APPLICATION	ILLINOIS PUBLIC DISTRIBUTION PROGRAM	ILLINOIS LAND RECLAMATION
(CEC IN MEQ/100G SOIL) ANNUAL OR CUMULATIVE		10 DRY T/A/YR	ALLOWED UNDER AGRONOMIC APPLIC.
NUTRIENTS N/ (ANNUAL)	AGRONOMIC CALCS NECESS. MAX RATES BASED ON CROP NEEDS; MUST INCLUDE AMMONIA N AND ORGANIC N IN CALCS.	AGRONOMIC CALCS NECESS. MAX RATES BASED ON CROP NEEDS; MUST INCLUDE AMMONIA N AND ORGANIC N IN CALCS.	
P	AFTER 5 YRS, PH <400 LB/AC IF SANDY SOIL, OR <800 LB/AC IF NON-SANDY	AFTER 5 YRS, PH <400 LB/AC IF SANDY SOIL, OR <800 LB/AC IF NON-SANDY	
METALS			
CD ANNUAL	IF CEC<5: 1.12 KG/HA IF 5<CEC<15: 2.24 KG/HA IF CEC>15: 4.48 KG/HA	IF CEC<5: 1.12 KG/HA IF 5<CEC<15: 2.24 KG/HA IF CEC>15: 4.48 KG/HA	
MAX CUMULATIVE	IF CEC<5: 5.5 KG/HA IF 5<CEC<15: 11 KG/HA IF CEC>15: 22 KG/HA	IF CEC<5: 5.5 KG/HA IF 5<CEC<15: 11 KG/HA IF CEC>15: 22 KG/HA	
PB	IF CEC<5: 561 KG/HA	IF CEC<5: 561 KG/HA	

	ILLINOIS LAND APPLICATION	ILLINOIS PUBLIC DISTRIBUTION PROGRAM	ILLINOIS LAND RECLAMATION
	 IF 5<CEC<15: 1121 KG/HA IF CEC>15: 2242 KG/HA 	 IF 5<CEC<15: 1121 KG/HA IF CEC>15: 2242 KG/HA 	
ZN	IF CEC<5: 281 KG/HA IF 5<CEC<15: 561 KG/HA IF CEC>15: 1122 KG/HA 	IF CEC<5: 281 KG/HA IF 5<CEC<15: 561 KG/HA IF CEC>15: 1122 KG/HA 	
CU	IF CEC<5: 140 KG/HA IF 5<CEC<15: 280 KG/HA IF CEC>15: 560 KG/HA 	IF CEC<5: 140 KG/HA IF 5<CEC<15: 280 KG/HA IF CEC>15: 560 KG/HA 	
CR	TRIVALENT ANNUAL: IF 5<CEC<15: 100 KG/HA MAX CUM: IF 5<CEC<15: 3924 KG/HA HEXAVALENT ANNUAL: IF 5<CEC<15: 49 KG/HA MAX CUM: IF 5<CEC<15: 493 KG/HA 	TRIVALENT ANNUAL: IF 5<CEC<15: 100 KG/HA MAX CUM: IF 5<CEC<15: 3924 KG/HA HEXAVALENT ANNUAL: IF 5<CEC<15: 49 KG/HA MAX CUM: IF 5<CEC<15: 493 KG/HA 	
NI	IF CEC<5: 56 KG/HA IF 5<CEC<15: 112 KG/HA IF CEC>15: 224 KG/HA 	IF CEC<5: 56 KG/HA IF 5<CEC<15: 112 KG/HA IF CEC>15: 224 KG/HA 	
HG	ANNUAL: IF 5<CEC<15: 8 KG/HA NO MAX CUM GIVEN 	ANNUAL: IF 5<CEC<15: 8 KG/HA NO MAX CUM GIVEN 	

	ILLINOIS	ILLINOIS	ILLINOIS
	LAND APPLICATION	PUBLIC DISTRIBUTION PROGRAM	LAND RECLAMATION
	MANGANESE	MANGANESE	
	IF CEC<5: 500 KG/HA	IF CEC<5: 500 KG/HA	
	IF 5<CEC<15: 1000 KG/HA	IF 5<CEC<15: 1000 KG/HA	
	IF CEC>15: 2000 KG/HA	IF CEC>15: 2000 KG/HA	
ORGANICS			
PCB	MUST BE <50MG/KG TO BE LAND APPLIED	MUST BE <50MG/KG TO BE LAND APPLIED	
	INCORPORATED IF >10 MG/KG	INCORPORATED IF >10 MG/KG	
	NO INCORPORATION IF <0.2 MG/KG	NO INCORPORATION IF <0.2 MG/KG	
	IN ANIMAL FEED OR < 1.5 MG/KG	IN ANIMAL FEED OR < 1.5 MG/KG	
	(FAT BASIS) IN MILK	(FAT BASIS) IN MILK	
LAND USE RESTRICTIONS			
CROPS	NO APPLICATION TO COMMERCIAL TRUCK	NOT RECOMMENDED ON LEAFY OR ROOT	
	GARDENING FRUITS AND VEGET. THAT	VEGETABLES UNLESS:	
	ARE GROWN FOR DIRECT HUMAN CONSUMP	RATE < 10 DRY T/AC/YR,	
		CD <10 MG/KG,	
		3 YEAR AGING PERIOD AFTER	
		DIGESTION OR STABILIZATION,	
		VEGET ARE WASHED OR COOKED	
		BEFORE EATING,	
		SLUDGE INCORPORATED WITHIN 48 HRS	
		OR PRIOR TO RAINFALL,	
		SOIL pH MUST BE AT LEAST 6.5	
		ALL OTHER CRITERIA MUST BE MET	
GRAZING OR GREENCHOP	NO LIVESTOCK GRAZING FOR 1 MO.	NO LIVESTOCK GRAZING FOR 1 MO.	

	ILLINOIS LAND APPLICATION	ILLINOIS PUBLIC DISTRIBUTION PROGRAM	ILLINOIS LAND RECLAMATION
PUBLIC ACCESS			
PH OF SOIL	BACKGROUND OF 6.5 OR GREATER REQUIR	BACKGROUND OF 6.5 OR GREATER REQUIR	
SITING RESTRICTIONS			
SOIL CONDITIONS	INCORPORATED IF NATRIC SOILS	INCORPORATED IF NATRIC SOILS	
BUFFER REQUIREMENTS			
DIST TO PRIVATE WELL	150 FT. FROM POTABLE WATER SUPPLY, 1/4 MI FROM WELL IN SINKHOLE, UNLES 50 FT. DEPTH OF UNCONSOL. MATERIAL	150 FT. FROM POTABLE WATER SUPPLY, 1/4 MI FROM WELL IN SINKHOLE, UNLES 50 FT. DEPTH OF UNCONSOL. MATERIAL	
DIST TO PUBLIC WELL	150 FT. FROM POTABLE WATER SUPPLY, 1/4 MI FROM WELL IN SINKHOLE, UNLES 50 FT. DEPTH OF UNCONSOLID. MATERIA	150 FT. FROM POTABLE WATER SUPPLY, 1/4 MI FROM WELL IN SINKHOLE, UNLES 50 FT. DEPTH OF UNCONSOLID. MATERIA	
DIST TO RESIDENCE	IF IMMEDIATE INCORP.,20 FT.	IF IMMEDIATE INCORP.,20 FT.	

	ILLINOIS	ILLINOIS	ILLINOIS
	LAND APPLICATION	PUBLIC DISTRIBUTION PROGRAM	LAND RECLAMATION
	IF RIDGE, OR NOT IMMEDIATELY INCORP	IF RIDGE, OR NOT IMMEDIATELY INCORP	
	200 FT.	200 FT.	
	IF LOW PRESSURE SPRAYED, 200 FT.	IF LOW PRESSURE SPRAYED, 200 FT.	
	IF HIGH PRESSURE SPRAYED, 1000 FT.	IF HIGH PRESSURE SPRAYED, 1000 FT.	
DIST TO OTHER BLDGS.			
DIST TO PROPERTY LINE	IF IMMEDIATE INCORP., 10 FT. FROM	IF IMMEDIATE INCORP., 10 FT. FROM	
	PUBLIC ROAD OR FENCE LINE.	PUBLIC ROAD OR FENCE LINE.	
	IF NOT IMMEDIATELY INCORP, 20 FT. FR	IF NOT IMMEDIATELY INCORP, 20 FT. FR	
	TRAVELED PRIMARY OR SECONDARY ROAD	TRAVELED PRIMARY OR SECONDARY ROAD	
	OR 10 FT. FROM CLOSEST EDGE OF LES	OR 10 FT. FROM CLOSEST EDGE OF LES	
	UTILIZED ROAD.	UTILIZED ROAD.	
	IF RIDGED, 200 FT. FROM TRAVELED ROAD	IF RIDGED, 200 FT. FROM TRAVELED ROAD	
	IF LOW-PRESS SPRAYED, 200 FT. FROM R	IF LOW-PRESS SPRAYED, 200 FT. FROM R	
	IF HIGH-PRESS SPRAYED, 1000 FT. FRO	IF HIGH-PRESS SPRAYED, 1000 FT. FRO	
	ROAD	ROAD	
GROUNDWATER PROTECTION			
DEPTH TO HIGH GW	10 FT. IF PERC TEST > 2 IN/HR	10 FT. IF PERC TEST > 2 IN/HR	
	5 FT. IF PERC TEST = OR < 2 IN/HR	5 FT. IF PERC TEST = OR < 2 IN/HR	
DEPTH TO BEDROCK			
PERMEABILITY			
INFILTRATION			

	ILLINOIS LAND APPLICATION	ILLINOIS PUBLIC DISTRIBUTION PROGRAM	ILLINOIS LAND RECLAMATION
SURFACE WATER PROTECTION			
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT IN 10 YEAR FLOODPLAIN NOT IN SATURATED LAND OR WITH PONDE WATER	NOT IN 10 YEAR FLOODPLAIN NOT IN SATURATED LAND OR WITH PONDE WATER	
DIST TO SURFACE WATER	200 FT. IF LOW PRESSURE SPRAYED, 200 FT. IF HIGH PRESSURE SPRAYED, 1000 FT.	200 FT. IF LOW PRESSURE SPRAYED, 200 FT. IF HIGH PRESSURE SPRAYED, 1000 FT.	
DIST TO DRY RUN	200 FT.	200 FT.	
RUNOFF AND EROSION CONTROL	NOT ON FROZEN GROUND, OR SNOW-COVER GROUND INCORPORATE WITHIN 48 HRS. OR PRIOR TO RAINFALL	NOT ON FROZEN GROUND, OR SNOW-COVER GROUND INCORPORATE WITHIN 48 HRS. OR PRIOR TO RAINFALL	
MAXIMUM SLOPE LIMIT	IF NOT INCORPORATED, < 5% IF >5%, SOIL LOSS MUST NOT EXCEED 5 TONS/ACRE IF INCORPORATED, UP TO 8% IF INCORPORATED, AND >8%, SOIL LOSS MUST NOT EXCEED 5 T/A	IF NOT INCORPORATED, < 5% IF >5%, SOIL LOSS MUST NOT EXCEED 5 TONS/ACRE IF INCORPORATED, UP TO 8% IF INCORPORATED, AND >8%, SOIL LOSS MUST NOT EXCEED 5 T/A	

	ILLINOIS LAND APPLICATION	ILLINOIS PUBLIC DISTRIBUTION PROGRAM	ILLINOIS LAND RECLAMATION
RECORDS		GENERATOR MUST KEEP COPY OF USER INFORMATION SHEET FOR TWO YEARS AFTER EXPIRATION OF THE PERMIT IF USER RECEIVES > 25CY/YEAR	
REPORTS	SLUDGE USERS MUST SUBMIT MONTHLY: PERMIT NO. AND NAME OF GENERATOR, DATE OF SLUDGE TRANSFER, VOL. OF SLUDGE TRANSFERRED, LOCATION OF APPLICATION SITES, MOST RECENT CHEMICAL ANALYSIS OF SLUDGE, METHOD OF APPLICATION		ANNUAL REPORT: DATES OF APPLICATION, AMOUNT OF SLUDGE APPLIED, CROPS GROWN AND FOR WHOM OR WHAT, SLUDGE SOURCE AND ANALYSIS, GW MONITORING RESULTS, SOIL MONITORING RESULTS, PLANT TISSUE MONITORING RESULTS, PRECIPITATION , OPERATING CONSTRAINTS
NOTIFICATIONS		GENERATOR MUST NOTIFY THE USER OF THE NATURE OF THE SLUDGE	
STORAGE	DISCOURAGE OFF-SITE STORAGE SPECIFIC CRITERIA FOR OFF-SITE INTERIM STORAGE OF LIQUID OR DRIED SLUDGE, LIQUID ANAEROBIC SLUDGE, LIQUID AEROBIC SLUDGE, AND DRIED SLUDGE	GENERATOR MUST COMPLY WITH REGS AS LISTED IN LAND APPLICATION	MUST BE IN COMPLIANCE WITH REGS AS LISTED IN LAND APPLICATION

FILE 1

ILLINOIS	ILLINOIS	ILLINOIS
LAND APPLICATION	PUBLIC DISTRIBUTION PROGRAM	LAND RECLAMATION

TRANSPORTATION

LIQUID SLUDGE: CLOSED VESSEL OR IF
PIPELINE, NO LEAKAGE; OPEN TRUCKS
CARRYING >15% TOTAL SOLIDS SLUDGE
MUST PREVENT SPILLAGE

GENERATOR MUST COMPLY WITH REGS
AS LISTED IN LAND APPLICATION

MUST BE IN COMPLIANCE WITH REGS
AS LISTED IN LAND APPLICATION

UNCONTROLLED USE

PERMIT FOR SITE RECEIVING SLUDGE
FOR LAND APPLICATION NOT NECESS.
IF SLUDGE COMES FROM PLANT
WITH NPDES PERMIT, IF USER APPLIES
<300 ACRES/YEAR, AND IF IT IS
TRANSPORTED, STORED, AND APPLIED
IN COMPLIANCE WITH APPROVED
SLUDGE MGNT PLAN OF GENERATOR

DEDICATED SITES

DEDICATED SITES(HORTICULTURAL,
SILVICULTURAL, NURSERY, SOD FARM,
HIGHWAY MEDIAN) REQUIRE CASE BY
CASE REVIEW

FILE 1

ILLINOIS	ILLINOIS	ILLINOIS	
{ LAND APPLICATION	{ PUBLIC DISTRIBUTION PROGRAM	{ LAND RECLAMATION	}

COMMENTS

	INDIANA	INDIANA
	LAND APPLICATION	GIVE-AWAY PROGRAM
		MUNICIPAL SLUDGE
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE		INDIANA HAZARDOUS WASTE ACT
	INDIANA HAZARDOUS WASTE ACT	IC 13-7-5-1
	IC 13-7, PL 103	1980 AS AMENDED
	1980, AS AMENDED	
REGS, TITLE & DATE	LAND APPLICATION OF SLUDGE AND	LAND APPLICATION OF SLUDGE
	WASTEWATER	AND WASTEWATER
	330 IAC 3.3	330 IAC 3.3
	5/7/82	RULE 6
		5/7/82
GUIDELINES, TITLE & DATE		
CONTROLLING AGENCY	INDIANA STREAM POLLUTION	INDIANA STREAM POLLUTION
	CONTROL BOARD	CONTROL BOARD
	INDIANA STATE BOARD OF HEALTH	INDIANA STATE BOARD OF HEALTH
	INDIANAPOLIS, IN 46206	INDIANAPOLIS, IN 46206
	317/633/0765	317/633/0765

ACCEPTABILITY OF SLUDGE	INDIANA	INDIANA	
	LAND APPLICATION	GIVE-AWAY PROGRAM	
PERMIT OR APPROVAL APPLIC. SUBMITTAL		MUNICIPAL SLUDGE	
	ACCEPTABILITY OF SLUDGE IS PART OF	MUNICIPALITY MUST GET APPROVAL	
	MANAGEMENT PLAN REQUIRED FOR	APPLIC MUST INCLUDE PROPOSED	
	LAND APPLICATION. SEE BELOW FOR	MANAGEMENT PLAN	
	SUBMITTAL		
SLUDGE SAMPLING PARAMETERS	DOES NOT SPECIFY CHARACTERISTICS		
	OF SLUDGE TO BE SAMPLED		

	INDIANA LAND APPLICATION	INDIANA GIVE-AWAY PROGRAM MUNICIPAL SLUDGE	
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS			
CONDUCTIVITY (SALT)			
NUTRIENTS (% BY DRY WEIGHT)			
N			
P			
K			
METALS (MG/KG SLUDGE DRY WEIGHT)			
AS			
CD			
PB			

	INDIANA LAND APPLICATION	INDIANA GIVE-AWAY PROGRAM MUNICIPAL SLUDGE
NI		
ZN		
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB		
WATER		
OTHER CONTAMINANTS		
RECORDS	RECORDS OF SLUDGE ANALYSIS MUST BE MAINTAINED	COPY OF USER INFORM SHEETS MUST BE KEPT FOR 3 YRS FOLLOWING EXPIRATION OF GENERATORS PERMIT

	INDIANA LAND APPLICATION	INDIANA GIVE-AWAY PROGRAM MUNICIPAL SLUDGE
REPORTS	ABOVE RECORDS MUST BE REPORTED TO THE DIRECTOR AS REQUIRED IN THE PERMIT	
NOTIFICATIONS		GENERATOR MUST INFORM USERS OF SLUDGE QUALITY AND PROPER AMTS FOR SPECIFIC NEEDS IF USERS OBTAIN > 25 CY/YR, GENER- ATOR MUST GIVE USER INFO SHEET DETAILING QUALITY, RECOMM APPLIC RATES
STORAGE (IF APPLICABLE)		
LAND APPLICATION		

FILE 2.6

	INDIANA	INDIANA
	LAND APPLICATION	GIVE-AWAY PROGRAM
		MUNICIPAL SLUDGE
APPROVAL OR PERMIT	LAND APPLICATION PERMIT IS REQUIRED	USER DOES NOT HAVE TO OBTAIN
APPLIC. SUBMITTAL	PERMIT VALID FOR 5 YR	PERMIT OR APPROVAL
	FOR PERMIT, MUST COMPLY WITH ALL	
	TECH CRITERIA AS OUTLINED BELOW OR	
	SUBMIT A MANAGEMENT REPORT	
	MANAGEMENT REPORT MUST INCLUDE:	
	WASTE TYPE, WASTE AMOUNT, METHOD	
	OF STORAGE, EQUIPMENT, APPLIC	
	RATES, SOIL CHAR, SITE CHAR,	
	MONITORING INFO, OTHER INFO AS	
	REQUIRED	
CRITERIA FOR USE		
DEGREE OF STABILIZATION	PSRP AND/OR PFRP	MUST BE DEWATERED AND MUST
		BE PSRP OR PFRP
SOIL SAMPLING		
PRE-APPLICATION		

	INDIANA	INDIANA	
	LAND APPLICATION	GIVE-AWAY PROGRAM	
		MUNICIPAL SLUDGE	
POST-APPLICATION			
WATER QUALITY MONITORING			
GROUND WATER			
SURFACE WATER			
CROP MONITORING			
MAXIMUM SLUDGE LOADING LIMIT			
KG/HA UNLESS OTHERWISE NOTED	CERTAIN HYDRAULIC LOADS ARE SET		
(CEC IN MEQ/100G SOIL)			
ANNUAL OR CUMULATIVE			
NUTRIENTS			
N (ANNUAL)	NOT TO EXCEED CROP N UPTAKE		

FILE 2.6

	INDIANA	INDIANA	
	LAND APPLICATION	GIVE-AWAY PROGRAM	
		MUNICIPAL SLUDGE	
PH			
METALS			
CD			
ANNUAL	< 0.5 KG/HA IF TOBACCO, LEAFY VEG, OR ROOT CROPS GROWN FOR HUMAN CONSUMPTION; OTHERWISE UNTIL 12/86: 1.25 KG/HA AFTER 1/87: 0.5 KG/HA		
MAX CUMULATIVE	IF pH = OR > 6.5: IF CEC < 5: 5 KG/HA IF 5<CEC<15: 10 KG/HA IF CEC>15: 20 KG/HA IF SOIL pH IS< 6.5: MAX IS 2 MG/HA		
	NO MAX CUM IF ONLY FOOD-CHAIN CROP IS ANIMAL FEED, IF PLAN SHOWS HOW DISTRIB WILL PRECLUDE INGES- TION BY HUMANS, AND WARNING RECORDED IN DEED RE: HIGH CD APPL		
PB	IF CEC<5: 500 KG/HA IF 5<CEC: 1000 KG/HA IF CEC>15: 2000 KG/HA		

	INDIANA	INDIANA	
	LAND APPLICATION	GIVE-AWAY PROGRAM	
		MUNICIPAL SLUDGE	
ZN	IF CEC<5: 250 KG/HA		
	IF 5<CEC<15: 500 KG/HA		
	IF CEC>15: 1000 KG/HA		
CU	IF CEC<5: 125 KG/HA		
	IF 5<CEC<15: 250 KG/HA		
	IF CEC>15: 500 KG/HA		
CR			
NI	IF CEC<5: 125 KG/HA		
	IF 5<CEC<15: 250 KG/HA		
	IF CEC>15: 500 KG/HA		
HG			

	INDIANA	INDIANA
	LAND APPLICATION	GIVE-AWAY PROGRAM
		MUNICIPAL SLUDGE
ORGANICS		
PCB	> 10 MG/KG IF INCORP WHEN APPLIC	
	FOR ANIMAL FEED, PASTURE	
	CROP FOR DAIRY ANIMALS	
	NO INCORP IF <0.2 MG/KG IN ANIMAL	
	FEED OR <1.5 KG/HA FAT BASIS IN	
	MILK	
LAND USE RESTRICTIONS		
CROPS		
GRAZING OR GREENCHOP	NO DAIRY ANIMALS FOR HUMAN	
	CONSUMPTION FOR 1 MO	

	INDIANA LAND APPLICATION	INDIANA GIVE-AWAY PROGRAM MUNICIPAL SLUDGE	
PUBLIC ACCESS			
PH OF SOIL	IF FOOD CHAIN CROPS: = OR > 6.5 IF < 6.5, AND NO FOOD CHAIN CROPS, APPROVAL ON CASE BY CASE BASIS		
SITING RESTRICTIONS			
SOIL CONDITIONS	PERMEABLE		
BUFFER REQUIREMENTS			
DIST TO PRIVATE WELL	300 FT UNLESS SUBSURF INJECTION OR IMMED INCORP		
DIST TO PUBLIC WELL	SAME AS ABOVE		
DIST TO RESIDENCE	300 FT		

	INDIANA	INDIANA	INDIANA
	LAND APPLICATION	GIVE-AWAY PROGRAM	MUNICIPAL SLUDGE
DIST TO OTHER BLDGS.			
DIST TO PROPERTY LINE			
GROUNDWATER PROTECTION			
DEPTH TO HIGH GW	3 FT UNLESS ADEQUATE SUBSOIL DRAINAGE		
DEPTH TO BEDROCK	20 IN		
PERMEABILITY			
INFILTRATION			
SURFACE WATER PROTECTION			

FILE 2.6

	INDIANA LAND APPLICATION	INDIANA GIVE-AWAY PROGRAM MUNICIPAL SLUDGE
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT ON SOIL WHICH EXCEEDS MOISTURE HOLDING CAPACITY	
DIST TO SURFACE WATER	300 FT UNLESS SUBSURF INJECTION OR IMMED INCORP	
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL	NO APPLIC ON SOIL <32 DEG F NO UNCONTROLLED RUNOFF	
MAXIMUM SLOPE LIMIT	< 6% UNLESS APPROVED	
RECORDS	ANNUAL RECORDS OF APPLIC RATES AND SITE CONDITIONS, SLUDGE CHARAC, MONITORING RESULTS	

FILE 2.6

	INDIANA	INDIANA	
	LAND APPLICATION	GIVE-AWAY PROGRAM	
		MUNICIPAL SLUDGE	
	MUST KEEP RECORDS FOR MIN 3 YR		
REPORTS	AS ABOVE		
NOTIFICATIONS	NOTIF OF CUM APPLIC OF MOST		
	LIMITING HEAVY METAL		
STORAGE	MIN 90 DAYS STORAGE UNLESS WAIVED		
	CONSTRUCTION PERMIT FOR CONST		
	OF STORAGE FACILITY NECESS		
TRANSPORTATION			

UNCONTROLLED USE

DEDICATED SITES

Indiana

FILE 2.6

COMMENTS

INDIANA
LAND APPLICATION

INDIANA
GIVE-AWAY PROGRAM
MUNICIPAL SLUDGE

	IOWA UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	IOWA LAND APPLICATION EXEMPT FROM PERMIT	IOWA LAND APPLICATION NOT EXEMPT FROM PERMITTING
SLUDGE CLASSIFICATION		EXEMPT OR NONEXEMPT FROM PERMITTING	EXEMPT OR NONEXEMPT FROM PERMITTING
STATE CONTROL LAWS, TITLE & DATE	IAC DIVISION 900, TITLE VIII, TITLE IX	IAC DIVISION 900, TITLE VIII, TITLE IX	IAC DIVISION 900, TITLE VIII, TITLE IX
REGULATIONS, TITLE, DATE	IOWA SOLID WASTE DISPOSAL RULES CH.121(455B) LAND APPLICATION OF SOLID WASTE (10/18/84) 121.3 NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE REGULATIONS UNLESS NOTED	IOWA SOLID WASTE DISPOSAL RULES CH.121(455B) LAND APPLICATION OF SOLID WASTE (10/18/84) 121.3 NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE REGULATIONS UNLESS NOTED	IOWA SOLID WASTE DISPOSAL RULES CH.121(455B) LAND APPLICATION OF SOLID WASTE (10/18/84) 121.4 NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE REGULATIONS UNLESS NOTED
GUIDELINES, TITLE&DATE			
CONTROLLING AGENCY	DEPT. WATER, AIR, AND WASTE	DEPT. WATER, AIR, AND WASTE	DEPT. WATER, AIR, AND WASTE

PERMIT OR APPROVAL

APPROVAL OF SLUDGE REQUIRED

APPROVAL OF SLUDGE REQUIRED

| SEE SUBMITTALS UNDER L.A.

**IOWA
LAND APPLICATION
NOT EXEMPT FROM PERMITTING**

SLUDGE ANALYSIS: RESIDUES,
VOLATILE RESIDUE, PH, TOTAL N, NH3-N,
NO3-N, CD, CR, CU, HG, NI, PB, ZN
OTHER TESTS AS REQUIRED
SLUDGE STABILITY
MANNER AND FREQUENCY AS APPROVED
LAB: APPROVED
FREQUENCY: AS REQUIRED

IOWA UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	IOWA LAND APPLICATION EXEMPT FROM PERMIT	IOWA LAND APPLICATION NOT EXEMPT FROM PERMITTING
MAXIMUM SLUDGE CONSTITUENT		
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIG		
N	10 %	
P	6.9 %	
K	.9 %	
METALS (MG/KG SLUDGE DRY		
AS	50	
CD	15	
PB	1000	
NI	200	
ZN	2000	
CU	1000	
CR	1000	
HG	10	
MO		
B		
FE		
ORGANICS		
PCB		

**IOWA
LAND APPLICATION
EXEMPT FROM PERMIT**

**IOWA
LAND APPLICATION
NOT EXEMPT FROM PERMITTING**

WATER

OTHER CONTAMINANTS

RECORDS

RECORDS OF ANALYSIS
WRITTEN PLAN FOR LONG RANGE L.A.
PROGRAM, UPDATED YEARLY:
SAMPLING SCHEDULE, LAND AREA

RECORDS OF SITE USAGE:
DATE OF USE
APPLICATION AREA
APPLICATION RATE

LAND APPLICATION

| MUST INFORM LAND OWNER OR OPERATOR
| OF REQUIREMENTS AND HAZARDS
| IF LANDOWNER DOES NOT COMPLY
| WITH CRITERIA, MUST STOP
| DELIVERY OF SLUDGE

NOTIFY STATE OF COMPLETION OR
SUSPENSION OF OPERATIONS AT
SITE
COPY OF PLANS AND REPORTS TO BE
FILED WITH COUNTY FOR COMPLETED SITE

IOWA UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	IOWA LAND APPLICATION EXEMPT FROM PERMIT	IOWA LAND APPLICATION NOT EXEMPT FROM PERMITTING
APPROVAL OR PERMIT	PERMIT NOT REQUIRED FOR LAND APPLICATION OF MUNICIPAL SLUDGE FROM POTW IF SLUDGE QUALITY LIMITS ARE MET, SLUDGE IS STABILIZED, AND LAND APPLICATION CONDUCTED IN ACCORDANCE WITH ABOVE CRITERIA	PERMIT REQUIRED FOR MUNICIPAL SLUDGE NOT MEETING REQUIREMENTS FOR EXEMPTION
APPLICATION SUBMITTALS		PLAN: MAP WITH FEATURES, TYPE, SOURCE, VOLUME OF WASTE OPERATION: ORGANIZATIONAL CHART, DISPOSAL EQUIP., CONTINGENCY PLAN, PROOF OF LAND OWNERSHIP, SOILS MAP, REVIEW OF LOCAL SOILS CONSERVATION DISTRICT APPROVAL, SITE AREA, INFORMATION ON WELLS WITHIN 1 MI, SOIL LOSS LIMITS, DESIGN SOIL LOSS LEVELS, CURRENT SOIL LOSS, SOIL ANALYSIS RESULTS, GW LEVELS SLUDGE TREATMENT DESCRIPTION, SLUDGE ANALYSIS RESULTS, DISPOSAL PROCESS DESCRIPTION EQUIPMENT INFORMATION SHOWING THAT LAND APPLICATION WILL NOT RESULT IN PLANT UPTAKE TO MAKE SITE UNUSABLE OR RESULT IN SURFACE WATER POLLUTION

IOWA UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	IOWA LAND APPLICATION EXEMPT FROM PERMIT	IOWA LAND APPLICATION NOT EXEMPT FROM PERMITTING
		OTHER INFORMATION AS REQUIRED
CRITERIA FOR USE DEGREE OF STABILIZATION	STABILIZATION AND SUBSTANTIAL REDUCTION OF PATHOGENS	
SOIL		SOIL ANALYSIS: CEC, EXCH. CAT., P,K,N,BULK DENS., PH(NORMAL AND MODIFIED)
CROPS		

	IOWA UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	IOWA LAND APPLICATION EXEMPT FROM PERMIT	IOWA LAND APPLICATION NOT EXEMPT FROM PERMITTING
SURFACE WATER			MONITORING AS REQUIRED
GROUNDWATER			MONITORING AS REQUIRED
MAXIMUM SLUDGE LOADING LIM (CEC IN MEQ/100G SOIL) SLUDGE APPLICATION WILL BE SLUDGE		(ANNUAL) 2 TON/AC (DRY)	
N (ANNUAL)		CROP NEEDS	

	IOWA UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	IOWA LAND APPLICATION EXEMPT FROM PERMIT	IOWA LAND APPLICATION NOT EXEMPT FROM PERMITTING
METALS			
CD			
ANNUAL			
MAX. CUMULATIVE			
PB			
ZN			
CU			

	IOWA UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	IOWA LAND APPLICATION EXEMPT FROM PERMIT	IOWA LAND APPLICATION NOT EXEMPT FROM PERMITTING
CR		 	
NI		 	
HG		 	
ORGANICS PCBS		 	
LAND USE RESTRICTIONS		 	
CROPS		NOT ALLOWED FOR PRODUCTION OF HUMAN CONSUMPTION FOOD CROPS MUST BE INJECTED OR INCORPORATED IF CEREAL GRAIN HARVESTED WITHIN 2 MO NOT ALLOWED FOR HOME & GARDEN USE	
GRAZING OR GREENCHOP		INJECTED OR INCORPORATED IF: FED TO OR GRAZED BY LIVESTOCK WITHIN 2 MO	NO LIVESTOCK FOR 2 MO

IOWA UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	IOWA LAND APPLICATION EXEMPT FROM PERMIT	IOWA LAND APPLICATION NOT EXEMPT FROM PERMITTING
PUBLIC ACCESS	NO PUBLIC ACCESS--2 MO NOT USED WHERE BODILY CONTACT IS LIKELY (PLAYGROUNDS, PICNIC AREAS)	NO PUBLIC ACCESS--2 MO
PH OF SOIL & SLUDGE OR PH OF SOIL	6.5	ADJUSTED AND MAINTAINED AT 6.5
SITING RESTRICTIONS SOIL CONDITIONS	SPREADING ON SAND, LOAMY SAND, OR SILT NOT ALLOWED (USDA CLASS.)	
BUFFER REQUIREMENTS DIST. TO PRIVATE WELL	500 FT	
DIST. TO PUBLIC WELL	500 FT	
DIST TO RESIDENCE	200 FT	
DIST TO OTHER BUILDINGS		
DIST TO PROPERTY LINE		
GROUND WATER PROTECTION		
DEPTH TO HIGH GROUNDWATER LEVEL		

IOWA UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	IOWA LAND APPLICATION EXEMPT FROM PERMIT	IOWA LAND APPLICATION NOT EXEMPT FROM PERMITTING
DEPTH TO BEDROCK PERMEABILITY INFILTRATION SURFACE WATER PROTECTION	SOIL MUST BE 5 FT DEEP	
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	INJECTED ON CONTOUR OR INCORPORATED IF IN 10 YR FLOODPLAIN	
DIST TO SURFACE WATER	NOT APPLIED TO AREA WITHIN 200 FT UPGRADIENT OF STREAM, LAKE, POND SINKHOLE, TILE LINE SURFACE INTAKE.	
DIST. TO DRY RUN		
RUNOFF AND EROSION CONTROL	RECOMMENDED INJECTION ON CONTOUR OR INCORPORATED WITHIN 48 HR	NOT APPLIED DURING RAIN, HIGH GW CONDITIONS, OR FLOODING NOT APPLIED WHEN RUNOFF OCCURS, FROZEN, SNOW COVERED UNLESS INJECTED
MAXIMUM SLOPE LIMIT	5 % FOR FROZEN OR SNOW	
	COVERED GROUND INJECTED ON CONTOUR OR INCORPORATED WITHIN 48 HOURS IF: SOIL EROSION EXCEEDS SOIL	

	IOWA UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	IOWA LAND APPLICATION EXEMPT FROM PERMIT	IOWA LAND APPLICATION NOT EXEMPT FROM PERMITTING
		LOSS LIMITS	
RECORDS			
REPORTS			
NOTIFICATIONS			
STORAGE		COMPOSTED MATERIAL SHALL BE ID BY MARKERS IN STORAGE AREA, NOT TO BE	

IOWA UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	IOWA LAND APPLICATION EXEMPT FROM PERMIT	IOWA LAND APPLICATION NOT EXEMPT FROM PERMITTING
	<div>STORED >60 DAYS, FACILITY SHOULD HAVE</div> <div>A SMOOTH, IMPERVIOUS, EASILY CLEANABLE</div> <div>BASE, LEACHATE COLLECTION, PREVENTION</div> <div>OF RUNOFF</div>	
TRANSPORTATION		
UNCONTROLLED USE		
DEDICATED SITES		

	IOWA UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	IOWA LAND APPLICATION EXEMPT FROM PERMIT	IOWA LAND APPLICATION NOT EXEMPT FROM PERMITTING	
COMMENTS		 	 	

FILE 1

	KANSAS	
	LAND APPLICATION	
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	KANSAS WW DISCHARGE CONTROL LAW 65-171H, 1907 AS AMENDED	
REGS, TITLE & DATE		
GUIDELINES, TITLE & DATE	MINIMUM STANDARDS OF DESIGN FOR WATER POLLUTION CONTROL FACILITIES 9/13/78	
CONTROLLING AGENCY	KANSAS DEPT OF HEALTH AND ENVIRONMENT WATER POLLUTION CONTROL SECTION TOPEKA, KANSAS 913/862/9360	
ACCEPTABILITY OF SLUDGE		
PERMIT OR APPROVAL APPLIC. SUBMITTAL	PRELIMINARY REPORT IS FOLLOWED BY DETAILED ENGINEERING REPORT	

Kansas

KANSAS

LAND APPLICATION

SEE SUBMITTAL REQ UNDER L.A.

SLUDGE SAMPLING PARAMETERS

SLUDGE ANALYSIS:

pH, TOTAL N, NH₃-N, NH₄-N, TOTAL P,
TOTAL K, % DRY AND VOL SOLIDS, CU,
NI, PB, ZI, CD
ANAL OF SE, COBALT, CR, AS, B,
MG, SODIUM, INORGANIC AND ORGANIC
CARBON MAY BE NECESSARY

KANSAS		
LAND APPLICATION		
MAXIMUM SLUDGE CONSTITUENT		
CONCENTRATIONS		
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT)		
N		
P		
K		
METALS (MG/KG SLUDGE DRY WEIGHT)		
AS		
CD		
PB		
NI		
ZN		

FILE 1

	KANSAS	
	LAND APPLICATION	
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB		
WATER		
OTHER CONTAMINANTS		
RECORDS		

Kansas

FILE 1

	KANSAS	
	LAND APPLICATION	
REPORTS		
NOTIFICATIONS		
STORAGE (IF APPLICABLE)	STORAGE MUST BE PROVIDED FOR MIN OF 60 DAYS	
LAND APPLICATION		
APPROVAL OR PERMIT APPLIC. SUBMITTAL	ENGINEERING REPORT MUST CONSIDER SITE CONSIDERATIONS INCLUDING: LOCATION, LAND USE, SW AND WELLS,	

Kansas

FILE 1

KANSAS

LAND APPLICATION

CLIMATE, FLOODING POTENTIAL,
SOIL CHAR, PERMEABILITY CHAR,
GW DEPTH

CRITERIA FOR USE
DEGREE OF STABILIZATION

Kansas

	KANSAS	
	LAND APPLICATION	
SOIL SAMPLING		
PRE-APPLICATION	PROFILE MUST BE DONE TO MIN 10 FT	
POST-APPLICATION		
WATER QUALITY MONITORING		
GROUND WATER	BEFORE LAND APPLIC: CHLORIDE,SPECIFIC CONDUCTANCE,pH, TOTAL HARDNESS,ALKALINITY,AMMONIA N,NITRATE AND NITRITE N, TOTAL P, ANY HEAVY METALS OR TOXICS	
SURFACE WATER		
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT	MOD SOIL LTS:<10 DRY T/AC/YR	
KG/HA UNLESS OTHERWISE NOTED	FEW SOIL LTS:<20 DRY T/AC/YR	

KANSAS	
	LAND APPLICATION
(CEC IN MEQ/100G SOIL)	
ANNUAL OR CUMULATIVE	
NUTRIENTS	
N (ANNUAL)	DEPENDS UPON CROP REQUIREMENT AND METHOD OF APPLIC
P	
METALS	NO SPECIFIC LTS GIVEN
CD	
ANNUAL	
MAX CUMULATIVE	
PB	

KANSAS
LAND APPLICATION

ZN

CU

CR

NI

HG

	KANSAS	
	LAND APPLICATION	
ORGANICS		
PCB		
LAND USE RESTRICTIONS		
CROPS	PREFER GRAIN CROPS TO FORAGES, PASTURES, AND LEAFY VEG NO RAW CROPS FOR HUMAN CONSUMPTION	
GRAZING OR GREENCHOP		

	KANSAS	
	LAND APPLICATION	
PUBLIC ACCESS		
PH OF SOIL	>6.5	
SITING RESTRICTIONS		
SOIL CONDITIONS	GOOD PERC CAPACITY,HIGH WATER AND NUTRIENT HOLDING CAP, GOOD DRAINABILITY, AERATED, AND NEUTRAL pH	
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL	200 FT	
DIST TO PUBLIC WELL	200 FT	
DIST TO RESIDENCE	500 FT	

	KANSAS	
	LAND APPLICATION	
DIST TO OTHER BLDGS.		
DIST TO PROPERTY LINE	100 FT. GREATER DIST IF SPRAYED, LESSER DIST IF SUBSURF APPLIC	
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW	10 FT	
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		

	KANSAS	
	LAND APPLICATION	
SURFACE WATER PROTECTION		
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT IN 10 YEAR FLOODPLAIN	
DIST TO SURFACE WATER		
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL	MUST CONSIDER RUNOFF	
MAXIMUM SLOPE LIMIT	< 5% IF ADEQUATE CONSERVATION MEASURES NOT PROVIDED	

	KANSAS	
	LAND APPLICATION	
RECORDS		
REPORTS		
NOTIFICATIONS		
STORAGE	SLUDGE HANDLING AND APPLIC EQUIP MUST BE CAPABLE OF TRANSPORTING AND APPLYING 30 DAY AVG SLUDGE PROD ACCUM WITHIN 5 DAYS	

	KANSAS	
	LAND APPLICATION	
TRANSPORTATION	SEE ABOVE	
UNCONTROLLED USE		

DEDICATED SITES

FILE 1

KANSAS
LAND APPLICATION
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COMMENTS

	MAINE LAND APPLICATION	MAINE COMPOSTING FOR DISTRIBUTION TO THE GENERAL PUBLIC
SLUDGE CLASSIFICATION	NOTE: SEPTAGE IS NOT COVERED	
STATE CONTROL LAWS, TITLE & DATE	38 MRSA SECTION 1304	38 MRSA SECTION 1304
REGULATIONS, TITLE, DATE	RULES FOR LAND APPLICATION OF SLUDGE AND RESIDUALS(4/85) CHAPTER 567 NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE REGULATIONS UNLESS NOTED	RULES FOR LAND APPLICATION OF SLUDGE AND RESIDUALS(4/85) CHAPTER 567 NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE REGULATIONS UNLESS NOTED
GUIDELINES, TITLE&DATE		
CONTROLLING AGENCY	DEPT OF ENVIRONMENTAL PROT	DEPT OF ENVIRONMENTAL PROT

FILE 3.5

**MAINE
LAND APPLICATION**

**BUREAU OF WATER QUALITY CONTROL
DIVISION OF MUNICIPAL WASTE
AUGUSTA, ME (207)289-2651**

ACCEPTABILITY OF SLUDGE

PERMIT OR APPROVAL

APPROVAL REQUIRED

MAINE
COMPOSTING FOR DISTRIBUTION
TO THE GENERAL PUBLIC

BUREAU OF WATER QUALITY CONTROL
DIVISION OF MUNICIPAL WASTE
AUGUSTA, ME (207)289-2651

|APPROVAL REQUIRED

APPLICATION SUBMITTALS SEE SUBMITTALS UNDER L.A.

|SEE SUBMITTALS UNDER L.A.

MAINE
COMPOSTING FOR DISTRIBUTION
TO THE GENERAL PUBLIC

SAMPLING SLUDGE PARAMETERS
SLUDGE ANAL.: PH, %SOL., TVS, TKN,
ORG N, NH3, NO3, NO2, P, K, CA, MG,
FE, CL, CD, CU, CR, HG, NI, PB, ZN, NA
ADDITIONAL TESTING MAY BE REQUIRED
FOR ORGANICS
SLUDGE ANALYSIS ON MONTHLY,
QUARTERLY, OR YEARLY BASIS AS
REQUIRED

SLUDGE AND COMPOST ANALYSIS
BEFORE COMPOSTING: CD, CR, CU, HG,
NI, PB, ZN
DURING: TIME & TEMP
AFTER: SALMONELLA
METALS MAY BE REQUIRED
FREQUENCY: MONTHLY, QUARTERLY,
OR YEARLY DEPENDING ON
SIZE OF OPERATION

MAINE
LAND APPLICATION

MAINE
COMPOSTING FOR DISTRIBUTION
TO THE GENERAL PUBLIC

MAXIMUM SLUDGE CONSTITUENT

CONDUCTIVITY (SALT) 2 MMHOS/CM, OTHERWISE SPECIAL REQS.

NUTRIENTS (% BY DRY WEIG

N

P

K

METALS (MG/KG SLUDGE DRYMAY SEEK 90 DAY VARIANCE IF ONLY
ONE EXCEEDS LIMITS BY < 25%

AS

CD 10

PB 700

NI 200

ZN 2000

CU 1000

CR 1000

HG 10

MO

B

FE

ORGANICS

PCB 10

MAINE
LAND APPLICATION

MAINE
COMPOSTING FOR DISTRIBUTION
TO THE GENERAL PUBLIC

WATER

OTHER CONTAMINANTS

RECORDS

KEEP 5 YRS:
SLUDGE ANALY. RESULTS
AMOUNT LIME FOR PH ADJUSTMENT
DATE, VOLUME OF DISTRIBUTION,

RECORDKEEPING:
COMPOST PRODUCTION KEEP 5 YR: LOG AND
TRACK OF ALL SLUDGE, COMPOST
OPERATION, AND COMPOST ANALYSIS

FILE 3.5

	MAINE LAND APPLICATION	MAINE COMPOSTING FOR DISTRIBUTION TO THE GENERAL PUBLIC
	LOCATION&SIZE OF SITE AND OWNERS NAME OTHER RECORDS AS REQUIRED	DISTRIBUTION RECORD: NAME & ADD. OF USER, AMOUNT, DATE OF RECEIPT, FINAL USE
REPORTS	REPORTS MONTHLY, QUARTERLY, OR YEARLY AS REQUIRED BASED ON SIZE OF OPERATION: SUMMARY OF SLUDGE UTILIZATION MGMNT RECORDS SUBMITTED	REPORTING: MONTHLY, QUARTERLY, OR YEARLY AS REQUIRED: SUMMARY OF OPERATING RECORD AMOUNT COMPOSTED TOTAL AMOUNT DISTRIBUTED TO LARGE VOLUME USERS SLUDGE AND COMPOST ANALYSIS RESULTS GW OR SURFACE WATER MONITORING
NOTIFICATIONS	NOTIFICATION OF CHANGE IN SLUDGE	
STORAGE (IF APPLIC)		
LAND APPLICATION		

	MAINE LAND APPLICATION	MAINE COMPOSTING FOR DISTRIBUTION TO THE GENERAL PUBLIC
APPROVAL OR PERMIT	APPROVAL REQUIRED	APPROVAL REQUIRED
APPLICATION SUBMITTALS	LOCATION OF SITE SLUDGE ANALYSIS SITE ANALYSIS SOILS ANALYSIS TOPO MAP SOILS MAP SITE SKETCH MAP UTILIZATION MGMT PLAN: APPL. RATES, CROP, METHOD& EQUIP., METHOD OF INCORP., STORAGE & TRANS., MONITORING &RECORDS AGREEMENT WITH LANDOWNER DESCR OF IND & CHEM CONTRIBUTORS DESCR OF KNOWN OR SUSP. TOXICS	SUBMITTALS: LOCATION OF SITE SLUDGE ANALYSIS SOILS ANALYSIS TOPO MAP SOILS MAP SITE SKETCH MAP DESIGN PLANS & SPECS AGREEMENT WITH LANDOWNER

MAINE
LAND APPLICATION

MAINE
COMPOSTING FOR DISTRIBUTION
TO THE GENERAL PUBLIC

CRITERIA FOR USE

DEGREE OF STABILIZATION PROCESS TO SIGNIFICANTLY REDUCE
PATHOGENS IF ACCESS IS RESTRICTED
PROCESS TO FURTHER REDUCE
PATHOGENS IF USE OR ACCESS IS
UNRESTRICTED

PROCESS TO FURTHER REDUCE
PATHOGENS

SOIL

PRIOR TO LAND APPLICATION
SOIL ANAL.:PH,CEC,K,P,MG,CA,
SOIL BACKGROUND LEVELS OF METALS:
CD,CR,CU,PB,HG,NI,ZN FOR ONE SITE
OR WHERE METALS WERE PREVIOUSLY
USED ON SITE

CROPS

MAY BE REQUIRED
WILL INCLUDE: HEAVY METALS, PRIORITY

	MAINE LAND APPLICATION	MAINE COMPOSTING FOR DISTRIBUTION TO THE GENERAL PUBLIC
SURFACE WATER	POLLUTANTS SCAN MAY BE REQUIRED WILL INCLUDE: HEAVY METALS, PRIORITY POLLUTANTS SCAN	
GROUNDWATER	MAY BE REQUIRED WILL INCLUDE: HEAVY METALS, PRIORITY POLLUTANTS SCAN	
MAXIMUM SLUDGE LOADING LIM (CEC IN MEQ/100G SOIL) SLUDGE APPLICATION WILL BE SLUDGE		
N (ANNUAL)	AGRONOMIC RATES BASED ON INORGANIC +PERCENTAGES OF ORGANIC	

	MAINE LAND APPLICATION	MAINE COMPOSTING FOR DISTRIBUTION TO THE GENERAL PUBLIC
	SURFACE APPLIED: UP TO 1.5 CROP NEEDS (G)	
METALS		
CD		
ANNUAL	.5 KG/HA IF USED FOR FOOD CHAIN CROPS	
MAX. CUMULATIVE	2.5 KG/HA IF CEC < 5 5 KG/HA IF CEC > 5	
PB	(MAX. CUMULATIVE) 500 KG/HA IF CEC < 5 1000 KG/HA IF 5<CEC<15 2000 KG/HA IF CEC>15	
ZN	(MAX. CUMULATIVE) 250 KG/HA IF CEC < 5 500 KG/HA IF 5<CEC<15 1000 KG/HA IF CEC>15	
CU	(MAX. CUMULATIVE) 125 KG/HA IF CEC < 5 250 KG/HA IF 5<CEC<15 500 KG/HA IF CEC>15	

	MAINE LAND APPLICATION	MAINE COMPOSTING FOR DISTRIBUTION TO THE GENERAL PUBLIC
CR	(MAX. CUMULATIVE) 250 KG/HA IF CEC < 5 500 KG/HA IF 5<CEC<15 1000 KG/HA IF CEC>15	
NI	(MAX. CUMULATIVE) 50 KG/HA IF CEC < 5 100 KG/HA IF 5<CEC<15 200 KG/HA IF CEC>15	
HG		
ORGANICS PCBS		
LAND USE RESTRICTIONS		
CROPS	IF PSRP, 18 MONTH WAIT TO PLANT CROPS FOR HUMAN CONSUMPTION	
GRAZING OR GREENCHOP	IF PSRP, 1 MONTH BEFORE PASTURE GRAZING BY ANIMALS FOR HUMAN CONSUMPTION DAIRY ANIMALS 1 MONTH	

MAINE LAND APPLICATION		MAINE COMPOSTING FOR DISTRIBUTION TO THE GENERAL PUBLIC	
PUBLIC ACCESS			
PH OF SOIL & SLUDGE OR PH OF SOIL	6.5 FOR 2 YEARS AFTER APPLICATION		
SITING RESTRICTIONS			
SOIL CONDITIONS	CASE BY CASE APPROVAL NOT POORLY OR EXCESSIVELY DRAINED SOILS		
BUFFER REQUIREMENTS			
DIST. TO PRIVATE WELL	300 FT		
DIST. TO PUBLIC WELL	300 FT		
DIST TO RESIDENCE	300 FT; 100 FT IF NOT PSRP 25 FT TO ROADWAYS		
DIST TO OTHER BUILDINGS			
DIST TO PROPERTY LINE			
GROUND WATER PROTECTION	NOT TO BE SITED OVER SAND AND GRAVEL RECHARGE AREAS UNLESS APPROVED		
DEPTH TO HIGH GROUNDWATER LEVEL			

MAINE LAND APPLICATION		MAINE COMPOSTING FOR DISTRIBUTION TO THE GENERAL PUBLIC	
DEPTH TO BEDROCK	20 IN OF PERMEABLE SOIL		
PERMEABILITY			
INFILTRATION			
SURFACE WATER PROTECTION			
WETLANDS OR AREAS	NOT TO RESTRICT BASE FLOOD,		
SUBJECT TO PONDING OR	REDUCE WATER STORAGE CAPACITY,		
FLOODING	RESULT IN WASHOUT OF MATERIAL		
DIST TO SURFACE WATER	300 FT TO CLASSIFIED WATERS		
DIST. TO DRY RUN	50 FT TO INTERMITTENT STREAM		
RUNOFF AND EROSION	25 FT TO HIGHWAY DRAINAGE AREA		
CONTROL			
MAXIMUM SLOPE LIMIT	15% FOR CLEARED LAND		
	>15% ON FORESTED WITH APPROVAL		

	MAINE LAND APPLICATION	MAINE COMPOSTING FOR DISTRIBUTION TO THE GENERAL PUBLIC
RECORDS		
REPORTS		
NOTIFICATIONS		
STORAGE	SITES MUST RECEIVE APPROVAL FROM DEPT. APPLIC. FORM REQUIRED, PRELIM. PLANS	

MAINE
LAND APPLICATION

MAINE
COMPOSTING FOR DISTRIBUTION
TO THE GENERAL PUBLIC

AND SPECIF. FOR FACIL. MUST BE REVIEWED |
TEMP: WINTER FIELD STACKING-PROTECT |
WATER COURSE AND GW, >300' FROM WELL, |
>25' FROM DRAINAGEWAYS, 500' FROM |
DWELLINGS, SOIL REQUIR. PERM: MADE FROM |
IMPERVIOUS MATER., COLLECT AND TREAT |
LEACHATE, EASE OF ACCESS, ODORS, SITING |
SAME AS TEMP.

TRANSPORTATION

UNCONTROLLED USE

DEDICATED SITES

FILE 3.5

MAINE
LAND APPLICATION

MAINE
COMPOSTING FOR DISTRIBUTION
TO THE GENERAL PUBLIC

COMMENTS

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	MARYLAND AGRICULTURAL LAND APPLICATION	MARYLAND MARGINAL LAND APPLICATION	MARYLAND DISTRIBUTION
SLUDGE CLASSIFICATION	CLASS 1 SEWAGE SLUDGE	CLASS 1 SEWAGE SLUDGE	
STATE CONTROL LAWS, TITLE & DATE	HEALTH-ENVIRONMENTAL ARTICLE 9, CH.201,210,210.1,212	HEALTH-ENVIRONMENTAL ARTICLE 9, CH.201,210,210.1,212	HEALTH-ENVIRONMENTAL ARTICLE 9, CH.201,210,210.1,212
REGULATIONS, TITLE, DATE	ANNOTATED CODE OF MD, TITLE 10 SUBTITLE 17 SANITATION 10.17.10 SEWAGE SLUDGE MANAGEMENT (PROPOSED) .01-.14 REPLACING .01-.07 NOTE: PROPOSED REGULATIONS PRESENTLY USED AS GUIDELINES. ALL LISTED CRITERIA ARE CONTAINED IN THE PROPOSED REGULATIONS	ANNOTATED CODE OF MD, TITLE 10 SUBTITLE 17 SANITATION 10.17.10 SEWAGE SLUDGE MANAGEMENT (PROPOSED) .01-.14 REPLACING .01-.07 NOTE: PROPOSED REGULATIONS PRESENTLY USED AS GUIDELINES. ALL LISTED CRITERIA ARE CONTAINED IN THE PROPOSED REGULATIONS	ANNOTATED CODE OF MD, TITLE 10 SUBTITLE 17 SANITATION 10.17.10 SEWAGE SLUDGE MANAGEMENT (PROPOSED) .01-.14 REPLACING .01-.07 NOTE: PROPOSED REGULATIONS PRESENTLY USED AS GUIDELINES. ALL LISTED CRITERIA ARE CONTAINED IN THE PROPOSED REGULATIONS
GUIDELINES, TITLE&DATE			
CONTROLLING AGENCY	DEPT OF HEALTH AND MENTAL	DEPT OF HEALTH AND MENTAL	DEPT OF HEALTH AND MENTAL

	MARYLAND AGRICULTURAL LAND APPLICATION	MARYLAND MARGINAL LAND APPLICATION	MARYLAND DISTRIBUTION
	HYGIENE SOLID WASTE MANAGEMENT ANNAPOLIS, MD (301)225-5649	HYGIENE SOLID WASTE MANAGEMENT ANNAPOLIS, MD (301)225-5649	HYGIENE SOLID WASTE MANAGEMENT ANNAPOLIS, MD (301)225-5649
ACCEPTABILITY OF SLUDGE			
PERMIT OR APPROVAL	SEWAGE SLUDGE UTILIZATION PERMIT	SEWAGE SLUDGE UTILIZATION PERMIT	SEWAGE SLUDGE UTILIZATION PERMIT FOR COMPOSTING
APPLICATION SUBMITTALS	SEE SUBMITTALS UNDER L.A.	SEE SUBMITTALS UNDER L.A.	QC PROGRAM RECORDING AND REPORTING SYSTEM PROOF OF PFRP SLUDGE ANALYSIS BY APPROVED LAB TREATMENT PROCESS DESCRIP. TREATED SLUDGE ANALYSIS PROPOSED LABEL RECORDKEEPING & REPORTING SYSTEM QC MONITORING PLAN DISTRIBUTION SYSTEM DESCR. IDENTIFY USERS AND FINAL USE PROOF OF NO PUBL. HLTH HAZARDS OR WATER DEGRADATION COMPLIANCE WITH REGISTRATION

MARYLAND DISTRIBUTION

ANALYSIS REQUIRED FOR
COMPOSTING FACILITY PERMIT
SLUDGE ANAL: %SOL., PH, N, NO3,
NH4, P, K, CD, CU, HG, NI, PB, ZN

MARYLAND AGRICULTURAL LAND APPLICATION		MARYLAND MARGINAL LAND APPLICATION	MARYLAND DISTRIBUTION
MAXIMUM SLUDGE CONSTITUENT			
CONDUCTIVITY (SALT)			
NUTRIENTS (% BY DRY WEIG			LIME EQUI. TO CaCO3: MIN 10%
N			3%
P			
K			
METALS (MG/KG SLUDGE DRY			
AS			
CD	25		12.5 PPM
PB			500
NI			100
ZN			1250
CU			500
CR			
HG			5
MO			
B			
FE			40000
ORGANICS			
PCB	10		5

MARYLAND DISTRIBUTION

OTHER CONTAMINANTS

AS PRESCRIBED
DISTRIBUTION RECORDS
TEST RESULTS

	MARYLAND AGRICULTURAL LAND APPLICATION	MARYLAND MARGINAL LAND APPLICATION	MARYLAND DISTRIBUTION
REPORTS		AS REQUIRED	REGULAR REPORTING TO DEPT
NOTIFICATIONS	NOTIFICATION OF LOCAL AUTHORITIES IF APPLIED IN TOBACCO GROWING PARTS OF STATE, DEPT TO NOTIFY PROSPECTIVE FARMER OR LANDOWNERS OF POTENTIAL PROBLEMS WITH FUTURE TOBACCO GROWTH		LABEL MUST ACCOMPANY SLUDGE: IDENTIFY AS SEWAGE SLUDGE INSTRUCTIONS FOR USE, WARNINGS, RESTRICTIONS
STORAGE (IF APPLIC)			
LAND APPLICATION			
APPROVAL OR PERMIT	SEWAGE SLUDGE UTILIZATION PERMIT	SEWAGE SLUDGE UTILIZATION PERMIT	

MARYLAND AGRICULTURAL LAND APPLICATION		MARYLAND MARGINAL LAND APPLICATION	MARYLAND DISTRIBUTION
APPLICATION SUBMITTALS	SEPARATE APPLICATION FOR EA SITE		
	COUNTY OR MUN. MAY HAVE		
	PUBLIC MEETING		
	SUBMITTALS:		
	WRITTEN PERMISSION OF LANDOWNER		
	FIELD INFO FORM COMPLETED BY		
	LANDOWNER		
	CALCULATION OF LIME REQUIRED		
	TO RAISE PH TO 6.5 AND MAINTAIN		
	AT 6.2 OVER LIFE OF PERMIT		
	SITE MAP		
	TAX MAP		
	OPERATIONS PLAN: EQUIPMENT, APPL.		
	PROCEDURES, RECORDING PROCEDURE		
	HAUL ROUTE		
	SOIL ANALYSIS		
	SLUDGE ANALYSIS		
		PUBLISH NOTICE OF L.A. TO MARGINAL	
		LAND; COUNTY OR MUN. MAY HAVE	
		PUBLIC MEETING	
		SUBMITTALS:	
		WRITTEN PERMISSION OF LANDOWNER	
		FIELD INFO FORM COMPLETED BY	
		LANDOWNER	
		CALCULATION OF LIME REQUIRED	
		TO RAISE PH TO 6.5 AND MAINTAIN	
		AT 6.2 OVER LIFE OF PERMIT	
		SITE MAP WITH LOCATION OF SLOPES	
		> 15%, LOCATION OF TEST PITS&	
		BORINGS	
		LOADING CALCULATIONS	
		SEDIMENT-EROSION CONTROL PLAN	
		CROP, FUTURE SITE USE,	
		TAX MAP	
		OPERATIONS PLAN: EQUIPMENT,	
		PROCEDURES, RECORDING PROCEDURE	
		HAUL ROUTE	
		SLUDGE ANALYSIS	
		IN ADDITION, IF LA > 50 T/AC:	

FILE 3.5

	MARYLAND AGRICULTURAL LAND APPLICATION	MARYLAND MARGINAL LAND APPLICATION	MARYLAND DISTRIBUTION
GROUNDWATER	MONITORING AS REQUIRED	AS REQUIRED	
MAXIMUM SLUDGE LOADING LIM (CEC IN MEQ/100G SOIL) SLUDGE APPLICATION WILL BE SLUDGE		50 T/AC IF: METALS LOADING NOT EXCEEDED, SURFACE WATER PROTECTED, AND BUFFER ZONES OBSERVED >50 T/AC IF APPROVED	
N (ANNUAL)	CROP REQUIREMENTS AS RECOMMENDED BY FARMER OR AS APPROVED BY DEPT.(TABLE INCL.) BOTH ORG. AND MINRLZD. N		

	MARYLAND AGRICULTURAL LAND APPLICATION	MARYLAND MARGINAL LAND APPLICATION	MARYLAND DISTRIBUTION
METALS			
CD			
ANNUAL	1.25 KG/HA (1.1 LB/AC) BEFORE 1/1/87 .45 KG/HA (.4 LB/AC) AFTER 1/1/87	1.25 KG/HA (1.1 LB/AC) BEFORE 1/1/87 .45 KG/HA (.4 LB/AC) AFTER 1/1/87	
MAX. CUMULATIVE	5 KG/HA(4.4 LB/AC) IF CEC<5 10 KG/HA (8.9 LB/AC) IF CEC>5	5 KG/HA(4.4 LB/AC) IF CEC<5 10 KG/HA (8.9 LB/AC) IF CEC>5	
PB	562 KG/HA (500 LB/AC) IF CEC<5 1123 KG/HA (1000 LB/AC) IF CEC>5	562 KG/HA (500 LB/AC) IF CEC<5 1123 KG/HA (1000 LB/AC) IF CEC>5	
ZN	281 KG/HA (250 LB/AC) IF CEC<5 562 KG/HA (500 LB/AC) IF CEC>5	281 KG/HA (250 LB/AC) IF CEC<5 562 KG/HA (500 LB/AC) IF CEC>5	
CU	140 KG/HA (125 LB/AC) IF CEC<5 281 KG/HA (250 LB/AC) IF CEC>5	140 KG/HA (125 LB/AC) IF CEC<5 281 KG/HA (250 LB/AC) IF CEC>5	
CR			

	MARYLAND AGRICULTURAL LAND APPLICATION	MARYLAND MARGINAL LAND APPLICATION	MARYLAND DISTRIBUTION
NI	140 KG/HA (125 LB/AC) IF CEC<5 281 KG/HA (250 LB/AC) IF CEC>5	140 KG/HA (125 LB/AC) IF CEC<5 281 KG/HA (250 LB/AC) IF CEC>5	
HG			
ORGANICS PCBS			
LAND USE RESTRICTIONS			
CROPS	NOT TO BE USED TO GROW TOBACCO NO FOOD FOR DIRECT HUMAN CONSUM. FOR 3 YRS UNLESS PFRP(MAY WAIVE IF NO CONTACT WITH EDIBLE PART)	NOT TO BE USED TO GROW TOBACCO NO CROPS FOR DIRECT HUMAN CONSUM. FOR 3 YRS UNLESS PFRP(MAY WAIVE IF NO CONTACT WITH EDIBLE PART)	
GRAZING OR GREENCHOP	GRASS TO BE CROPPED OR GRAZED BEFORE APPLICATION NO ACCESS BY ANIMALS WHOSE PRODUCTS CONSUMED BY HUMANS FOR 1 MO UNLESS PFRP	GRASS TO BE CROPPED OR GRAZED BEFORE APPLICATION NO ACCESS BY ANIMALS WHOSE PRODUCTS CONSUMED BY HUMANS FOR 1 MO UNLESS PFRP	

	MARYLAND AGRICULTURAL LAND APPLICATION	MARYLAND MARGINAL LAND APPLICATION	MARYLAND DISTRIBUTION
PUBLIC ACCESS	12 MO UNLESS PFRP	12 MO UNLESS PFRP	
PH OF SOIL & SLUDGE OR PH OF SOIL	MAY DENY APPL. OF HIGH LIME CONTENT SLUDGE IF ABOVE CROP OPTIMUM SOIL+SLUDGE ADJUSTED TO 6.5 MNTNED AT 6.2 OVER PERMIT LIFE	SOIL+SLUDGE ADJUSTED TO 6.5 MNTNED AT 6.2 OVER PERMIT LIFE	
SITING RESTRICTIONS SOIL CONDITIONS			
BUFFER REQUIREMENTS			
DIST. TO PRIVATE WELL	100 FT UNLESS PFRP	100 FT UNLESS PFRP	
DIST. TO PUBLIC WELL	100 FT UNLESS PFRP	100 FT UNLESS PFRP	
DIST TO RESIDENCE	200' OFF-SITE OCCUPIED RES. UNLESS PFRP 100' ON-SITE OCCUPIED RES. UNLESS PFRP	200' OFF SITE OCCUPIED RES. UNLESS PFRP 100' ON-SITE OCCUPIED RES. UNLESS PFRP	
DIST TO OTHER BUILDINGS	25' FROM PUBLIC ROADS UNLESS PFRP	25' FROM PUBLIC ROADS UNLESS PFRP	
DIST TO PROPERTY LINE	50' UNLESS PFRP AND ADJACENT LAND USES COMPATIBLE	50' UNLESS PFRP AND ADJACENT LAND USES COMPATIBLE	
GROUND WATER PROTECTION			
DEPTH TO HIGH GROUNDWATER LEVEL	2 FT .50' BEDROCK OUTCRP UNLSS PFRP	2 FT 50' BEDROCK OUTCRP UNLSS PFRP	
DEPTH TO BEDROCK PERMEABILITY			

	MARYLAND AGRICULTURAL LAND APPLICATION	MARYLAND MARGINAL LAND APPLICATION	MARYLAND DISTRIBUTION
INFILTRATION			
SURFACE WATER PROTECTION			
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING			
DIST TO SURFACE WATER	50 FT UNLESS PFRP	50 FT UNLESS PFRP	
DIST. TO DRY RUN	15 FT DRAINAGE DITCH UNLESS PFRP	15 FT DRAINAGE DITCH UNLESS PFRP	
RUNOFF AND EROSION CONTROL	SPREAD EVENLY OVER SITE, INCORP. AT DAY END UNLESS PFRP, TRUCKS CLEANEDED ON SITE MAY BE SURFACES SPRAYED WITH APPROVAL IF ODOR CONTROLLED OR FOR NO TILL SYSTEM, SLUDGE AREA CLEARLY MARKED, CONTOURING MAY BE REQUIRED NOT APPLIED TO FROZEN GROUND UNLESS SLOPE (5% AND BUFFER=250 FT FROM WATER AND 1000 FT FROM OFF-SITE RES., WELL DRAINED SOIL, SURFACE RESIDUE, AND W/APPROVAL	SPREAD EVENLY OVER SITE INCORP. AT DAY END UNLESS PFRP TRUCKS CLEANED ON SITE MAY BE SURFACE SPRAYED WITH APPROVAL IF ODOR CONTROLLED OR FOR NO TILL SYSTEM SLUDGE AREA CLEARLY MARKED COVER CROP PLANTED WITHIN SHORT TIME, MUST BE CUT TWICE DURING SEASON AND CUTTINGS REMOVED	
MAXIMUM SLOPE LIMIT	15% 6% IF SURFACE APPLIED LIQUID SLUDGE UNLESS APPROVED SLUDGE UNLESS APPROVED NOT APPLIED TO FROZEN GROUND UNLESS SLOPE < 5% AND BUFFER= 250 FT FROM WATER AND 1000 FROM RES.,WELL DRAINED SOIL,		

MARYLAND
AGRICULTURAL LAND APPLICATIONMARYLAND
MARGINAL LAND APPLICATIONMARYLAND
DISTRIBUTION

	SURFACE RESIDUE, AND W/APPROVAL		
RECORDS			TO BE MAINTAINED AS PRESCRIBED BY DEPT.
REPORTS			
NOTIFICATIONS			LABEL SHALL IDENTIFY PRODUCT AND GIVE INSTRUCTIONS FOR PROPER USE, WARNING RESTRICTIONS
STORAGE	TEMP. STORAGE < 6 MOS. PERM. STORAGE > 6 MOS. PERMIT REQUIRED: PERMISSION FROM LANDOWNER, LAB ANALYSIS		

	MARYLAND AGRICULTURAL LAND APPLICATION	MARYLAND MARGINAL LAND APPLICATION	MARYLAND DISTRIBUTION
	SITE MAPS, TAX MAPS, FLOODLINE FREQ., SOIL TEST, G.W. ELEV., LINER SPECIF., OPERATIONS PLAN, PUBLIC ACCESS, TRUCK WASH DOWN, GEOLOG. DESCRIPTION, DESIGN SPECIF., EMISSION PLAN, INSPECTION PLAN		
TRANSPORTATION	DEPENDS UPON FORM % SOLID PERMIT REQUIRED DESCRIBING DESC. OF SLUDGE, QUANTITY TRANSPORTED, TREATMENT OF SLUDGE, SLUDGE ANALYSIS, DESC. OF EQUIPMENT, OPERATIONS PLAN DESTINATION		
UNCONTROLLED USE			
DEDICATED SITES			
COMMENTS			

MARYLAND AGRICULTURAL LAND APPLICATION

MARYLAND
MARGINAL LAND APPLICATION

**MARYLAND
DISTRIBUTION**

FILE 3.5

	MASSACHUSETTS TYPE I LAND APPLICATION OR DISTRIBUTION	MASSACHUSETTS TYPE II & III LAND APPLICATION
SLUDGE CLASSIFICATION	3 TYPES BASED ON USE RESTRICTIONS TYPE I: UNRESTRICTED USE TYPE II: USED WITH DEQE APPROVAL TYPE III: MOST RESTRICTED USE	3 TYPES BASED ON USE RESTRICTIONS TYPE I: UNRESTRICTED USE TYPE II: USED WITH DEQE APPROVAL TYPE III: MOST RESTRICTED USE
STATE CONTROL LAWS, TITLE & DATE	MGL CH. 21, SS. 27(9), 27(12) AND 43; MGL CH. 21A, S. 2(28); AND MGL CH. 111, S. 160. (MGL CH. 30A, SS 1(5), 2, AND 3; MGL CH. 21, SS. 33D AND 34; MGL CH. 83, SS. 6 AND 7 AND MGL CH 111 SS. 5G, 17, 31D, AND 150A.)	MGL CH. 21, SS. 27(9), 27(12) AND 43; MGL CH. 21A, S. 2(28); AND MGL CH. 111, S. 160. (MGL CH. 30A, SS 1(5), 2, AND 3; MGL CH. 21, SS. 33D AND 34; MGL CH. 83, SS. 6 AND 7 AND MGL CH 111 SS. 5G, 17, 31D, AND 150A.)
REGULATIONS, TITLE, DATE	310 CMR 32.00 LAND APPLICATION OF SLUDGE AND SEPTAGE (12/31/83) NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE REGULATIONS UNLESS NOTED	310 CMR 32.00 LAND APPLICATION OF SLUDGE AND SEPTAGE (12/31/83) NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE REGULATIONS UNLESS NOTED
GUIDELINES, TITLE&DATE		
CONTROLLING AGENCY	DEPT OF ENVIRONMENTAL QUALITY	DEPT OF ENVIRONMENTAL QUALITY

FILE 3.5

	MASSACHUSETTS TYPE I LAND APPLICATION OR DISTRIBUTION	MASSACHUSETTS TYPE II & III LAND APPLICATION
	ENGINEERING	AND ENGINEERING
ACCEPTABILITY OF SLUDGE		
PERMIT OR APPROVAL	SUBJECT TO APPROVAL OF SUITABILITY BASED ON TYPE I, II, OR III SLUDGE	SUBJECT TO APPROVAL OF SUITABILITY BASED ON TYPE I, II, OR III SLUDGE
APPLICATION SUBMITTALS	SUBMITTALS: LISTING OF INDUSTRIAL DISCHARGES QUANTITY OF SEPTAGE IN SLUDGE DAILY FLOW DAILY SLUDGE TONNAGE DESCRIPTION OF STABILIZATION SAMPLING AND ANALYSIS PLAN DESCRIPTION OF WHETHER PRODUCT WILL BE DISTRIBUTED TO GENERAL PUBLIC, OR TO SPECIFIC PERSONS AND WHETHER IT WILL BE SOLD OR GIVEN AWAY IDENTIFICATION OF USERS USING LOTS > 5CY	SUBMITTALS: LISTING OF INDUSTRIAL DISCHARGES QUANTITY OF SEPTAGE IN SLUDGE DAILY FLOW DAILY SLUDGE DRY TONNAGE DESCRIPTION OF STABILIZATION SAMPLING AND ANALYSIS PLAN

MASSACHUSETTS
TYPE I LAND APPLICATION
OR DISTRIBUTION

AMOUNT OF SLUDGE TO BE DISTRIBUTED
IN LOTS > 5CY

MASSACHUSETTS
TYPE II & III
LAND APPLICATION

SAMPLING SLUDGE PARAMETERS

SLUDGE ANALYSIS:
PH, %SOLIDS, %N, NH₄-N, NO₃-N,
P,K,CD,CR,CU,PB,HG,NI,ZN,
MO,B,PCBs
ORGANICS INCLUDED IN FEDERAL OR
STATE DRINKING WATER STANDARDS
UNLESS APPLICATION AREA IS NOT OVER
GW PUBLIC WATER SUPPLY OR WITHIN
2500 FT OF WELL WATER SUPPLY
FREQUENCY: 2/YR IF < 1 MGD AND NO

SLUDGE ANALYSIS:
PH, %SOLIDS, %N, NH₄-N, NO₃-N,
P,K,CD,CR,CU,PB,HG,NI,ZN,
MO,B,PCBs
ORGANICS INCLUDED IN FEDERAL OR
STATE DRINKING WATER STANDARDS
UNLESS APPLICATION AREA IS NOT OVER
GW PUBLIC WATER SUPPLY OR WITHIN
2500 FT OF WELL WATER SUPPLY
FREQUENCY: 2/YR IF < 1 MGD AND NO

MASSACHUSETTS TYPE I LAND APPLICATION OR DISTRIBUTION		MASSACHUSETTS TYPE II & III LAND APPLICATION
INDUSTRIAL DISCHARGE TO POTW		INDUSTRIAL DISCHARGE TO POTW
4/YR IF < 1 MGD AND INDUSTRIAL SOURCE		4/YR IF < 1 MGD AND INDUSTRIAL SOURCE
4/YR IF 1-5 MGD		4/YR IF 1-5 MGD
1/MO IF > 5 MGD		1/MO IF > 5 MGD
MAXIMUM SLUDGE CONSTITUENT		
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIG		
N		
P		
K		
METALS (MG/KG SLUDGE DRY		
		TYPE III IF ANY LEVELS EXCEEDED
AS		
CD	2	25
PB	300	1000
NI	200	200
ZN	2500	2500
CU	1000	1000
CR	1000	1000
HG	10	10
MO	10	10
B	300	300
FE		
ORGANICS		
PCB	2 PPM FOR FERTILIZER	10 PPM
	1 PPM FOR SOIL CONDITIONER	
	2 PPM FOR USE ON PASTURE LAND	

**MASSACHUSETTS
TYPE II & III
LAND APPLICATION**

OTHER CONTAMINANTS

KEEP 3 YR:
INFORMATION ON USE, SALE,
DISTRIBUTION FOR GENERAL PUBLIC
IDENTIFICATION OF USERS

KEEP PERMANENTLY:
APPROVAL OF SUITABILITY
DESCRIPTION OF STABILIZATION
ANALYSIS RESULTS

MASSACHUSETTS TYPE I LAND APPLICATION OR DISTRIBUTION		MASSACHUSETTS TYPE II & III LAND APPLICATION
AMOUNT SOLD IN VOLUMES > 5 CY		REPORTS
AMOUNT SOLD IN VOLUMES < 5 CY		STUDIES & TECHNICAL DATA
KEEP PERMANENTLY:		STORAGE ADDRESS
APPROVAL OF SUITABILITY		USER:
DESCRIPTION OF STABILIZATION		LAND APPLICATION CERTIFICATE, SOIL
ANALYSIS RESULTS		ANALYSIS RESULTS, LOCATION OF SITE,
REPORTS		AMOUNT SPREAD, ANNUAL & CUMULATIVE,
STUDIES & TECHNICAL DATA		
STORAGE ADDRESS		
REPORTS	ANNUAL REPORT	SELLER: ANNUAL REPORT
		USER, LOCATION OF APPLICATION,
		DATE APPLIED, METHOD OF APPLI.,
		CROP OR ANIMAL INFO, TRANSPORTATION,
		RECEIVER, AMOUNT AUTHORIZED TO
		APPLY, SLUDGE ANALYSIS
		USER: ANNUAL REPORT
		NOTIFY TOWN BOARD OF HEALTH
NOTIFICATIONS	NOTIFICATION OF TOWN BOARD OF HEALTH	IF DISTRIBUTED, MUST BE LABELED
	BY DEPT	WITH 8 AND MO LOADING LIMITS,
	LABELLING INSTRUCTIONS AND	IF APPLICABLE, AND WITH USE
	INFORMATION INCLUDED	RESTRICTIONS
	CAN BE DISTRIBUTED OR SOLD,	TYPE III: RECORD OF USE MUST BE
	SUBJECT TO SAME REQUIREMENTS	WRITTEN INTO LAND DEED
	EXCEPT WHERE SHOWN	MUST USE SHIPPING PAPER FOR TYPE III
STORAGE (IF APPLIC)		
LAND APPLICATION		

MASSACHUSETTS TYPE I LAND APPLICATION OR DISTRIBUTION	MASSACHUSETTS TYPE II & III LAND APPLICATION
APPROVAL OR PERMIT	LAND APPLICATION CERTIFICATE FOR EACH SITE, RENEWABLE YEARLY
APPLICATION SUBMITTALS	APPLICATION FOR LAND APPLICABILITY: MAP,PLOT PLAN, AREA AVAILABLE, SOIL INFORMATION, DEPTH TO GW, EROSION CONTROL&RUNOFF PREVENTION PRACTICE, DRAINAGE, SOIL ANALYSIS, SITE INFO AS REQRED, CROP INFO, ANIMAL INFO, SOURCE OF SLUDGE, TRANSPORTATION, SLUDGE ANALYSIS

**MASSACHUSETTS
TYPE II & III
LAND APPLICATION**

PROCESS TO SIGNIFICANTLY
REDUCE PATHOGENS
PROCESS TO FURTHER REDUCE
PATHOGENS: FOR PRODUCTION OF
CROP FOR DIRECT HUMAN
CONSUMPTION WITHIN 24 MO. OR
IF SLUDGE IS NOT INCORPORATED

SOIL ANALYSIS:
PH,CEC, TOTAL N, NH4-N, NO3-N,
P,K,CD,CR,CU,PB,HG,NI,ZN,
PCB (IF SLUDGE PCB > 2PPM),
OTHERS AS REQUIRED
FREQUENCY: BEFORE APPLIC. 4 YR INTER.

CROPS

MASSACHUSETTS
TYPE I LAND APPLICATION
OR DISTRIBUTION

MASSACHUSETTS
TYPE II & III
LAND APPLICATION

SURFACE WATERS, PUBLIC HEALTH, AGAINST
NUISANCES, ENVIRONMENT
CANNOT STORE SLUDGE FOR MORE THAN 42
DAYS WITHIN ANY 6 MONTH PERIOD EXCEPT
WITH HEALTH DEPT. APPR. OR DEQE'S APPR.

TRANSPORTATION

TANK, WATERTIGHT, OR DEQE APPROVED
CONTAINER

UNCONTROLLED USE

DEDICATED SITES

COMMENTS

MASSACHUSETTS
TYPE I LAND APPLICATION
OR DISTRIBUTION

MASSACHUSETTS
TYPE II & III
LAND APPLICATION

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	MASSACHUSETTS TYPE I LAND APPLICATION OR DISTRIBUTION	MASSACHUSETTS TYPE II & III LAND APPLICATION
DEPTH TO BEDROCK		3 FT
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		MUST BE INCORPORATED WITHIN 48 HOURS IF NOT STABILIZED
WETLANDS OR AREAS		
SUBJECT TO PONDING OR FLOODING		
DIST TO SURFACE WATER		2500 FT TO CLASS A WATER OTHERWISE APPR. ON CASE BY CASE BASIS, IF NO SIGNIF. CONC. OF ORGANICS
DIST. TO DRY RUN		NOT APPLIED IN DRY RUN, CHANNEL, OR DEPRESSION
RUNOFF AND EROSION CONTROL		RUNOFF AND EROSION MUST BE MINIMIZED
MAXIMUM SLOPE LIMIT		8% UNLESS APPROVED
		NO APPLICATION DURING RAIN, ON FROZEN, SNOW OR ICE COVERED, OR SATURATED SOIL

	MASSACHUSETTS TYPE I LAND APPLICATION OR DISTRIBUTION	MASSACHUSETTS TYPE II & III LAND APPLICATION
RECORDS		
REPORTS		
NOTIFICATIONS		
STORAGE	REQUIREMENT FOR PROTECTING: GW, PUBLIC WATER SUPPLY, PRIVATE WATER SUPPLY,	

MASSACHUSETTS TYPE I LAND APPLICATION OR DISTRIBUTION		MASSACHUSETTS TYPE II & III LAND APPLICATION
CR		
NI		(MAX. CUMULATIVE, EXCLUDING SOIL BACKGROUND LEVELS) 56 KG/HA (50 LB/AC) IF CEC < 5 112 KG/HA (100 LB/AC) IF CEC > 5
HG		
ORGANICS PCBS		 (MAX ANNUAL, INCLUDING SOIL BACKGROUND LEVELS) 2.5 KG/HA (2 LB/AC), MAX. 2 PMM ON PASTURE LAND
LAND USE RESTRICTIONS		
CROPS	LAND APPLIED IF CROPS TO BE PLANTED WITHIN 24 MOS. OF L.A. AND NO DIRECT CONTACT BETWEEN EDIBLE PLANT AND SLUDGE/SEPTAGE	NO DIRECT CONTACT WITH EDIBLE PART OF PLANT AND SLUDGE
GRAZING OR GREENCHOP		NO GRAZING FOR 1 MO

FILE 3.5

MASSACHUSETTS TYPE I LAND APPLICATION OR DISTRIBUTION	MASSACHUSETTS TYPE II & III LAND APPLICATION
PUBLIC ACCESS	NO PUBLIC ACCESS--12 MO.
PH OF SOIL & SLUDGE OR PH OF SOIL	6.5 FOR SURFACE SOIL AND FOR SOIL-SLUDGE MIXTURE
SITING RESTRICTIONS SOIL CONDITIONS	NO SPREADING ON CLAY NO SPREADING ON COARSE SAND WITHOUT APPROVAL
BUFFER REQUIREMENTS DIST. TO PRIVATE WELL	300 FT UNLESS APPR.
DIST. TO PUBLIC WELL	2500 FT UNLESS APPR.
DIST TO RESIDENCE	
DIST TO OTHER BUILDINGS	
DIST TO PROPERTY LINE	
GROUND WATER PROTECTION	MAY REQUIRE GROUNDWATER MONITORING
DEPTH TO HIGH GROUNDWATER LEVEL	3 FT TO POORLY DRAINED SOIL OR GROUNDWATER

	MASSACHUSETTS TYPE I LAND APPLICATION OR DISTRIBUTION	MASSACHUSETTS TYPE II & III LAND APPLICATION
SURFACE WATER		
GROUNDWATER		MAY REQUIRE GROUNDWATER MONITORING MIN. 3 FT
MAXIMUM SLUDGE LOADING LIM (CEC IN MEQ/100G SOIL) SLUDGE APPLICATION WILL BE SLUDGE		
N (ANNUAL)	SHOULD NOT EXCEED NITROGEN UPTAKE	CROP NEEDS

	MASSACHUSETTS TYPE I LAND APPLICATION OR DISTRIBUTION	MASSACHUSETTS TYPE II & III LAND APPLICATION
METALS		
CD		
ANNUAL		.5 KG/HA (.45 LB/AC)
MAX. CUMULATIVE		5 KG/HA (EXCLUDING SOIL BACKGROUND LEVELS)
PB		(MAX ANNUAL, INCLUDING SOIL BACKGROUND LEVELS) 499 KG/HA (445 LB/AC) IF CEC <5 673KG/HA (600 LB/AC) IF CEC>5 UP TO 802 KG/HA (715 LB/AC) IF APPR.
ZN		(MAX CUMULATIVE, EXCLUDING SOIL BACKGROUND LEVELS) 280 KG/HA (250 LB/AC) IF CEC <5 561 KG/HA (500 LB/AC) IF CEC>5
CU		(MAX. CUMULATIVE, EXCLUDING SOIL BACKGROUND LEVELS) 140 KG/HA (125 LB/AC) IF CEC<5 280 KG/HA (250 LB/AC) IF CEC>5

FILE 2.6

SLUDGE CLASSIFICATION	MICHIGAN
	LAND APPLICATION/UNCONTROLLED
	DISTRIBUTION
	NOT ADDRESSED
STATE CONTROL	
LAWS, TITLE & DATE	CHP 299 OF PUBLIC ACT 641 1978, AS AMENDED
REGS, TITLE & DATE	
GUIDELINES, TITLE & DATE	
CONTROLLING AGENCY	MICHIGAN DEPT OF NATURAL RESOURCES RESIDENT MANAGEMENT GROUP LANSING, MICHIGAN 48909 517/373/8410

[illegible]

MICHIGAN	
LAND APPLICATION/UNCONTROLLED	
DISTRIBUTION	
NOT ADDRESSED	

MAXIMUM SLUDGE CONSTITUENT
CONCENTRATIONS

CONDUCTIVITY (SALT)

NUTRIENTS (% BY DRY WEIGHT)

N

P

K

METALS (MG/KG SLUDGE DRY WEIGHT)

AS

CD

PB

	MICHIGAN	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
NI		
ZN		
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB		
WATER		
OTHER CONTAMINANTS		
RECORDS		

	MICHIGAN	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
REPORTS		
NOTIFICATIONS		
STORAGE (IF APPLICABLE)		
LAND APPLICATION		

	MICHIGAN LAND APPLICATION/UNCONTROLLED DISTRIBUTION NOT ADDRESSED
APPROVAL OR PERMIT APPLIC. SUBMITTAL	
CRITERIA FOR USE DEGREE OF STABILIZATION	
SOIL SAMPLING PRE-APPLICATION	

	MICHIGAN	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
POST-APPLICATION		
WATER QUALITY MONITORING		
GROUND WATER		
SURFACE WATER		
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED		
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)		

[illegible]

	MICHIGAN	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
ZN		
CU		
CR		
NI		
HG		

	MICHIGAN	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
ORGANICS		
PCB		
LAND USE RESTRICTIONS		
CROPS		
GRAZING OR GREENCHOP		

	MICHIGAN	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
PUBLIC ACCESS		
PH OF SOIL		
SITING RESTRICTIONS		
SOIL CONDITIONS		
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL		
DIST TO PUBLIC WELL		
DIST TO RESIDENCE		

	MICHIGAN	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
DIST TO OTHER BLDGS.		
DIST TO PROPERTY LINE		
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW		
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		

	MICHIGAN	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING		
DIST TO SURFACE WATER		
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL		
MAXIMUM SLOPE LIMIT		
RECORDS		

	MICHIGAN	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
REPORTS		
NOTIFICATIONS		
STORAGE		
TRANSPORTATION		

MICHIGAN
LAND APPLICATION/UNCONTROLLED
DISTRIBUTION
NOT ADDRESSED

UNCONTROLLED USE

DEDICATED SITES

FILE 2.6

| MICHIGAN
 | LAND APPLICATION/UNCONTROLLED
 | DISTRIBUTION
 | NOT ADDRESSED

COMMENTS

THE STATE IS IN THE PROCESS OF
COMPOSING GUIDELINES FOR THE
LAND APPLICATION AND USE OF
COMPOSTED SLUDGE. UNTIL SUCH
TIME AS THEY ARE READY, THEY
RELY ON THE FEDERAL GUIDELINES

	MINNESOTA	MINNESOTA
	LAND APPLICATION	LAND APPLICATION
	GOVT FACILITIES	PRIVATE SITES
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	MINNESOTA STATUTE 116.07 SUBD. 4	MINNESOTA STATUE 116.07 SUBD. 4
REGS, TITLE & DATE	MINNESOTA RULES ON SEWAGE SLUDGE TITLE 6, PART 4 4,20,82, 1982	SEWAGE SLUDGE MANAGEMENT RULES 7040.0100--4700 EFFECTIVE IN 1985
GUIDELINES, TITLE & DATE		
CONTROLLING AGENCY	MINNESOTA POLLUTION CONTROL AGENCY ROSEVILLE, MN 55113 612/296/7169	MINNESOTA POLLUTION CONTROL AGENCY ROSEVILLE, MN55113 612/296/7169

[illegible]

	MINNESOTA LAND APPLICATION GOVT FACILITIES	MINNESOTA LAND APPLICATION PRIVATE SITES
		> 20 MGD: QUARTERLY
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS		
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT)		
N		
P		
K		
METALS (MG/KG SLUDGE DRY WEIGHT)		
AS		
CD		
PB		

	MINNESOTA LAND APPLICATION GOVT FACILITIES	MINNESOTA LAND APPLICATION PRIVATE SITES
NI		
ZN		
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB	<50 MG/KG	< 50 MG/KG
WATER		
OTHER CONTAMINANTS		
RECORDS		POLITICAL SUBDIVISION GENERATING SLUDGE MUST KEEP RECORDS INCLUDING SLUDGE COMPOSITION, SOIL TEST DATE FOR LANDSPREADING

	MINNESOTA
	LAND APPLICATION
	GOVT FACILITIES

REPORTS

NOTIFICATIONS

STORAGE (IF APPLICABLE)

LAND APPLICATION

Minnesota

	MINNESOTA
	LAND APPLICATION
	PRIVATE SITES
	SITES USED DURING YR,
	LOCATION OF SITES, AMOUNT APPLIED,
	AMT OF N APPLIED, AMT OF CD, ZN,
	PB, NI, CU APPLIED, VEG GROWN,

| ABOVE INFO SUBMITTED ANNUALLY

	MINNESOTA	MINNESOTA
	LAND APPLICATION	LAND APPLICATION
	GOVT FACILITIES	PRIVATE SITES
APPROVAL OR PERMIT	STATE DISPOSAL PERMIT REQUIRED	LETTER OF APPROVAL REQUIRED
APPLIC. SUBMITTAL	SUBMITTAL MUST INCLUDE:	SUBMITTAL INCLUDES:
	SLUDGE STABILIZ; SLUDGE CHEM CHAR;	SLUDGE CHAR; SITE CHAR
	SITE CHARAC, INCLUDING SOIL MAPS,	INCLUDING SOIL MAP, TOPO MAP,
	USGS TOPO MAP, LEGAL DESCRIPT	LEGAL DESCRIPT OF SITE, APPROX
	OF LANDSPREADING SITE, APPROX	QUANTITY PREV APPLIED, SAMPLING
	QUAN PREVIOUSLY APPLIED, SOIL CHAR,	PROCEDURE, LANDOWNER INFOR,
	ACREAGE, NAME OF OWNER; SITE	LEASEE INFO; SITE MANAGEMENT
	MANAGEMENT INCLUDING APPLIC	INCLUDING APPLIC METHOD, MAX
	METHOD, NAME OF APPLIER, MAX	ANNUAL TO BE APPLIED, MAX LOADING
	ANNUAL APPLIC RATE, MAX	RATE OVER LIFE OF SITE, CROP DESCRIPT,
	CUM APPLIC RATE, DESCRIPT OF	PUBLIC ACCESS CONTROL; STORAGE
	CROPS, PUBLIC ACCESS CONTROL,	PLAN, PUBLIC NOTIFICATION
	DATES OF APPLIC	
	AND, GW QUALITY, GW MONITORING,	
	SLUDGE STORAGE OPERATION	
	ADDITIONAL INFOR REQUIRED IF	
	CD>2 KG/HA/YR OR IF METALS	
	EXCEED MAX CUM STDS	
CRITERIA FOR USE		
DEGREE OF STABILIZATION	MIN: PSRP	MIN: PSRP
	IF CROPS FOR DIRECT HUMAN CONSUMP-	PFRP IF CROPS FOR DIRECT HUMAN
	TION WITHIN 18 MOS: PFRP	CONSUMPTION WITHIN 18 MOS UNLESS
		NO CONTACT BETWEEN SLUDGE AND
		EDIBLE PORTION OF CROP
SOIL SAMPLING		
PRE-APPLICATION		PRIOR TO APPLIC FOR TEXTURAL
		CLASSIF, % ORGANIC CONTENT,

	MINNESOTA	MINNESOTA
	LAND APPLICATION	LAND APPLICATION
	GOVT FACILITIES	PRIVATE SITES
		EXTRACTABLE P/ACRE, EXCHANGEABLE K/AC,pH, SOLUBLE SALTS
POST-APPLICATION		SAME AS ABOVE PRIOR TO EACH CROP- ING SEASON
WATER QUALITY MONITORING		
GROUND WATER	6 WELLS 2/YR	
SURFACE WATER	MONITORING MAY BE REQUIRED	
CROP MONITORING	IF FOOD CHAIN CROP, MUST BE MONITORED FOR CD, IF pH <6.5 AND ANNUAL CD>0.5 KG/HA FOR LEAFY VEG OR ROOT CROPS, AND > 2 KG/HA OTHER FOOD CHAIN CROPS	
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED		
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)	BASED ON CROP N REQUIREMENT	BASED ON CROP N REQUIREMENT

FILE 2.6

	MINNESOTA	MINNESOTA
	LAND APPLICATION	LAND APPLICATION
	GOVT FACILITIES	PRIVATE SITES
PH		< 448 KG/HA
METALS		
CD	IF FOOD CHAIN CROP AND pH > 6.5	
ANNUAL	0.5 KG/HA FOR LEAFY VEG; IF OTHER	0.6 KG/HA IF TOBACCO, LEAFY VEG
	FOOD CHAIN: 2.2 KG/HA	OR ROOT CROPS; 2 KG/HA IF OTHER
		FOOD CHAIN CROPS
MAX CUMULATIVE	IF CEC< 5: 6 KG/HA	IF CEC<5: 6 KG/HA
	IF 5<CEC<15: 11 KG/HA	IF 5<CEC<15: 11 KG/HA
	IF CEC>15: 22 KG/HA	IF CEC>15: 22 KG/HA
	UNLESS pH > 6.5 MAINTAINED, VEG	
	TISSUE SAMPLED FOR CD, FACILITY	
	BY HUMANS, AND FUTURE LAND OWNERS	
	ARE NOTIFIED	
PB	IF CEC< 5: 560 KG/HA	IF CEC< 5: 560 KG/HA
	IF 5<CEC<15: 1121 KG/HA	IF 5<CEC<15: 1121 KG/HA
	IF CEC>15: 2242 KG/HA	IF CEC>15: 2242 KG/HA
	UNLESS FUTURE PROP OWNERS	
	NOTIFIED IN DEED	

	MINNESOTA	MINNESOTA
	LAND APPLICATION	LAND APPLICATION
	GOVT FACILITIES	PRIVATE SITES
ZN	IF CEC<5: 280 KG/HA	IF CEC<5: 280 KG/HA
	IF 5<CEC<15: 560 KG/HA	IF 5<CEC<15: 560 KG/HA
	IF CEC>15: 1121 KG/HA	IF CEC>15: 1121 KG/HA
	UNLESS FUTURE PROP OWNERS	
	NOTIFIED IN DEED	
CU	IF CEC<5: 140 KG/HA	IF CEC<15: 140 KG/HA
	IF 5<CEC<15: 280 KG/HA	IF 5<CEC<15: 280 KG/HA
	IF CEC>15: 224 KG/HA	IF CEC>15: 560 KG/HA
	UNLESS FUTURE PROP OWNERS	
	NOTIFIED IN DEED	
CR		
NI	IF CEC<15: 56 KG/HA	IF CEC<15: 56 KG/HA
	IF 5<CEC<15: 112 KG/HA	IF 5<CEC<15: 112 KG/HA
	IF CEC>15: 224 KG/HA	IF CEC>15: 224 KG/HA
	UNLESS FUTURE PROP OWNERS	
	NOTIFIED BY DEED	
HG		

	MINNESOTA LAND APPLICATION GOVT FACILITIES	MINNESOTA LAND APPLICATION PRIVATE SITES
ORGANICS		
PCB	IF FOOD CHAIN AND INCORPORATED: 10-50 MG/KG MUST BE <50 MG/KG IF TO BE LANDSPREAD AT ALL	< 10 MG/KG UNLESS INCORP FOR FOOD CHAIN CROPS MUST BE < 50 MG/KG
LAND USE RESTRICTIONS		
CROPS	MUST COMPLY WITH FDA, USDA, AND MDA REGS FOR FOOD CHAIN PROTECTION	SURFACE APPLIC MUST OCCUR 7 DAYS AFTER A CUTTING NOT TO BE APPLIED TO FALLOW LAND UNLESS SOIL TEXTURE IS MEDIUM OR FINE, AVG ANNUAL PRECIP<24 IN AVAIL N < 56 KG/HA ON MED SOIL AND 84 KG/HA ON FINE SOIL, AND A CROP IS GROWN YR FOLLOWING
GRAZING OR GREENCHOP	NO GRAZING FOR 1 MO	FOLIAGE MINIMAL UNLESS INJECTED; IF PSRP, NO PASTURING OR HARVESTING OF FORAGE CROPS FOR 1MO

	MINNESOTA LAND APPLICATION GOVT FACILITIES	MINNESOTA LAND APPLICATION PRIVATE SITES
PUBLIC ACCESS	POST FENCES OR APPROP SIGNS	CONTROLLED 12 MOS UNLESS PFRP
PH OF SOIL		IF FOOD CHAIN CROPS: 6.5
SITING RESTRICTIONS		
SOIL CONDITIONS		FINE SAND, LOAMY SAND, SANDY LOAM, LOAM, SILT LOAM, SILT, SANDY CLAY LOAM, SILTY CLAY LOAM, SILTY CLAY, OR CLAY. NOT ON PEAT
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL	1000 FT FROM WELLS THAT ARE FINISHED TO < 50 FT AND ARE DOWNGRAIENT TO GW FLOW	200 FT
DIST TO PUBLIC WELL	SAME AS ABOVE	1000 FT
DIST TO RESIDENCE		200 FT (100 FT IF INJECTED)

	MINNESOTA LAND APPLICATION GOVT FACILITIES	MINNESOTA LAND APPLICATION PRIVATE SITES
DIST TO OTHER BLDGS.		600 FT FROM RESID DEVELOP OR RECREATION AREA UNLESS PERMISSION GRANTED (300 FT IF INJECTED)
DIST TO PROPERTY LINE		NOT TO ADJOINING PROPERTY OR TO ROAD ROW
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW	6 IN	6 IN HOLDING CAPACITY AT MIN 3 FT
DEPTH TO BEDROCK	6 IN	6 IN HOLDING CAPACITY AT MIN 3 FT NOT TO BEDROCK WITH FRACTURES AT 6 FT
PERMEABILITY	> 6 IN/HR	< 6 IN/HR THROUGH TOP 5 FT < 0.2 IN/HR IF LIQUID SLUDGE AND NOT INCORPORATED
INFILTRATION		
SURFACE WATER PROTECTION		

FILE 2.6

	MINNESOTA LAND APPLICATION GOVT FACILITIES	MINNESOTA LAND APPLICATION PRIVATE SITES
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT WITHIN WETLAND OR 100 YR FLOODPLAIN	
DIST TO SURFACE WATER	1000 FT OF HIGH WATER LEVEL OF LAKE OR POND 300 FT TO RIVER OR STREAM	25 FT IF SLOPE < 2% 50 FT IF SLOPE 2-6%, AND 100 FT IF SLOPE 6-12%
DIST TO DRY RUN	100 FT TO INTERMITTENT STREAM 25 FT IF IMMEDIATE INCORP	100 FT FROM INTERMITTENT STREAMS 25 FT IF IMMEDIATE INCORP, AND NOT POL- LUTE DOWNGRADIENT SURFACE WATER
RUNOFF AND EROSION CONTROL		IF APPLIED MAY-OCT, 200 FT (COARSE- GRAINED SOIL) AND 300 FT (MED- FINE GRAINED SOIL) FROM DOWN GRADIENT SW. 400 FT AND 600 FT RESPECTIVELY IF APPLIED NOV- APRIL
MAXIMUM SLOPE LIMIT		<6% IF SURFACE APPLIED < 12% IF SUBSURFACE APPLIC OR IMMEDIATE INCORP
RECORDS	MUST CONTAIN: QUANTITY AND RATE OF APPLIC, AMT OF AVAILABLE N APPLIED; AMT OF ANNUAL AND CUM CD,CU, ZN,PB,N1; TYPE AND USE OF	AS STATED ABOVE, POLITICAL SUBDIVISION GENERATING SLUDGE MUST KEEP RECORDS. SEE ABOVE FOR SPECIFIC SUBMITTAL

FILE 2.6

	MINNESOTA	MINNESOTA
	LAND APPLICATION	LAND APPLICATION
	GOVT FACILITIES	PRIVATE SITES
	VEGET GROWN; MONITORING	
	OF GW,SOILS, AND CROPS; FACILITY	
	PERMIT REQUIREMENT, AND ADVERSE	
	HEALTH OR SOCIAL PROBS	
REPORTS	RECORDS DESCRIBED ABOVE MUST	GENERATOR MUST SUBMIT REPORT ANNUALLY
	BE SUBMITTED ANNUALLY	
NOTIFICATIONS		
STORAGE		SHORT-TERM STORAGE: MUST BE SPREAD
		< 30 DAYS, BUFFER REQUIREMENTS SAME
		AS FOR SPREADING EXCEPT '100 FT
		FROM ADJOINING PROP OR ROW, AND NOT
		ON SLOPE > 2%
		LONG-TERM STORAGE:
		1000 FT FROM RESID AND SW UNLESS
		RUNOFF CONTROLLED, < 2% SLOPE
		UNLESS RUNOFF CONTROLLED, PERM <6
		IN/HR, SITE MOVED AFTER 2 CONSEC YR
TRANSPORTATION		

	MINNESOTA LAND APPLICATION GOVT FACILITIES	MINNESOTA LAND APPLICATION PRIVATE SITES
UNCONTROLLED USE		NOT ADDRESSED
DEDICATED SITES	PER REP OF STATE POLLUTION CONTROL AGENCY, USE ON DEDICATED SITES IS ALLOWED WITH APPROVAL. THERE IS NO CHANGE IN THE LOADING RATES.	NOT ADDRESSED

THE ONLY CONSTITUENT RATE ESTAB IS
FOR PCB. OTHERS ARE MONITORED
THROUGH LOADING RATES.

THE ONLY CONSTITUENT LEVEL ESTAB
IS PCB. OTHER LEVELS ARE MONITORED
THROUGH LOADING RATES

FILE 2.6

	MISSISSIPPI	
	LAND APPLICATION	
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	MISSISSIPPI SOLID WASTE DISPOSAL ACT, 1974	
REGS, TITLE & DATE	NONHAZARDOUS WASTE MANAGEMENT REGULATIONS NO. PC/S 1 9/85	
GUIDELINES, TITLE & DATE		
CONTROLLING AGENCY	DEPT OF NATURAL RESOURCES BUREAU OF POLLUTION CONTROL JACKSON, MISSISSIPPI 30209 601/961/5060	

Mississippi

[illegible]

	MISSISSIPPI LAND APPLICATION	
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS	NOT ADDRESSED	
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT)		
N		
P		
K		
METALS (MG/KG SLUDGE DRY WEIGHT)		
AS		
CD		
PB		

	MISSISSIPPI	
	LAND APPLICATION	
NI		
ZN		
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB		
WATER		
OTHER CONTAMINANTS		
RECORDS		

	MISSISSIPPI	
	LAND APPLICATION	
REPORTS		
NOTIFICATIONS		
STORAGE (IF APPLICABLE)	MUST NOT CONSTITUTE FIRE, SAFETY,	
	OR HEALTH HAZARD	
LAND APPLICATION		

	MISSISSIPPI
	LAND APPLICATION
APPROVAL OR PERMIT	PERMIT IS REQUIRED. ISSUED FOR
APPLIC. SUBMITTAL	LIFE OF SITE
	SUBMITTAL INCLUDES:
	SITE ID, LAND OWNERSHIP, SITE
	BKGD, LAND USE, PROVISIONS
	FOR INSPECTION AND MAINT,
	POST-CLOSURE USE, SITE MAPS,
	GEOLOGIC CHAR, OPERATION PLAN
CRITERIA FOR USE	
DEGREE OF STABILIZATION	NOT SPECIFIED FOR SLUDGE
	PSRP FOR SEPTIC TANK PUMPINGS
SOIL SAMPLING	
PRE-APPLICATION	TESTING REQUIRED
	SOIL-WASTE TESTING REQUIRED

	MISSISSIPPI	
	LAND APPLICATION	
POST-APPLICATION	UPON CLOSURE, TEST FOR PARAMETERS	
	LISTED IN PERMIT, AND MAILED TO	
	DEPT IN 90 DAYS	
WATER QUALITY MONITORING		
GROUND WATER	SITE SPECIFIC AS REQUIRED IN PERMIT	
	ZONE OF AERATION MUST BE MONITORED	
SURFACE WATER		
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED		
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS	NOT TO EXCEED PLANT AVAIL N LEVELS	
N (ANNUAL)	SPECIF ARE GIVEN FOR CROPS	

	MISSISSIPPI	
	LAND APPLICATION	
PH		
METALS		
CD		
ANNUAL	0.5 KG/HA	
MAX CUMULATIVE	IF CEC< 5: 6 KG/HA IF 5<CEC<15: 11 KG/HA IF CEC>15: 22 KG/HA	
PB	IF CEC<5: 561 KG/HA IF 5<CEC<15: 112 KG/HA IF CEC>15: 2242 KG/HA	

	MISSISSIPPI	
	LAND APPLICATION	
ZN	IF CEC<5: 280 KG/HA	
	IF 5<CEC<15: 561 KG/HA	
	IF CEC> 15: 1121 KG/HA	
CU	IF CEC<5: 140 KG/HA	
	IF 5<CEC<15: 280 KG/HA	
	IF CEC>15: 561 KG/HA	
CR		
NI	IF CEC<5: 56 KG/HA	
	IF 5<CEC<15: 112 KG/HA	
	IF CEC>15: 224 KG/HA	
HG		

	MISSISSIPPI LAND APPLICATION
ORGANICS	
PCB	
LAND USE RESTRICTIONS	
CROPS	18 MOS IF CROP CONSUMED RAW, UNLESS PROVED NOT TO BE A HAZARD 30 DAYS FOR CROPS FOR INDIRECT HUMAN CONSUMPTION, UNLESS NOT A HAZARD TO HUMANS THROUGH FOOD CHAIN
GRAZING OR GREENCHOP	60 DAYS

	MISSISSIPPI	
	LAND APPLICATION	
PUBLIC ACCESS	12 MOS	
PH OF SOIL	= OR > 6.5	
SITING RESTRICTIONS		
SOIL CONDITIONS	MUST BE SUITABLE	
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL	300 FT	
DIST TO PUBLIC WELL	300 FT	
DIST TO RESIDENCE	300 FT	

	MISSISSIPPI	
	LAND APPLICATION	
DIST TO OTHER BLDGS.	300 FT IF INHABITED	
DIST TO PROPERTY LINE		
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW	3 FT	
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		

FILE 2.6

	MISSISSIPPI	
	LAND APPLICATION	
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT ON SATURATED GROUND NOT IN 100 YR FLOODPLAIN UNLESS AREA CAN BE PROTECTED AGST WASHOUT	
DIST TO SURFACE WATER	50 FT UNLESS SHOW NO RUNOFF	
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL	MUST BE INCORP IF < 12% SOLID, MUST BE INJECTED UNLESS APPROVED	
MAXIMUM SLOPE LIMIT	< 8% UNLESS APPROVED	
RECORDS		

	MISSISSIPPI	
	LAND APPLICATION	
REPORTS	UPON CLOSURE, SOIL TEST WITHIN 90 DAYS	
NOTIFICATIONS	TO FUTURE LANDOWNERS IF SUBST APPLIED IN EXCESS OF THOSE ESTAB AS ACCEPTABLE FOR FOOD CHAIN CROPS NO NOTIF NECESS IF SOIL ANAL SHOWS CONTAMINANTS NO LONGER PRESENT	
STORAGE		
TRANSPORTATION		

	MISSISSIPPI LAND APPLICATION
UNCONTROLLED USE	NOT SPECIFICALLY ADDRESSED; HOWEVER REGS STATE THAT NO PERMIT REQUIRED FOR SOLID WASTE THAT IS BENEFICIALLY USED, OR RECYCLED
DEDICATED SITES	NOT ADDRESSED

FILE 2.6

MISSISSIPPI
LAND APPLICATION

COMMENTS

FILE 2.6

	MONTANA	
	LAND APPLICATION	
SLUDGE CLASSIFICATION	GROUP 11 WASTES INCLUDE DIGESTED SEWAGE TREATMENT SLUDGE	
STATE CONTROL		
LAWS, TITLE & DATE	MONTANA SOLID WASTE MANAGEMENT ACT SECTION 75-10-201 TO 233	
REGS, TITLE & DATE	ADMINISTRATIVE RULES OF MONTANA TITLE 16, CHAPTER 14, SUB-CHAPTER 5	
GUIDELINES, TITLE & DATE		
CONTROLLING AGENCY	DEPT OF HEALTH AND ENVIRONMENTAL SCIENCES ENVIRONMENTAL SCIENCES DIVISION SOLID WASTE MANAGEMENT BUREAU HELENA, MONTANA 59620	
	406/444/2821	

[illegible]

	MONTANA
	LAND APPLICATION
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS	NOT HAZARDOUS AS DEFINED IN 40 CFR 250.1
CONDUCTIVITY (SALT)	
NUTRIENTS (% BY DRY WEIGHT)	
N	
P	
K	
METALS (MG/KG SLUDGE DRY WEIGHT)	
AS	
CD	
PB	

	MONTANA
	LAND APPLICATION
NI	
ZN	
CU	
CR	
HG	
MO	
B	
FE	
ORGANICS	
PCB	
WATER	
OTHER CONTAMINANTS	
RECORDS	

	MONTANA	
	LAND APPLICATION	
REPORTS		
NOTIFICATIONS		
STORAGE (IF APPLICABLE)		
LAND APPLICATION		

	MONTANA
	LAND APPLICATION
APPROVAL OR PERMIT APPLIC. SUBMITTAL	GROUP II WASTES CAN BE DISPOSED IN A CLASS I OR II SITE UPON APPROVAL AND LICENSE LICENSE REQUIREMENTS ARE LISTED ABOVE UNDER SLUDGE ACCEPTABILITY SPECIFIC RESTRICTIONS MAY BE PLACED UPON THE OPERATION
CRITERIA FOR USE DEGREE OF STABILIZATION	MUST BE DIGESTED
SOIL SAMPLING PRE-APPLICATION	SAMPLING REQUIRED TO DETERMINE TYPE OF SOIL AND PERMEABILITY

	MONTANA	
	LAND APPLICATION	
POST-APPLICATION		
WATER QUALITY MONITORING		
GROUND WATER	MAY BE REQUIRED	
SURFACE WATER		
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED	NOT SPECIFIED	
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)		

PH

METALS

CD
ANNUAL

MAX CUMULATIVE

PB

Montana

	MONTANA	
	LAND APPLICATION	
ZN		
CU		
CR		
NI		
HG		

MONTANA
LAND APPLICATION

ORGANICS

PCB

LAND USE RESTRICTIONS

CROPS

GRAZING OR GREENCHOP

	MONTANA
	LAND APPLICATION
PUBLIC ACCESS	IF PUBLIC ACCESS POSSIBLE, ROADS AND BRIDGES MUST BE ABLE TO CARRY LOADED VEHICLES DURING ALL WEATHER
PH OF SOIL	
SITING RESTRICTIONS	
SOIL CONDITIONS	MUST BE ORGAN CLAY OR SILT, INORG CLAY, CLAYEY SANDS OR GRAVEL, INORG SILT, ORGANIC SILT, OR SILTY SAND OR SILTY GRAVEL
BUFFER REQUIREMENTS	
DIST TO PRIVATE WELL	NO POLLUTION ALLOWED
DIST TO PUBLIC WELL	NO POLLUTION ALLOWED
DIST TO RESIDENCE	

	MONTANA	
	LAND APPLICATION	
DIST TO OTHER BLDGS.		
DIST TO PROPERTY LINE		
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW	10-20 FT	
DEPTH TO BEDROCK		
PERMEABILITY	10-6 TO 10-3 CN/SEC	
	1-1035 FT/YR	
INFILTRATION		
SURFACE WATER PROTECTION	NO POLLUTION ALLOWED	

	MONTANA
	LAND APPLICATION
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT IN 100 YR FLOODPLAIN
DIST TO SURFACE WATER	
DIST TO DRY RUN	
RUNOFF AND EROSION CONTROL	DRAINAGE STRUCTURES MAY BE NECESSARY
MAXIMUM SLOPE LIMIT	
RECORDS	

	MONTANA	
	LAND APPLICATION	
REPORTS		
NOTIFICATIONS		
STORAGE		
TRANSPORTATION	MUST PREVENT DISCHARGE, OR LEAKING	

	MONTANA LAND APPLICATION	
UNCONTROLLED USE	NOT SPECIFICALLY ADDRESSED ALTHOUGH REP FROM DEPT SAID THAT IN GENERAL, IF USE IS BENEFICIAL, NO LICENSE IS REQUIRED	
DEDICATED SITES	NOT ADDRESSED	

FILE 2.6

MONTANA
LAND APPLICATION

COMMENTS

SLUDGE CLASSIFICATION		NEBRASKA	
		LAND APPLICATION/UNCONTROLLED	
		DISTRIBUTION	
		NOT ADDRESSED	
STATE CONTROL			
LAWS, TITLE & DATE		NEBRASKA LITTER REDUCTION	
		AND RECYCLING ACT	
		STAT 81-1505, 1943 AS AMENDED	
REGS, TITLE & DATE			
GUIDELINES, TITLE & DATE			
CONTROLLING AGENCY		NEBRASKA DEPT OF ENVIRONMENTAL	
		CONTROL	
		LINCOLN, NEBRASKA 68509	
		402/471/4210	

FILE 2.6

[illegible]

FILE 2.6

	NEBRASKA	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	

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MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS			
CONDUCTIVITY (SALT)			
NUTRIENTS (% BY DRY WEIGHT)			
N			
P			
K			
METALS (MG/KG SLUDGE DRY WEIGHT)			
AS			
CD			
PB			

	NEBRASKA
	LAND APPLICATION/UNCONTROLLED
	DISTRIBUTION
	NOT ADDRESSED
NI	
ZN	
CU	
CR	
HG	
MO	
B	
FE	
ORGANICS	
PCB	
WATER	
OTHER CONTAMINANTS	
RECORDS	

		NEBRASKA	
		LAND APPLICATION/UNCONTROLLED	
		DISTRIBUTION	
		NOT ADDRESSED	
REPORTS			
NOTIFICATIONS			
STORAGE (IF APPLICABLE)			
LAND APPLICATION			

FILE 2.6

[illegible]

FILE 2.6

		NEBRASKA	
		LAND APPLICATION/UNCONTROLLED	
		DISTRIBUTION	
		NOT ADDRESSED	
POST-APPLICATION			
WATER QUALITY MONITORING			
GROUND WATER			
SURFACE WATER			
CROP MONITORING			
MAXIMUM SLUDGE LOADING LIMIT			
KG/HA UNLESS OTHERWISE NOTED			
(CEC IN MEQ/100G SOIL)			
ANNUAL OR CUMULATIVE			
NUTRIENTS			
N (ANNUAL)			

FILE 2.6

[illegible]

		NEBRASKA	
		LAND APPLICATION/UNCONTROLLED	
		DISTRIBUTION	
		NOT ADDRESSED	
ZN			
CU			
CR			
N1			
HG			

	NEBRASKA
	LAND APPLICATION/UNCONTROLLED
	DISTRIBUTION
	NOT ADDRESSED
ORGANICS	
PCB	
LAND USE RESTRICTIONS	
CROPS	
GRAZING OR GREENCHOP	

	NEBRASKA	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
PUBLIC ACCESS		
PH OF SOIL		
SITING RESTRICTIONS		
SOIL CONDITIONS		
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL		
DIST TO PUBLIC WELL		
DIST TO RESIDENCE		

	NEBRASKA
	LAND APPLICATION/UNCONTROLLED
	DISTRIBUTION
	NOT ADDRESSED
DIST TO OTHER BLOGS.	
DIST TO PROPERTY LINE	
GROUNDWATER PROTECTION	
DEPTH TO HIGH GW	
DEPTH TO BEDROCK	
PERMEABILITY	
INFILTRATION	
SURFACE WATER PROTECTION	

	NEBRASKA	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING		
DIST TO SURFACE WATER		
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL		
MAXIMUM SLOPE LIMIT		
RECORDS		

		NEBRASKA
		LAND APPLICATION/UNCONTROLLED
		DISTRIBUTION
		NOT ADDRESSED
REPORTS		
NOTIFICATIONS		
STORAGE		
TRANSPORTATION		

	NEBRASKA
	LAND APPLICATION/UNCONTROLLED
	DISTRIBUTION
	NOT ADDRESSED

UNCONTROLLED USE

DEDICATED SITES

COMMENTS

	NEBRASKA	
	LAND APPLICATION/UNCONTROLLED	
	DISTRIBUTION	
	NOT ADDRESSED	
	THE STATE IS IN THE PROCESS	
	OF DEVELOPING GUIDELINES FOR LAND	
	APPLICATION. THEY CURRENTLY	
	ADDRESS ON CASE BY CASE	
	BASIS AND RELY ON FEDERAL	
	GUIDELINES	
	THE ONLY REGS THEY HAVE DEALING	
	WITH COMPOSTING ARE FOR THE	
	SITING OF THE COMPOST PRODUCTION	
	FACILITY	

FILE 2.6

	NEVADA	
	LAND APPLICATION OR GIVE-AWAY	
	NOT ADDRESSED	
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	NEVADA WATER POLLUTION CONTROL LAW TITLE 40 CHAPTER 445 1973--AMENDED THROUGH 1981 NEVADA SOLID WASTE DISPOSAL LAW SECTS 444.440-444.630 1971--AMENDED 1983	
REGS, TITLE & DATE	NEVADA WATER POLLUTION CONTROL REGS CHAPTER 445,5/2/78;AMENDED 7/2/80	
GUIDELINES, TITLE & DATE		
CONTROLLING AGENCY	NEVADA DEPT OF ENVTL PROTECTION WATER QUALITY OFFICE NEVADA DEPT OF CONSERVATION AND NATURAL RESOURCES SOLID WASTE MNGT PROGRAM CARSON CITY, NEVADA 89710 702/885/4670	

[illegible]

NEVADA	
LAND APPLICATION OR GIVE-AWAY	
NOT ADDRESSED	

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MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS	
CONDUCTIVITY (SALT)	
NUTRIENTS (% BY DRY WEIGHT)	
N	
P	
K	
METALS (MG/KG SLUDGE DRY WEIGHT)	
AS	
CD	
PB	

FILE 2.6

	NEVADA	
	LAND APPLICATION OR GIVE-AWAY	
	NOT ADDRESSED	
NI		
ZN		
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB		
WATER		
OTHER CONTAMINANTS		
RECORDS		

	NEVADA	
	LAND APPLICATION OR GIVE-AWAY	
	NOT ADDRESSED	
REPORTS		
NOTIFICATIONS		
STORAGE (IF APPLICABLE)		
LAND APPLICATION		

FILE 2.6

[illegible]

FILE 2.6

	NEVADA	
	LAND APPLICATION OR GIVE-AWAY	
	NOT ADDRESSED	
POST-APPLICATION		
WATER QUALITY MONITORING		
GROUND WATER		
SURFACE WATER		
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED	LOADING RATES ARE SITE SPECIFIC	
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)		

FILE 2.6

	NEVADA
	LAND APPLICATION OR GIVE-AWAY
	NOT ADDRESSED
PH	
METALS	
CD	
ANNUAL	
MAX CUMULATIVE	
PB	

Nevada

	NEVADA	
	LAND APPLICATION OR GIVE-AWAY	
	NOT ADDRESSED	
ZN		
CU		
CR		
NI		
HG		

	NEVADA	
	LAND APPLICATION OR GIVE-AWAY	
	NOT ADDRESSED	
ORGANICS		
PCB		
LAND USE RESTRICTIONS		
CROPS		
GRAZING OR GREENCHOP		

	NEVADA	
	LAND APPLICATION OR GIVE-AWAY	
	NOT ADDRESSED	
PUBLIC ACCESS		
PH OF SOIL		
SITING RESTRICTIONS		
SOIL CONDITIONS		
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL		
DIST TO PUBLIC WELL		
DIST TO RESIDENCE		

	NEVADA	
	LAND APPLICATION OR GIVE-AWAY	
	NOT ADDRESSED	
DIST TO OTHER BLDGS.		
DIST TO PROPERTY LINE		
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW		
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		

	NEVADA	
	LAND APPLICATION OR GIVE-AWAY	
	NOT ADDRESSED	
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING		
DIST TO SURFACE WATER		
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL		
MAXIMUM SLOPE LIMIT		
RECORDS		

FILE 2.6

	NEVADA	
	LAND APPLICATION OR GIVE-AWAY	
	NOT ADDRESSED	
REPORTS		
NOTIFICATIONS		
STORAGE		
TRANSPORTATION		

[illegible]

FILE 2.6

|NEVADA
 |LAND APPLICATION OR GIVE-AWAY
 |NOT ADDRESSED

COMMENTS

	NEW HAMPSHIRE DISTRIBUTION OR COMPOSTED SLUDGE GIVEAWAY	NEW HAMPSHIRE LAND APPLICATION	NEW HAMPSHIRE LAND RECLAMATION
SLUDGE CLASSIFICATION		GOVERNMENTAL	
		NON-GOVERNMENTAL	
STATE CONTROL			
LAWS, TITLE & DATE	RSA 149-M, CH. 227 ALSO, RSA 149:8,III(a)	RSA 149-M, CH. 227 ALSO, RSA 149:8,III(a) RSA 149-M:8, IV	RSA 149-M, CH. 227 ALSO, RSA 149:8,III(a)
REGULATIONS, TITLE, DATE	SOLID WASTE RULES CHAPTER PART HE-P 1901.01-1901.11 1901.05 LAND APPLICATION	SOLID WASTE RULES CHAPTER PART HE-P 1901.01-1901.11 1901.05(d)STDS. FOR SEPTAGE AND SLUDGE OCTOBER 30, 1984	SOLID WASTE RULES CHAPTER PART HE-P 1901.01-1901.11 1901.05(d)STDS. FOR SEPTAGE AND SLUDGE
GUIDELINES, TITLE&DATE	GUIDELINES FOR LAND APPLICATION OF MUNICIPAL SLUDGE (12/83) NOTE: LISTED CRITERIA ARE CONTAINED IN GUIDELINES OR REGULATIONS AS INDICATED BY G OR R	GUIDELINES FOR LAND APPLICATION OF MUNICIPAL SLUDGE (12/83) NOTE: LISTED CRITERIA ARE CONTAINED IN GUIDELINES OR REGULATIONS AS INDICATED BY G OR R	GUIDELINES FOR LAND APPLICATION OF MUNICIPAL SLUDGE (12/83) NOTE: LISTED CRITERIA ARE CONTAINED IN GUIDELINES OR REGULATIONS AS INDICATED BY G OR R
CONTROLLING AGENCY	NH WATER SUPPLY AND POLLUTION	NH WATER SUPPLY AND POLLUTION	NH WATER SUPPLY AND POLLUTION

NEW HAMPSHIRE
DISTRIBUTION OR
COMPOSTED SLUDGE GIVEAWAY

NEW HAMPSHIRE
LAND APPLICATION

NEW HAMPSHIRE
LAND RECLAMATION

SAMPLING SLUDGE PARAMETERS

|G|SLUDGE ANALYSIS: TO BE DONE BY
| | TREATMENT WORKS:%SOL.,TVS,PH,
| | P,K,TKN,NH3,NO3+NO2,
| | CD,CR,CU,PB,HG,NI,ZN
| |SLUDGE SAMPLING FREQUENCY:
| |3/YR IF POTW>1 MGD
| |1/YR IF POTW<1 MGD

|G|SLUDGE ANALYSIS: TO BE DONE BY
| | TREATMENT WORKS:%SOL.,TVS,PH,
| | P,K,TKN,NH3,NO3+NO2,
| | CD,CR,CU,PB,HG,NI,ZN
| |SLUDGE SAMPLING FREQUENCY:
| |3/YR IF POTW>1 MGD
| |1/YR IF POTW<1 MGD

	NEW HAMPSHIRE DISTRIBUTION OR COMPOSTED SLUDGE GIVEAWAY	NEW HAMPSHIRE LAND APPLICATION	NEW HAMPSHIRE LAND RECLAMATION
MAXIMUM SLUDGE CONSTITUENT			
CONDUCTIVITY (SALT)			
NUTRIENTS (% BY DRY WEIG			
N			
P			
K			
METALS (MG/KG SLUDGE DRY			
AS			
CD		R 2 UNLESS ADJUSTED SOIL PH<6.5 (FED)	
		G 10	
PB		G 700	
NI		G 200	
ZN		G 2000	
CU		G 1000	
CR		G 1000	
HG		G 10	
MO			
B			
FE			
ORGANICS			
PCB		R 10 (FEDERAL)	

[illegible]

	NEW HAMPSHIRE DISTRIBUTION OR COMPOSTED SLUDGE GIVEAWAY	NEW HAMPSHIRE LAND APPLICATION	NEW HAMPSHIRE LAND RECLAMATION
REPORTS		R AS REQUIRED	R AS REQUIRED
NOTIFICATIONS	G USERS MUST SIGN FORM ACKNOWLEDGING USE RESTRICTIONS G GENERATORS MUST INFORM USERS AND BSWM OF SLUDGE QUALITY CHANGES		
STORAGE (IF APPLIC)			
LAND APPLICATION			

	NEW HAMPSHIRE DISTRIBUTION OR COMPOSTED SLUDGE GIVEAWAY	NEW HAMPSHIRE LAND APPLICATION	NEW HAMPSHIRE LAND RECLAMATION
APPROVAL OR PERMIT	 R GENERAL DISTRIBUTION MUST BE APPROVED	1901.05(d)(3) R APPROVAL REQUIRED FOR MECHANICAL SPREADING R BUT NOT FOR SMALL SCALE MANUAL SPREADING OF COMPOSTED SLUDGE	1901.05(d)(3) R APPROVAL REQUIRED FOR MECHANICAL SPREADING R BUT NOT FOR SMALL SCALE MANUAL SPREADING OF COMPOSTED SLUDGE G APPROVAL REQUIRED FOR POTW
APPLICATION SUBMITTALS		G APPROVAL FOR LANDSPREADING: G PROPERTY DESCRIPTION G PLANS G VARIANCE SIGNED BY ADJOINING LANDOWNER G RECORDKEEPING PLAN G EVIDENCE OF LOCAL APPROVAL R SITE REVIEW REQUIRED FOR MECHANICAL APPLICATION R DETAILED SITE ANALYSIS, R OPERATING PLANS: R MAP SHOWING SITE, R HYDROGEOLOGICAL DESCRIPTION R FACILITY OPERATIONS R CROPS, AGRONOMIC UPTAKE, APPLICATION METHOD, STORAGE, SOIL ANALYSIS, SLUDGE ANALYSIS, MONITORING PROGRAM, SLUDGE SOURCE, LIFETIME QUANTITY USED, TREATMENT, RECORDKEEPING PROGRAM, HARVEST	G APPROVAL FOR LANDSPREADING: G PROPERTY DESCRIPTION G PLANS G VARIANCE SIGNED BY ADJOINING LANDOWNER G RECORDKEEPING PLAN G EVIDENCE OF LOCAL APPROVAL R SITE REVIEW REQUIRED FOR MECHANICAL APPLICATION R DETAILED SITE ANALYSIS, R OPERATING PLANS: R MAP SHOWING SITE, R HYDROGEOLOGICAL DESCRIPTION R FACILITY OPERATIONS R CROPS, AGRONOMIC UPTAKE, APPLICATION METHOD, STORAGE, SOIL ANALYSIS, SLUDGE ANALYSIS, MONITORING PROGRAM, SLUDGE SOURCE, LIFETIME QUANTITY USED, TREATMENT, RECORDKEEPING PROGRAM, HARVEST

	NEW HAMPSHIRE DISTRIBUTION OR COMPOSTED SLUDGE GIVEAWAY	NEW HAMPSHIRE LAND APPLICATION	NEW HAMPSHIRE LAND RECLAMATION
		DATE AND DISPOSITION OF CROP, ANNUAL AND LIFETIME LOADING CALCS. R REGULAR MONITORING OF SOIL PH AND SLUDGE R MUST COMPLY WITH 40 CFR 257.3-5 AND .3-6(B)	DATE AND DISPOSITION OF CROP, ANNUAL AND LIFETIME LOADING CALCS. R REGULAR MONITORING OF SOIL PH AND SLUDGE R MUST COMPLY WITH 40 CFR 257.3-5 AND .3-6(B)
CRITERIA FOR USE			
DEGREE OF STABILIZATION R	PROCESS TO FURTHER REDUCE PATHOGENS FOR DISTRIBUTION TO GENERAL PUBLIC G PUBLIC USE OF RAW OR UNSTABILIZED IS NOT ALLOWED	R PROCESS TO SIGNIFICANTLY REDUCE PATHOGENS G PFRP IF CROPS FOR DIRECT HUMAN CONSUMP. GROWN WITHIN 18 MOS.	
SOIL		G SOIL ANALYSIS: CEC, PH, P, LIME REQ'S, O.M. (CEC ESTIMATED FROM TEXTURE) SOIL SAMPLING MAY BE REQUIRED	G SOIL ANALYSIS: CEC, PH, P, LIME REQ'S, O.M. (CEC ESTIMATED FROM TEXTURE) SOIL SAMPLING MAY BE REQUIRED
CROPS		G PLANT TISSUE ANALYSIS	

	NEW HAMPSHIRE DISTRIBUTION OR COMPOSTED SLUDGE GIVEAWAY	NEW HAMPSHIRE LAND APPLICATION	NEW HAMPSHIRE LAND RECLAMATION
SURFACE WATER		FREQ: SPECIFIED BY BSM MONITORING MAY BE REQUIRED	
GROUNDWATER		MONITORING MAY BE REQUIRED	
MAXIMUM SLUDGE LOADING LIM (CEC IN MEQ/100G SOIL) SLUDGE APPLICATION WILL BE SLUDGE		10 T/AC(DRY) AGRICULTURE 5 T/AC CLEAR CUT FOREST 15T/AC LAND RECLAMATION	15 T/AC(DRY)
N (ANNUAL)		CROP FERTILIZER RATE - SOME ALLOWANCE FOR NH4	

	NEW HAMPSHIRE DISTRIBUTION OR COMPOSTED SLUDGE GIVEAWAY	NEW HAMPSHIRE LAND APPLICATION	NEW HAMPSHIRE LAND RECLAMATION
		VOLATILIZATION WHEN SURFACE	
		APPLIED, N RELEASED DURING SLUDGE	
		DECOMPOSITION, AND N PRESENT IN SOIL	
METALS			
CD			
ANNUAL		R .5 KG/HA (.45 LB/AC)	R .5 KG/HA (.45 LB/AC)
MAX. CUMULATIVE		R 2.5 KG/HA (2.2 LB/AC) IF CEC < 5	G 5 KG/HA (4.5 LB/AC)
		R 5 KG/HA (4.5 LB/AC) IF 5<CEC<15	
		R 10 KG/HA (9 LB/AC) IF CEC>15	
		G LAND REC:	
		4.5 LB/AC	
PB		G (MAX. CUMULATIVE)	G (MAX. CUMULATIVE)
		562 KG/HA (500 LB/AC) IF CEC < 5	1123 KG/HA (1000 LB/AC)
		1123 KG/HA (1000 LB/AC) IF 5<CEC<15	
		2246 KG/HA (2000 LB/AC) IF CEC>15	
		LAND REC.: 1000 LB/AC	
ZN		G (MAX. CUMULATIVE)	G (MAX. CUMULATIVE)
		281 KG/HA (250 LB/AC) IF CEC<5	562 KG/HA (500 LB/AC)
		562 KG/HA (500 LB/AC) IF 5<CEC<15	
		1123 KG/HA (1000 LB/AC) IF CEC>15	
		LAND REC.: 500 LB/AC	
CU		G (MAX. CUMULATIVE)	G (MAX. CUMULATIVE)
		140 KG/HA (125 LB/AC) IF CEC<5	281 KG/HA (250 LB/AC)
		281 KG/HA (250 LB/AC) IF 5<CEC<15	
		562 KG/HA (500 LB/AC) IF CEC>15	

FILE 3.5

	NEW HAMPSHIRE DISTRIBUTION OR COMPOSTED SLUDGE GIVEAWAY	NEW HAMPSHIRE LAND APPLICATION	NEW HAMPSHIRE LAND RECLAMATION
CR		LAND REC.: 250 LB/AC G (MAX. CUMULATIVE) 140 KG/HA (125 LB/AC) IF CEC<5 281 KG/HA(250 LB/AC) IF 5<CEC<15 562 KG/HA (500 LB/AC) IF CEC>15 LAND REC.: 250 LB/AC	 G (MAX. CUMULATIVE) 281 KG/HA(250 LB/AC)
NI		G (MAX. CUMULATIVE) 56.2 KG/HA (50 LB/AC) IF CEC < 5 112 KG/HA (100 LB/AC) IF 5<CEC<15 225 KG/HA (200 LB/AC) IF CEC>15 LAND REC.: 100 LB/AC	G (MAX. CUMULATIVE) 112 KG/HA (100 LB/AC)
NG		G (MAX. CUMULATIVE) .6 KG/HA (.5 LB/AC) IF CEC < 5 1.1 KG/HA (1 LB/AC) IF 5<CEC<15 2.2 KG/HA (2 LB/AC) IF CEC>15 LAND REC.: 1.0 LB/AC	G (MAX. CUMULATIVE) 1.1 KG/HA (1 LB/AC)
ORGANICS PCBS	 	 	
LAND USE RESTRICTIONS			
CROPS	G NO SLUDGE OR BYPRODUCTS FOR GENERAL DISTRIBUTION TO BE PROMOTED FOR HOME VEG. GARDENS	G NO USE ON HOME VEG. GARDENS LAND REC.: NO HUMAN OR ANIMAL FOOD OR GRAIN CROPS FOR 24 MOS. 	G NO FOOD OR GRAIN CROPS FOR 24 MO FOLLOWING APPLI. CROP AND SOIL ANAL. REQD.
GRAZING OR GREENCHOP		R GRAZING RESTRICTED 12 MO G GRAZING RESTRICTED ON HIGH APPLICATION AREAS.	

	NEW HAMPSHIRE DISTRIBUTION OR COMPOSTED SLUDGE GIVEAWAY	NEW HAMPSHIRE LAND APPLICATION	NEW HAMPSHIRE LAND RECLAMATION
PUBLIC ACCESS	 G PUBLIC ACCESS MUST BE LIMITED DURING SPREADING 	G DAIRYLAND APPLICATION NOT RECOMMENDED R USE FEDERAL GUIDELINES 	
PH OF SOIL & SLUDGE OR PH OF SOIL	G SOIL PH MAINTAINED AT 6.5 	G 6.5 PRIOR TO APPLICATION AND MAINTAINED AT 6.5 	G 6.0 WITHIN FIRST YEAR G 6.5 SECOND YEAR
SITING RESTRICTIONS SOIL CONDITIONS	 G NOT ON POORLY OR VERY POORLY DRAINED SOIL 	G NOT ON EXCESSIVELY WELL DRAINED R NOT ON POORLY OR VERY POORLY DRAINED SOIL 	
BUFFER REQUIREMENTS DIST. TO PRIVATE WELL	G 100 	G 300 	
DIST. TO PUBLIC WELL	G 200 FT TO COMMUNITY WELL G 400 FT MUNICIPAL WATER SUPPLY	G 500 FT TO COMMUNITY WELL G 1000 FT MUNICIPAL WATER SUPPLY	
DIST TO RESIDENCE	 	G 300 FT NEAREST OCCUPIED DWELLING G 50 FT PROPERTY LINES	
DIST TO OTHER BUILDINGS	 	G 100 FT PUBLIC ROADS 	
DIST TO PROPERTY LINE	 	 	
GROUND WATER PROTECTION	 	R NOT TO CONTAMINATE GROUNDWATER 	G MONITORING MAY BE REQUIRED R NOT TO CONTAMINATE GROUNDWATER
DEPTH TO HIGH GROUNDWATER LEVEL	 	G 2 FT UNSATURATED SOIL AT TIME OF APPL. BELOW DEPTH OF APPL. 	

	NEW HAMPSHIRE DISTRIBUTION OR COMPOSTED SLUDGE GIVEAWAY	NEW HAMPSHIRE LAND APPLICATION	NEW HAMPSHIRE LAND RECLAMATION
DEPTH TO BEDROCK		G 4 FT TO BEDROCK OR IMPERM. LAYER	
PERMEABILITY			
INFILTRATION			
SURFACE WATER PROTECTION		R NOTE: SURFACE WATER INCLUDES	G MONITORING MAY BE REQUIRED
		TIDAL AREAS	R NOTE: SURFACE WATER INCLUDES
WETLANDS OR AREAS	G NOT IN AREA OF SEASONAL PONDING	G NOT APPLIED IN 10 YR FLOODPLAIN	TIDAL AREAS
SUBJECT TO PONDING OR		R NOT IN AREA OF SEASONAL PONDING	R NOT IN AREA OF SEASONAL PONDING
FLOODING		R NOT TO RESTRICT BASE FLOOD,	R NOT TO RESTRICT BASE FLOOD,
		REDUCE TEMPORARY STORAGE, OR	REDUCE TEMPORARY STORAGE, OR
		HAVE POTENTIAL FOR WASHOUT	HAVE POTENTIAL FOR WASHOUT
DIST TO SURFACE WATER	G 100 FT	G 100 FT IF SURFACE APPLIED	
		G 50 FT IF INCORPORATED	
DIST. TO DRY RUN			
RUNOFF AND EROSION	G INCORPORATED WITHIN 48 HOURS	G INCORPORATED WITHIN 48 HOURS	G NOT APPLIED AT RATES TO RESULT
CONTROL	IF UNVEGETATED	IF UNVEGETATED	IN SURFACE PONDING, ODOR, SW
		G APPLIED EVENLY	OR GW DEGRADATION
	G NOT APPLIED TO FROZEN OR SNOW	R NOT APPLIED TO FROZEN OR SNOW	G INCORPORATED WITHIN 48 HOURS
	COVERED SOIL	COVERED OR UNDER EXCESSIVELY	IF UNVEGETATED
		WET CONDITIONS	G APPLIED EVENLY
			R NOT APPLIED TO FROZEN OR SNOW
			COVERED OR UNDER EXCESSIVELY
			WET CONDITIONS
MAXIMUM SLOPE LIMIT	G 8%	R 8%	R 8%

	NEW HAMPSHIRE DISTRIBUTION OR COMPOSTED SLUDGE GIVEAWAY	NEW HAMPSHIRE LAND APPLICATION	NEW HAMPSHIRE LAND RECLAMATION
RECORDS			
REPORTS			
NOTIFICATIONS			
STORAGE	PSRP IF INTERIM STORAGE, ODOR MEASURES NECESSARY, STOCK PILING	G MUST BE 20% SOLID, MUST BE ACCESSED BY ALL SEASON ROAD., 6 MOS STORAGE	

	NEW HAMPSHIRE DISTRIBUTION OR COMPOSTED SLUDGE GIVEAWAY	NEW HAMPSHIRE LAND APPLICATION	NEW HAMPSHIRE LAND RECLAMATION
	SHOULD NOT EXCEED 6 MOS.	LIMIT, 500 FT FROM NEAREST OCCUP. DWELLING, 250 FT FROM PUBLIC ROAD NO STOCKPILING IN 100 YEAR FLOODPLAIN	
TRANSPORTATION		IN CLOSED SEALED CONTAINERS IF NOT STABILIZED	
UNCONTROLLED USE			
DEDICATED SITES			

	NEW HAMPSHIRE DISTRIBUTION OR COMPOSTED SLUDGE GIVEAWAY	NEW HAMPSHIRE LAND APPLICATION	NEW HAMPSHIRE LAND RECLAMATION	
COMMENTS	 	 	 	

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

SLUDGE CLASSIFICATION

STATE CONTROL

LAWS, TITLE & DATE

RSA 149-M,
CH. 227
ALSO, RSA 149:B,III(a)

REGULATIONS, TITLE, DATE

SOLID WASTE RULES CHAPTER
PART HE-P 1901.01-1901.11
1901.05(d)STDS. FOR SEPTAGE
AND SLUDGE

GUIDELINES, TITLE&DATE

GUIDELINES FOR LAND APPLICATION
OF MUNICIPAL SLUDGE (12/83)
NOTE: LISTED CRITERIA ARE
CONTAINED IN GUIDELINES OR
REGULATIONS AS INDICATED BY G OR R

CONTROLLING AGENCY

NH WATER SUPPLY AND POLLUTION

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

	CONTROL COMMISSION	
	BUREAU OF SOLID WASTE MANAGEMENT	
	CONCORD, NH	
	(603) 271-4672	
ACCEPTABILITY OF SLUDGE		
PERMIT OR APPROVAL	APPROVAL REQUIRED	
	G MUST BE SMALL SCALE USER	
APPLICATION SUBMITTALS	SEE SUBMITTALS UNDER L.A.	

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

SAMPLING SLUDGE PARAMETERS | SLUDGE ANALYSIS: TO BE DONE BY
| TREATMENT WORKS: %SOL., TVS, PH,
| P, K, TKN, NH3, NO3+NO2,
| CD, CR, CU, PB, HG, NI, ZN
| SLUDGE SAMPLING FREQUENCY:
| 3/YR IF POTW > 1 MGD
| 1/YR IF POTW < 1 MGD

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

MAXIMUM SLUDGE CONSTITUENT	
CONDUCTIVITY (SALT)	
NUTRIENTS (% BY DRY WEIG	
N	
P	
K	
METALS (MG/KG SLUDGE DRY	
AS	
CD	
PB	
NI	
ZN	
CU	
CR	
HG	
MO	
B	
FE	
ORGANICS	
PCB	

R/AS REQUIRED

OTHER CONTAMINANTS

RECORDS

NEW HAMPSHIRE HIGHWAYS/DEDICATED	
REPORTS	AS REQUIRED
NOTIFICATIONS	
STORAGE (IF APPLIC)	
LAND APPLICATION	

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

APPROVAL OR PERMIT

G|APPROVAL REQUIRED
|MUST BE SMALL SCALE USER

APPLICATION SUBMITTALS

[illegible]

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

CRITERIA FOR USE
DEGREE OF STABILIZATION

SOIL

G|SOIL ANALYSIS:CEC,PH,P,LIME REQS,
| O.M. (CEC ESTIMATED FROM TEXTURE)
|SOIL SAMPLING MAY BE REQUIRED

CROPS

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

SURFACE WATER		
GROUNDWATER		
MAXIMUM SLUDGE LOADING LIM		
(CEC IN MEQ/100G SOIL)		
SLUDGE APPLICATION WILL BE		
SLUDGE	5	T/AC
N (ANNUAL)		

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

METALS

CD

ANNUAL

R|.5 KG/HA (.45 LB/AC)

MAX. CUMULATIVE

G|10 KG/HA (9 LB/AC)

PB

G|(MAX. CUMULATIVE)
|2246 KG/HA (2000 LB/AC)

ZN

G|(MAX. CUMULATIVE)
|1123 KG/HA (1000 LB/AC)

CU

G|(MAX. CUMULATIVE)
|562 KG/HA (500 LB/AC)

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

CR	G (MAX. CUMULATIVE) 562 KG/HA (500 LB/AC)	
NI	G (MAX. CUMULATIVE) 225 KG/HA (200 LB/AC)	
HG	G (MAX. CUMULATIVE) 2.2 KG/HA (2 LB/AC)	
ORGANICS PCBS		
LAND USE RESTRICTIONS		
CROPS		
GRAZING OR GREENCHOP		

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

PUBLIC ACCESS		
PH OF SOIL & SLUDGE OR PH OF SOIL		
SITING RESTRICTIONS SOIL CONDITIONS		
BUFFER REQUIREMENTS	R	NOT ON POORLY OR VERY POORLY DRAINED SOIL
DIST. TO PRIVATE WELL		
DIST. TO PUBLIC WELL		
DIST TO RESIDENCE		
DIST TO OTHER BUILDINGS		
DIST TO PROPERTY LINE		
GROUND WATER PROTECTION	R	NOT TO CONTAMINATE GROUNDWATER
DEPTH TO HIGH GROUNDWATER LEVEL		

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION	R	NOTE: SURFACE WATER INCLUDES
		TIDAL AREAS
WETLANDS OR AREAS		
SUBJECT TO PONDING OR	R	NOT IN AREA OF SEASONAL PONDING
FLOODING	R	NOT TO RESTRICT BASE FLOOD,
		REDUCE TEMPORARY STORAGE, OR
		HAVE POTENTIAL FOR WASHOUT
DIST TO SURFACE WATER		
DIST. TO DRY RUN		
RUNOFF AND EROSION		
CONTROL		
	R	NOT APPLIED TO FROZEN OR SNOW
		COVERED OR UNDER EXCESSIVELY
		WET CONDITIONS
MAXIMUM SLOPE LIMIT	R	8%

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

RECORDS

REPORTS

NOTIFICATIONS

STORAGE

.New Hampshire

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

TRANSPORTATION

UNCONTROLLED USE

DEDICATED SITES

NEW HAMPSHIRE
HIGHWAYS/DEDICATED

COMMENTS

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	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED
SLUDGE CLASSIFICATION			
STATE CONTROL			
LAWS, TITLE & DATE		NJ WATER POLLUTION CONTROL ACT, NJSA 58:10A AND 13:1D-9(c) (5/85) PRETREATMENT STANDARDS FOR SEWAGE, P.L. 1972 C.42	NJ WATER POLLUTION CONTROL ACT, NJSA 58:10A AND 13:1D-9(c) (5/85) PRETREATMENT STANDARDS FOR SEWAGE, P.L. 1972 C.42
REGULATIONS, TITLE&DATE	7:14-4.1 REGULATIONS FOR SLUDGE QUAL. ASSURANCE REQUIRED OF DOMESTIC AND... NOTE: LISTED CRITERIA ARE CONTAINED IN GUIDELINES OR REGULATIONS AS INDICATED BY G OR R	7:14A-1 , SUBCH. 2.1 APPLICATION FOR NJPDES PERMIT SUBCH. 10.8 LAND APPLICATION OF SLUDGE AND SEPTAGE 7:14-4.1 REGULATIONS FOR SLUDGE QUAL. ASSURANCE REQUIRED OF DOMESTIC AND ... NOTE: LISTED CRITERIA ARE CONTAINED IN GUIDELINES OR REGULATIONS AS INDICATED BY G OR R	7:14A-1 , SUBCH. 2.1 APPLICATION FOR NJPDES PERMIT SUBCH. 10.8 LAND APPLICATION OF SLUDGE AND SEPTAGE 7:14-4.1 REGULATIONS FOR SLUDGE QUAL. ASSURANCE REQUIRED OF DOMESTIC AND... NOTE: LISTED CRITERIA ARE CONTAINED IN GUIDELINES OR REGULATIONS AS INDICATED BY G OR R
GUIDELINES, TITLE&DATE	INTERIM GUIDELINES ON GENERAL CONDITIONS FOR THE PROCESSING & DIST. OF SEWAGE SLUDGE COMPOST MINIMUM REQUIREMENTS FOR A SLUDGE QUALITY REVIEW WITH RESPECT TO LAND APPLICATION	GUIDELINES FOR LAND APPLICATION OF RESIDUALS(11/84) GUIDELINES FOR UTILIZATION OF MUNICIPAL SLUDGES & SEPTAGE MINIMUM REQUIREMENTS FOR A SLUDGE QUALITY REVIEW WITH RESPECT TO LAND APPLICATION	GUIDELINES FOR LAND APPLICATION OF RESIDUALS(11/84) GUIDELINES FOR UTILIZATION OF MUNICIPAL SLUDGES & SEPTAGE MINIMUM REQUIREMENTS FOR A SLUDGE QUALITY REVIEW WITH RESPECT TO LAND APPLICATION
CONTROLLING AGENCY	DEPT OF ENVIRONMENTAL PROTECTION DIV. OF WATER RESOURCES RESIDUALS MANAGEMENT SECTION TRENTON, NJ 08625	DEPT OF ENVIRONMENTAL PROTECTION DIV. OF WATER RESOURCES RESIDUALS MANAGEMENT SECTION TRENTON, NJ 08625	DEPT OF ENVIRONMENTAL PROTECTION DIV. OF WATER RESOURCES RESIDUALS MANAGEMENT SECTION TRENTON, NJ 08625

	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED
	(609) 292-0424	(609) 292-0424	(609) 292-0424
ACCEPTABILITY OF SLUDGE			
PERMIT OR APPROVAL	RECEIVER OF COMPOST MUST SIGN FORM ACKNOWLEDGING CONDITIONS FOR USE OF COMPOST USE IS LIMITED TO PUBLIC AGENCIES OR GENERAL CONTRACTORS FOR CONTROLLED USE	R NJDES PERMIT G NJPDES PERMIT NOT REQUIRED FOR APPLICATION OF GOOD QUALITY COMPOST AT LESS THAN 3/T/YR G RESIDUAL QUALITY MUST BE APPROVED FOR LAND APPLICATION	R NJPDES PERMIT G NJPDES PERMIT NOT REQUIRED FOR APPLICATION OF GOOD QUALITY COMPOST AT LESS THAN 3/T/YR G RESIDUAL QUALITY MUST BE APPROVED FOR LAND APPLICATION
APPLICATION SUBMITTALS		G PUBLIC PARTICIPATION MAY BE REQUIRED R APPLICATION: WASTE CHARACTERISTICS: ORIGIN & VOLUME, METHOD OF STABILIZATION, SLUDGE ANALYSIS RESULTS	R SEE APPLIC SUBMITTAL UNDER LA

NEW JERSEY
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

NEW JERSEY
LAND APPLICATION
PRIVATELY OWNED LAND/AGRICULTURAL

NEW JERSEY
LAND APPLICATION
PUBLICLY OWNED OR DEDICATED

SLUDGE SAMPLING PARAMETERS

R|X SOLIDS, %VOL. SOLIDS, PH,TKN,
| NH4-N, NO3-N, K,P,CA,MG,FE,NA,
| AS,CD,CR,CU,PB,HG,NI,AN,
| ALDRIN, DIELDRIN, ENDRIN,
| HEPTACHLOR, HEPTACHOR-EPOXIDE, DDT,
| PP'-DDE, PP'-TDE, METHOXYCHLOR,
| CHLORDANE, LINDANE, MIREX,
| TOXAPHENE, CYANIDE, OILS & GREASE
| PHENOLS, OTHERS AS REQUIRED

R|X SOLIDS, %VOL. SOLIDS, PH,TKN,
| NH4-N, NO3-N, K,P,CA,MG,FE,NA,
| AS,CD,CR,CU,PB,HG,NI,AN,
| ALDRIN, DIELDRIN, ENDRIN,
| HEPTACHLOR, HEPTACHOR-EPOXIDE, DDT,
| PP'-DDE, PP'-TDE, METHOXYCHLOR,
| CHLORDANE, LINDANE, MIREX,
| TOXAPHENE, CYANIDE, OILS & GREASE
| PHENOLS, OTHERS AS REQUIRED

	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED
MAXIMUM SLUDGE CONSTITUENT C			
CONDUCTIVITY (SALT)		G 8 MMHOS/CM IN EXTRACT	
NUTRIENTS (% BY DRY WEIGHT)			
N			
P			
K			
METALS (MG/KG SLUDGE DRY WEIGHT)			
AS			
CD		G 25 FOR DAIRY AND SOME FOOD CROPS	
PB		G 1000 FOR DAIRY OR SOME FOOD CROPS	
NI			
ZN			
CU			
CR			
HG			
MO			
B			
FE			
ORGANICS			
PCB			

FILE 4.6

	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED
WATER			
OTHER CONTAMINANTS		G PESTICIDES OR PERSISTENT ORGANICS NOT TO EXCEED RESIDUE LIMITS IN CROPS SET BY FEDERAL REGS	
RECORDS			G RECORD KEEPING SYSTEM FOR METALS ACCUMULATION
REPORTS		R SLUDGE REPORT: MONTHLY HEAVY METALS AND SELECTED CHEM. PARAMETERS REPORT: 1/YR FOR <.1MGD, 2/YR FOR .1-1 MGD 4/YR FOR 1-5 MGD MONTHLY FOR > 5MGD OR WHERE INDUSTRY CONTRIBUTES >10% R MAY REDUCE FREQUENCY WHERE APPROVED TOXIC ORGANIC COMPOUNDS REPORT	
NOTIFICATIONS			

	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED
STORAGE (IF APPLICABLE)			
LAND APPLICATION APPROVAL OR PERMIT	RECEIVER OF COMPOST MUST SIGN FORM ACKNOWLEDGING CONDITIONS FOR USE OF COMPOST USE IS LIMITED TO PUBLIC AGENCIES OR GENERAL CONTRACTORS FOR CONTROLLED USE	G SITE MUST BE APPROVED	G SITE MUST BE APPROVED G NJPDDES PERMIT NOT REQUIRED FOR APPLICATION OF GOOD QUALITY COMPOST AT LESS THAN 3/T/YR G RESIDUAL QUALITY MUST BE APPROVED FOR LAND APPLICATION
APPLICATION SUBMITTALS		R SITE INFORMATION: LOCATION, MAP SHOWING SITE, PLOT PLAN SHOWING: LOT & BLOCK NO., SITE AREA, WATER SUPPLIES, ROADS & DWELLINGS, GROUNDWATER FLOW DIRECTION, MONITOR WELLS, SOIL BORINGS SOILS MAP SHOWING SITE, SOIL SAMPLE RESULTS , SITE EVALUATION, SOIL BORINGS	R APPLICATION: WASTE CHARACTERISTICS: ORIGIN & VOLUME, METHOD OF STABILIZATION, SLUDGE ANALYSIS RESULTS SITE INFORMATION: LOCATION, MAP SHOWING SITE, PLOT PLAN SHOWING: LOT & BLOCK NO., SITE AREA, WATER SUPPLIES, ROADS & DWELLINGS, GROUNDWATER FLOW DIRECTION,

	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED
		APPLICATION RATES: SLUDGE: VOL/APPL. COMPOST: ANNUAL & CUMULATIVE OPERATIONS: METHOD & EQUIP., CROP MGMT PLAN: CROP, ROTATION, APPLICATION RATE, SCHEDULE, STORAGE, SOIL TESTING CROP USE, ODOR & NUISANCE CONTROL PROCEDURES MANUAL: RECORD KEEPING, GROUNDWATER, SOIL, & SLUDGE MON., ABILITY TO TRANSFER TO OTHER SITE, MAINTENANCE, TRANSPORTATION G POLLUTION PROTECTION DEVICES, DIKES, BERMS, ETC.	MONITOR WELLS, SOIL BORINGS SOILS MAP SHOWING SITE, SOIL SAMPLE RESULTS , SITE EVALUATION, SOIL BORINGS APPLICATION RATES: SLUDGE: VOL/APPL. COMPOST: ANNUAL & CUMULATIVE OPERATIONS: METHOD & EQUIP., CROP MGMT PLAN: CROP, ROTATION, APPLICATION RATE, SCHEDULE, STORAGE, SOIL TESTING CROP USE, ODOR & NUISANCE CONTROL PROCEDURES MANUAL: RECORD KEEPING, GROUNDWATER, SOIL, & SLUDGE MON., ABILITY TO TRANSFER TO OTHER SITE, MAINTENANCE, TRANSPORTATION G MUST SHOW SITE IS FAVORABLE AND SURFACE AND GROUND WATER CONTAMINATION WILL BE PREVENTED G CONTINGENCY PLAN, RECORDKEEPING, CONTROL OF PUBLIC ACCESS, GUARANTEE OF PH MAINTENANCE, SYSTEM DESIGN, PROCEDURE MANUAL, SLUDGE QUALITY MONITORING PROGRAM
CRITERIA FOR USE DEGREE OF STABILIZATION		G MUST BE STABILIZED BY PROCESS TO SIGNIFICANTLY REDUCE OR FURTHER REDUCE PATHOGENS	G MUST BE STABILIZED BY PROCESS TO SIGNIFICANTLY REDUCE OR FURTHER REDUCE PATHOGENS

	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED
		(40 CF4 257)	(40 CF4 257)
MONITORING			
SOIL		R SOILS LOGGED, PERMEABILITY AND CEC ESTIMATED R NUMBER OF BORINGS: 3 FOR 1-10 AC, 6 FOR 10-50 AC, 12 FOR 50-100 AC, 18 FOR 100-200 AC, >24 FOR >200 AC G HEAVY METALS BACKGROUND LEVELS	CROPS ARE GROWN
CROPS		G PLANT TISSUE MONITORING FOR METALS AND PESTICIDES ON EDIBLE PART OF FOOD CHAIN CROPS MAY BE REQUIRED	G PLANT TISSUE MONITORING FOR METALS AND PESTICIDES ON EDIBLE PART OF FOOD CHAIN CROPS MAY BE REQUIRED
SURFACE WATER			
GROUNDWATER			G GW MONITORING MAY BE REQUIRED

	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED
MAXIMUM SLUDGE LOADING LIMIT (CEC IN MEQ/100G SOIL)			
SLUDGE APPLICATION WILL BE L SLUDGE		LIQUID: G 25000 GAL/ACRE/APP., COARSE SOIL 15000 GAL/ACRE/APP., MEDIUM SOILS 10000 GAL/ACRE/APP., FINE SOILS OR 30 T/ACRE/YR DRY COMPOST G CROP REQUIREMENT, DEPENDING IN CONTENT OF ORGANIC AND INORG. N(MUST USE FERTILIZER TO SUPPLY P & K IF NECESSARY) BASED ON CROP AND SOIL PRODUCTIVITY CLASS	LIQUID: G 25000 GAL/ACRE/APP., COARSE SOIL 15000 GAL/ACRE/APP., MEDIUM SOILS 10000 GAL/ACRE/APP., FINE SOILS DRY COMPOST APP. 25 TO 100 T/AC/YR G CONSISTENT WITH PLANT UPTAKE, MAY BE LIMITED BY P
NUTRIENTS N (ANNUAL)			
METALS CD ANNUAL		G 1.25 KG/AC	G METALS LOADING LIMITED TO PREVENT IMPAIRMENT OF FUTURE SITE USEFULNESS
MAX. CUMULATIVE		G < 5 KG/HA--CEC < 5 < 10 KG/HA--5<CEC<10 < 20 KG/HA--CEC>10	

	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED
PB		G (ANNUAL) 112 LB/AC (MAX. CUMULATIVE) 560 KG/HA IF CEC < 5 1120 KG/HA IF 5<CEC<15 2240 IF CEC>15	
ZN		G (MAX. CUMULATIVE) 280 IF CEC < 5 560 IF 5<CEC<15 1120 IF CEC>15	
CU		G (MAX. CUMULATIVE) 140 IF CEC < 5 280 IF 5<CEC<15 560 IF CEC>15	
CR			
NI		G (MAX. CUMULATIVE) 140 IF CEC < 5 280 IF 5<CEC<15 560 IF CEC>15	
HG			
ORGANICS			
PCBS			
		G OTHER COMPONENTS AS REQUIRED	

	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED
LAND USE RESTRICTIONS		G PRECAUTIONS MUST BE DEVELOPED FOR SEVERE LAND USE CONDITIONS	
CROPS		G SLUDGE CONTAINING > 25 PPM CD OR >1000 PPM PB NOT TO BE APPLIED TO TOBACCO, LEAFY VEGES, ROOT CROPS, PEANUTS G NOT USED ON CROP WHERE EDIBLE PART IS EATEN RAW WITHIN 18 MO UNLESS TESTED FOR ASCARIS G 30 DAYS AFTER APPLICATION	
GRAZING OR GREENCHOP			
PUBLIC ACCESS			
PH OF SOIL & SLUDGE OR PH OF SOIL		G SOIL PH MAINTAINED AT OR ABOVE 6.5 WHERE FOOD CHAIN CROPS ARE RAISED	G SOIL PH MAINTAINED AT OR ABOVE 6.5 WHERE FOOD CHAIN CROPS ARE RAISED
SITING RESTRICTIONS			
SOIL CONDITIONS		G MUST BE WELL, MODERATELY WELL, OR SOMEWHAT EXCESSIVELY WELL DRAINED (FOR SLIGHT OR MODERATE LIMITATION)	G MUST BE WELL, MODERATELY WELL, OR SOMEWHAT EXCESSIVELY WELL DRAINED (FOR SLIGHT OR MODERATE LIMITATION)
BUFFER REQUIREMENTS			
DIST. TO PRIVATE WELL		G 300 FT	G 300 FT
DIST. TO PUBLIC WELL		G 1500 FT	G 1500 FT

FILE 4.6

	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED
DIST TO RESIDENCE			
DIST TO OTHER BUILDINGS			
DIST TO PROPERTY LINE			
GROUND WATER PROTECTION			
DEPTH TO HIGH GW		G > 2 FT (FOR SLIGHT OR MODERATE LIMITATION)	G > 2 FT (FOR SLIGHT OR MODERATE LIMITATION)
DEPTH TO BEDROCK		G > 2 FT (FOR SLIGHT OR MODERATE	G > 2 FT (FOR SLIGHT OR MODERATE
PERMEABILITY		G .2 TO 20 IN/HR (SLT. TO MOD. LIMIT.)	G .2 TO 20 IN/HR (SLT. TO MOD. LIMIT.)
INFILTRATION		G >.2 IN/HR (SLIGHT TO MOD. LIMIT.)	G >.2 IN/HR (SLIGHT TO MOD. LIMIT.)
SURFACE WATER PROTECTION			
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING			
DIST TO SURFACE WATER		G 200 FT	G 200 FT
DIST. TO DRY RUN			
RUNOFF AND EROSION CONTROL		G APPLICATION NOT ALLOWED ON FROZEN OR SNOW COVERED GROUND	G APPLICATION NOT ALLOWED ON FROZEN OR SNOW COVERED GROUND

	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED
MAXIMUM SLOPE LIMIT		G< 12% (SLIGHT TO MODERATE LIMIT.)	G< 12% (SLIGHT TO MODERATE LIMITATION)
RECORDS			GRECORDS KEEPING SYSTEM FOR METALS ACCUMULATION
REPORTS			
NOTIFICATIONS			

	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED	
STORAGE				
TRANSPORTATION				
UNCONTROLLED USE				

	NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED
DEDICATED SITES		G APPLIC. RATES MAY BE CHANGED UPON APPROVAL- MONITORING, ACCESS CONTROL REF'D	
COMMENTS			

NEW JERSEY UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	NEW JERSEY LAND APPLICATION PRIVATELY OWNED LAND/AGRICULTURAL	NEW JERSEY LAND APPLICATION PUBLICLY OWNED OR DEDICATED	

FILE 4.6

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

SLUDGE CLASSIFICATION	USE IS LIMITED TO PUBLIC AGENCIES OR GENERAL CONTRACTORS FOR CONTROLLED USE
STATE CONTROL LAWS, TITLE & DATE	
REGULATIONS, TITLE&DATE	7:14-4.1 REGULATIONS FOR SLUDGE QUAL. ASSURANCE REQUIRED OF DOMESTIC AND... NOTE: LISTED CRITERIA ARE CONTAINED IN GUIDELINES OR REGULATIONS AS INDICATED BY G OR R
GUIDELINES, TITLE&DATE	INTERIM GUIDELINES ON GENERAL CONDITIONS FOR THE PROCESSING & DIST. OF SEWAGE SLUDGE COMPOST MINIMUM REQUIREMENTS FOR A SLUDGE QUALITY REVIEW WITH RESPECT TO LAND APPLICATION
CONTROLLING AGENCY	DEPT OF ENVIRONMENTAL PROTECTION DIV. OF WATER RESOURCES RESIDUALS MANAGEMENT SECTION TRENTON, NJ 08625

| (609) 292-0424

PERMIT OR APPROVAL

APPLICATION SUBMITTALS

G|SLUDGE QUALITY ASSURANCE REGS.
| SOURCE SLUDGE QUALITY HISTORY
| SLUDGE IDENTIFICATION AND DESCR.
|PROJECTED MONTHLY VOLUME

FILE 4.6

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

SLUDGE SAMPLING PARAMETERS

G|SOURCE SLUDGE ANALYSIS OF EACH SLUDGE|
|NH4-N, NO3-N, K,P,CA,MG,FE,NA,|
|AS,CD,CR,CU,PB,HG,NI,AN,|
|ALDRIN, DIELDIN, ENDRIN,|
|HEPTACHLOR, HEPTACHOR-EPOXIDE, DDT,|
|PP'-DDE, PP'-TDE, METHOXYCHLOR,|
|CHLORDANE, LINDANE, MIREX,|
|TOXAPHENE, CYANIDE, OILS & GREASE|
|PHENOLS, OTHERS AS REQUIRED|
|EP TOXICITY TEST MAY BE REQUIRED|
|COMPOSTING PROCESS IS MONITORED|
G|FOR COMPOSTING TEMPERATURE|
G|COMPOST MUST BE TESTED FOR:|
|% WATER, % VOL. SOLIDS, PH, TOT N,|

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

| P2O5, K2O, C/N RATIO,CD,NI,CU,ZN,
| ZN,PB,AS,HG,CR
| MONTHLY: >100 DRY T/WK,QUARTERLY:
| 25-100 T/WK, BIENNIAL: <25 T/WK
G|THE ABOVE REQUIREMENTS MAY BE MET
| BY SLUDGE QUALITY ASSURANCE REG.S
G|COMPOST PARTICLE SIZE DISTRIBUTION
G|CHEMICAL ANALYSIS OF BULKING AGENT

MAXIMUM SLUDGE CONSTITUENT C
CONDUCTIVITY (SALT)
NUTRIENTS (% BY DRY WEIGHT)
N
P
K
METALS (MG/KG SLUDGE DRY
WEIGHT)
AS
CD
PB
NI
ZN
CU
CR
HG
MO
B
FE
ORGANICS
PCB

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

WATER

OTHER CONTAMINANTS

RECORDS

G|KEEP 1 YR:
| TEST RESULTS FOR SLUDGE & COMPOST
| TEMPERATURE MONITORING
| COMPOST APPLICATION AND SITE INFO.
| SHEET FOR EACH RECEIVING SITE
| MONTHLY VOLUME OF PRODUCTION,
| STORAGE, & DISTRIBUTION

REPORTS

G|COPIES OF RECORDS SUBMITTED ON
| MONTHLY OR QUARTERLY BASIS

NOTIFICATIONS

G|RECEIVER OF COMPOST MUST SIGN FORM

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

	ACKNOWLEDGING CONDITIONS FOR USE OF COMPOST
STORAGE (IF APPLICABLE)	
LAND APPLICATION APPROVAL OR PERMIT	
APPLICATION SUBMITTALS	G COMPOST APPLICATION SITE FORM AMOUNT COMPOST NEEDED, LOCATION, OWNER, TYPE OF AREA(RESID., COMMERCIAL, OR IND.), SIZE, DISTANCE TO SURFACE WATER OR WELL, SOIL TYPE, DEPTH TO WATER, USE, APPLICATION METHOD, STORAGE, SITE LOCATION MAPS: SOILS MAP SHOWING SITE, PROPERTY

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

OWNER CERTIFICATION
SLUDGE COMP. FACILITIES APPLICATION:
LOCATION MAP, PLOT PLAN,
DESCRIPTION OF RAINFALL, WIND,
PUBLIC ACCESS,
OPERATION & MAINTENANCE MANUAL,
ENG. PLAN & MONITORING REQS.,
SLUDGE CHAR., BULKING AGENT,
HANDLING EQUIPMENT, TRANSPORTATION

CRITERIA FOR USE

DEGREE OF STABILIZATION	PROCESS TO FURTHER REDUCE PATHOGENS (40 CFR 257)
G	PROCESS MUST BE MONITORED FOR TEMP.

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

MONITORING
SOIL

CROPS

SURFACE WATER

GROUNDWATER

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

MAXIMUM SLUDGE LOADING LIMIT (CEC IN MEQ/100G SOIL)	
SLUDGE APPLICATION WILL BE L	
SLUDGE	G 30 T/AC/YR DRY MAY BE GREATER WITH APPROVAL
NUTRIENTS	
N (ANNUAL)	G CROP REQUIREMENTS
METALS	
CD	
ANNUAL	
MAX. CUMULATIVE	G < 5 KG/HA--CEC < 5 < 10 KG/HA--5<CEC<10 < 20 KG/HA--CEC>10

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

PB		
	G (ANNUAL) 100 LB/AC	
	(MAX. CUMULATIVE)	
	560 KG/HA IF CEC < 5	
	1120 KG/HA IF 5<CEC<15	
	2240 IF CEC>15	
ZN	G (MAX. CUMULATIVE)	
	280 IF CEC < 5	
	560 IF 5<CEC<15	
	1120 IF CEC>15	
CU	G (MAX. CUMULATIVE)	
	140 IF CEC < 5	
	280 IF 5<CEC<15	
	560 IF CEC>15	
CR		
NI	G (MAX. CUMULATIVE)	
	56 IF CEC<5	
	112 IF 5<CEC<15	
	224 IF CEC>15	
HG		
ORGANICS		
PCBS		

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

LAND USE RESTRICTIONS		
CROPS	G NOT RECOMMENDED FOR USE ON HOME VEG. GARDENS	
	G NOT ALLOWED ON SOILS USED FOR CROPS FOR DIRECT HUMAN CONSUMPTION	
GRAZING OR GREENCHOP		
PUBLIC ACCESS		
PH OF SOIL & SLUDGE OR PH OF SOIL		
SITING RESTRICTIONS SOIL CONDITIONS		
BUFFER REQUIREMENTS		
DIST. TO PRIVATE WELL	G 300 FT	
DIST. TO PUBLIC WELL	G 1500 FT	

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

DIST TO RESIDENCE		
DIST TO OTHER BUILDINGS		
DIST TO PROPERTY LINE	G 50 FT	
GROUND WATER PROTECTION		
DEPTH TO HIGH GW		
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	G NOT ALLOWED ON LAND SUBJECT TO SEASONAL FLOODING	
DIST TO SURFACE WATER	G 200 FT	
DIST. TO DRY RUN		
RUNOFF AND EROSION CONTROL	G APPLICATION NOT ALLOWED ON FROZEN OR SNOW COVERED GROUND	

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

MAXIMUM SLOPE LIMIT

RECORDS

REPORTS

NOTIFICATIONS

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

STORAGE

TRANSPORTATION

UNCONTROLLED USE

G UNCONTROLLED DIST. OF COMPOST TO
PUBLIC NOT ADDRESSED

NEW JERSEY
COMPOSTED
CONTROLLED DISTRIBUTION

DEDICATED SITES

COMMENTS

	NEW YORK CASE 1 COMPOSTING&DISTRIBUTION UNCONTROLLED	NEW YORK CASE 2 COMPOSTING&DISTRIBUTION CONTROLLED FOR DEDICATED SITES	NEW YORK CATEGORY I &II LAND APPLICATION
SLUDGE CLASSIFICATION	NOTE: NOT TO BE APPLIED TO CLASS 1,2,3 SOILS(PRIME AGRICULTURAL LANDS)	G NOTE: NOT TO BE APPLIED TO CLASS 1,2,3 SOILS(PRIME AGRICULTURAL LANDS)	I: LIGHT APPLICATION II: INTERMEDIATE APPLICATION NOTE:SEPTAGE AND SLUDGE TO BE SEPARATED
STATE CONTROL LAWS, TITLE & DATE	 AGRICUTURE AND MARKETS LAW, ARTICLE 22 aa, SECTION 304-a (LAND CLASSIFICATION SYSTEM)	 AGRICUTURE AND MARKETS LAW, ARTICLE 22 aa, SECTION 304-a (LAND CLASSIFICATION SYSTEM)	 AGRICUTURE AND MARKETS LAW, ARTICLE 22 aa, SECTION 304-a (LAND CLASSIFICATION SYSTEM)
REGULATIONS, TITLE&DATE	PERMIT CONDITIONS FOR MARKETING OF COMPOST PART 360.8(4)iv	PERMIT CONDITIONS FOR MARKETING OF COMPOST PART 360.8(4)iv	WASTE FACILITIES RULES
GUIDELINES, TITLE&DATE	SOLID WASTE MGMNT FAC. GDLNS 5/81, UPDATE MEMOS 1/1/85 NOTE: LISTED CRITERIA CONTAINED IN GUIDELINES OR REGULATIONS AS MARKED WITH G OR R	SOLID WASTE MGMNT FAC. GDLNS 5/81, UPDATE MEMOS 1/1/85 NOTE: LISTED CRITERIA CONTAINED IN GUIDELINES OR REGULATIONS AS MARKED WITH G OR R	SOLID WASTE MGMNT FAC. GDLNS 5/81, UPDATE MEMOS 1/1/85 NOTE: LISTED CRITERIA CONTAINED IN GUIDELINES OR REGULATIONS AS MARKED WITH G OR R
CONTROLLING AGENCY	DEPT OF ENV. CONSERVATION DIV. OF MUNICIPAL WASTE ALBANY, NY (518) 457-2344	DEPT OF ENV. CONSERVATION DIV. OF MUNICIPAL WASTE ALBANY, NY (518) 457-2344	DEPT OF ENV. CONSERVATION DIV. OF MUNICIPAL WASTE ALBANY, NY (518) 457-2344

New York

NEW YORK
CASE 1 COMPOSTING&DISTRIBUTION
UNCONTROLLED

NEW YORK
CASE 2 COMPOSTING&DISTRIBUTION
CONTROLLED FOR DEDICATED SITES

NEW YORK
CATEGORY 1 & II LAND APPLICATION

SLUDGE SAMPLING PARAMETERS G| FINAL COMPOST ANALYSIS: CD, CR,
| CU, HG, NI, CR, PCB, TOX, :
| 2/YR FOR <1 T/DAY
| 1/MO FOR 1-10 T/DAY
| 1/WK FOR >10 T/DAY
| PCBS: 1/YR FOR <1 T/DAY
| 2/YR FOR 1-10 T/DAY
| 2/YR FOR >10 T/DAY
| (R) ANALYSIS OF COMPLETED COMPOST
| ON A REGULAR BASIS

G| SLUDGE ANALYSIS: CD, HG, PB, CU, ZN,
| NI, CR, PCB, TOX,
| TKN, NH3, NO3, NO2, %SOL, P, K, PH
| SLUDGE ANALYSIS:
| METALS, PCB, TOX,
| N(TMN, NH4, NO3-, NO2-)
| TOTAL SOLIDS, P, K, PH
| FREQUENCY:
| 1/MO FOR >5MGD
| 4/YR FOR 1-5 MGD
| 2/YR FOR < 1 MGD

G| SLUDGE ANALYSIS: CD, HG, PB, CU, ZN,
| NI, CR, PCB, TOX,
| TKN, NH3, NO3, NO2, %SOL, P, K, PH
| METALS, PCB, TOX,
| N(TMN, NH4, NO3-, NO2-)
| TOTAL SOLIDS, P, K, PH
| FREQUENCY:
| 1/MO FOR >5MGD
| 4/YR FOR 1-5 MGD
| 2/YR FOR < 1 MGD

	NEW YORK CASE I COMPOSTING&DISTRIBUTION UNCONTROLLED	NEW YORK CASE 2 COMPOSTING&DISTRIBUTION CONTROLLED FOR DEDICATED SITES	NEW YORK CATEGORY I &II LAND APPLICATION
MAXIMUM SLUDGE CONSTITUENT C			
CONDUCTIVITY (SALT)			
NUTRIENTS (% BY DRY WEIGHT			
N			
P			
K			
METALS (MG/KG SLUDGE DRY			
WEIGHT)			PPM
AS			
CD	G 10	G 25	G 25
PB	G 250	G 1000	G 1000
NI	G 200	G 200	G 200
ZN	G 2500	G 2500	G 2500
CU	G 1000	G 1000	G 1000
CR	G 1000	G 1000	G 1000
HG	G 10	G 10	G 10
MO			
B			
FE			
ORGANICS			
PCB	G 1	R 10	R 10
			G OTHER TOXICS: CASE BY CASE

	NEW YORK CASE 1 COMPOSTING&DISTRIBUTION UNCONTROLLED	NEW YORK CASE 2 COMPOSTING&DISTRIBUTION CONTROLLED FOR DEDICATED SITES	NEW YORK CATEGORY I &II LAND APPLICATION
WATER			
OTHER CONTAMINANTS			
RECORDS	G SLUDGE ANALYSIS TREATMENT OPERATIONAL DATA FOR OPERATIONS>300 T/YR: RECORDS OF DELIVERIES TO FINAL USERS OF >100 T/YR RECORDS OF USERS OF >30CY AT ANY ONE TIME		
REPORTS			
NOTIFICATIONS	G NOTIFICATION: MUST HAVE LABELLING,		

FILE 4.6

	NEW YORK CASE 1 COMPOSTING&DISTRIBUTION UNCONTROLLED	NEW YORK CASE 2 COMPOSTING&DISTRIBUTION CONTROLLED FOR DEDICATED SITES	NEW YORK CATEGORY 1 &11 LAND APPLICATION
STORAGE (IF APPLICABLE)	SIGNS, AND/OR LEAFLETS: IDENTITY OF MATERIAL NOT TO BE USED IN HOME GARDENS FOR VEGES NOT APPLIED TO SOILS CLASSIFIED AS 1,2,3,		
LAND APPLICATION APPROVAL OR PERMIT		G APPROVAL OF SITE	G APPROVAL OF SITE
APPLICATION SUBMITTALS		G SITE SELECTION: LOCATION MAP, TOPO MAP, SW, GW, SOILS INFO, LOCATION OF SW & GW, SOIL SURVEY MAP, SURFACE DRAINAGE PATTERN,WELLS, ETC. SLUDGE ANALYSIS SOIL ANALYSIS	G ENGINEERING REPORT AND IMPACT ASSESSMENT R SITE SELECTION: LOCATION MAP, TOPO MAP, SW, GW, SOILS INFO, LOCATION OF SW & GW, SOIL SURVEY MAP, SURFACE DRAINAGE PATTERN,WELLS, ETC. R SLUDGE ANALYSIS G SOIL ANALYSIS

NEW YORK
CATEGORY I & II LAND APPLICATION

[illegible]

	NEW YORK CASE 1 COMPOSTING&DISTRIBUTION UNCONTROLLED	NEW YORK CASE 2 COMPOSTING&DISTRIBUTION CONTROLLED FOR DEDICATED SITES	NEW YORK CATEGORY 1 & II LAND APPLICATION
			CHLORINE OXIDATION STABILIZED
MONITORING			
SOIL		SOIL ANALYSIS:CD,HG,PB,CU,ZN,NI, CR,CEC,PH,P,PERSISTENT ORGANICS OF CONCERN	SOIL MONITORING: 1/YR FOR CD,HG,PB,CU,ZN,NI, TOTAL CR, CEC, PH, AVAIL P, PERSIST. ORGANICS
CROPS			CROP MONITORING MAY BE REQUIRED
SURFACE WATER			SW MONITORING MAY BE REQUIRED
GROUNDWATER			

	NEW YORK CASE 1 COMPOSTING&DISTRIBUTION UNCONTROLLED	NEW YORK CASE 2 COMPOSTING&DISTRIBUTION CONTROLLED FOR DEDICATED SITES	NEW YORK CATEGORY I & II LAND APPLICATION
MAXIMUM SLUDGE LOADING LIMIT (CEC IN MEQ/100G SOIL) SLUDGE APPLICATION WILL BE L SLUDGE			CATEGORY I: 1-3 T/YR BASED ON P NEEDS CATEGORY II: 5-12 T/YR BASED ON N NEEDS
NUTRIENTS N (ANNUAL)		G CROP REQUIREMENTS	CROP REQUIREMENTS
METALS CD ANNUAL		R 1.25 KG/HA--BEFORE 1/1/87 R .5 KG/HA--AFTER 1/1/87	R 1.25 KG/HA--BEFORE 1/1/87 R .5 KG/HA--AFTER 1/1/87
MAX. CUMULATIVE		R 5 KG/HA	G 11 KG/HA-DEDICATED SITES G 3.4 KG/HA: SOIL GROUPS 1,2,3 R 5 KG/HA

	NEW YORK CASE 1 COMPOSTING&DISTRIBUTION UNCONTROLLED	NEW YORK CASE 2 COMPOSTING&DISTRIBUTION CONTROLLED FOR DEDICATED SITES	NEW YORK CATEGORY 1 & II LAND APPLICATION
PB		G 500 KG/HA	G 1123 KG/HA-DEDICATED SITES G 337 KG/HA: SOIL GROUPS 1,2,3
ZN		G 250 KG/HA	G 561 KG/HA-DEDICATED SITES G 168 KG/HA: SOIL GROUPS 1,2,3
CU		G 125 KG/HA	G 281 KG/HA-DEDICATED SITES G 84 KG/HA: SOIL GROUPS 1,2,3
CR		G TO BE EVALUATED	G TO BE EVALUATED G 337 KG/HA: SOIL GROUPS 1,2,3
NI		G 50 KG/HA	G 168 KG/HA-DEDICATED SITES G 34 KG/HA: SOIL GROUPS 1,2,3
HG		G TO BE EVALUATED	G TO BE EVALUATED
ORGANICS			
PCBS			

	NEW YORK CASE I COMPOSTING&DISTRIBUTION UNCONTROLLED	NEW YORK CASE 2 COMPOSTING&DISTRIBUTION CONTROLLED FOR DEDICATED SITES	NEW YORK CATEGORY I & II LAND APPLICATION
LAND USE RESTRICTIONS			G APPLICATION ON AG. LAND IS
			DISCOURAGED
CROPS	G NOT RECOMMENDED FOR HOME	G NOT AVAILABLE TO GENERAL PUBLIC	R NOT TO BE APPLIED TO LAND
	BUT ALL RIGHT FOR LAWNS, ETC.	G FOR DEDICATED LANDS	CURRENTLY USED FOR CROPS FOR
		G NON-AGRICULTURAL PURPOSES	DIRECT HUMAN CONSUMPTION
			WHERE EDIBLE PART
			CONTACTS SLUDGE WITHIN 18 MO
GRAZING OR GREENCHOP			R NOT TO BE USED FOR:
			DAIRY ANIMALS--12 MO.
			NON-DAIRY ANIMALS--1 MO.
PUBLIC ACCESS		R NO PUBLIC ACCESS--12 MO.	R NO PUBLIC ACCESS--12 MO.
PH OF SOIL & SLUDGE OR PH OF SOIL		R MUST BE AMENDED TO 6.5 OR GREATER	R MUST BE AMENDED TO 6.5 OR GREATER
SITING RESTRICTIONS			
SOIL CONDITIONS	G NOT FOR PRIME AG. SOILS	G NOT ON SAND, LOAMY SANDS, OR CLAY(GOOD AND FAIR SITES)	G NOT ON SAND, LOAMY SANDS, G OR CLAY (GOOD & FAIR SITES)
BUFFER REQUIREMENTS			
DIST. TO PRIVATE WELL		G 200 FT	G 200 FT
DIST. TO PUBLIC WELL		G 200 FT	G 200 FT

	NEW YORK CASE 1 COMPOSTING&DISTRIBUTION UNCONTROLLED	NEW YORK CASE 2 COMPOSTING&DISTRIBUTION CONTROLLED FOR DEDICATED SITES	NEW YORK CATEGORY 1 & II LAND APPLICATION
DIST TO RESIDENCE		G 500 FT TO RESIDENCE OR BUS.,	G 500 FT TO RESIDENCE OR BUS.,
		EXCL. OPERATOR'S RES.	EXCL. OPERATOR'S RES.
DIST TO OTHER BUILDINGS			
DIST TO PROPERTY LINE			
GROUND WATER PROTECTION			
DEPTH TO HIGH GW		G 12 IN(GOOD & FAIR SITES)	G 12 IN(GOOD & FAIR SITES)
DEPTH TO BEDROCK		G 2 FT (GOOD & FAIR SITES)	G 2 FT (GOOD & FAIR SITES)
PERMEABILITY		G .06 TO 6 IN/HR (GOOD & FAIR SITES)	G .06 TO 6 IN/HR (GOOD & FAIR SITES)
INFILTRATION			
SURFACE WATER PROTECTION			
WETLANDS OR AREAS		G NOT TO RESTRICT BASE FLOOD,	G NOT TO RESTRICT BASE FLOOD,
SUBJECT TO PONDING OR		REDUCE WATER STORAGE, OR RESULT	REDUCE WATER STORAGE, OR RESULT
FLOODING		IN WASHOUT OF WASTE	IN WASHOUT OF WASTE
		R NOT IN 10 YR FLOOD PLAIN	G NOT IN 10 YR FLOOD PLAIN
			R NOT IN AREAS DESIG. BY 6NYCRR 500
DIST TO SURFACE WATER		G 200 FT	G 200 FT
DIST. TO DRY RUN		G 25 FT	G 25 FT
RUNOFF AND EROSION		G MINIMIZE EROSION AND RUNOFF	R MINIMIZE EROSION AND RUNOFF
CONTROL		G NO APPL. TO SNOW, FROZEN OR	R NO APPL. TO SNOW, FROZEN OR
		SATURATED GROUND, OR DURING	SATURATED GROUND, OR DURING
		RAINFALL	RAINFALL
			R MUST BE INCORPORATED SAME DAY AS

	NEW YORK CASE 1 COMPOSTING&DISTRIBUTION UNCONTROLLED	NEW YORK CASE 2 COMPOSTING&DISTRIBUTION CONTROLLED FOR DEDICATED SITES	NEW YORK CATEGORY 1 &II LAND APPLICATION
			APPLIED
MAXIMUM SLOPE LIMIT		G 15%	G 15% G 8% FOR SLUDGE THAT IS <20% SOLID, UNLESS INJECTED ON CONTOUR
RECORDS			
REPORTS			
NOTIFICATIONS			

	NEW YORK CASE I COMPOSTING&DISTRIBUTION UNCONTROLLED	NEW YORK CASE 2 COMPOSTING&DISTRIBUTION CONTROLLED FOR DEDICATED SITES	NEW YORK CATEGORY I &II LAND APPLICATION
STORAGE	R ADEQUATE SPACE FOR STORAGE MUST BE AVAILABLE AT FACILITY		G LAGOONS- 500' FROM NEAREST DWELLING, 2 SEPARATE LAGOONS WITH STORAGE CAP. OF 6 MOS., 2' TO 6' IN DEPTH, >2' FREE BOARD, ABOVE 100 YR FLOOD ELEV., >5' ABOVE THE HIGHEST SEASONAL GW ELEV., LINER REQUIREMENTS, FENCED, POSTED, INSECT CONTROL, EMPTIED AND CLEANED EVERY 6 MOS.
TRANSPORTATION			
UNCONTROLLED USE			

	NEW YORK CASE 1 COMPOSTING&DISTRIBUTION UNCONTROLLED	NEW YORK CASE 2 COMPOSTING&DISTRIBUTION CONTROLLED FOR DEDICATED SITES	NEW YORK CATEGORY 1 &II LAND APPLICATION
DEDICATED SITES			
COMMENTS			

FILE 4.6

NEW YORK
CATEGORY III LAND APPLICATION

SLUDGE CLASSIFICATION	HEAVY APPLICATION FOR LAND RECLAMATION
STATE CONTROL	
LAWS, TITLE & DATE	AGRICUTURE AND MARKETS LAW, ARTICLE 22 aa, SECTION 304-a (LAND CLASSIFICATION SYSTEM)
REGULATIONS, TITLE&DATE	WASTE FACILITIES RULES
GUIDELINES, TITLE&DATE	SOLID WASTE MGMT FAC. GOLNS 5/81, UPDATE MEMOS 1/1/85 NOTE: LISTED CRITERIA CONTAINED IN GUIDELINES OR REGULATIONS AS MARKED WITH G OR R
CONTROLLING AGENCY	DEPT OF ENV. CONSERVATION DIV. OF MUNICIPAL WASTE ALBANY, NY (518) 457-2344

NEW YORK
CATEGORY III LAND APPLICATION

ACCEPTABILITY OF SLUDGE		
PERMIT OR APPROVAL	R PERMIT REQUIRED (SPDES) G APPROVAL OF SLUDGE FROM NYSDEC	
APPLICATION SUBMITTALS	R GENERAL PERMIT APPLICATION FOR SOLID WASTE DISPOSAL SEE SUBMITTALS UNDER L.A.	

NEW YORK
CATEGORY III LAND APPLICATION

SLUDGE SAMPLING PARAMETERS

NEW YORK
CATEGORY III LAND APPLICATION

MAXIMUM SLUDGE CONSTITUENT C		
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT		
N		
P		
K		
METALS (MG/KG SLUDGE DRY		
WEIGHT)		
AS		
CD	G 25	
PB	G 1000	
NI	G 200	
ZN	G 2500	
CJ	G 1000	
CR	G 1000	
HG	G 10	
MO		
B		
FE		
ORGANICS		
PCB	R 10	
	G OTHER TOXICS: CASE BY CASE	

NEW YORK
CATEGORY III LAND APPLICATION

WATER

OTHER CONTAMINANTS

RECORDS

REPORTS

NOTIFICATIONS

NEW YORK
CATEGORY III LAND APPLICATION

STORAGE (IF APPLICABLE)	
LAND APPLICATION APPROVAL OR PERMIT	G APPROVAL OF SITE
APPLICATION SUBMITTALS	G DETAILED SITE INVESTIGATION
	R SITE SELECTION:
	LOCATION MAP, TOPO MAP, SW,
	GW, SOILS INFO, LOCATION OF
	SW & GW, SOIL SURVEY MAP, SURFACE
	DRAINAGE PATTERN,WELLS, ETC.
	R SLUDGE ANALYSIS
	G SOIL ANALYSIS

NEW YORK
CATEGORY III LAND APPLICATION

G|LOCATION OF MONITORING WELLS
G|SW SAMPLING STATIONS
G|SOIL SAMPLING SITES
R|MANAGEMENT PLAN:
| CROPS OR VEGETATION
| SCHEDULES AND METHODS OF APP.
| AND HARVESTING
| MAPS SHOWING SITE BOUNDARIES

CRITERIA FOR USE

DEGREE OF STABILIZATION|PROCESS TO SIGNIFICANTLY

| REDUCE PATHOGENS

G|NOT TO BE STABILIZED BY

| CHLORINE OXIDATION
| STABILIZED

GROUNDWATER

| CHLORINE OXIDATION
R| STABILIZED
|
|
|
| 1/YR FOR CD,HG,PB,CU,ZN,NI,
| TOTAL CR, CEC, PH, AVAIL P,
| PERSIST. ORGANICS
|
|
G| CROP MONITORING MAY BE REQUIRED
|
|
G| SW MONITORING MAY BE REQUIRED
|
|
|
G| GW MONITORING REQUIRED FOR
| CATEGORY III(HEAVY LOADING,
| LAND RECLAMATION)
| 3/YR CL, NO3, SO4, CONDUCTIVITY,
| ETC (P.7-1(14))

NEW YORK
CATEGORY III LAND APPLICATION

MAXIMUM SLUDGE LOADING LIMIT		
(CEC IN MEQ/100G SOIL)		
SLUDGE APPLICATION WILL BE L		
SLUDGE	UP TO 50 T/AC	
	BASED ON MAXIMUM LOADING	
	LIMITS FOR METALS	
NUTRIENTS		
N (ANNUAL)		
METALS		
CD		
ANNUAL		
MAX. CUMULATIVE	5 KG/HA	

NEW YORK
CATEGORY III LAND APPLICATION

P8	G 500 KG/HA	
ZN	G 250 KG/HA	
CU	G 125 KG/HA	
CR	G TO BE EVALUATED	
NI	G 50 KG/HA	
HG	G TO BE EVALUATED	
ORGANICS		
PCBS		

NEW YORK
CATEGORY III LAND APPLICATION

LAND USE RESTRICTIONS	
CROPS	VEGETATED AS SOON AS POSSIBLE WITH: MAXIMUM N UPTAKE PLANTS R NOT TO BE APPLIED TO LAND CURRENTLY USED FOR CROPS FOR DIRECT HUMAN CONSUMPTION WHERE EDIBLE PART CONTACTS SLUDGE WITHIN 18 MO
GRAZING OR GREENCHOP	R NOT TO BE USED FOR: DAIRY ANIMALS--12 MO. NON-DAIRY ANIMALS--1 MO.
PUBLIC ACCESS	R NO PUBLIC ACCESS--12 MO.
PH OF SOIL & SLUDGE OR PH OF SOIL	R MUST BE AMENDED TO 6.5 OR GREATER
SITING RESTRICTIONS	
SOIL CONDITIONS	G NOT ON SAND, LOAMY SANDS, G OR CLAY (GOOD & FAIR SITES)
BUFFER REQUIREMENTS	
DIST. TO PRIVATE WELL	G 200 FT
DIST. TO PUBLIC WELL	G 200 FT

NEW YORK
CATEGORY III LAND APPLICATION

DIST TO RESIDENCE	G 500 FT TO RESIDENCE OR BUS., EXCL. OPERATOR'S RES.	
DIST TO OTHER BUILDINGS		
DIST TO PROPERTY LINE		
GROUND WATER PROTECTION		
DEPTH TO HIGH GW	G 12 IN(GOOD & FAIR SITES)	
DEPTH TO BEDROCK	G 2 FT (GOOD & FAIR SITES)	
PERMEABILITY	G .06 TO 6 IN/HR (GOOD & FAIR SITES)	
INFILTRATION		
SURFACE WATER PROTECTION		
WETLANDS OR AREAS	G NOT TO RESTRICT BASE FLOOD,	
SUBJECT TO PONDING OR	REDUCE WATER STORAGE, OR RESULT	
FLOODING	IN WASHOUT OF WASTE	
	G NOT IN 10 YR FLOOD PLAIN	
	R NOT IN AREAS DESIG. BY 6NYCRR 500	
DIST TO SURFACE WATER	G 200 FT	
DIST. TO DRY RUN	G 25 FT	
RUNOFF AND EROSION	R MINIMIZE EROSION AND RUNOFF	
CONTROL	R NO APPL. TO SNOW, FROZEN OR	
	SATURATED GROUND, OR DURING	
	RAINFALL	
	R MUST BE INCORPORATED SAME DAY AS	

NEW YORK
CATEGORY III LAND APPLICATION

	APPLIED	
MAXIMUM SLOPE LIMIT	G 15% G 8% FOR SLUDGE THAT IS <20% SOLID, UNLESS INJECTED ON CONTOUR	
RECORDS		
REPORTS		
NOTIFICATIONS		

NEW YORK
CATEGORY III LAND APPLICATION

STORAGE	G LAGOONS-500 FT FROM NEAREST DWLG, 2 SEPARATE LAGOONS WITH STORAGE CAPACITY OF 6 MOS, 2' TO 6' IN DEPTH, > 2' FREE BOARD, ABOVE 100 YR FLOODPLAIN, > 5' ABOVE HIGH- EST SEASONAL SW ELEV, LINER REQUIRE- MENTS, FENCED, POSTED, INSECT CONTROL, EMPTIED AND CLEANED EVERY 6 MOS
TRANSPORTATION	
UNCONTROLLED USE	

NEW YORK
CATEGORY III LAND APPLICATION

DEDICATED SITES

COMMENTS

	NORTH CAROLINA	
	LAND APPLICATION	
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	GENERAL STATUTE 143-215.3(A)(1) NORTH CAROLINA SOLID AND HAZARDOUS WASTE MANAGEMENT ACT CHP 130 A, ART 9,1970 AS AMENDED	
REGS, TITLE & DATE	NORTH CAROLINA ADMINISTRATIVE CODE SECTION .0200-WASTE NOT DISCHARGED TO SURFACE WATERS 5/28/85	
GUIDELINES, TITLE & DATE		
CONTROLLING AGENCY	NORTH CAROLINA DEPT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT DIVISION OF ENVIRONMENTAL MANAGEMENT RALEIGH, NORTH CAROLINA 27611 919/723/6900	
ACCEPTABILITY OF SLUDGE		
PERMIT OR APPROVAL APPLIC. SUBMITTAL	DISPOSAL FOR LAND APPLICATION REQUIRES A PERMIT. SEE SUBMITTAL	

FILE 1

NORTH CAROLINA
LAND APPLICATION

REQUIREMENTS UNDER LAND APPLIC.

SLUDGE SAMPLING PARAMETERS

North Carolina

NORTH CAROLINA
LAND APPLICATION

MAXIMUM SLUDGE CONSTITUENT
CONCENTRATIONS

SAME AS FEDERAL LIMITS

CONDUCTIVITY (SALT)

NUTRIENTS (% BY DRY WEIGHT)

N

P

K

METALS (MG/KG SLUDGE DRY WEIGHT)

AS

CD

PB

NI

ZN

FILE 1

	NORTH CAROLINA LAND APPLICATION	
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB		
WATER		
OTHER CONTAMINANTS		
RECORDS	MUST COMPLY WITH STANDARDS SET IN PERMIT	

NORTH CAROLINA
LAND APPLICATION

REPORTS

MUST COMPLY WITH STANDARDS SET IN
PERMIT

NOTIFICATIONS

MUST COMPLY WITH STANDARDS SET IN
PERMIT

STORAGE (IF APPLICABLE)

LAND APPLICATION

APPROVAL OR PERMIT
APPLIC. SUBMITTAL

PERMIT FOR DISPOSAL IS REQUIRED.
SUBMITTALS INCLUDE:
TOPO MAP, TEST BORINGS AND SUB-

FILE 1

NORTH CAROLINA

LAND APPLICATION

SURFACE DATA FOR SITE EVAL.,
SOIL EVAL, RECOMMENDATIONS FOR
APPLIC RATES, EVAL BY AGRONOMIST
AND RECOMMENDATIONS FOR CROPS,
PLANS AND SPECS OF ENTIRE SYSTEM

CRITERIA FOR USE

DEGREE OF STABILIZATION

SAME AS FEDERAL CRITERIA

North Carolina

	NORTH CAROLINA	
	LAND APPLICATION	
SOIL SAMPLING		
PRE-APPLICATION		
POST-APPLICATION		
WATER QUALITY MONITORING		
GROUND WATER	MONITORING REQUIRED IN CONJ WITH	
	GROUND WATER DIVISION	
SURFACE WATER		
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED	BASED UPON FEDERAL GUIDELINES	

FILE 1

**NORTH CAROLINA
LAND APPLICATION**

(CEC IN MEQ/100G SOIL)
ANNUAL OR CUMULATIVE

NUTRIENTS
N (ANNUAL)

P

METALS

CD
ANNUAL

MAX CUMULATIVE

PB

North Carolina

FILE 1

NORTH CAROLINA
LAND APPLICATION

ZN

CU

CR

NI

HG

North Carolina

NORTH CAROLINA
LAND APPLICATION

ORGANICS

PCB

LAND USE RESTRICTIONS

CROPS

GRAZING OR GREENCHOP

NORTH CAROLINA
LAND APPLICATION

PUBLIC ACCESS

PH OF SOIL

SITING RESTRICTIONS

SOIL CONDITIONS

BUFFER REQUIREMENTS

DIST TO PRIVATE WELL

DIST TO PUBLIC WELL

DIST TO RESIDENCE

FILE 1

NORTH CAROLINA
LAND APPLICATION

DIST TO OTHER BLDGS.

DIST TO PROPERTY LINE

GROUNDWATER PROTECTION

DEPTH TO HIGH GW

DEPTH TO BEDROCK

PERMEABILITY

INFILTRATION

North Carolina

FILE 1

	NORTH CAROLINA	
	LAND APPLICATION	
SURFACE WATER PROTECTION		
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING		
DIST TO SURFACE WATER		
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL		
MAXIMUM SLOPE LIMIT		

North Carolina

	NORTH CAROLINA	
	LAND APPLICATION	
RECORDS	AS REQUIRED BY PERMIT	
REPORTS	AS REQUIRED BY PERMIT	
NOTIFICATIONS	AS REQUIRED BY PERMIT	
STORAGE		

FILE 1

NORTH CAROLINA
LAND APPLICATION

TRANSPORTATION

UNCONTROLLED USE

STATE IS IN PROCESS OF DEVISING
GUIDELINES FOR UNCONTROLLED DIST
OF COMPOSTED SLUDGE. PERMIT WILL
BE REQUIRED FOR GENERATOR OF COMPOST.
PERMIT WILL NOT BE REQUIRED FOR
DISPOSAL OR USE OF COMPOST AT
INDIVIDUAL SITES

DEDICATED SITES

North Carolina

FILE 1

NORTH CAROLINA
|LAND APPLICATION
|
|

|
|
|

COMMENTS

FILE 1

	OHIO LAND APPLICATION	OHIO SLUDGE GIVE-AWAY PROGRAM	OHIO COMPOSTED SEWAGE SLUDGE MGNT AND DISTRIBUTION
SLUDGE CLASSIFICATION			CLASS I CLASS II CLASS III
STATE CONTROL			
LAWS, TITLE & DATE	SOLID AND HAZARDOUS WASTE DISPOSAL LAW, TITLE 37, CHP 34, 1972 AS AMENDED	SOLID AND HAZARDOUS WASTE DISPOSAL LAW, TITLE 37, CHP 34, 1972, AS AMENDED	SOLID AND HAZARDOUS WASTE DISPOSAL LAW, TITLE 37, CHP 34, 1972, AS AMENDED
REGS, TITLE & DATE	OHIO REVISED CODE, SECS 6111.45-46 OHIO ADMINISTRATIVE CODE, 1976 RULE 3745-31-02(C)		
GUIDELINES, TITLE & DATE	LAND APPLICATION OF SLUDGE MANUAL 8/85...UNLESS NOTED CRITERIA LISTED ARE FROM GUIDELINES	SLUDGE GIVE AWAY PROGRAM GUIDELINES 12/20/84	ADMINISTRATIVE POLICY ON COMPOSTED SEWAGE SLUDGE MANAGEMENT 4/1/84
CONTROLLING AGENCY	OHIO ENVIRONMENTAL PROTECTION AGENCY COLUMBUS, OHIO 614/466/8565	OHIO ENVIRONMENTAL PROTECTION AGENCY COLUMBUS, OHIO 614/466/8565	OHIO ENVIRONMENTAL PROTECTION AGENCY COLUMBUS, OHIO 614/466/8565
ACCEPTABILITY OF SLUDGE			
PERMIT OR APPROVAL APPLIC. SUBMITTAL	A DETAIL PLAN MUST BE APPROVED BY AGENCY. PLAN INCLUDES BOTH	GENERATORS GIVING AWAY >.5 DRY T/AC/YR TO SINGLE ENTITY MUST	GENERATOR MUST SUBMIT A DETAILED MANAGEMENT PLAN: REQUIRED

Ohio

	OHIO	OHIO	OHIO
	LAND APPLICATION	SLUDGE GIVE-AWAY PROGRAM	COMPOSTED SEWAGE SLUDGE MGNT AND DISTRIBUTION
	ACCEPTABILITY AND APPLICATION CRITERIA.	SUBMIT SLUDGE MGNT PLAN IN CONJUNCTION WITH SLUDGE USER.	INFO AS STATED IN LAND APPLIC MANUAL AND
	PLAN MUST INCLUDE:ANALYSIS OF SLUDGE, EVAL OF EQUIPMENT, OPERATIONAL METHODS, MONITORING REQUIREMENTS, COUNTY TO RECEIVE SLUDGE,SITE INFORMATION.(SITE AUTHORIZATION IS NOT REQUIRED FOR APPROVED COMPOSTED SLUDGE)	PLAN SHOULD INCLUDE: SLUDGE TYPE, ANALYSIS, SITE INFORMATION, METHOD OF OPERATION, MONITORING INFORMATION	SOURCE OF COMPOST,COMPOST PROCESS, STABIZ PROCESS,SAMPLING METHODS, MARKETING STRATEGY, LABELING, INGRED IN BLENDED PRODUCTS, PLAN FOR DISPOSAL IF CRITERIA NOT MET
		GENERATORS GIVING AWAY <.5 DRY T/AC/ YRM MUST MEET FOLLOWING: DRIED SLUDGE ONLY, CONSTIT. LEVELS AS SET BELOW, HEAVY METALS ANAL., STORAGE REQUIREMENTS	
		APPLIC FOR PLAN APPROVAL MUST CONTAIN STMT OF AWARENESS OF LIABILITY IN GIVING AWAY SLUDGE	
SLUDGE SAMPLING PARAMETERS	SLUDGE ANALYSIS:XTOTAL SOLIDS, pH, NH4-N, TKN, P,K,CD,CU,ZN, NI,PB	SLUDGE ANALYSIS: CD,CU,NI,PB,ZN,PCB FREQUENCY: QUARTERLY	CD,PB,PCB, AND OTHERS AS REQUIRED. FREQUENCY: EVERY 5,000 CY OR 1/MO

	OHIO LAND APPLICATION	OHIO SLUDGE GIVE-AWAY PROGRAM	OHIO COMPOSTED SEWAGE SLUDGE MGNT AND DISTRIBUTION
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS			IF BAGGED, MUST CONTAIN 10% LIME
CONDUCTIVITY (SALT)			
NUTRIENTS (% BY DRY WEIGHT)			
N			
P			
K			
METALS (MG/KG SLUDGE DRY WEIGHT)			
AS			
CD		12.5 MG/KG	CLASS I: 12.5 MG/KG CLASS II: 25.0 MG/KG CLASS III: >25 MG/KG
PB		500 MG/KG	CLASS I: 500 MG/KG CLASS II: 1000 MG/KG CLASS III: >100 MG/KG
NI		100 MG/KG	
ZN		1000 MG/KG	

	OHIO LAND APPLICATION	OHIO SLUDGE GIVE-AWAY PROGRAM	OHIO COMPOSTED SEWAGE SLUDGE MGNT AND DISTRIBUTION
CU		500 MG/KG	
CR			
HG			
MO			
B			
FE			
ORGANICS			
PCB		5 MG/KG	CLASS I: 5 MG/KG CLASS II: 10 MG/KG CLASS III: >10 MG/KG
WATER			
OTHER CONTAMINANTS			CLASS I AND II MUST HAVE CD:ZN OF 0.015 MAY NOT CONTAIN SHARP PARTICLES
RECORDS			GENERATORS MUST MAINTAIN: QUANTITY AND CHEM ANALYSIS, NAMES AND ADDRESS OF USERS, AND QUANTITY AND QUALITY OF COMPOST RECORDS MAINTAINED FOR 3 YRS

	OHIO LAND APPLICATION	OHIO SLUDGE GIVE-AWAY PROGRAM	OHIO COMPOSTED SEWAGE SLUDGE MGNT AND DISTRIBUTION
REPORTS	MUST SUBMIT SLUDGE ANALYSIS REPORTS MONTHLY IF >1.0 MGD QUARTERLY IF >.1 BUT <1.0 MGD SEMI-ANNUAL IF <.1 MGD	SLUDGE ANALYSIS: QUARTERLY	ABOVE RECORDS SUBMITTED MONTHLY
NOTIFICATIONS		GENERATOR MUST PROVIDE INFO NOTICE TO BE SIGNED BY USER: SLUDGE IS BY-PRODUCT OF WTP, SLUDGE MAY CONTAIN PATH AND METALS, NOT TO BE USED ON LEAFY VEG OR ROOT CROPS, NOT TO EXCEED MAX LOADING RATES, ANAL. OF SLUDGE AVAIL.,	CLASS I AND II: GENERATOR MUST AFFIX LABEL IDENTIFYING PRODUCT AS COMPOST, GIVING USE INSTRUCTIONS, COMPLIANCE WITH CLASS I OR II REQ
STORAGE (IF APPLICABLE)	ADEQUATE SLUDGE STORAGE OR BACKUP DISPOSAL MUST BE PROVIDED	GENERATOR MUST PROVIDE ACCEPTABLE STORAGE AREA WITHIN CONFINES OF STAFFED PLANT.MUST PREVENT GW AND SW CONTAMINATION	
LAND APPLICATION			
APPROVAL OR PERMIT APPLIC. SUBMITTAL	DETAIL PLAN MUST BE PROVIDED. SEE PERMIT SUBMITTAL REQUIREMENTS ABOVE. APPROVED COMPOSTED SLUDGE EXEMPT	USER MUST OBTAIN PERMIT IN CONJ WITH GENERATOR IF USING >.5 DRY T/ AC/YR	

[illegible]

	OHIO LAND APPLICATION	OHIO SLUDGE GIVE-AWAY PROGRAM	OHIO COMPOSTED SEWAGE SLUDGE MGMT AND DISTRIBUTION
SOIL SAMPLING			
PRE-APPLICATION	pH, CEC, LIME TEST INDEX, HEAVY METALS WHEN NECESSARY, AVAIL P,K		
POST-APPLICATION	ANNUALLY IF APPLIC >5 DRY T/AC/YR EVERY 2-3 YR IF APPLIC <5 DRY T/AC/YR		
WATER QUALITY MONITORING			
GROUND WATER	MAY BE REQUIRED		
SURFACE WATER	MAY BE REQUIRED		
CROP MONITORING	MAY BE REQUIRED		
MAXIMUM SLUDGE LOADING LIMIT			
KG/HA UNLESS OTHERWISE NOTED			

	OHIO LAND APPLICATION	OHIO SLUDGE GIVE-AWAY PROGRAM	OHIO COMPOSTED SEWAGE SLUDGE MGMT AND DISTRIBUTION
(CEC IN MEQ/100G SOIL)			
ANNUAL OR CUMULATIVE			
NUTRIENTS			
N (ANNUAL)	SUFFICIENT TO MEET CROP REQUIREMENTS ONLY	SUFFICIENT TO MEET CROP REQUIREMENTS ONLY	
P	SUFFICIENT TO MEET CROP REQUIREMENTS ONLY	SUFFICIENT TO MEET CROP REQUIREMENTS ONLY	
METALS			
CD			
ANNUAL	UNTIL 12/86: 2.0 KG/HA AFTER 1/87: 0.5 KG/HA	UNTIL 12/86: 2.0 KG/HA AFTER 1/87: 0.5 KG/HA	
MAX CUMULATIVE	IF pH < 6.5, 5 KG/HA IF pH 6.5 OR >, IF CEC<5:5 KG/HA IF 5<CEC<15:10 KG/HA IF CEC>15:20 KG/HA UNLIMITED IF ONLY ANIMAL FEED GROWN, pH IS 6.5 OR >, PLAN TO PREVENT FEED FR HUMAN CONSUMPTION, MEASURES TO PRE- VENT CADMIUM FROM FOOD CHAIN, RECORDED IN DEED THAT PROPERTY HAS HIGH DOSE OF CADMIUM AND NO FOOD CROPS ALLOWED	IF pH < 6.5, 5 KG/HA IF pH 6.5 OR >, IF CEC<5:5 KG/HA IF 5<CEC<15:10 KG/HA IF CEC>15:20 KG/HA UNLIMITED IF ONLY ANIMAL FEED GROWN, pH IS 6.5 OR >, PLAN TO PREVENT FEED FR HUMAN CONSUMPTION, MEASURES TO PRE- VENT CADMIUM FROM FOOD CHAIN, RECORDED IN DEED THAT PROPERTY HAS HIGH DOSE OF CADMIUM AND NO FOOD CROPS ALLOWED	
PB	IF CEC<5:560 KG/HA	IF CEC<5:560 KG/HA	

	OHIO LAND APPLICATION	OHIO SLUDGE GIVE-AWAY PROGRAM	OHIO COMPOSTED SEWAGE SLUDGE MGMT AND DISTRIBUTION
	IF 5<CEC<15: 1,121 KG/HA IF CEC>15: 2242 KG/HA	IF 5<CEC<15: 1,121 KG/HA IF CEC>15: 2242 KG/HA	
ZN	IF CEC<5: 280 KG/HA IF 5<CEC<15: 560 KG/HA IF CEC>15: 1121 KG/HA	IF CEC<5: 280 KG/HA IF 5<CEC<15: 560 KG/HA IF CEC>15: 1121 KG/HA	
CU	IF CEC<5: 140 KG/HA IF 5<CEC<15: 280 KG/HA IF CEC>15: 560 KG/HA	IF CEC<5: 140 KG/HA IF 5<CEC<15: 280 KG/HA IF CEC>15: 560 KG/HA	
CR			
NI	IF CEC<5: 140 KG/HA IF 5<CEC<15: 280 KG/HA IF CEC>15: 560 KG/HA	IF CEC<5: 140 KG/HA IF 5<CEC<15: 280 KG/HA IF CEC>15: 560 KG/HA	
HG			

	OHIO LAND APPLICATION	OHIO SLUDGE GIVE-AWAY PROGRAM	OHIO COMPOSTED SEWAGE SLUDGE MGNT AND DISTRIBUTION
ORGANICS			
PCB			
LAND USE RESTRICTIONS			
CROPS	GRAIN CROPS PREFERRED;NO RAW VEGET FOR ONE YR	NOT BE TO USED ON LEAFY VEG OR ROOT CROPS	CLASS I: APPROVED FOR GENERAL USE INCLUDING FOOD CHAIN CROPS CLASS II: APPROVED FOR USES OTHER THAN FOR FOOD CHAIN UNLESS APPROVED CLASS III: USED ONLY ON APPROVAL
GRAZING OR GREENHOP	NO LACTATING DAIRY ANIMALS FOR ONE YR		

	OHIO LAND APPLICATION	OHIO SLUDGE GIVE-AWAY PROGRAM	OHIO COMPOSTED SEWAGE SLUDGE MGNT AND DISTRIBUTION
PUBLIC ACCESS			
PH OF SOIL	6.5 UNLESS OTHERWISE SPECIFIED		
SITING RESTRICTIONS			
SOIL CONDITIONS	SHOULD HAVE MOD TO HIGH CEC (>10MEQ/ 100G) SHOULD HAVE MODERATE PERMEABILITY		
BUFFER REQUIREMENTS			
DIST TO PRIVATE WELL	300 FT IF SURFACE APPLIED LIQUID OR DRIED SLUDGE,<5 DRY T/AC/YR; 200 FT. IF LIQUID, INCORP,< 5 DRY T/AC/YR		
DIST TO PUBLIC WELL	SAME AS ABOVE		
DIST TO RESIDENCE	300 FT IF SURFACE APPLIED LIQUID,		

	OHIO	OHIO	OHIO
	LAND APPLICATION	SLUDGE GIVE-AWAY PROGRAM	COMPOSTED SEWAGE SLUDGE MGNT AND DISTRIBUTION
	<5 DRY T/AC/YR		
	200 FT IF LIQUID, INCORP, AND < 5 DRY T/AC/YR		
	100 FT IF DRIED AND < 5 DRY T/AC/YR		
DIST TO OTHER BLDGS.			
DIST TO PROPERTY LINE	NO LIMITS TO ROADWAYS OR PROPERTY LINES OR ROADWAYS		
GROUNDWATER PROTECTION			
DEPTH TO HIGH GW	2-3 FT MAY VARY SLIGHTLY DEPENDING UPON PERCHED WATER TABLE		
DEPTH TO BEDROCK	3 FT		
PERMEABILITY	MODERATE		
INFILTRATION			

	OHIO LAND APPLICATION	OHIO SLUDGE GIVE-AWAY PROGRAM	OHIO COMPOSTED SEWAGE SLUDGE MGMT AND DISTRIBUTION
SURFACE WATER PROTECTION			
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT IN 10 YEAR FLOODPLAIN WITHIN 2 MOS OF SEASONAL ANNUAL FLOODS		
DIST TO SURFACE WATER	25-100 FT UNLESS < 6% GRADE AND PROTECTED BY BERM OR VEGITATED FURROW		
DIST TO DRY RUN	25 FT		
RUNOFF AND EROSION CONTROL	PREFER APPLIC TO LAND < 6% SLOPE, WITH HEAVY VEGET, AND INCORP OR INJECT; APPLIC <5 DRY T/AC ON SNOW-COVERED, FROZEN SOILS WITH SLOPE<2%		PRODUCT SHOULD NOT BE PRONE TO BLOWING, DRIFTING, OR EXTENSIVE MIGRATION
MAXIMUM SLOPE LIMIT	<6% OR 6%-12% IF AT LEAST 80% OF SOIL COVERED WITH VEGETATION AND IMMED INCORP OR INJECTION		

	OHIO	OHIO	OHIO
	LAND APPLICATION	SLUDGE GIVE-AWAY PROGRAM	COMPOSTED SEWAGE SLUDGE MGMT AND DISTRIBUTION
RECORDS		USER MUST SIGN INFORMATION SHEET	
REPORTS	SELF-MONITORING REPORTS AS REQUIRED		
	SITE STATUS REPORT WITHIN 90 DAYS		
	AFTER ANNUAL SLUDGE APPLIC		
NOTIFICATIONS			
STORAGE	PREFER STORAGE AT PLANT, NOT LAND SITE; UP TO 4 MOS IN WINTER, AND 1 MO IN SUMMER PREFERRED		

	<div>OHIO</div> <div>LAND APPLICATION</div> <div> </div> <div> </div>	<div>OHIO</div> <div>SLUDGE GIVE-AWAY PROGRAM</div> <div> </div> <div> </div>	<div>OHIO</div> <div>COMPOSTED SEWAGE SLUDGE MGNT</div> <div> </div> <div> AND DISTRIBUTION</div> <div> </div>	
TRANSPORTATION				
UNCONTROLLED USE				
DEDICATED SITES	<div>GROUND AND SURFACE WATER QUALITY</div> <div>MONITORING REQUIRED AT DEDICATED</div> <div>SITES; PLANT TISSUE MONITORING MAY</div> <div>BE REQUIRED;APPLIC RATES MAY BE</div> <div>5-10 TIMES LAND APP RATES</div> <div>APPROVAL OF DEDICATED SITES</div> <div>IS ON A CASE BY CASE BASIS</div>	<div>THE OHIO EPA DISCOURAGES THE</div> <div>GIVE-AWAY PROGRAMS. REQUIRES THAT</div> <div>GENERATORS EVALUATE OTHER DISPOSAL</div> <div>OPTIONS FIRST</div>		

FILE 1

OHIO
|LAND APPLICATION
|
|

OHIO
| |SLUDGE GIVE-AWAY PROGRAM
| |
| |

OHIO
| |COMPOSTED SEWAGE SLUDGE MGNT
| |AND DISTRIBUTION
| |

COMMENTS

FILE 4.6

	OREGON UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	OREGON LAND APPLICATION
SLUDGE CLASSIFICATION		
STATE CONTROL LAWS, TITLE & DATE		
REGULATIONS, TITLE&DATE	CH. 340, DIV. 50 LAND APPLICATION AND DISPOSAL OF SEWAGE TREATMENT PLANT SLUDGE ...(8/10/84) NOTE: ALL LISTED CRITERIA ARE CONTAINED IN REGULATIONS	CH. 340, DIV. 50 LAND APPLICATION AND DISPOSAL OF SEWAGE TREATMENT PLANT SLUDGE ...(8/10/84) NOTE: ALL LISTED CRITERIA ARE CONTAINED IN REGULATIONS
GUIDELINES, TITLE&DATE		
CONTROLLING AGENCY	DEPT OF ENV. QUAL. SOLID WASTE DIVISION PORTLAND, OR (503) 796-7010	DEPT OF ENV. QUAL. SOLID WASTE DIVISION PORTLAND, OR (503) 796-7010

FILE 4.6

OREGON
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

OREGON
LAND APPLICATION

ACCEPTABILITY OF SLUDGE

PERMIT OR APPROVAL

MUST HAVE NPDES, WPCF, OR SOLID
WASTE PERMIT OR SEWAGE DISPOSAL
LICENSE

APPLICATION SUBMITTALS

| SEE SUBMITTALS UNDER L.A.

OREGON
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

OREGON
LAND APPLICATION

SLUDGE SAMPLING PARAMETERS

MONITORING MAY BE REQUIRED IF:
N LOADING IS EXCEEDED, HIGH METALS,
PRETREATMENT OF WASTEWATER MAY
BE REQUIRED TO REDUCE METALS

SLUDGE ANALYSIS(METALS,N,P,K,PH,
TOTAL SOLIDS, TOTAL VOL. SOLIDS)
FREQUENCY: 4/YR >10MGD
2/YR 2-10 MGD
1/YR .5-2 MGD
AS REQUIRED <.5 MGD

OREGON
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

OREGON
LAND APPLICATION

MAXIMUM SLUDGE CONSTITUENT C
CONDUCTIVITY (SALT)
NUTRIENTS (% BY DRY WEIGHT

N
P
K

METALS (MG/KG SLUDGE DRY
WEIGHT)

AS
CD

PB

NI

ZN

CU

CR

HG

MO

B

FE

ORGANICS

PCB

(RECOMMENDED)

25

1000

100

2000

800

FILE 4.6

**OREGON
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)**

**OREGON
LAND APPLICATION**

WATER

OTHER CONTAMINANTS

RECORDS

APPLICATION LOG

REPORTS

NOTIFICATIONS

GENERAL DISTRIBUTION:

Oregon

OREGON UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	OREGON LAND APPLICATION
STORAGE (IF APPLICABLE)	<div>PUBLIC MUST BE INFORMED OF CONTENT AND SLUDGE ANALYSIS MUST BE AVAILABLE AT PLANT</div> <div>APPROVAL FOR LAND APPLICATION IS REQUIRED</div>
LAND APPLICATION APPROVAL OR PERMIT	
APPLICATION SUBMITTALS	<div>SUBMITTALS: SLUDGE MANAGEMENT PLAN: METHOD OF REMOVAL SITE DESCRIPTION METHOD FOR DETERMINING DEGREE OF STABILITY PROJECTED USE OF STORAGE BASINS SLUDGE ANALYSIS, APPLICATION RATES, AND HEAVY METALS LIMITATIONS</div>

OREGON
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

OREGON
LAND APPLICATION

NEW OR EXPANDED SITES MUST
BE APPROVED. REQUIRES
STATEMENT OF LAND USE COMPATIBILITY
PUBLIC COMMENT AND HEARING MAY
BE REQUIRED
CURRENT SLUDGE MGMT PLAN

CRITERIA FOR USE
DEGREE OF STABILIZATION

UNTREATED SLUDGE: APPROVAL
REQUIRED, ONLY IN REMOTE SITES

OREGON
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

OREGON
LAND APPLICATION

MONITORING SOIL

CROPS

SURFACE WATER

GROUNDWATER

OREGON UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	OREGON LAND APPLICATION
MAXIMUM SLUDGE LOADING LIMIT (CEC IN MEQ/100G SOIL) SLUDGE APPLICATION WILL BE L SLUDGE	
NUTRIENTS N (ANNUAL)	CROP OR FOREST NEEDS SURFACE APPLICATION MAY BE DOUBLED FOR PERENNIALS FOR NH3 VOL.
METALS CD ANNUAL	
MAX. CUMULATIVE	5 KG/HA FOR SOIL PH < 6.5 5 KG/HA FOR SOIL PH > 6.5 AND CEC < 5 10 KG/HA FOR SOIL PH > 6.5 AND 5<CEC<15 20 KG/HA FOR SOIL PH > 6.5 AND CEC>15

OREGON UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)		OREGON LAND APPLICATION	
PB		(MAX. CUMULATIVE) 500 KG/HA IF CEC < 5 1000 KG/HA IF 5<CEC<15 2000 KG/HA IF CEC>15	
ZN		(MAX. CUMULATIVE) 250 KG/HA IF CEC < 5 500 KG/HA IF 5<CEC<15 1000 KG/HA IF CEC>15	
CU		(MAX. CUMULATIVE) 125 KG/HA IF CEC < 5 250 KG/HA IF 5<CEC<15 500 KG/HA IF CEC>15	
CR			
NI		(MAX. CUMULATIVE) 50 KG/HA IF CEC < 5 100 KG/HA IF 5<CEC<15 200 KG/HA IF CEC>15	
HG			
ORGANICS			
PCBS			

FILE 4.6

OREGON UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	OREGON LAND APPLICATION
LAND USE RESTRICTIONS	
CROPS	NO CROPS FOR DIRECT HUMAN CONSUMPTION WHERE EDIBLE PART CONTACTS SLUDGE--18 MO
GRAZING OR GREENCHOP	GRAZING RESTRICTED FOR 1 MO RESTRICTED 6 MO FOR NON DIGESTED, 7DAYS FOR AIR DRIED SLUDGE
PUBLIC ACCESS	12 MO UNLESS HEAT DRIED, COMPOSTED, OR EQUIVALENT PATHOGEN REDUCTION
PH OF SOIL & SLUDGE OR PH OF SOIL	6.5 TO 8.2 IF ACCUMULATOR CROPS (LEAFY GREEN VEGES AND CARROTS) ARE GROWN 6.5 IF HIGH METALS LEVELS
SITING RESTRICTIONS SOIL CONDITIONS	STABLE GEOLOGICAL FORMATION
BUFFER REQUIREMENTS DIST. TO PRIVATE WELL	200 FT
DIST. TO PUBLIC WELL	200 FT

Oregon

FILE 4.6

OREGON
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

OREGON
LAND APPLICATION

DIST TO RESIDENCE	PROPERTY BOUNDARY: 0 IF INJECTED	
	50 FT FOR SPREADING	
DIST TO OTHER BUILDINGS		
DIST TO PROPERTY LINE		
GROUND WATER PROTECTION	NO SHORT CIRCUITING TO GW OR	
	RAPIDLY DRAINED SUBSTRATUM	
DEPTH TO HIGH GW	4 FT TO PERMANENT GW	
	1 FT TO TEMPORARY GW	
DEPTH TO BEDROCK	24 IN ROOTING DEPTH	
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		
WETLANDS OR AREAS	NOT APPLIED IN AREAS SUBJECT TO	
SUBJECT TO PONDING OR	FLOODING; IF UNAVOIDABLE, MUST	
FLOODING	BE INCORPORATED	
DIST TO SURFACE WATER	50	
DIST. TO DRY RUN		
RUNOFF AND EROSION	RUNOFF AND EROSION CONTROL	
CONTROL	TO BE USED	

	OREGON UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	OREGON LAND APPLICATION
MAXIMUM SLOPE LIMIT		12% FOR LIQUID SLUDGE 20% FOR DEWATERED OR DRIED SLUDGE, DIRECT INJECTION OF LIQUID SLUDGE, OR WITH MGMNT TO ELIMINATE RUNOFF WHERE INJECTION IS NOT FEASIBLE, RESTRICT APPLI. TO DRY SEASON
RECORDS		
REPORTS		
NOTIFICATIONS		

OREGON
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

OREGON
LAND APPLICATION

STORAGE

| COLLECT, TREAT, DISPOSE LEACHATE
| ENCLOSED BY GATE OR FENCE, ODOR
| CONTROL, SURFACE DRAINAGE REQUIREMENTS,
| COMPOST MUST NOT BE STORED >1 YR

TRANSPORTATION

| TRUCK WASHING AREA AT SITE: HARD
| SURFACE, WASH WATER IN CATCH BASIN
| APPROVED BY STATE OR LOCAL HEALTH DEPT.

UNCONTROLLED USE

FILE 4.6

OREGON
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

OREGON
LAND APPLICATION

DEDICATED SITES

COMMENTS

	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA
	LAND APPLICATION	GIVE-AWAY PROGRAM	LAND RECLAMATION
SLUDGE CLASSIFICATION			
STATE CONTROL			
LAWS, TITLE & DATE	THE PENNSYLVANIA SOLID WASTE MANAGEMENT ACT (35 P.S. SECS.6001- 6018) 1980 AS AMENDED	THE PENNSYLVANIA SOLID WASTE MANAGEMENT ACT (35 P.S. SECS.6001- 6018) 1980 AS AMENDED	THE PENNSYLVANIA SOLID WASTE MANAGEMENT ACT (35 P.S. SECS.6001- 6018) 1980, AS AMENDED
REGS, TITLE & DATE	PENNSYLVANIA SOLID WASTE REGS. PA CODE, TITLE 25, ENVIRONMENTAL RESOURCES, CHAPTER 75--SOLID WASTE MANAGEMENT; ADOPTED 8/2/71; AMENDED THROUGH 5/85	PENNSYLVANIA SOLID WASTE REGS. PA CODE, TITLE 25, ENVIRONMENTAL RESOURCES, CHAPTER 75--SOLID WASTE MANAGEMENT; ADOPTED 8/2/71; AMENDED THROUGH 5/85	PENNSYLVANIA SOLID WASTE REGS. PA CODE, TITLE 25, ENVIRONMENTAL RESOURCES, CHAPTER 75--SOLID WASTE MANAGEMENT; ADOPTED 8/2/71; AMENDED THROUGH 5/85
GUIDELINES, TITLE & DATE	INTERIM GUIDELINES FOR SEWAGE, SEPTIC TANK, AND HOLDING TANK WASTE USE ON AGRICULTURAL LANDS		INTERIM GUIDELINES FOR SEWAGE SLUDGE USE FOR LAND RECLAMATION
CONTROLLING AGENCY	PENNSYLVANIA DEPT OF ENVIRONMENTAL RESOURCES BUREAU OF WASTE MANAGEMENT HARRISBURG, PA 17120 717/787/7381	PENNSYLVANIA DEPT OF ENVIRONMENTAL RESOURCES BUREAU OF WASTE MANAGEMENT HARRISBURG, PA 17120 717/787/7381	PENNSYLVANIA DEPT OF ENVIRONMENTAL RESOURCES BUREAU OF WASTE MANAGEMENT HARRISBURG, PA 717/787/7381
ACCEPTABILITY OF SLUDGE			
PERMIT OR APPROVAL APPLIC. SUBMITTAL	R PROJECTS WHICH DO NOT MEET GUIDELINES REQUIRE PERMIT	GENERATOR MUST OBTAIN STORAGE PERMIT. GENERATOR MUST OBTAIN DEPT.	G PERMIT IS REQUIRED FOR LAND R DISPOSAL. SEE SUBMITTAL REQUIRE-

[illegible]

	PENNSYLVANIA LAND APPLICATION	PENNSYLVANIA GIVE-AWAY PROGRAM	PENNSYLVANIA LAND RECLAMATION
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS	BASED ON 10/T/AC G		
CONDUCTIVITY (SALT)			
NUTRIENTS (% BY DRY WEIGHT)			
N			
P			
K			
METALS (MG/KG SLUDGE DRY WEIGHT)			
AS			
CD	50		
PB	1000		
NI	200		
ZN	2000		

	PENNSYLVANIA LAND APPLICATION	PENNSYLVANIA GIVE-AWAY PROGRAM	PENNSYLVANIA LAND RECLAMATION
CU	1000		
CR	1000		
HG	10		
MO			
B			
FE			
ORGANICS			
PCB			
WATER			
OTHER CONTAMINANTS			
RECORDS			

	PENNSYLVANIA LAND APPLICATION	PENNSYLVANIA GIVE-AWAY PROGRAM	PENNSYLVANIA LAND RECLAMATION
REPORTS			
NOTIFICATIONS		GENERATOR MUST GIVE USER THE INFORMATION SHEET	
STORAGE (IF APPLICABLE)			
LAND APPLICATION			
APPROVAL OR PERMIT APPLIC. SUBMITTAL	PERMIT NOT REQUIRED FOR PROJECTS MEETING GUIDELINES PROJECTS MUST MEET DEPARTMENT CONDI-		LAND DISPOSAL PERMIT IS REQUIRED SUBMITTAL MUST INCLUDE: SITE MAPS, SOURCE OF SLUDGE,

[illegible]

	PENNSYLVANIA LAND APPLICATION	PENNSYLVANIA GIVE-AWAY PROGRAM	PENNSYLVANIA LAND RECLAMATION
SOIL SAMPLING PRE-APPLICATION			
POST-APPLICATION	SAMPLING RECOMMENDED AFTER 30 DRY TONS APPLIED		COMPLETE SOIL ANALYSIS REQUIRED AFTER FINAL APPLIC FOR LAND RECLAIMED FOR FARMING PURPOSES
WATER QUALITY MONITORING GROUND WATER			GW MONITORING PROGRAM MUST BE APPROVED BY DEPT
SURFACE WATER			
CROP MONITORING			
MAXIMUM SLUDGE LOADING LIMIT KG/HA UNLESS OTHERWISE NOTED	G DOES NOT INCLUDE SEPTIC OR HOLDING	MAX OF 1000 GAL/AC/YR UNLESS DEPT APPROVES	NOT TO EXCEED ONE INCH/WK UNLESS DEPT APPROVED;

	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA
	LAND APPLICATION	GIVE-AWAY PROGRAM	LAND RECLAMATION
(CEC IN MEQ/100G SOIL)			
ANNUAL OR CUMULATIVE			
NUTRIENTS			
N (ANNUAL)	BASED ON CROP REQUIREMENTS		N IN EXCESS OF CROP REQUIREMENT
	IF DEEP, WELL-DRAINED SOILS, 100%		ALLOWED; MAX APPLIC RATE OF 60 DRY
	OF N CROP UPTAKE; IF MODERATELY		T/AC ALLOWED
	DEEP, MOD WELL-DRAINED, 75%		
P			
METALS			
CD			
ANNUAL	1.12 KG/HA		
MAX CUMULATIVE	3.36 KG/HA		3.36 KG/HA
PB	ANNUAL: 22.42 KG/HA		112 KG/HA

	PENNSYLVANIA LAND APPLICATION	PENNSYLVANIA GIVE-AWAY PROGRAM	PENNSYLVANIA LAND RECLAMATION
			67 KG/HA IF RECLAIMED FOR FARMLAND
ZN	ANNUAL: 44.84 KG/HA		224 KG/HA
			135 KG/HA IF RECLAIMED FOR FARMLAND
CU	ANNUAL: 22.42 KG/HA		112 KG/HA
			67 KG/HA IF RECLAIMED FOR FARMLAND
CR	ANNUAL: 22.42 KG/HA		112 KG/HA
			67 KG/HA IF RECLAIMED FOR FARMLAND
NI	ANNUAL 4.48 KG/HA		22 KG/HA
			13 KG/HA IF RECLAIMED FOR FARMLAND
HG	ANNUAL: 0.22 KG/HA		0.56 KG/HA
			0.22 IF RECLAIMED FOR FARMLAND

	PENNSYLVANIA LAND APPLICATION	PENNSYLVANIA GIVE-AWAY PROGRAM	PENNSYLVANIA LAND RECLAMATION
ORGANICS			
PCB			
LAND USE RESTRICTIONS			
CROPS	NOT TO BE APPLIED TO ROOT VEG. OR VEG THAT ARE NOT COOKED		NO FOOD OR GRAINS FOR HUMANS OR ANIMALS. DISPOSAL OF ALL CROPS MUST BE APPROVED BY DEPT
GRAZING OR GREENCHOP	NO DAIRY CATTLE FOR 2 MOS.		

	PENNSYLVANIA LAND APPLICATION	PENNSYLVANIA GIVE-AWAY PROGRAM	PENNSYLVANIA LAND RECLAMATION
PUBLIC ACCESS			
PH OF SOIL	6.5 OR GREATER DURING OPERATION AND FOR 2 YRS AFTER APPLIC.		FIRST YEAR:6.0 SECOND YEAR:6.5 TWO YEARS AFTER APPLIC:6.5
SITING RESTRICTIONS			
SOIL CONDITIONS	MUST BE WITHIN USDA: SANDY LOAM, LOAM, SANDY CLAY LOAM, SILTY CLAY LOAM, AND SILT LOAM		
BUFFER REQUIREMENTS			
DIST TO PRIVATE WELL	300 FT		300 FT.
DIST TO PUBLIC WELL	300 FT		300 FT.
DIST TO RESIDENCE	300 FT		300 FT.

	PENNSYLVANIA LAND APPLICATION	PENNSYLVANIA GIVE-AWAY PROGRAM	PENNSYLVANIA LAND RECLAMATION
DIST TO OTHER BLDGS.			
DIST TO PROPERTY LINE	50 FT 25 FT TO BEDROCK OUTCROPS		50 FT. TO PROPERTY LINE 25 FT TO BEDROCK OUTCROP
GROUNDWATER PROTECTION			NOT TO POLLUTE GW
DEPTH TO HIGH GW	4 FT		
DEPTH TO BEDROCK	20 IN		
PERMEABILITY			
INFILTRATION			

	PENNSYLVANIA LAND APPLICATION	PENNSYLVANIA GIVE-AWAY PROGRAM	PENNSYLVANIA LAND RECLAMATION
SURFACE WATER PROTECTION			NOT TO POLLUTE SW
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NO IN AREAS SUBJ TO FLOODING		
DIST TO SURFACE WATER	100 FT TO STREAMS		100 FT TO STREAMS
DIST TO DRY RUN			
RUNOFF AND EROSION CONTROL	NOT ON SNOW, FROZEN OR SATURATED LAND; MUST BE INCORPORATED WITHIN 24 HRS UNLESS SPREAD ON CROPS NOT USED FOR PASTURE AND SLOPES < 20%, OR SPREAD ON NO-TILL CROP ON SLOPE OF < 15% AND RESIDUE OF PREVIOUS CROP REMAINS		NO TO BE APPLIED TO SATURATED, SNOW-COVERED, FROZEN GROUND; MUST BE INCORPORATED WITHIN 24 HRS UNLESS MINE SPOIL MATERIAL SUPPORTS SUBST GROWTH; FINAL COVER REQUIRED FOR APPLIC TO ACTIVE MINES OR COAL REFUSE PILES
MAXIMUM SLOPE LIMIT	20% IF SPREAD ON COVER CROPS NOT USED FOR PASTURE 15% IF SPREAD ON NO-TILL CROP AND RESIDUE OF PREVIOUS CROP REMAINS		< 15% IF INACTIVE MINE OR COAL REFUSE PILE; > 15% IF APPROVED BY DEPT

	PENNSYLVANIA LAND APPLICATION	PENNSYLVANIA GIVE-AWAY PROGRAM	PENNSYLVANIA LAND RECLAMATION
RECORDS	FOR PROJECT APPLICANTS REQUIRING PERMITS, MUST MAINTAIN RECORDS OF QUANTITIES, DATES, AND LOCATIONS OF SLUDGE APPLIC.		
REPORTS	DEPT MAY REQUEST COPIES OF RECORDS		
NOTIFICATIONS			
STORAGE	WINTER GROUND STORAGE AT FARM IF NO MEANS AT TREATMENT PLANT, IF RUN- OFF PREVENTED, AND IF NO ODOR OR VECTOR, AND SLUDGE APPLIED IMMEDI- ATELY WHEN WEATHER PERMITS		TEMP STORAGE ALLOWED IF INCLEMENT WEATHER AND RUNOFF PREVENTED

FILE 1

PENNSYLVANIA
}LAND APPLICATION
|
|

PENNSYLVANIA
| }GIVE-AWAY PROGRAM
| |
| |

PENNSYLVANIA
| }LAND RECLAMATION
| }
| }

TRANSPORTATION

UNCONTROLLED USE

DEDICATED SITES

FILE 1

PENNSYLVANIA
|LAND APPLICATION
|
|

PENNSYLVANIA
} GIVE-AWAY PROGRAM
| |
| |

PENNSYLVANIA
| LAND RECLAMATION
| |
| |

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COMMENTS

FILE 4.6

	RHODE ISLAND UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	RHODE ISLAND COMPOSTING	RHODE ISLAND LAND APPLICATION
SLUDGE CLASSIFICATION			
STATE CONTROL LAWS, TITLE & DATE	AUTHORITY: CH. 46-12, 42-17.1, 42-35, 23-18.9, 23-19.1 OF GENERAL LAWS OF R.I., 1956, AS AMENDED	AUTHORITY: CH. 46-12, 42-17.1, 42-35, 23-18.9, 23-19.1 OF GENERAL LAWS OF R.I.	AUTHORITY: CH. 46-12, 42-17.1, 42-35, 23-18.9, 23-19.1 OF GENERAL LAWS OF R.I., 1956, AS AMENDED
REGULATIONS, TITLE&DATE	REGULATIONS(9/85) SECTION 12. COMPOSTING SECTION 13. SUBMISSIONS FOR APPROVAL NOTE: ALL LISTED CRITERIA ARE CONTAINED IN REGULATIONS, EXCEPT WHERE NOTED	REGULATIONS(9/85) SECTION 12. COMPOSTING SECTION 13. SUBMISSIONS FOR APPROVAL NOTE: ALL LISTED CRITERIA ARE CONTAINED IN REGULATIONS, EXCEPT WHERE NOTED	REGULATIONS(9/85) SECTION 9. LAND APPLICATION SECTION 10. SUBMISSIONS FOR APPROVAL SECTION 11. LAND APPLICATION RATES NOTE: ALL LISTED CRITERIA ARE CONTAINED IN REGULATIONS, EXCEPT WHERE NOTED
GUIDELINES, TITLE&DATE			
CONTROLLING AGENCY	DEPT OF ENV. MGMNT. DIVISION OF WATER RESOURCES PROVIDENCE, RI (401) 277-2234	DEPT OF ENV. MGMNT. DIVISION OF WATER RESOURCES PROVIDENCE, RI (401) 277-2234	DEPT OF ENV. MGMNT. DIVISION OF WATER RESOURCES PROVIDENCE, RI (401) 277-2234

FILE 4.6

RHODE ISLAND
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

RHODE ISLAND
COMPOSTING

RHODE ISLAND
LAND APPLICATION

ACCEPTABILITY OF SLUDGE

PERMIT OR APPROVAL

APPLICATION SUBMITTALS

| REGULATION ADDRESS OPERATION
| OF COMPOSTING FACILITY AND
| APPROVALS REQUIRED. THEY DO
| NOT ADDRESS THE DISTRIBUTION OR
| USE OF COMPOST

| SEE SITE-RELATED SUBMITTAL
| REQ UNDER LA

| POTW MUST OBTAIN AND OPERATE

| UNDER ORDER FOR APPROVAL

| THE OWNER MUST SUBMIT A SLUDGE
| DISTRIBUTION INFORMATION
| SHEET
| SEE SITE-SPECIFIC APPLIC REQ
| UNDER LA

RHODE ISLAND
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

RHODE ISLAND
COMPOSTING

RHODE ISLAND
LAND APPLICATION

SLUDGE SAMPLING PARAMETERS

SLUDGE ANALYSIS: 1/YR FOR EP TOX.
AS, BA, CD, CR, PB, HG, SE, AG,
ENDRIN, LINDANE, METHOXYCHLOR,
TOXAPHENE, 24D, 245TP

	RHODE ISLAND UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	RHODE ISLAND COMPOSTING	RHODE ISLAND LAND APPLICATION
MAXIMUM SLUDGE CONSTITUENT C			
CONDUCTIVITY (SALT)			
NUTRIENTS (% BY DRY WEIGHT			
N			NO LIMIT
P			
K			
METALS (MG/KG SLUDGE DRY			NO SLUDGE TO BE APPLIED THAT
WEIGHT)			EXCEEDS R.I. TOXICITY LIMITS
AS			FOR METALS
CD			15 OR 1% OF ZN LEVEL
			(RECOMMENDED)
PB			500 (RECOMMENDED)
NI			200 (RECOMMENDED)
ZN			2000 (RECOMMENDED)
CU			1000 (RECOMMENDED)
CR			
HG			5 (MANDATORY)
MO			
B			
FE			
ORGANICS			
PCB			10 MG/KG (MANDATORY)

FILE 4.6

**RHODE ISLAND
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)**

**RHODE ISLAND
COMPOSTING**

**RHODE ISLAND
LAND APPLICATION**

WATER

OTHER CONTAMINANTS

RECORDS

**RESULTS OF THE SLUDGE ANALYSIS MUST BE
ON FILE AT TIME OF APPLICATION**

REPORTS

**YEARLY SUBMITTAL OF SLUDGE
ANALYSIS**

NOTIFICATIONS

	RHODE ISLAND UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	RHODE ISLAND COMPOSTING	RHODE ISLAND LAND APPLICATION
STORAGE (IF APPLICABLE)			
LAND APPLICATION APPROVAL OR PERMIT		ALL SITES OPERATE UNDER ORDER OF APPROVAL	ALL L.A. SITES MUST OPERATE UNDER AN APPROVAL.
APPLICATION SUBMITTALS		SUBMISSIONS FOR PERMIT 1-3 SAME AS FOR LAND APP. SOIL BORINGS GW SURVEY SITE PLAN OPERATION PLAN, INCL. PROVISIONS FOR MARKETING SLUDGE & COMPOST ANALYSIS EP TOX 1/YR OTHERS AS REQUIRED	INITIAL INVESTIGATION PLANS RADIUS PLAN SITE PLAN SOIL DESCRIPTION SOIL LAB DATA OPERATING PLAN: LA METHOD,SEQUENCE OF OPERATIONS, PERSONNEL,USE OF SITE, CONTROL DUST,VECTORS,ODOR,CONTROL OF EROSION AND SEDIMENT, EQUIPMENT,

RHODE ISLAND
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

RHODE ISLAND
COMPOSTING

RHODE ISLAND
LAND APPLICATION

|MUST CONFORM TO AIR POLLUTION
| LAWS

|PROVISIONS FOR LIMITING ACCESS,
|SURFACE DRAINAGE CONTROL
| SLUDGE ANALYSIS

|NOTIFICATION OF DIVISION OF
| CHANGES OR NON-COMPLIANCE

|PROCESS TO REDUCE PATHOGENS

CRITERIA FOR USE
DEGREE OF STABILIZATION

	RHODE ISLAND UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	RHODE ISLAND COMPOSTING	RHODE ISLAND LAND APPLICATION
MONITORING			
SOIL			SOIL ANALYSIS: CEC OR TOC, pH, HEAVY METALS IF SITE PREVIOUSLY RECEIVED SLUDGE
CROPS			
SURFACE WATER			MONITORING OF SURFACE WATER COURSES REQUIRED
GROUNDWATER			MONITORING MAY BE REQUIRED

FILE 4.6

RHODE ISLAND UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	RHODE ISLAND COMPOSTING	RHODE ISLAND LAND APPLICATION
MAXIMUM SLUDGE LOADING LIMIT (CEC IN MEQ/100G SOIL) SLUDGE APPLICATION WILL BE L SLUDGE		10 T/AC DRY
NUTRIENTS N (ANNUAL)		FOUR TIMES CROP NEEDS
METALS CD ANNUAL		
MAX. CUMULATIVE		(MAX. CUMULATIVE) 1.1 KG/HA (1 LB/AC) IF CEC<5 OR SOC<1.6 3.37 KG/HA (3 LB/AC) IF 5<CEC<15 OR 1.6<SOC<4.8 5.62 KG/HA (5 LB/AC) IF CEC>15 OR SOC>4.8

FILE 4.6

RHODE ISLAND UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	RHODE ISLAND COMPOSTING	RHODE ISLAND LAND APPLICATION
PB		(MAX. CUMULATIVE) 561 KG/HA IF CEC < 5 OR SOC < 1.6 1123 KG/HA IF 5<CEC<15 OR 1.6<SOC<4.8 2242 KG/HA IF CEC>15 OR SOC>4.8 (500, 1000, 2000 LB/AC, RESP.)
ZN		(MAX. CUMULATIVE) 281 KG/HA IF CEC<5 OR SOC<1.6 561 KG/HA IF 5<CEC<15 OR 1.6<SOC<4.8 1123 KG/HA IF CEC>15 OR SOC>4.8 (250, 500, 1000 LB/AC, RESP.)
CU		(MAX. CUMULATIVE) 140 KG/HA IF CEC<5 OR SOC<1.6 281 KG/HA IF 5<CEC<15 OR 1.6<SOC<4.8 562 KG/HA IF CEC>15 OR SOC>4.8 (125, 250, 500 LB/AC, RESP.)
CR		
NI		(MAX. CUMULATIVE) 56.1 KG/HA IF CEC < 5 OR SOC < 1.6 112 KG/HA IF 5<CEC<15 OR 1.6<SOC<4.8 225 KG/HA IF CEC>15 OR SOC>4.8 (50, 100, 200 LB/AC, RESP.)
HG		
ORGANICS		
PCBS		

FILE 4.6

	RHODE ISLAND UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	RHODE ISLAND COMPOSTING	RHODE ISLAND LAND APPLICATION
LAND USE RESTRICTIONS			
CROPS			NO POTW SLUDGE TO BE USED FOR GROWING CROPS FOR HUMAN CONSUMPTION
GRAZING OR GREENCHOP			NO GRAZING BY ANIMALS WHOSE PRODUCTS ARE CONSUMED BY HUMANS--1 MO
PUBLIC ACCESS			RESTRICTED FOR 12 MO
PH OF SOIL & SLUDGE OR PH OF SOIL			6.5 IF FOOD CHAIN CROPS ARE TO BE GROWN MAY BE LESS THAN 6.5 FOR NON-FOOD CHAIN CROPS IF TOTAL CUMULATIVE APPLIC. OF SLUDGE IS REDUCED BY 50%
SITING RESTRICTIONS SOIL CONDITIONS			
BUFFER REQUIREMENTS DIST. TO PRIVATE WELL			1000 FT
DIST. TO PUBLIC WELL			NOT WITHIN RECHARGE AREA

RHODE ISLAND UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	RHODE ISLAND COMPOSTING	RHODE ISLAND LAND APPLICATION
DIST TO RESIDENCE		400 FT TO ANY BUILDING NOT ASSOCIATED WITH OPERATION
DIST TO OTHER BUILDINGS		
DIST TO PROPERTY LINE		
GROUND WATER PROTECTION		MONITORING MAY BE REQUIRED
DEPTH TO HIGH GW		1.5 FT
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		SURFACE WATER COURSES MUST BE MONITORED
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING		
DIST TO SURFACE WATER		200 FT TO WATER OR WETLAND NO APPLICATION TO WATERSHED OF PUBLIC WATER SUPPLY
DIST. TO DRY RUN		
RUNOFF AND EROSION CONTROL		NO APPLICATION TO SNOWY OR FROZEN GROUND UNLESS EROSION AND RUNOFF CONTROL MEASURES ARE PROVIDED

	RHODE ISLAND UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	RHODE ISLAND COMPOSTING	RHODE ISLAND LAND APPLICATION
MAXIMUM SLOPE LIMIT			IF SLOPE > 3%, OR IF POSSIBILITY OF EROS OR RUNOFF, SHALL BE DESIGNED SO THAT ANNUAL SOIL LOSS IS LESS THAN 3 T/AC
RECORDS			
REPORTS			
NOTIFICATIONS			

FILE 4.6

RHODE ISLAND
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

RHODE ISLAND
COMPOSTING

RHODE ISLAND
LAND APPLICATION

STORAGE

PROTECTED BY DIRECT RAINFALL BY A ROOF

TRANSPORTATION

PROPERLY SEALED, WATERTIGHT AND
COVERED

UNCONTROLLED USE

FILE 4.6

**RHODE ISLAND
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)**

**RHODE ISLAND
COMPOSTING**

**RHODE ISLAND
LAND APPLICATION**

DEDICATED SITES

COMMENTS

FILE 1

	SOUTH CAROLINA	
	LAND APPLICATION OF SLUDGE	
SLUDGE CLASSIFICATION	GROUP 11	
	(GROUP 1 IS FOR DEDICATED LAND	
	APPLICATION)	
STATE CONTROL		
LAWS, TITLE & DATE	SOUTH CAROLINA WATER POLLUTION	
	CONTROL ACT, TITLE 1, 1971	
	AS AMENDED	
REGS, TITLE & DATE		
GUIDELINES, TITLE & DATE	GUIDANCE MANUAL FOR LAND APPLICATION	
	OF SLUDGE, DRAFT.	
	1/16/86	
CONTROLLING AGENCY	SOUTH CAROLINA DEPT OF HEALTH	
	AND ENVIRONMENTAL CONTROL	
	DOMESTIC WASTEWATER DIVISION	
	COLUMBIA, SC 29201	
	803/758/5067	
ACCEPTABILITY OF SLUDGE		
PERMIT OR APPROVAL		
APPLIC. SUBMITTAL		

South Carolina

SOUTH CAROLINA

LAND APPLICATION OF SLUDGE

SLUDGE SAMPLING PARAMETERS

| SLUDGE ANALYSIS: %TOTAL AND VOL
| SOLIDS, N,P,K,pH,PB,CD,CU,
| NI,ZN,ORGANIC COMPOUNDS IF REQUIRED,
| NH4-N,NO3-N,
| FREQUENCY OF SAMPLING DEPENDS
| UPON VARIABILITY OF SLUDGE
| ONCE PER YR EP TOXICITY TEST

FILE 1

SOUTH CAROLINA
LAND APPLICATION OF SLUDGE

MAXIMUM SLUDGE CONSTITUENT
CONCENTRATIONS

CONDUCTIVITY (SALT)

NUTRIENTS (% BY DRY WEIGHT)

N

P

K

METALS (MG/KG SLUDGE DRY WEIGHT)

AS

CD

PB

NI

ZN

South Carolina

FILE 1

SOUTH CAROLINA
LAND APPLICATION OF SLUDGE

CU

CR

HG

MO

B

FE

ORGANICS

PCB

WATER

OTHER CONTAMINANTS

RECORDS

South Carolina

	SOUTH CAROLINA
	LAND APPLICATION OF SLUDGE
REPORTS	
NOTIFICATIONS	
STORAGE (IF APPLICABLE)	
LAND APPLICATION	
APPROVAL OR PERMIT	
APPLIC. SUBMITTAL	

SOUTH CAROLINA
LAND APPLICATION OF SLUDGE

CRITERIA FOR USE
DEGREE OF STABILIZATION

PSRP IF CROPS NOT FOR DIRECT
HUMAN CONSUMPTION
PERP IF CROPS FOR DIRECT HUMAN
CONSUMPTION WITHIN 18 MOS (UNLESS
NO CONTACT BETWEEN SLUDGE AND
EDIBLE PORTION OF CROP)

	SOUTH CAROLINA	
	LAND APPLICATION OF SLUDGE	
SOIL SAMPLING		
PRE-APPLICATION		
POST-APPLICATION	pH AND LIME: 1/YR	
	CEC AND METALS: 1/5 YRS	
	NUTRIENTS: 1/YR	
WATER QUALITY MONITORING		
GROUND WATER	MAY BE REQUIRED	
SURFACE WATER		
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED		

	SOUTH CAROLINA	
	LAND APPLICATION OF SLUDGE	
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)	MAX OF CROP UPTAKE	
P	448 KG/HA	
METALS		
CD		
ANNUAL	UNTIL 12/86: 1.25 KG/HA	
	AFTER 1/87: 0.5 KG/HA	
	FOR FRUITS AND VEG, MAX .5 KG/HA	
MAX CUMULATIVE	IF CEC<5: 5 KG/HA	
	IF 5<CEC<15: 10 KG/HA	
	IF CEC>15: 20 KG/HA	
	ANNUAL APPLIC OF FOLLOWING SHOULD	
	BE LIMITED TO 10% OF CUM LIMITS:	
PB	IF CEC<5: 560 KG/HA	

	SOUTH CAROLINA	
	LAND APPLICATION OF SLUDGE	
	IF 5<CEC<15: 1120 KG/HA	
	IF CEC>15: 2250 KG/HA	
	FOR FRUITS AND VEG, MAX	
	CUM OF 800 KG/HA	
ZN	IF CEC<5: 280 KG/HA	
	IF 5<CEC<15: 560 KG/HA	
	IF CEC>15: 1120 KG/HA	
CU	IF CEC<5: 140 KG/HA	
	IF 5<CEC<15: 280 KG/HA	
	IF CEC>15: 560 KG/HA	
CR		
NI	IF CEC<5: 140 KG/HA	
	IF 5<CEC<15: 280 KG/HA	
	IF CEC>15: 560 KG/HA	
HG		

SOUTH CAROLINA

LAND APPLICATION OF SLUDGE

ORGANICS

PCB

LAND USE RESTRICTIONS

CROPS

NO CROPS FOR DAIRY CATTLE OR HUMANS
FOR 1 YR

GRAZING OR GREENCHOP

NO LACTATING DAIRY ANIMALS FOR
1 YR

SOUTH CAROLINA

|LAND APPLICATION OF SLUDGE

|
|IF PSRP, NO GRAZING BY ANIMALS
|WHOSE PRODUCTS ARE FOR HUMAN CON-
|SUMPTION FOR ONE MO

PUBLIC ACCESS

|IF PSRP, NO HUMAN ACCESS FOR 12 MOS

PH OF SOIL

|MUST BE 6.0 OR > IN PLOW LAYER
|(MEASURED ON SALT SOLUTION TEST)
|MUST BE 6.5 OR > WHEN MEASURED IN
|DISTILLED WATER

SITING RESTRICTIONS

SOIL CONDITIONS

|SHOULD BE HIGH IN CLAY AND ORGANIC
|MATTER AND HAVE HIGH CEC

BUFFER REQUIREMENTS

DIST TO PRIVATE WELL

|100 FT

DIST TO PUBLIC WELL

|100 FT

DIST TO RESIDENCE

|500 FT

FILE 1

	SOUTH CAROLINA	
	LAND APPLICATION OF SLUDGE	
DIST TO OTHER BLDGS.		
DIST TO PROPERTY LINE	100 FT	
	100 FT TO ROAD	
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW	SHOULD BE DETERMINED	
DEPTH TO BEDROCK	SHOULD BE DETERMINED	
PERMEABILITY		
INFILTRATION		

South Carolina

	SOUTH CAROLINA	
	LAND APPLICATION OF SLUDGE	
SURFACE WATER PROTECTION		
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT IN AREAS SUBJ TO FREQUENT FLOODING OR IN 10 YR FLOODPLAIN	
DIST TO SURFACE WATER	150-300 FT IF POND, LAKE, WELL, OPEN SINKHOLE, LOSING OR SWIMMING STREAM; 50-150 FT IF PERM FLOWING STREAM	
DIST TO DRY RUN	25-50 FT IF WET WEATHER STREAM	
RUNOFF AND EROSION CONTROL	NOT WHEN RAIN IS EXPECTED;USE VEG BUFFER STRIP;NOT ON SATURATED OR FROZEN GROUND	
MAXIMUM SLOPE LIMIT	< 8% IF NOT INCORP 9%-12% IF INCORP	

SOUTH CAROLINA

LAND APPLICATION OF SLUDGE

RECORDS

FILE FOR EACH APPLIC SITE INCLUDING
 SITE MAP, SOIL TEST, AMT OF
 SLUDGE AND METALS APPLIED, DATES
 OF APPLIC, AND ACRES OF LAND
 CUM SUMMARY OF EACH SITE TO SHOW
 ANNUAL AND TOTAL SLUDGE AND METALS
 PER ACRE
 RECORD OF RESIDUAL NITROGEN

REPORTS

NOTIFICATIONS

STORAGE

MIN OF 6 MOS MAY BE REQUIRED
 FACILITIES SHOULD:
 NOT BE IN 100 YR FLOODPLAIN,
 BE .25 MI FROM OCCUP RESIDENCES,
 MIN SEEPAGE AND SURFACE RUN-OFF

FILE 1

SOUTH CAROLINA

LAND APPLICATION OF SLUDGE

TRANSPORTATION

UNCONTROLLED USE

DEDICATED SITES

GROUP I SLUDGE IS FOR DEDICATED SITES.
ONLY TO BE USED AS LAST RESORT.
SLUDGE MONITOR SAME AS FOR GROUP II
SW AND GW MUST BE MONITORED
TWO TIMES CROP NITROGEN UPTAKE
ALLOWED
CUM AMT OF HEAVY METALS SAME AS FOR
GROUP II

South Carolina

FILE 1

SOUTH CAROLINA
|LAND APPLICATION OF SLUDGE

|
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|
|

COMMENTS

FILE 1

	TENNESSEE	TENNESSEE	TENNESSEE	
	LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM	
SLUDGE CLASSIFICATION				
STATE CONTROL				
LAWS, TITLE & DATE	SOLID WASTE DISPOSAL ACT TITLE 68,CHP 31, 1969 AS AMENDED	SOLID WASTE DISPOSAL ACT TITLE 68,CHP 31, 1969, AS AMENDED	SOLID WASTE DISPOSAL ACT TITLE 68, CHP 31,1969, AS AMENDED	
REGS, TITLE & DATE				
GUIDELINES, TITLE & DATE	GUIDELINES FOR LAND APPLICATION OF SLUDGE (3/23/83)	GUIDELINES FOR LAND APPLICATION OF SLUDGE (3/23/83)	GUIDELINES FOR LAND APPLICATION OF SLUDGE,3/23/83	
CONTROLLING AGENCY	TENNESSEE DEPT OF PUBLIC HEALTH DIVISION OF SOLID WASTE MANAGEMENT NASHVILLE, TENNESSEE (615/742/6649)	TENNESSEE DEPT OF PUBLIC HEALTH DIVISION OF SOLID WASTE MANAGEMENT NASHVILLE, TENNESSEE (615/742/6649)	TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT,DIVISION OF SOLID WASTE MANAGEMENT NASHVILLE, TENNESSEE 615/742/6649	

Tennessee

[illegible]

TENNESSEE	TENNESSEE	TENNESSEE	
LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM	

MAXIMUM SLUDGE CONSTITUENT	CONSTIT. LEVELS ARE BASED ON			
CONCENTRATIONS	CONTAMINANT LEVELS FOR HAZ WASTE			
	SET BY EPA			
	SPEC STDS NOT ADDRESSED			
CONDUCTIVITY (SALT)				
NUTRIENTS (% BY DRY WEIGHT)				
N				
P				
K				
METALS (MG/KG SLUDGE DRY WEIGHT)				
AS				
CD				

FILE 1

	TENNESSEE		TENNESSEE		TENNESSEE		
		LAND APPLICATION		APPLICATION TO DEDICATED SITES		GIVE-AWAY PROGRAM	
PB							
NI							
ZN							
CU							
CR							
HG							
MO							
B							
FE							
ORGANICS							
PCB							

FILE 1

	TENNESSEE	TENNESSEE	TENNESSEE
	LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM
WATER			
OTHER CONTAMINANTS			
RECORDS	ANNUAL REPORT MUST INCLUDE ANNUAL SLUDGE ANALYSIS <1 MGD:1/YR >1 MGD:2/YR		
REPORTS	ANNUAL REPORT TO DIVISION		SLUDGE MONITORING DATA
NOTIFICATIONS			

Tennessee

	TENNESSEE	TENNESSEE	TENNESSEE
	LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM
STORAGE (IF APPLICABLE)	GENERATOR SHOULD INDICATE MAX STORAGE TIME IN DAYS. IF OFF-SITE STORAGE NECESSARY, GENERATOR MUST PROVIDE PLANS		GENERATOR SHOULD INDICATE IF STORAGE AVAILABLE, AND MAX STORAGE IN DAYS
LAND APPLICATION			
APPROVAL OR PERMIT APPLIC. SUBMITTAL	APPROVAL ON A CASE BY CASE BASIS NO OFFICIAL PERMIT GRANTED; TO GET APPROVAL, GENERATOR MUST SUBMIT: SLUDGE ACCEPTABILITY CRITERIA, LAND APPLICATION METHOD, PRELIM. SITE INFO SITE APPROVAL(INCLUDING SITE INSPECTION,AND PRELIM SOIL INFO. UNLESS ONLY DRIED SLUDGE T BE SPREAD, SITES <5 TONS/AC/YR, AND TOTAL AREA <10 ACRES), ON-SITE MONITORING(INCLUDING	APPROVAL FOR APPLICATION OF SLUDGE TO A DEDICATED SITE WOULD INVOLVE STRICT SITE APPROVAL BY DIVISION	SITE APPROVAL REQUIREMENTS ARE NOT NECESSARY WHEN GENERATOR MEETS ALL OF FOLLOWING: DRIED OR DEWATERED SLUDGE IS LANDSPREAD, SITES RECEIVE 5 TONS/AC/YR OR LESS, AND SITES ARE EQUAL TO OR LESS THAN 10 AC

	TENNESSEE	TENNESSEE	TENNESSEE
	LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM
CRITERIA FOR USE DEGREE OF STABILIZATION	SOIL TESTING, GW AND SW TESTING)		
	MUST BE ADEQUATELY STABILIZED TO AVOID NUISANCE AND HEALTH PROBLEMS		MUST BE ADEQUATELY STABILIZED
SOIL SAMPLING PRE-APPLICATION	pH, CEC(MEQ/100G)		MAY NOT BE REQUIRED AS PART OF - SITE APPROVAL

FILE 1

	TENNESSEE	TENNESSEE	TENNESSEE	
	LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM	
POST-APPLICATION	ANNUALLY: pH MUST BE ≥ 6.5 EVERY 3 YEARS: pH, PH, K, CU, PB, CD, ZI, NI, OTHER PARAMETERS AS DEEMED NECESSARY		EXEMPT	
WATER QUALITY MONITORING GROUND WATER	MAY BE REQUIRED	WOULD BE REQUIRED	EXEMPT	
SURFACE WATER	MAY BE REQUIRED	WOULD BE REQUIRED		
CROP MONITORING				
MAXIMUM SLUDGE LOADING LIMIT KG/HA UNLESS OTHERWISE NOTED (CEC IN MEQ/100G SOIL)	APPROX 5-10 TONS DRY/AC/YR			

Tennessee

	TENNESSEE	TENNESSEE	TENNESSEE
	LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM
ANNUAL OR CUMULATIVE			
NUTRIENTS		RATES WOULD BE HIGHER THAN	
N (ANNUAL)	AGRONOMIC CALCS. DONE TO DETERMINE CROP NEEDS	ALLOWED UNDER LAND APPLIC.	AGRONOMIC CALCS MUST BE DONE TO FIND CROP N REQUIREMENT
P	MUST BE <448 KG/HA		MUST BE <448 KG/HA
METALS			
CD	UNTIL 12/86:1.26 KG/HA (1.12 LB/AC)		UNTIL 12/86:1.26 KG/HA (1.12 LB/AC)
ANNUAL	AFTER 1/87:.50 KG/HA (.45 LB/AC)		AFTER 1/87:.50 KG/HA (.45 LB/AC)
MAX CUMULATIVE	IF CEC<5:5 KG/HA IF 5<CEC<15:10 KG/HA IF CEC>15:20 KG/HA		IF CEC<5:5 KG/HA IF 5<CEC<15:10 KG/HA IF CEC>15:20 KG/HA

FILE 1

	TENNESSEE	TENNESSEE	TENNESSEE	
	LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM	
PB	IF CEC<5:499 KG/HA		IF CEC<5:499 KG/HA	
	IF 5<CEC<15:,999 KG/HA		IF 5<CEC<15:999 KG/HA	
	IF CEC>15:1998 KG/HA		IF CEC>15:1998 KG/HA	
ZN	IF CEC<5:250 KG/HA		IF CEC<5:250 KG/HA	
	IF 5<CEC<15:500 KG/HA		IF 5<CEC<15:500 KG/HA	
	IF CEC>15:999 KG/HA		IF CEC>15:999 KG/HA	
CU	IF CEC<5:124 KG/HA		IF CEC<5:124 KG/HA	
	IF 5<CEC<15:250 KG/HA		IF 5<CEC<15:250 KG/HA	
	IF CEC>15:500 KG/HA		IF CEC>15:500 KG/HA	
CR				
NI	IF CEC<5:50 KG/HA		IF CEC<5:50 KG/HA	

Tennessee

FILE 1

	TENNESSEE	TENNESSEE	TENNESSEE
	LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM
	IF 5<CEC<15:100 KG/HA		IF 5<CEC<15:100 KG/HA
	IF CEC >15:200 KG/HA		IF CEC >15:200 KG/HA
HG			
ORGANICS			
PCB			
LAND USE RESTRICTIONS			
CROPS	NO TOBACCO,LEAFY VEGETABLES, OR ROOT CROPS. NO RAW CROPS (EXCEPT ORCHARD) FOR 1 YR. NO SLUDGE FOR 2 WKS BEFORE OR AFTER PLANTING		NO TOBACCO,LEAFY VEGETABLES, OR ROOT CROPS. NO RAW CROPS (EXCEPT ORCHARD) FOR 1 YR. NO SLUDGE FOR 2 WKS BEFORE OR AFTER PLANTING

Tennessee

	TENNESSEE	TENNESSEE	TENNESSEE
	LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM
GRAZING OR GREENCHOP	NO SLUDGE ON GRASS BLADES WHEN GRAZING.NO LACTATING ANIMALS FOR HUMAN CONSUMPTION FOR 6-12 MOS. SPECIAL RECOMMENDATIONS FOR TALL FESCUE, ORCHARDGRASS, AND BERMUDAGRASS		NO SLUDGE ON GRASS BLADES WHEN GRAZING.NO LACTATING ANIMALS FOR HUMAN CONSUMPTION FOR 6-12 MOS. SPECIAL RECOMMENDATIONS FOR TALL FESCUE, ORCHARDGRASS, AND BERMUDAGRASS
PUBLIC ACCESS			
PH OF SOIL	EQUAL OR > 6.5		EQUAL OR > 6.5
SITING RESTRICTIONS			
SOIL CONDITIONS	SHOULD BE DEEP,AND CONTAIN MUCH CLAY AND ORGANIC MATTER. HIGH CEC		SHOULD BE DEEP,AND CONTAIN MUCH CLAY AND ORGANIC MATTER. HIGH CEC

FILE 1

	TENNESSEE	TENNESSEE	TENNESSEE
	LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM
BUFFER REQUIREMENTS			
DIST TO PRIVATE WELL	500 FT.		500 FT.
DIST TO PUBLIC WELL	1000 FT		1000 FT
DIST TO RESIDENCE	IF INCORP , INJECTED, OR LANDSPREAD		IF INCORP , INJECTED, OR LANDSPREAD,
	250 FT.		250 FT.
	IF SPRAYED,TANK TRUCKED, OR RIDGED,		IF SPRAYED,TANK TRUCKED, OR RIDGED,
	500 FT		500 FT
DIST TO OTHER BLDGS.	AS ABOVE		AS ABOVE
DIST TO PROPERTY LINE	IF INCORPORATED, INJECTED,RIDGED,		IF INCORPORATED, INJECTED,RIDGED,
	ROADWAY		ROADWAY
	IF SPRAYED, 200 FT TO ROADWAY		IF SPRAYED, 200 FT TO ROADWAY

Tennessee

FILE 1

	TENNESSEE	TENNESSEE	TENNESSEE
	LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM
GROUNDWATER PROTECTION			
DEPTH TO HIGH GW	4 FT		4 FT
DEPTH TO BEDROCK			
PERMEABILITY			
INFILTRATION			
SURFACE WATER PROTECTION			
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT IN 10 YR. FLOODPLAIN		NOT IN 10 YR. FLOODPLAIN
DIST TO SURFACE WATER	IF INCORPORATED OR INJECTED		IF INCORPORATED OR INJECTED
	100 FT		100 FT

Tennessee

	TENNESSEE	TENNESSEE	TENNESSEE
	LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM
	IF RIDGED, LANDSPREAD, OR TANK		IF RIDGED, LANDSPREAD, OR TANK
	TRUCKED, 200 FT.		TRUCKED, 200 FT.
	IF SPRAYED, 500 FT.		IF SPRAYED, 500 FT.
DIST TO DRY RUN			
RUNOFF AND EROSION CONTROL	SHOULD INCORPORATE INTO SOIL; AVOID		
	APPLICATION DURING RAINFALL, WHEN		
	GROUND IS SATURATED OR WHEN		
	GROUND IS FROZEN		
MAXIMUM SLOPE LIMIT	<8% UNLESS INCORPORATED;		
	UP TO 12% IF INCORPORATED		
RECORDS	SLUDGE MONITORING DATA,		
	ON-SITE MONITORING DATA,		
	SLUDGE APPLICATION DATA,		
	ANNUALLY		

FILE 1

	TENNESSEE	TENNESSEE	TENNESSEE
	LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM
REPORTS	AS ABOVE FOR RECORDS		ANNUAL REPORT FROM GENERATOR INCLUDING SLUDGE MONITORING DATA, AND VOLUMES OF SLUDGE ISSUED
NOTIFICATIONS			
STORAGE	NEED, TYPE AND SIZE DECIDED ON A CA BY CASE BASIS. IF REQUIRED, MUST CONSIDER SITE CONDITIONS AND FACILITY OPERATION, MUST NOT BE IN 100 YEAR FLOODPLAIN, MUST BE AT LEAST 1/4 MILE FROM OCCUP. RESIDENCES, AND MUST HAVE MAX. SEEPAGE LOSS OF <500 GAL/AC/DAY		NEED AND DESIGN DECIDED ON A CASE BY CASE BASIS

FILE 1

TENNESSEE	TENNESSEE	TENNESSEE	
LAND APPLICATION	APPLICATION TO DEDICATED SITES	GIVE-AWAY PROGRAM	

TRANSPORTATION

UNCONTROLLED USE

SITE APPROVAL REQUIREMENTS NEED
NOT BE MET IF DRIED SLUDGE
IS LANDSPREAD, IF SITES RECEIVE
<5 TONS/AC/YR, AND IF SITES <10 AC
(DOES NOT APPLY TO INDUSTRIAL
SLUDGE GENERATORS)

DEDICATED SITES

Tennessee

FILE 1

TENNESSEE		TENNESSEE		TENNESSEE		
	LAND APPLICATION		APPLICATION TO DEDICATED SITES		GIVE-AWAY PROGRAM	

COMMENTS

FILE 4.6

[illegible]

Texas

TEXAS LAND APPLICATION WHERE SLUDGE PRODUCER OPERATES SITE		TEXAS UNCONTROLLED DISTRIBUTION	TEXAS CONTROLLED DISTRIBUTION
ACCEPTABILITY OF SLUDGE			
PERMIT OR APPROVAL	APPROVAL OF SLUDGE	APPROVAL OF SLUDGE	APPROVAL OF SLUDGE
APPLICATION SUBMITTALS SEE SUBMITTALS UNDER L.A.			

TEXAS
LAND APPLICATION
WHERE SLUDGE PRODUCER OPERATES SITE

TEXAS UNCONTROLLED
DISTRIBUTION

TEXAS
CONTROLLED DISTRIBUTION

SLUDGE SAMPLING PARAMETERS SLUDGE ANALYSIS 2/YR UNLESS
WAIVED: N,NH₃,NO₃,P,K,CD,PB,
ZN,CU,NI,PCB

SLUDGE ANALYSIS

TEXAS LAND APPLICATION WHERE SLUDGE PRODUCER OPERATES SITE		TEXAS UNCONTROLLED DISTRIBUTION	TEXAS CONTROLLED DISTRIBUTION
MAXIMUM SLUDGE CONSTITUENT C			
CONDUCTIVITY (SALT)			
NUTRIENTS (% BY DRY WEIGHT			
N			
P			
K			
METALS (MG/KG SLUDGE DRY			
WEIGHT)			
AS			
CD		25	50
PB	1000	500	1000
NI		200	
ZN		2000	
CU		1000	
CR			
HG			
MO			
B			
FE			
ORGANICS			
PCB		2 PPM	10 PPM

	TEXAS LAND APPLICATION WHERE SLUDGE PRODUCER OPERATES SITE	TEXAS UNCONTROLLED DISTRIBUTION	TEXAS CONTROLLED DISTRIBUTION
WATER		65% FOR COMMERCIAL USERS 10% FOR HOME & GARDEN USERS	
OTHER CONTAMINANTS			
RECORDS	MAINTAIN 3 YRS SOIL TESTS, PH LAND IDENTIFICATION AGREEMENTS, WAIVERS, ETC. SLUDGE ANALYSIS	OPERATIONAL DATA ON REDUCING PATHOGENS. SLUDGE ANALYSIS EXCEPTIONS OR WAIVERS PERSONS RECEIVING MORE THAN 1 T AT ONE TIME MAINTAIN RECORDS 1 YEAR	
REPORTS		REQUIRED PERIODICLY STATE MAY REQUIRE PERIODIC REPORTS	REQUIRED PERIODICLY
NOTIFICATIONS	POTW MUST NOTIFY OWNER OF	INSTRUCTIONS TO USER:	

TEXAS LAND APPLICATION WHERE SLUDGE PRODUCER OPERATES SITE		TEXAS UNCONTROLLED DISTRIBUTION	TEXAS CONTROLLED DISTRIBUTION
STORAGE (IF APPLICABLE)	REASONS TO RESTRICT APPLICATION	IDENTIFY AS SEWAGE SLUDGE	
	SUBMIT SLUDGE ANALYSIS	RECOMMENDED USE	
	LAND OWNER MAY REQUEST STATE TO REQUIRE PERMIT	USERS MUST BE NOTIFIED OF:	
	OWNER MUST REQUIRE OPERATOR TO PROVIDE DOCUMENTATION OF REQUIREMENTS,	IDENTIFICATION AS SLUDGE PRODUCT PRODUCT COMPLIES WITH TEXAS DOH RECOMMENDED USES AND RESTRICTIONS	
LAND APPLICATION APPROVAL OR PERMIT	REGISTRATION OF SITE AS TYPE VII WITH DEPT.		
	EXEMPT FROM PERMITTING UNLESS REQUESTED BY LAND OWNER		
APPLICATION SUBMITTALS	OBTAIN SITE ANALYSIS		

TEXAS LAND APPLICATION WHERE SLUDGE PRODUCER OPERATES SITE		TEXAS UNCONTROLLED DISTRIBUTION	TEXAS CONTROLLED DISTRIBUTION
CRITERIA FOR USE			
LIMITATIONS, AND RESTRICTIONS			
DEGREE OF STABILIZATION	PROCESS TO SIGNIFICANTLY REDUCE OR FURTHER REDUCE PATHOGENS ACCORDING TO	PROCESS TO FURTHER REDUCE PATHOGENS OR STORE 6 MO IN SEMI-DRY CONDITIONS AFTER	PROCESS TO SIGNIFICANTLY REDUCE OR FURTHER REDUCE PATHOGENS

	TEXAS LAND APPLICATION WHERE SLUDGE PRODUCER OPERATES SITE	TEXAS UNCONTROLLED DISTRIBUTION	TEXAS CONTROLLED DISTRIBUTION
	40 CFR 257	STABILIZATION	MAY BE STORED 6 MO IN SEMI-DRY CONDITIONS
MONITORING SOIL	SOIL TESTS, pH		
CROPS			
SURFACE WATER	GW & SW MON. MAY BE REQUIRED		
GROUNDWATER	GW & SW MON. MAY BE REQUIRED		

TEXAS LAND APPLICATION WHERE SLUDGE PRODUCER OPERATES SITE	TEXAS UNCONTROLLED DISTRIBUTION	TEXAS CONTROLLED DISTRIBUTION
MAXIMUM SLUDGE LOADING LIMIT (CEC IN MEQ/100G SOIL) SLUDGE APPLICATION WILL BE L		
SLUDGE 12,500 GAL/AC/APPL. LIQUID 8 T/AC/YR DRY UNLESS APPROVED		
NUTRIENTS N (ANNUAL) CROP NEEDS		
METALS CD ANNUAL	MUST BE LABELLED WITH SLUDGE APP. RATE SO THAT: CD: .28 KG/HA (.25 LB/AC) PER APP.	.56 KG/HA (.5 LB/AC) PER APPLICATION
MAX. CUMULATIVE		

	TEXAS LAND APPLICATION WHERE SLUDGE PRODUCER OPERATES SITE	TEXAS UNCONTROLLED DISTRIBUTION	TEXAS CONTROLLED DISTRIBUTION
PB	(MAX. CUMULATIVE) 786 KG/HA (700 LB/AC)	MUST BE LABELLED WITH SLUDGE APP. RATE SO THAT: PB: 9 KG/HA (8 LB/AC) PER APP.	16 LB/AC/APPL.
ZN			
CU			
CR			
NI			
HG			
ORGANICS PCBS			

TEXAS LAND APPLICATION WHERE SLUDGE PRODUCER OPERATES SITE		TEXAS UNCONTROLLED DISTRIBUTION	TEXAS CONTROLLED DISTRIBUTION
LAND USE RESTRICTIONS		INSTRUCTIONS FOR USE:	INSTRUCTIONS FOR USE:
CROPS	NO CROPS FOR DIRECT HUMAN CONSUMPTION WHERE EDIBLE PART CONTACTS SLUDGE WITHIN 18 MO	MUST BE LABELLED AS NOT FOR FOOD CHAIN CROPS IF ANY CONCENTRATION LIMITS ARE EXCEEDED	NOT FOR FOOD FOR HUMAN CONSUMPTION
GRAZING OR GREENCHOP	NO GRAZING BY ANIMALS WHOSE PRODUCTS ARE CONSUMED BY HUMANS--1 MO.		NO GRAZING FOR: DAIRY--12 MO OTHER FOOD CHAIN ANIMALS--1 MO
PUBLIC ACCESS	NO PUBLIC ACCESS--12 MO		NO PUBLIC ACCESS FOR 12 MO UNLESS TREATED WITH PROCESS TO FURTHER REDUCE PATHOGENS
PH OF SOIL & SLUDGE OR PH OF SOIL	SOIL PH GREATER THAN OR EQUAL TO 6.5 AT TIME OF APPLICATION		
SITING RESTRICTIONS SOIL CONDITIONS			
BUFFER REQUIREMENTS			
DIST. TO PRIVATE WELL	300 FT		
DIST. TO PUBLIC WELL	500 FT		

FILE 4.6

	TEXAS LAND APPLICATION WHERE SLUDGE PRODUCER OPERATES SITE	TEXAS UNCONTROLLED DISTRIBUTION	TEXAS CONTROLLED DISTRIBUTION
DIST TO RESIDENCE	300 TO RESIDENCE OR RIGHT OF WAY		
	1000 FT TO SCHOOLS, INSTITUTIONS,		
DIST TO OTHER BUILDINGS			
DIST TO PROPERTY LINE			
GROUND WATER PROTECTION	APPLY SO AS TO AVOID CONTAMINATION		
	200 FT MIN DIST TO SOLUTION CHANNELS,		
	SINKHOLES, OR CONDUITS TO GW		
	MONITORING MAY BE REQUIRED		
DEPTH TO HIGH GW	3 FT FOR PERMEABILITY<2IN/HR		
	4 FT FOR PERMEABILITY 2-6 IN/HR		
DEPTH TO BEDROCK	2 FT OF PERMEABLE SOILS		
PERMEABILITY	LESS THAN 6 IN/HR UNLESS APPROVED		
INFILTRATION			
SURFACE WATER PROTECTION			
WETLANDS OR AREAS	NO APPLICATION IN 100 YR FLOODPLAIN		
SUBJECT TO PONDING OR			
FLOODING			
DIST TO SURFACE WATER	200 FT		
DIST. TO DRY RUN			
RUNOFF AND EROSION	RUNOFF BEYOND AREA TO BE PREVENTED		
CONTROL	SLUDGE TO BE APPLIED UNIFORMLY		
	MUST BE INCORPORATED WITHIN 48 HOURS		
	IF UNVEGETATED		
	NO TRACKING ONTO ROADWAYS		

FILE 4.6

	TEXAS LAND APPLICATION WHERE SLUDGE PRODUCER OPERATES SITE	TEXAS UNCONTROLLED DISTRIBUTION	TEXAS CONTROLLED DISTRIBUTION
	NO APPLICATION DURING RAIN OR ON SATURATED SOILS		
	NO APPLICATION ON FROZEN SOIL UNLESS INCORPORATED		
MAXIMUM SLOPE LIMIT	9% UNLESS INCORPORATED RUNOFF FROM 10 YR 1 HR RAINFALL CONTROLLED UNLESS INCORPORATED		
RECORDS			
REPORTS			
NOTIFICATIONS			
Texas			

	TEXAS LAND APPLICATION WHERE SLUDGE PRODUCER OPERATES SITE	TEXAS UNCONTROLLED DISTRIBUTION	TEXAS CONTROLLED DISTRIBUTION
STORAGE	>180 DAYS PERMIT NEEDED UNLESS APPROVED BUFFER REQUIREMENTS FROM DWELLINGS, FENCED, PROTECTION OF GW, MIN. VECTORS, PERMIT TO DISCHARGE INTO SURFACE WATER, ODORS		
TRANSPORTATION	REGISTRATION OF TRANSPORTERS (EXCEPT FOR SLUDGES USED FOR MARKETING AND DISTRIBUTION) VEHICLE MUST BE MARKED AND PROPERLY ID, CONSTRUCTED TO PREVENT LEAKS, HEALTH NUISANCES AND SAFTY HAZARDS ODORS, RECORDS		
UNCONTROLLED USE			

	TEXAS LAND APPLICATION WHERE SLUDGE PRODUCER OPERATES SITE	TEXAS UNCONTROLLED DISTRIBUTION	TEXAS CONTROLLED DISTRIBUTION
DEDICATED SITES			
COMMENTS			

FILE 2.6

	UTAH	
	LAND APPLICATION	
	UNCONTROLLED	
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	UTAH WATER POLLUTION CONTROL ACT	
	TITLE 26, CHAPTER 11	
	UTAH CODE ANNOTATED, 1953	
	AMENDED 1981.26-11-6.	
REGS, TITLE & DATE	UTAH WASTEWATER DISPOSAL REGULATIONS	
	UTAH STATE DIVISION OF HEALTH	
	PART I. 5/18/65	
	REVISED 11/1/78;12/1/82;8/9/84	
GUIDELINES, TITLE & DATE		
CONTROLLING AGENCY	UTAH BUREAU OF WATER POLLUTION	
	CONTROL	
	DEPARTMENT OF HEALTH	
	SALT LAKE CITY, UTAH 84110	
	801/533/6146	

	UTAH	
	LAND APPLICATION	
	UNCONTROLLED	
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS		
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT)		
N		
P		
K		
METALS (MG/KG SLUDGE DRY WEIGHT)		
AS		
CD		
PB		

	UTAH	
	LAND APPLICATION	
	UNCONTROLLED	
NI		
ZN		
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB		
WATER		
OTHER CONTAMINANTS		
RECORDS		

	UTAH	
	LAND APPLICATION	
	UNCONTROLLED	
REPORTS		
NOTIFICATIONS		
STORAGE (IF APPLICABLE)		
LAND APPLICATION		

	UTAH
	LAND APPLICATION
	UNCONTROLLED
APPROVAL OR PERMIT	
APPLIC. SUBMITTAL	NO USER PERMIT REQUIRED
CRITERIA FOR USE	
DEGREE OF STABILIZATION	AIR DRIED OR VACUUM FILTER DRIED SLUDGE MUST BE STORED FOR HEAT TREATED SLUDGE CAN BE USED RIGHT AWAY
SOIL SAMPLING	
PRE-APPLICATION	

	UTAH	
	LAND APPLICATION	
	UNCONTROLLED	
POST-APPLICATION		
WATER QUALITY MONITORING		
GROUND WATER		
SURFACE WATER		
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT		
KG/HA UNLESS OTHERWISE NOTED		
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)		

UTAH	
LAND APPLICATION	
UNCONTROLLED	

METALS

CD
ANNUAL

MAX CUMULATIVE

PB

	UTAH	
	LAND APPLICATION	
	UNCONTROLLED	
ZN		
CU		
CR		
NI		
HG		

	UTAH
	LAND APPLICATION
	UNCONTROLLED
ORGANICS	
PCB	
LAND USE RESTRICTIONS	
CROPS	AIR-DRIED OR VACUUM FILTER DRIED
	SLUDGE CAN NOT BE USED ON ROOT
	CROPS OR OTHER LOW CROPS PRODUCED
	HEAT TREATED SLUDGE IS SAFE FOR USE
	UNDER ALL CONDITIONS
GRAZING OR GREENCHOP	

	UTAH	
	LAND APPLICATION	
	UNCONTROLLED	
PUBLIC ACCESS		
PH OF SOIL		
SITING RESTRICTIONS		
SOIL CONDITIONS		
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL		
DIST TO PUBLIC WELL		
DIST TO RESIDENCE		

	UTAH	
	LAND APPLICATION	
	UNCONTROLLED	
DIST TO OTHER BLDGS.		
DIST TO PROPERTY LINE		
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW		
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		

	UTAH	
	LAND APPLICATION	
	UNCONTROLLED	
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING		
DIST TO SURFACE WATER		
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL		
MAXIMUM SLOPE LIMIT		
RECORDS		

UTAH
LAND APPLICATION
UNCONTROLLED

REPORTS

NOTIFICATIONS

STORAGE

TRANSPORTATION

	UTAH
	LAND APPLICATION
	UNCONTROLLED
UNCONTROLLED USE	STATE IS IN PROCESS OF DEVELOPING MORE SPECIFIC GUIDELINES FOR THE USE AND DISTRIBUTION OF COMPOST
DEDICATED SITES	NOT ADDRESSED

FILE 2.6

COMMENTS

	UTAH	
	LAND APPLICATION	
	UNCONTROLLED	
	STATE IS IN THE PROCESS OF DEVELOPING	
	GUIDELINES FOR THE LAND APPLICATION	
	OF SLUDGE. CURRENTLY, THEY REVIEW	
	ON A CASE BY CASE BASIS, AND USE	
	EPA GUIDELINES	

FILE 4.6

	VERMONT UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	VERMONT LAND APPLICATION
SLUDGE CLASSIFICATION		
STATE CONTROL LAWS, TITLE & DATE		
REGULATIONS, TITLE&DATE	ENVIRONMENTAL PROTECTION REGULATIONS CH. 7 SPECIAL WASTE MANAGEMENT VT SOLID WASTE RULES: SUBCH. 5 TREATMENT & DISPOSAL FACILITIES...	ENVIRONMENTAL PROTECTION REGULATIONS CH. 7 SPECIAL WASTE MANAGEMENT VT SOLID WASTE RULES: SUBCH. 5 TREATMENT & DISPOSAL FACILITIES...
GUIDELINES, TITLE&DATE	GUIDELINES FOR TRTMNT & UTIL... 10/84, DRAFT VERSION NOTE: ALL LISTED CRITERIA ARE CONTAINED IN GUIDELINES	GUIDELINES FOR TRTMNT & UTIL. OR OF SEWAGE SLUDGE (10/84) DRAFT NOTE: ALL LISTED CRITERIA ARE CONTAINED IN GUIDELINES
CONTROLLING AGENCY	VT AGENCY OF ENV. CONTROL EXPECTS DEV. COMP&MKT REGS 2 YR SOLID WASTE PROGRAM MONTPELIER, VT	VT AGENCY OF ENV. CONSERVATION, SOLID WASTE PROGRAM, DEPT. OF WATER RESOURCES AND ENVIR. ENGINEERING. EXPECTS DEV. COMP&MKT REGS 2 YR SOLID WASTE PROGRAM

FILE 4.6

VERMONT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

(802) 828-3395

ACCEPTABILITY OF SLUDGE

**VERMONT
LAND APPLICATION**

|MONTPELIER, VT. (802) 828-3395

POTW MUST HAVE SLUDGE DISPOSAL
PROGRAM FOR CONSTR. GRANT
APPROVAL OF SLUDGE

APPLICATION SUBMITTALS

|SLUDGE ANALYSIS
|SOIL ANALYSIS
|OPERATORS MUST PRESENT PLAN INCLUDING
|THE SEWAGE SLUDGE DISPOSITION PLAN
|CHECKLIST

**VERMONT
LAND APPLICATION**

SLUDGE SAMPLING PARAMETERS

```
|SLUDGE ANAL.:% SOL.,PH,N,NH4,  
|NO3,P,K,CU,CD,ZN,PB,NI,CR  
|TOXIC ORGANICS OR ADDITIONAL  
|METALS(IF SLUDGE IS SUSPECTED  
|TO CONTAIN THESE)  
|SLUDGE ANAL.: IF POTW < 1MGD:  
|PH,%SOL.,N,P,K = 2/YR  
|METALS:1/YR(EARLY SPRING)  
|IF POTW >1MGD:  
|PH,%SOL.,N,P,K = 4/YR  
|METALS 2/YR(SPRING,FALL)
```

VERMONT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

VERMONT
LAND APPLICATION

MAXIMUM SLUDGE CONSTITUENT C

CONDUCTIVITY (SALT)

NUTRIENTS (% BY DRY WEIGHT

N

P

K

METALS (MG/KG SLUDGE DRY
WEIGHT)

AS

CD

PB

NI

ZN

CU

CR

MG

MO

B

FE

ORGANICS

PCB

25

1000

200

2500

1000

1000

10

	VERMONT UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	VERMONT LAND APPLICATION
WATER		
OTHER CONTAMINANTS		
RECORDS		
REPORTS		
NOTIFICATIONS		THROUGH AGREEMENT, POTW AGREES

FILE 4.6

VERMONT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

**VERMONT
LAND APPLICATION**

STORAGE (IF APPLICABLE)

LAND APPLICATION
APPROVAL OR PERMIT

APPLICATION SUBMITTALS

TO SAMPLE SLUDGE AND NOTIFY
USER

| SITE EVALUATION
| AGREEMENT WITH LANDOWNER

SEE SUBMITTALS UNDER ACC. OF SLUDGE
WRITTEN AGREEMENT BETWEEN LANDOWNER
AND OPERATOR TAILORED TO MEET NEEDS
OF BOTH PARTIES INVOLVED

VERMONT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

**VERMONT
LAND APPLICATION**

CRITERIA FOR USE

DEGREE OF STABILIZATION

|PSRP

FILE 4.6

VERMONT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

VERMONT
LAND APPLICATION

MONITORING

SOIL

| AFTER L.A., SOIL ANAL 1/YR: pH (MAY REQ |
| AVAIL. N AND ORGANIC MATTER) |
| SOIL AND PLANT ANAL. FOR METALS |
| ON LONG TERM SITES: 2-3/YR |
| BEFORE LAND APPLIC, pH, K, MG, P |

CROPS

| SOIL AND PLANT ANAL. FOR METALS |
| ON LONG TERM SITES: 2-3/YR |

SURFACE WATER

GROUNDWATER

| GW MON. MAY BE REQ. FOR LA > 3YR |
| 2/YR; TEST FOR PH, CONDUCT., CL, |
| NO3, METALS |
| MONITOR BEFORE AND AFTER L.A. |

VERMONT UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	VERMONT LAND APPLICATION
MAXIMUM SLUDGE LOADING LIMIT (CEC IN MEQ/100G SOIL) SLUDGE APPLICATION WILL BE L SLUDGE	
NUTRIENTS N (ANNUAL)	CROP REQUIREMENT BASE ON AVAIL INORGANIC AND ORG N
METALS CD ANNUAL	0.5 KG/HA (0.45 LB/AC) ON LAND USED FOR LEAFY VEG., TOBACCO OR ROOT CROPS FOR HUMAN CONS. FOR ALL OTHER FOOD GRAIN CROPS: TIL 12/86-1.25 KG/HA (1.1 LB/AC) AFTER 1/87 0.5 KG/HA (.45 LB/AC) 5.62 KG/HA (5 LB/AC) FOR LOAMY SAND, SANDY LOAM 11.2 KG/HA (10 LB/AC) FOR FINE SANDY LOAM,LOAM,SILT LOAM 22.5 KG/HA (20 LB/AC) FOR CLAY LOAM, SILTY CLAY,CLAY
MAX. CUMULATIVE	

FILE 4.6

VERMONT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

VERMONT
LAND APPLICATION

PB	(MAX. CUMU.) 200 KG/HA (178 LB/AC) FOR LS, SL 400 KG/HA (356 LB/AC) FOR FSL, L, SiL 800 KG/HA (712 LB/AC) FOR CL,SiC,C
ZN	(MAX. CUMU.) 281 KG/HA (250 LB/AC) FOR LS, SL 562 KG/HA (500 LB/AC) FOR FSL, L, SiL 1123 KG/HA (1000 LB/AC) FOR CL,SiC,C
CU	(MAX. CUMU.) 140 KG/HA (125 LB/AC) FOR LS, SL 281 KG/HA (250 LB/AC) FOR FSL, L, SiL 562 KG/HA (500 LB/AC) FOR CL,SiC,C
CR	(MAX. CUMU.) 140 KG/HA (125 LB/AC) FOR LS, SL 281 KG/HA (250 LB/AC) FOR FSL, L, SiL 562 KG/HA (500 LB/AC) FOR CL,SiC,C
NI	(MAX. CUMU.) 56.2 KG/HA (50 LB/AC) FOR LS, SL 112 KG/HA (100 LB/AC) FOR FSL, L, SiL 224 KG/HA (200 LB/AC) FOR CL,SiC,C
HG	(MAX. CUMU.) 5.6 KG/HA (5 LB/AC) FOR LS, SL 11.2 KG/HA (10 LB/AC) FOR FSL, L, SiL 22.5 KG/HA (20 LB/AC) FOR CL,SiC,C
ORGANICS PCBS	C-CLAY, LS-LOAMY SAND, SL-SANDY LOAM, FSL-FINE SANDY LOAM, L-LOAM, SiL-SILT LOAM, CL-CLAY LOAM, SC-SILTY CLAY

VERMONT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

VERMONT
LAND APPLICATION

LAND USE RESTRICTIONS

CROPS

| RECOMMEND 5 WEEKS BET. APPL.
| AND HARVEST
| NO CROPS FOR DIRECT HUMAN
| CONSUMPTION FOR 3 YRS

GRAZING OR GREENCHOP

| NO GRAZING--6 MO AFTER APP.
| NO HAY FED--4 MO
| 5 WEEKS BETWEEN SLUDGE SPREADING &
| HARVEST

PUBLIC ACCESS

| NO PUBLIC ACCESS--12 MO

PH OF SOIL & SLUDGE
OR PH OF SOIL

| MAINTAIN AT 6.5-8.0 WHEN
| RECEIVING SLUDGE

SITING RESTRICTIONS
SOIL CONDITIONS

BUFFER REQUIREMENTS
DIST. TO PRIVATE WELL

| 300 FT

DIST. TO PUBLIC WELL

| 300 FT

FILE 4.6

VERMONT UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	VERMONT LAND APPLICATION
DIST TO RESIDENCE	300 FT TO DWELLING OR PUBLIC BUILDING
DIST TO OTHER BUILDINGS	
DIST TO PROPERTY LINE	
GROUND WATER PROTECTION	
DEPTH TO HIGH GW	3 FT IF PERM < 6 IN/HR > 3 FT IF PERM > 6 IN/HR
DEPTH TO BEDROCK	3 FT TO BEDR. OR IMPERM. LAYER
PERMEABILITY	< 6 IN/HR
INFILTRATION	
SURFACE WATER PROTECTION	SEPTAGE MUST BE INCORPORATED
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	SLUDGE MUST BE INCORP WITHIN 48 HRS IN FLOODPLAIN
DIST TO SURFACE WATER	100 FT LA NOT PERMITTED IN CLASS A WATERSHED
DIST. TO DRY RUN	
RUNOFF AND EROSION CONTROL	NO LA ON FROZEN OR SNOW COVERED GROUND UNLESS APPROVED IN EMERGENCY INCORPORATE WITHIN 48 HR AFTER APP. INTO TOP 7-8 IN

FILE 4.6

VERMONT
UNCONTROLLED DISTRIBUTION
(NOT ADDRESSED)

VERMONT
LAND APPLICATION

MAXIMUM SLOPE LIMIT

5% FOR SURFACE APP
15% IF INCORPORATED

RECORDS

RECORDS OF SLUDGE QUANTITY AND
LOCATION APPLIED TO MUST
BE KEPT

REPORTS

NOTIFICATIONS

Vermont

VERMONT UNCONTROLLED DISTRIBUTION (NOT ADDRESSED)	VERMONT LAND APPLICATION
STORAGE	>15% SOLIDS OUTSIDE 100 YEAR FLOODPLAIN AREA 2X AMOUNT NECESSARY, 12" HIGH, WATER TIGHT BERM NECESSARY 200'-SURFACE WATER, 600'-WELL OR SPRING 4'-SEAS OR HIGH WATER TABLE, 300'-PROPERTY LINE
TRANSPORTATION	
UNCONTROLLED USE	

**VERMONT
LAND APPLICATION**

DEDICATED SITES

COMMENTS

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	VIRGINIA	VIRGINIA	VIRGINIA
	DISTRIBUTION AND MARKETING	LAND APPLICATION	LAND RECLAMATION
SLUDGE CLASSIFICATION			
STATE CONTROL			
LAWS, TITLE & DATE	VIRGINIA WATER POLLUTION CONTROL LAW, TITLE 62.1, CHP 3.1, 1950 AS AMENDED	STATE WATER POLLUTION CONTROL LAW, TITLE 62.1, CHP 3.1, 1950 AS AMENDED	VIRGINIA WATER POLLUTION CONTROL LAW, TITLE 62.1, CHP 3.1 1950 AS AMENDED
REGS, TITLE & DATE	SLUDGE USE AND DISPOSAL 25.07.06D AND APPENDICES DRAFT REVISIONS, 10/85	SLUDGE USE AND DISPOSAL 25.07 AND APPENDICES DRAFT VERSION, 10/85	SLUDGE USE AND DISPOSAL 25.07.06C RECLAMATION OF DISTURBED LAND DRAFT 10/85
GUIDELINES, TITLE & DATE			
CONTROLLING AGENCY	VIRGINIA STATE BOARD OF HEALTH VIRGINIA WATER CONTROL BOARD RICHMOND, VIRGINIA 23230 804/786/1757	STATE WATER CONTROL BOARD VIRGINIA BOARD OF HEALTH RICHMOND, VA 23230 804/786/1757	VIRGINIA WATER CONTROL BOARD VIRGINIA BOARD OF HEALTH RICHMOND, VIRGINIA 23230 804/786/1757

	VIRGINIA DISTRIBUTION AND MARKETING	VIRGINIA LAND APPLICATION	VIRGINIA LAND RECLAMATION
		> 1.0 AND < 10.0 MGD: 4/YR	
		> 10 MGD: 12/YR	
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS	NOT SPECIFIED	NOT SPECIFIED	
CONDUCTIVITY (SALT)			
NUTRIENTS (% BY DRY WEIGHT)			
N			
P			
K			
METALS (MG/KG SLUDGE DRY WEIGHT)			
AS			
CD			
PB			

	VIRGINIA DISTRIBUTION AND MARKETING	VIRGINIA LAND APPLICATION	VIRGINIA LAND RECLAMATION
NI			
ZN			
CU			
CR			
HG			
MO			
B			
FE			
ORGANICS			
PCB			
WATER			
OTHER CONTAMINANTS			
RECORDS	GENERATOR OR DISTRIBUTOR MUST KEEP RECORDS OF DISTRIB TO SINGLE USER IN BULK AMTS >100 CY MONTHLY	ADEQUATE RECORDS ON SLUDGE COMPOSITION MAINTAINED BY OWNER	

	VIRGINIA	VIRGINIA	VIRGINIA
	DISTRIBUTION AND MARKETING	LAND APPLICATION	LAND RECLAMATION
	RECORDS MUST INCLUDE NAME AND ADDRESS OF USER AND INTENDED USE AND QUANTITY RECORDS MUST IDENTIFY REPEAT USERS RECORDS ON PROCESSING: SLUDGE SAMPLING DATES AND RESULTS MUST BE KEPT FOR 3 YRS		
REPORTS			
NOTIFICATIONS	MUST PROVIDE LABEL OR BROCHURE SHOWING SLUDGE ANAL, NOT FOR VEGET GARDENS, ACCEPTABLE APPLIC RATES, AND LAND USE AND BUFFER CONDITIONS		
STORAGE (IF APPLICABLE)			
LAND APPLICATION			SITE REQUIREMENTS ARE PART OF MGNT

	VIRGINIA	VIRGINIA	VIRGINIA
	DISTRIBUTION AND MARKETING	LAND APPLICATION	LAND RECLAMATION
APPROVAL OR PERMIT APPLIC. SUBMITTAL	<p>IF USE >100 CY/MO (INCLUDES COMPOST), MUST OBTAIN BULK USE PERMIT UNLESS SITE SPECIFIC PERMIT OBTAINED AS PART OF SLUDGE MGNT PLAN</p> <p>BULK USE PERMIT: MUST PROVIDE DISTRIBUTION INFORMATION SHEET SHOWING SLUDGE TEST RESULTS, APPLIC RATES, LAND USE CONDITIONS, BUFFER REQUIREMENTS</p> <p>IF SPREAD ON AREA >10 AC, OWNER MUST GET SITE SPECIFIC PERMIT</p> <p>REPEAT USERS MUST GET APPROVAL FOR THOSE USES</p>	<p>ANYONE WHO TREATS, HANDLES, OR STORES SLUDGE MUST SUBMIT MANAGEMENT PLAN</p> <p>MIN REQUIRED INFO FOR LAND APPLIC PROJECTS: GENERAL INFOR, WASTE CHARAC, SITE EVAL, MONITORING SPECS, SITE DESIGN, FIELD OPERATION (INCLUDING STORAGE, APPLIC METHOD, BUFFERS, TRANSP)</p> <p>WRITTEN SITE MGNT AGREEMENT BETWN LANDOWNER AND HANDLER IS REQ</p>	<p>PLAN. SITE SUITABILITY REGS ARE GENERALLY SAME AS FOR LAND APPLIC</p>
CRITERIA FOR USE DEGREE OF STABILIZATION	PFRP	PSRP	
SOIL SAMPLING PRE-APPLICATION		REQUIRED, SEE PARAMETERS BELOW	

	VIRGINIA DISTRIBUTION AND MARKETING	VIRGINIA LAND APPLICATION	VIRGINIA LAND RECLAMATION
POST-APPLICATION		FREQUENCY VARIES. PARAMETERS: % ORG MATTER, pH, CEC, TOTAL N, ORG N, AMMONIA N, P, K(AVAIL AND EXCH), EXCH NA, EXCH CA, EXCH MG, SAR, CU,ZN, NI, CD, PB, CR, MANGANESE, CONDUCTIVITY, ALKALINITY	
WATER QUALITY MONITORING GROUND WATER		MAY BE REQUIRED:KJELDAHL N, AMMONIA N, NITRATE N, P, NA, B, CU,PB,CD,NI,CR,AN,PH,COLIF,BOD	
SURFACE WATER		MAY BE REQUIRED:FECAL COLIF, P,KJELDAHL N,DO,BOD,TEMP,PH,SS	
CROP MONITORING		MAY BE REQUIRED AT HEAVY LOADING SITES: NITRATE, N, P, K,CA, MANGANESE,MAGNESIUM,FE,CU,ZN	
MAXIMUM SLUDGE LOADING LIMIT KG/HA UNLESS OTHERWISE NOTED (CEC IN MEQ/100G SOIL) ANNUAL OR CUMULATIVE	VOL AND WEIGHT PER SQ AREA ARE RECOMMENDED BY OWNER. SURF APPLIC RESTRICTED TO AVG 1 IN THICKNESS	APPLIC RATES DECIDED ON CASE BY CASE BASIS. MAX 15 DRY T/AC/YR CCE MUST BE CONTROLLED	RATES DECIDED ON CASE BY CASE BASIS LIMITED BY MOST RESTRICTIVE CUM METALS OR ANNUAL CD
NUTRIENTS N (ANNUAL)		DEPENDS UPON CROP INTAKE SEE APPENDIX K	

	VIRGINIA DISTRIBUTION AND MARKETING	VIRGINIA LAND APPLICATION	VIRGINIA LAND RECLAMATION
PH			
METALS		ANNUAL: 10% OF MAX CUM LOADING RATE OR MAX CCE LOADING RATE	
CD ANNUAL		0.5 KG/HA	
MAX CUMULATIVE		5.0 FOR ALL CEC BECAUSE VA SOILS ARE ACIDIC	
PB		IF CEC < 5: 560 KG/HA IF 5<CEC<15: 1120 KG/HA IF CEC>15: 2240 KG/HA	

	VIRGINIA	VIRGINIA	VIRGINIA
	DISTRIBUTION AND MARKETING	LAND APPLICATION	LAND RECLAMATION
ZN		IF CEC<5: 280 KG/HA	
		IF 5<CEC<15: 560 KG/HA	
		IF CEC>15: 1120 KG/HA	
CU		IF CEC<5: 140 KG/HA	
		IF 5<CEC<15: 280 KG/HA	
		IF CEC>15: 560 KG/HA	
CR			
NI		IF CEC<5: 140 KG/HA	
		IF 5<CEC<15: 280 KG/HA	
		IF CEC>15: 560 KG/HA	
HG			

	VIRGINIA DISTRIBUTION AND MARKETING	VIRGINIA LAND APPLICATION	VIRGINIA LAND RECLAMATION
ORGANICS			
PCB			
LAND USE RESTRICTIONS			
CROPS	NOT TO HOME VEG GARDENS	NO CROPS FOR DIRECT HUMAN CONSUMPTION FOR 18 MOS NO ROOT CROPS OR CROPS INTENDED FOR HUMAN CONSUMPTION IN RAW FORM	SEED WITH GRASS AND LEGUMES
GRAZING OR GREENCHOP		30 DAYS FOR BEEF CATTLE 60 DAYS FOR DAIRY CATTLE	

	VIRGINIA DISTRIBUTION AND MARKETING	VIRGINIA LAND APPLICATION	VIRGINIA LAND RECLAMATION
PUBLIC ACCESS	ACCESS CONTROLLED DURING SPREADING AVOID DIRECT CONTACT WITH SLUDGE	12 MOS	
PH OF SOIL		pH = OR > 6.5 AT APPLIC IF CD = OR > 2 MG/HA OTHERWISE ADJUST TO 6.2 AT APPLIC	FIRST YR: 6.0 SUBSEQUENT YRS: 6.5
SITING RESTRICTIONS			
SOIL CONDITIONS		GOOD TILTH AND DRAINAGE,MOD TO HIGH INFILTRATION, MOD TO SLOW PERMEAB	
BUFFER REQUIREMENTS			
DIST TO PRIVATE WELL	100 FT UNLESS OWNER CONSENTS	200 FT	
DIST TO PUBLIC WELL	200 FT	200 FT	
DIST TO RESIDENCE			

	VIRGINIA DISTRIBUTION AND MARKETING	VIRGINIA LAND APPLICATION	VIRGINIA LAND RECLAMATION
DIST TO OTHER BLDGS.			
DIST TO PROPERTY LINE		200 FT (100 FT IF SUBSURF APPLIC) 25 FT TO IMPROVED ROAD 25 FT TO ROCK OUTCROP	
GROUNDWATER PROTECTION			
DEPTH TO HIGH GW		18 IN TO OBSERVED WATER TABLE	
DEPTH TO BEDROCK		18 IN	
PERMEABILITY	NOT IN POORLY DRAINED SOILS	MOD TO SLOW	
INFILTRATION		MOD TO HIGH	
SURFACE WATER PROTECTION			

FILE 2.6

	VIRGINIA DISTRIBUTION AND MARKETING	VIRGINIA LAND APPLICATION	VIRGINIA LAND RECLAMATION
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING	NOT IN 25 YR FLOODPLAIN UNLESS IMMEDIATE INCORP.	IMMEDIATE INCORP IF IN 25 YR FLOODPLAIN	
DIST TO SURFACE WATER	NOT IN AREAS OF SEASONAL PONDING	50 FT 25 FT IF SUBSURFACE APPLIC	
DIST TO DRY RUN		25 FT 12.5 FT IF SUBSURF APPLIC	
RUNOFF AND EROSION CONTROL	INCORP WITHIN 48 HRS IF NO VEGETATION COVER	CLIP PASTURE AND HAY FIELD TO < 4 IN PLANT CROP < 30 DAYS	
MAXIMUM SLOPE LIMIT	<8%	<12% UNLESS INCORP WITHIN 48 HRS, OR ADEQUATE CROP RESIDUE	
RECORDS		RECORDS INCLUDE: SLUDGE COMPOSITION, SLUDGE APPLIC RATE, AND METHOD OF APPLIC	

FILE 2.6

	VIRGINIA DISTRIBUTION AND MARKETING	VIRGINIA LAND APPLICATION	VIRGINIA LAND RECLAMATION
REPORTS		ABOVE RECORDS TO HEALTH DEPT MONTHLY	
NOTIFICATIONS			
STORAGE		TEMP STORAGE IF < 30 DAYS ROUTINE STORAGE MUST BE PROVIDED IF NO ALTERNATIVE FOR DISPOSAL DURING NONAPPLIC PERIODS LOCATION: MIN VISIBILITY, PROTECTED BY BUFFER, NOT IN FLOOD AREA, YEAR RND ACCESS, IN CONFORMANCE WITH ZONING	
TRANSPORTATION		NO TRANSPORT THROUGH HEAVILY	

Virginia

[illegible]

[illegible]

FILE 2.6

	WASHINGTON	
	LAND APPLICATION	
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	SOLID WASTE MANAGEMENT	
	RECOVERY AND RECYCLING	
	CHAPTER 70.95, 1969.	
	AMENDED 1975,1976,1984	
REGS, TITLE & DATE	REGS RELATING TO MINIMUM	
	FUNCTIONAL STDS FOR SOLID	
	WASTE HANDLING	
	CHAPTER 173-301 WAC10/26/72	
GUIDELINES, TITLE & DATE	MUNICIPAL AND DOMESTIC	
	SLUDGE UTILIZ GUIDELINES	
	WDOE 82-11	
	10/82	
CONTROLLING AGENCY	DEPT OF ECOLOGY	
	SOLID WASTE SECTION	
	OLYMPIA, WA 98504	
	206/459/6291	

FILE 2.6

[illegible]

	WASHINGTON LAND APPLICATION	
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS	NOT SPECIFIED OTHER THAN CD	
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT)		
N		
P		
K		
METALS (MG/KG SLUDGE DRY WEIGHT)		
AS		
CD	2MG/KG IF NO pH CONTROL	
PB		

	WASHINGTON	
	LAND APPLICATION	
NI		
ZN		
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB	10 MG/KG	
WATER		
OTHER CONTAMINANTS		
RECORDS		

	WASHINGTON	
	LAND APPLICATION	
REPORTS		
NOTIFICATIONS		
STORAGE (IF APPLICABLE)	G RESPONSIBILITY OF OWNER OF PROP	
	WHERE SLUDGE IS LOCATED	
	MUST PROTECT GW, MONITORING NECESS	
	MUST CONTROL SITE ACCESS	
LAND APPLICATION		

FILE 2.6

	WASHINGTON	
	LAND APPLICATION	
APPROVAL OR PERMIT	G JURISDICTIONAL HEALTH DEPT ISSUES	
APPLIC. SUBMITTAL	R PERMIT. SUBMITTAL INCLUDES:	
	SLUDGE CHARAC, SOIL CHARAC,	
	HYDROLOGY-GEOLOGY, SITE MAP,	
	CROPS, PUBLIC ACCESS, APPLIC	
	RATES AND METHODS, MONITORING	
	PROGRAM, AND MANAGEMENT AND	
	ADMINISTRATION	
	THIS IS ALL PART OF SITE DESIGN	
	AND OPERATION PLAN	
CRITERIA FOR USE		
DEGREE OF STABILIZATION	G DIGESTED	
	IF NOT DIGESTED, MUST BE APPROVED BY	
	JURIS HEALTH DEPT PRIOR TO USE	
	IF HUMAN FOOD CROPS: PSRP	
	PFRP IF ROOT CROPS OR LEAFY	
	VEG WITHIN 18 MOS	
SOIL SAMPLING		
PRE-APPLICATION	G TEXTURE, STRUCTURE, PERMEABILITY,	
	CEC, PH, AND BKGD HEAVY METALS	

	WASHINGTON	
	LAND APPLICATION	
POST-APPLICATION		
WATER QUALITY MONITORING		
GROUND WATER		
SURFACE WATER		
CROP MONITORING	G MAY BE REQUIRED	
MAXIMUM SLUDGE LOADING LIMIT	G	
KG/HA UNLESS OTHERWISE NOTED		
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)	NOT TO EXCEED N REQUIREMENT OF	
	CROPS	

	WASHINGTON	
	LAND APPLICATION	
PH		
METALS		
CD		
ANNUAL	IF SOIL pH > 6.5: 0.5 KG/HA FOR FOOD CHAIN CROPS IF ANIMAL FEED, pH AT 6.5 , AND PROTECTION AGST CROP BEING DIRECT HUMAN FOOD SOURCE, AND WRITTEN INTO DEED, NO CD LIMIT	
MAX CUMULATIVE	IF SOIL pH > 6.5: 20 KG/HA FOR FOOD CHAIN CROPS	
PB		

WASHINGTON
LAND APPLICATION

ZN

CU

CR

NI

HG

	WASHINGTON	
	LAND APPLICATION	
ORGANICS		
PCB	< 10 MG/KG UNLESS INCORPORATED	
LAND USE RESTRICTIONS		
CROPS	G WEEDS OR NATURAL VEG ADVANTAGEOUS FOR NUTURENT UPTAKE	
GRAZING OR GREENCHOP	G FORAGE AND PASTURE CROPS NOT TO BE CONSUMED UNTIL ONE CROPING CYCLE FOLLOWING APPLIC NO GRAZING FOR 1 MO AFTER APPLIC	

	WASHINGTON	
	LAND APPLICATION	
PUBLIC ACCESS	G ACCESS CONTROLLED FOR 12 MOS IN	
	PARKS, PLAYGROUNDS, SCHOOL	
	GROUNDS, AND ATHLETIC FIELDS	
PH OF SOIL	G 6.5 IF FOOD CHAIN CROPS GROWN	
SITING RESTRICTIONS		
SOIL CONDITIONS		
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL		
DIST TO PUBLIC WELL		
DIST TO RESIDENCE		

	WASHINGTON	
	LAND APPLICATION	
DIST TO OTHER BLDGS.		
DIST TO PROPERTY LINE		
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW		
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		

	WASHINGTON	
	LAND APPLICATION	
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING		
DIST TO SURFACE WATER		
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL	G AVOID AREAS WITH KNOWN RUNOFF PROBLEMS, OTHERWISE DIVERT RUNOFF	
MAXIMUM SLOPE LIMIT		
RECORDS	G WRITTEN CONTRACT IS ADVISABLE BETWEEN LAND OWNERS, GENERATORS, HAULERS, AND APPLICATORS	

	WASHINGTON	
	LAND APPLICATION	
REPORTS		
NOTIFICATIONS		
STORAGE	SEE ABOVE	
TRANSPORTATION	PERMITS ARE REQUIRED FROM JURIS-	

WASHINGTON
LAND APPLICATION
DIRECTIONAL HEALTH DEPT
VEHICLE MUST BE WATERTIGHT,
LEAK-PROOF. VEHICLE MUST BE
WASHED DOWN
NOT SPECIFIED
FOREST AREAS, MINE SPOILS, AND SUR-
SLUDGE APPLIC MUST BE BALANCED AGST N LO
LOSSES

FILE 2.6

COMMENTS

	WASHINGTON	
	LAND APPLICATION	
R	RECLAMATION IS ALLOWED IF APPROVED	
	BY JURISDICTIONAL HEALTH DEPT	

	WISCONSIN LAND APPLICATION	WISCONSIN UNRESTRICTED USE
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	SECTION 147.02, STATUTES, DISCHARGE PERMIT SECTOPM 147.015(13) STATUTES, DEFINES WATERS OF STATES	SECTION 147.02, STATUTES, DISCHARGE PERMIT SECTOPM 147.015(13) STATUTES, DEFINES WATERS OF STATES
REGULATIONS, TITLE&DATE	MUNICIPAL SLUDGE MANAGEMENT(4/1/85) CH. NR 204.07 LANDSPREADING NOTE: HIGH RATES OF LAND DISPOSAL CONTROLLED UNDER NR 180.14 NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE REGULATIONS	MUNICIPAL SLUDGE MANAGEMENT(4/1/85) CH. 204.08 PUBLIC DISTRIBUTION NOTE: ALL LISTED CRITERIA ARE CONTAINED IN THE REGULATIONS
GUIDELINES, TITLE&DATE		
CONTROLLING AGENCY	DEPT NATURAL RESOURCES WASTEWATER MADISON, WI (608) 266-3910	DEPT NATURAL RESOURCES WASTEWATER MADISON, WI (608) 266-3910

	WISCONSIN LAND APPLICATION	WISCONSIN UNRESTRICTED USE
ACCEPTABILITY OF SLUDGE		
PERMIT OR APPROVAL	OBTAINED AS PART OF WIS POLLUTANT DISCHARGE ELIMINATION SYSTEM WPDES PERMIT	OBTAINED AS PART OF WIS POLLUTANT DISCHARGE ELIMINATION SYSTEM WPDES PERMIT APPROVAL OF SLUDGE
APPLICATION SUBMITTALS	GENERAL SLUDGE MANAGEMENT INFORMATION REPORT, INCL.: SOURCES, PROCESSES, TREATMENT AT FACILITY, TECHNIQUES FOR TREATMENT, TRANSPORTATION, STORAGE, VOLUME SLUDGE GENERATED SLUDGE CHARACTERISTICS RPT.: SLUDGE ANALYSIS LANDFILLING AND PUBLIC DISTRIBUTION REPORT: NAME&ADDR., VOLUME REMOVED BY USERS FROM PLANT, VOLUME SOLD COMMERCIALY	LANDFILLING AND PUBLIC DISTRIBUTION REPORT: NAME&ADDR., VOLUME REMOVED BY USERS FROM PLANT, VOLUME SOLD COMMERCIALY WRITTEN INSTRUCTIONS ON THE USE OF SLUDGE (I.E. CROPS NOT TO BE GROWN)

WISCONSIN
LAND APPLICATION

WISCONSIN
UNRESTRICTED USE

SLUDGE SAMPLING PARAMETERS

SLUDGE ANALYSIS: ANY OR ALL AS
REQUIRED: % SOLIDS, PH, N, P, K,
AS, BA, B, CD, CR, CU, PB, HG, NI, SE,
AG, ZN, CL, FL, SO₄, TOTAL COLIFORM,
FECAL COLIFORM

	WISCONSIN LAND APPLICATION	WISCONSIN UNRESTRICTED USE
MAXIMUM SLUDGE CONSTITUENT C		
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT)		
N		
P		
K		
METALS (MG/KG SLUDGE DRY WEIGHT)		
AS		
CD	2 PPM UNLESS ADJUSTED SOIL PH <6.5	10 PPM
PB		250 PPM
NI		
ZN		
CU		
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB	50 PPM UNLESS EPA APPR. 10 PPM ON PASTURE OR ANIMAL FEED CROPS UNLESS INCORPORATED OR NOT INCORPORATED IF:	2 PPM

	WISCONSIN LAND APPLICATION	WISCONSIN UNRESTRICTED USE
WATER	PCB IN FEED <.2 PPM PCB IN MILK <1.5 PPM (FAT BASIS)	
OTHER CONTAMINANTS		
RECORDS		
REPORTS	GENERAL SLUDGE MANAGEMENT INFORMATION REPORT SLUDGE CHARACTERISTICS REPORT LANDFILLING AND PUBLIC DISTRIBUTION REPORT AGRICULTURAL SITE	LANDFILLING AND PUBLIC DISTRIBUTION REPORT
NOTIFICATIONS	CHARACTERISTICS AND OPS	

FILE 4.6

WISCONSIN LAND APPLICATION		WISCONSIN UNRESTRICTED USE	
	REPORT SLUDGE DISPOSAL AND LAND APPLICATION RECORDS REPORT		
STORAGE (IF APPLICABLE)			
LAND APPLICATION APPROVAL OR PERMIT	WRITTEN APPROVAL FOR EACH SITE		
APPLICATION SUBMITTALS	SLUDGE DISPOSAL AND LA RECORDS REPORT: SLUDGE APPLICATION RECORDS: NO.OF ACRES,VOL/ACRE APPLIED, AMOUNT AVAIL. N APPL,AMOUNT CD,CU,PB,NI,ZN APPL., RESULTS OF MONITORING PROGRAMS AGRICULTURAL SITE CHAR. AND OPERATIONS REPORT: SITE LOCATION-SOIL MAPS,TOPO MAPS		

**WISCONSIN
UNRESTRICTED USE**

PROCESS TO FURTHER REDUCE PATHOGENS

DEGREE OF STABILIZATIONUNTREATED SLUDGE:

EMERGENCY, DNR APPROVED ONLY
OTHERWISE MUST BE STABILIZED

PROCESS TO FURTHER REDUCE PATHOGENS

WISCONSIN
UNRESTRICTED USE

SOIL ANALYSIS: SOIL TYPE, CEC
O.M., P,K, EVERY 3 YEARS

SURFACE WATER

GROUNDWATER

FILE 4.6

	WISCONSIN LAND APPLICATION	WISCONSIN UNRESTRICTED USE
MAXIMUM SLUDGE LOADING LIMIT (CEC IN MEQ/100G SOIL) SLUDGE APPLICATION WILL BE L SLUDGE		
NUTRIENTS N (ANNUAL)	CROP NEEDS 200 LB/AC FOR LEGUMES	
METALS Cd ANNUAL	.5 KG/HA--TOBACCO, LEAFY VEGS, OR ROOTS FOR HUMAN CONSUMPTION 1.25 KG/HA--BEFORE 1/1/87 .5 KG/HA--AFTER 1/1/87	
MAX. CUMULATIVE	5 KG/HA--SOIL PH < 6.5 5 KG/HA--SOIL PH > 6.5 AND CEC < 5 10 KG/HA--SOIL PH > 6.5 AND 5<CEC<10 20 KG/HA--SOIL PH > 6.5 AND CEC>10	

	WISCONSIN LAND APPLICATION	WISCONSIN UNRESTRICTED USE
PB	(MAX. CUMULATIVE) 500 KG/HA IF CEC < 5 1000 KG/HA IF 5 < CEC < 10 1500 KG/HA IF 10 < CEC < 15 2000 KG/HA IF CEC > 15	
ZN	(MAX. CUMULATIVE) 250 KG/HA IF CEC < 5 500 KG/HA IF 5 < CEC < 10 500 KG/HA IF 10 < CEC < 15 1000 KG/HA IF CEC > 15	
CU	(MAX. CUMULATIVE) 125 KG/HA IF CEC < 5 250 KG/HA IF 5 < CEC < 10 375 KG/HA IF 10 < CEC < 15 500 KG/HA IF CEC > 15	
CR		
NI	(MAX. CUMULATIVE) 50 KG/HA IF CEC < 5 100 KG/HA IF 5 < CEC < 10 150 KG/HA IF 10 < CEC < 15 200 KG/HA IF CEC > 15	
HG		
ORGANICS		
PCBS		

FILE 4.6

	WISCONSIN LAND APPLICATION	WISCONSIN UNRESTRICTED USE
LAND USE RESTRICTIONS		
CROPS	NO CEREAL GRAIN HARVEST--2 MO NO CROPS FOR DIRECT HUMAN CONSUMPTION WHERE EDIBLE PART CONTACTS SLUDGE--18 MO	PROVIDE WRITTEN INSTRUCTIONS ON USE OF SLUDGE INCL. LIST OF CROPS NOT TO BE GROWN
GRAZING OR GREENCHOP	NO GRAZING OR FEED FOR DAIRY ANIMALS--1 MO NON-DAIRY ANIMALS--2 WKS	
PUBLIC ACCESS	NO PUBLIC ACCESS--6 MO	
PH OF SOIL & SLUDGE OR PH OF SOIL	6.5	
SITING RESTRICTIONS SOIL CONDITIONS		
BUFFER REQUIREMENTS		
DIST. TO PRIVATE WELL	200 FT	
DIST. TO PUBLIC WELL	1000 FT	

FILE 4.6

WISCONSIN LAND APPLICATION		WISCONSIN UNRESTRICTED USE	
DIST TO RESIDENCE	200 FT IF INCORPORATED 500 FT IF LAND SPREAD		
DIST TO OTHER BUILDINGS			
DIST TO PROPERTY LINE			
GROUND WATER PROTECTION			
DEPTH TO HIGH GW	3 FT UNLESS AWC > 5"		
DEPTH TO BEDROCK	3 FT UNLESS AWC > 5"		
PERMEABILITY	< 6 IN/HR		
INFILTRATION			
SURFACE WATER PROTECTION			
WETLANDS OR AREAS	NO		
SUBJECT TO PONDING OR FLOODING			
DIST TO SURFACE WATER	50 FT IF INCORPORATED 100 FT IF LAND SPREAD		
DIST. TO DRY RUN	25 FT		
RUNOFF AND EROSION CONTROL			

	WISCONSIN LAND APPLICATION	WISCONSIN UNRESTRICTED USE
MAXIMUM SLOPE LIMIT	12% IF SLOPE > 6%: LIQUID SLUDGE INJECTED CAKE SLUDGE SPREAD (WITH APPR.) NO SPREADING BETWEEN 12/1 AND 3/31 NO SPREADING BETWEEN 12/1 AND 3/31 WITHOUT APPROVAL	
RECORDS		
REPORTS		
NOTIFICATIONS		

	WISCONSIN LAND APPLICATION	WISCONSIN UNRESTRICTED USE
STORAGE	DEPARTMENT APPROVAL, FACILITIES DESIGNED IN ACCORDANCE WITH CH. NR 110	
TRANSPORTATION		
UNCONTROLLED USE		

	WISCONSIN LAND APPLICATION	WISCONSIN UNRESTRICTED USE
DEDICATED SITES		
COMMENTS		

FILE 2.6

	WYOMING	
	LAND APPLICATION	
SLUDGE CLASSIFICATION		
STATE CONTROL		
LAWS, TITLE & DATE	WYOMING STATE 16-3-101 TO 115	
	AND 35-11-101--1207	
	1973	
REGS, TITLE & DATE	DESIGN AND CONSTRUCTION STDS	
	FOR SEWERAGE SYSTEMS, TREATMENT	
	WORKS, DISPOSAL SYSTEMS CAPABLE	
	OF CAUSING POLLUTION	
	CHAPTER XI PART E	
	5/9/84	
GUIDELINES, TITLE & DATE	GUIDELINES FOR DEVELOPMENT OF A	
	LAND APPLICATION SYSTEM	
	2/82	
CONTROLLING AGENCY	WYOMING DEPT OF ENVIRONMENTAL	
	QUALITY	
	WATER QUALITY DIVISION	
	CHEYANNE, WYOMING 82002	
	307/777/7074	

FILE 2.6

[illegible]

	WYOMING	
	LAND APPLICATION	
	FREQUENCY: 1 SAMPLE 6/YR	
MAXIMUM SLUDGE CONSTITUENT CONCENTRATIONS	G DIFFERENT CONCENTRATIONS IF PRIMARY OR SUPPLEMENTAL FERTILIZER	
CONDUCTIVITY (SALT)		
NUTRIENTS (% BY DRY WEIGHT)	.	
N		
P		
K		
METALS (MG/KG SLUDGE DRY WEIGHT)		
AS		
CD	> 2 MG/KG IF SOIL pH > 6.5 AND SLUDGE pH > 6.2	
	> 50 PPM: SUPPLEMENTAL FERTILIZER	
PB		

	WYOMING	
	LAND APPLICATION	
NI	> 500 PPM: SUPPLEMENTAL FERTILIZER	
ZN	> 5,000 PPM: SUPPLEMENTAL FERTILIZER	
CU	> 1,000 PPM: SUPPLEMENTAL FERTILIZER	
CR		
HG		
MO		
B		
FE		
ORGANICS		
PCB		
WATER		
OTHER CONTAMINANTS		
RECORDS		

	WYOMING	
	LAND APPLICATION	
REPORTS		
NOTIFICATIONS		
STORAGE (IF APPLICABLE)		
LAND APPLICATION		

	WYOMING
	LAND APPLICATION
APPROVAL OR PERMIT	G FACILITIES PLAN MUST BE
APPLIC. SUBMITTAL	SUBMITTED:
	SITE DESCRIPTION;
	SITE INVESTIGATION INCLUDING
	GEOLOGY, SOILS, HYDROLOGY;
	SLUDGE ANALYSIS
CRITERIA FOR USE	PSRP
DEGREE OF STABILIZATION	R PFRP IF IN DIRECT CONTACT WITH
	EDIBLE PORTION OF CROP
SOIL SAMPLING	
PRE-APPLICATION	G SURF HORIZON TEXTURE, ORGANIC MATTER,
	CEC, pH, LIME REQUIREMENT, P,K,N

	WYOMING	
	LAND APPLICATION	
POST-APPLICATION		
WATER QUALITY MONITORING		
GROUND WATER		
SURFACE WATER		
CROP MONITORING		
MAXIMUM SLUDGE LOADING LIMIT	IF METALS LTS MEET PRIMARY FERTIL STDs,	
KG/HA UNLESS OTHERWISE NOTED	APPLIC RATE IS BASED ON N OR CD	
(CEC IN MEQ/100G SOIL)		
ANNUAL OR CUMULATIVE		
NUTRIENTS		
N (ANNUAL)	N REQUIREMENT FOR SPECIFIC CROP	

Wyoming

	WYOMING
	LAND APPLICATION
PH	
METALS	
CD	G < 0.5 KG/Ha IF CROP FOR DIRECT
ANNUAL	R HUMAN CONSUMPTION AND pH >6.5 IF SOIL PH <6.5: <0.5 KG/Ha
	R > 2 MG/KG IF BACKGROUND SOIL pH>6.5 AND SLUDGE pH >6.2
MAX CUMULATIVE	R IF BACKGROUND pH >6.5 AND G IF CEC<5: 5 KG/Ha IF 5<CEC<15: 10 KG/Ha IF CEC>15: 20 KG/Ha IF BACKGROUND pH <6.5: 5 KG/Ha MAX
PB	R IF pH < 6.5: 561 KG/Ha G IF pH > 6.5 and CEC<5: 561 KG/Ha 5<CEC<15: 1121 KG/Ha CEC>15: 2242 KG/Ha

	WYOMING	
	LAND APPLICATION	
ZN	R IF pH < 6.5:280 KG/HA	
	G IF pH > 6.5 AND	
	CEC<5: 280 KG/HA	
	5<CEC<15: 561 KG/HA	
	CEC>15: 1121 KG/HA	
CU	R IF pH< 6.5: 140 KG/HA	
	G IF pH > 6.5 AND	
	CEC<5: 140 KG/HA	
	5<CEC<15: 280 KG/HA	
	CEC>15: 561 KG/HA	
CR		
NI	R IF pH <6.5: 56 KG/HA	
	G IF pH> 6.5 AND	
	CEC<5: 56 KG/HA	
	5<CEC<15: 112 KG/HA	
	CEC>15: 224 KG/HA	
HG		

	WYOMING	
	LAND APPLICATION	
ORGANICS		
PCB	R < 10 MG/KG UNLESS INCORP OR IF ANNUAL APPLIC IS < 0.4 KG/HA	
LAND USE RESTRICTIONS		
CROPS	R IF CROPS FOR DIRECT HUMAN CONSUMPTION, 18 MOS. UNLESS NOT IN DIRECT CONTACT WITH EDIBLE PORTION OF CROP IF IN DIRECT CONTACT WITH EDIBLE PORTION OF CROP, PFRP IF BKGND pH<6.5 AND NO ADJUSTMENT: ONLY INDIRECT FOOD CHAIN CROPS	
GRAZING OR GREENCHOP		

	WYOMING	
	LAND APPLICATION	
PUBLIC ACCESS	R 12 MOS	
PH OF SOIL		
SITING RESTRICTIONS		
SOIL CONDITIONS		
BUFFER REQUIREMENTS		
DIST TO PRIVATE WELL		
DIST TO PUBLIC WELL	300 FT	
DIST TO RESIDENCE	R 1500 FT, OR 300 FT IF SUBSURFACE INJECTED	

	WYOMING	
	LAND APPLICATION	
DIST TO OTHER BLDGS.	R 300 FT , OR 50 FT IF SUBSURFACE INJECTED	
DIST TO PROPERTY LINE	R 300 FT, OR 50 FT TO ROAD IF SUBSURFACE INJECTED	
GROUNDWATER PROTECTION		
DEPTH TO HIGH GW		
DEPTH TO BEDROCK		
PERMEABILITY		
INFILTRATION		
SURFACE WATER PROTECTION		

FILE 2.6

	WYOMING	
	LAND APPLICATION	
WETLANDS OR AREAS SUBJECT TO PONDING OR FLOODING		
DIST TO SURFACE WATER	R 300 FT OR 50 FT IF SUBSURFACE INJECTED	
DIST TO DRY RUN		
RUNOFF AND EROSION CONTROL	G PLAN REQUIRED IF SLOPE > 5% DIVERSION OF UPSLOPE RUNOFF NECESS SLOW RATE SYSTEMS: < 15% SLOPE UNLESS TERRACED OVERLAND FLOW SLOPES < 8% DITCH REQUIRED FOR APPLIC TO FROZEN OR SATURATED LAND > 3% SLOPE	
MAXIMUM SLOPE LIMIT	R 8% IF PROTECTED BY RUNOFF COLLECTION DITCH < 5% IF NO RUNOFF COLLECTION DITCH	
RECORDS		

WYOMING
LAND APPLICATION

REPORTS

NOTIFICATIONS

STORAGE

TRANSPORTATION

	WYOMING LAND APPLICATION
UNCONTROLLED USE	UNCONTROLLED USE NOT SPECIFICALLY ADDRESSED
DEDICATED SITES	DEDICATED SITES NOT SPECIFICALLY ADDRESSED

FILE 2.6

| WYOMING
| LAND APPLICATION

COMMENTS

Appendix B

APPENDIX B

PROCESSES TO SIGNIFICANTLY REDUCE PATHOGENS

PROCESSES TO FUTHER REDUCE PATHOGENS

APPENDIX B

(From 40 CFR Part 257)

A. Processes to Significantly Reduce Pathogens

Aerobic digestion: The process is conducted by agitating sludge with air or oxygen to maintain aerobic conditions at residence times ranging from 60 days at 15° C to 40 days at 20° C, with a volatile solids reduction of at least 38 percent.

Air drying: Liquid sludge is allowed to drain and/or dry on under-drained sand beds, or paved or unpaved basins in which the sludge is at a depth of nine inches. A minimum of three months is needed, two months of which temperatures average on a daily basis above 0° C.

Anaerobic digestion: The process is conducted in the absence of air at residence times ranging from 60 days at 20° C to 15 days at 35° to 55° C, with a volatile solids reduction of at least 38 percent.

Composting: Using the within-vessel, static aerated pile or windrow composting methods, the solid waste is maintained at minimum operating conditions of 40° C for five days. For four hours during this period the temperature exceeds 55° C.

Lime stabilization: Sufficient lime is added to produce a pH of 12 after two hours of contact.

Other methods: Other methods or operating conditions may be acceptable if pathogens and vector attraction of the waste

(volatile solids) are reduced to an extent equivalent to the reduction achieved by any of the above methods.

B. Processes to Further Reduce Pathogens

Composting: Using the within-vessel composting method, the solid waste is maintained at operating conditions of 55° C or greater for three days. Using the static aerated pile composting method, the solid waste is maintained at operating conditions of 55° C or greater for three days. Using the windrow composting method, the solid waste attains a temperature of 55° C or greater for at least 15 days during the composting period. Also, during the high temperature period, there will be a minimum of five turnings of the windrow.

Heat drying: Dewatered sludge cake is dried by direct or indirect contact with hot gases, and moisture content is reduced to 10 percent or lower. Sludge particles reach temperatures well in excess of 80° C, or the wet bulb temperature of the gas stream in contact with the sludge at the point where it leaves the dryer is in excess of 80° C.

Heat treatment: Liquid sludge is heated to temperatures of 180° C for 30 minutes.

Thermophilic aerobic digestion: Liquid sludge is agitated with air or oxygen to maintain aerobic conditions at residence times of 10 days at 55-60° C, with a volatile solids reduction of at least 38 percent.

Other methods: Other methods or operating conditions may be acceptable if pathogens and vector attraction of the waste

(volatile solids) are reduced to an extent equivalent to the reduction achieved by any of the above methods.

Any of the processes listed below, if added to the process described in Section A above, further reduce pathogens. Because the processes listed below, on their own, do not reduce the attraction of disease vectors, they are only add-on in nature.

Beta ray irradiation: Sludge is irradiated with beta rays from an accelerator at dosages of at least 1.0 megarad at room temperature (ca. 20° C).

Gamma ray irradiation: Sludge is irradiated with gamma rays from certain isotopes, such as ⁶⁰Cobalt and ¹³⁷Cesium, at dosages of at least 1.0 megarad at room temperature (ca. 20° C).

Pasteurization: Sludge is maintained for at least 30 minutes at a minimum temperature of 70° C.

Other methods: Other methods or operating conditions may be acceptable if pathogens are reduced to an extent equivalent to the reduction achieved by any of the above add-on methods.

Appendix C

APPENDIX C

SUMMARY OF STATE CONTACTS AND BASIS FOR STATE REGULATIONS AND GUIDELINES IN THE NORTHEAST

APPENDIX C

State	Contact	Basis for Regulations Cited	Background Documents Developed
Connecticut	Brian Curtis 203-566-3654	Penn State (1985)	No
Maine	Karen Townsend Department of Environmental Protection 207-289-3901	Uncertain; Other U.S. State Regs., European Guidelines, U.S EPA (1979) Penn. State, (1985)	No
Maryland	Ernest Spencer Department of Health and Mental Hygiene 310-225-5664	U.S. EPA, (1983) Other state regs.	No
Massachusetts	Fifi Nessen DEQE 617-292-5590	U.S. EPA, (1979) Sludge Task Force recommendations	Yes
New Hampshire	Carl Woodbury NH Office of Waste Management 603-271-4672	Uncertain; U.S. EPA, U.S. FDA, U.S. DA, (1981) U.S. EPA, (1979)	No
New Jersey			
New York	Thomas Easterly Residuals Mgmt. Director Division of Solid waste, NY State DEC 518-457-2051	U.S. EPA, 1979	No
Ohio	S.M. Blyndenburgh Engin. Unit Spvsr. Public WW Section Ohio EPA 614-466-2328	Brown, Robert E. (1985)	No
Pennsylvania	Jay Ort PA Department of Environmental Residuals Bureau of Waste Management 717-787-7381	Penn State (1985) (Dr. Dale Baker)	No

State	Contact	Basis for Regulations Cited	Background Documents Developed
Rhode Island	Chris Campbell 401-277-2234	Uncertain; U.S. EPA, (1979) U.S. EPA, (1983)	No
Vermont	Katie Gehr Hydrologist, State of Vermont 802-828-3395	U.S. EPA, (1979); U.S. EPA, U.S. FDA, U.S. DA, (1981)	No

REFERENCES

- Brown, Robert E., 1985. Demonstration of Acceptable Systems for Land disposal of Sewage Sludge. EPA/600/285/062. April
- Pennsylvania State University, 1985. Criteria and Recommendations for Land Application of sludges in the Northeast. Bulletin 851. March.
- U.S. EPA, 1979. Criteria for Classification of Solid Waste Disposal Facilities and Practices; Final, Interim Final, and Proposed Regulations. FR 44(179): 53438-53464.
- U.S. EPA, U.S. FDA, U.S. DA, 1981. Land Application of Municipal Sewage Sludge for the Production of Fruits and Vegetables; A Statement of Federal Policy and Guidance.
- U.S. EPA, 1983. Process Design Manual; Land Application of Municipal Sludge. EPA-625/1-83-016. October.