DEPARTMENT OF NATURAL RESOURCES

## Chapter NR 668

## **APPENDIX VI**

## RECOMMENDED TECHNOLOGIES TO ACHIEVE DEACTIVATION OF CHARACTERISTICS IN S. NR 668.42

The treatment standard for many characteristic wastes is stated in the s. NR 668.40 Table of Treatment Standards as "Deactivation and meet UTS." The department has determined that many technologies, when used alone or in combination, can achieve the deactivation portion of the treatment standard. Characteristic wastes that are not managed in a facility regulated by ch. 283, Stats., or in a CWA-equivalent facility, and that also contain underlying hazardous constituents (see s. NR 668.02 (9)) shall be treated not only by a "deactivating" technology to remove the characteristic, but also to

achieve the universal treatment standards (UTS) for underlying hazardous constituents. The following appendix presents a partial list of technologies, utilizing the 5 letter technology codes established in s. NR 668.42, Table 1, that may be useful in meeting the treatment standard. Use of these specific technologies is not mandatory and does not preclude direct reuse, recovery or the use of other pretreatment technologies, provided deactivation is achieved and underlying hazardous constituents are treated to achieve the UTS.

Waste code/subcategory	Nonwastewaters	Wastewaters
D001 Ignitable Liquids based on s. NR 661.0021 (1) (a)— Low TOC Nonwastewater	RORGS	n.a.
Subcategory (containing 1% to <10% TOC)	INCIN	
	WETOX	
	CHOXD	
	BIODG	
D001 Ignitable Liquids based on s. NR 661.0021 (1) (a) — Ignitable Wastewater Sub-	n.a.	RORGS
category (containing <1% TOC)		INCIN
		WETOX
		CHOXD
		BIODG
D001 Compressed Gases based on s. NR 661.0021 (1) (c)	RCGAS	n.a.
	INCIN	
	FSUBS	
	ADGAS fb. INCIN	
	ADGAS fb. (CHOXD;	
	or CHRED).	
D001 Ignitable Reactives based on s. NR 661.0021 (1) (b)	WTRRX	n.a.
	CHOXD	
	CHRED	
	STABL	
	INCIN	
D001 Ignitable Oxidizers based on s. NR 661.0021 (1) (d)	CHRED	CHRED
	INCIN	INCIN
D002 Acid Subcategory based on s. NR 661.0022 (1) (a) with pH less than or equal to	RCORR	NEUTR
2	NEUTR	INCIN
	INCIN	
D002 Alkaline Subcategory based on s. NR 661.0022 (1) (a) with pH greater than or	NEUTR	NEUTR
equal to 12.5	INCIN	INCIN
D002 Other Corrosives based on s. NR 661.0022 (1) (b)	CHOXD	CHOXD
	CHRED	CHRED
	INCIN	INCIN
	STABL	
D003 Water Reactives based on s. NR 661.0023 (1) (b), (c), and (d)	INCIN	n.a.
	WTRRX	
	CHOXD	
	CHRED	
D003 Reactive Sulfides based on s. NR 661.0023 (1) (e)	CHOXD	CHOXD
	CHRED	CHRED
	INCIN	BIODG
	STABL	INCIN

Waste code/subcategory	Nonwastewaters	Wastewaters
D003 Explosives based on s. NR 661.0023 (1) (f), (g), and (h)	INCIN	INCIN
	CHOXD	CHOXD
	CHRED	CHRED
		BIODG
		CARBN
D003 Other Reactives based on s. NR 661.0023 (1) (a)	INCIN	INCIN
	CHOXD	CHOXD
	CHRED	CHRED
		BIODG
		CARBN
K044 Wastewater treatment sludges from the manufacturing and processing of explo	o- CHOXD	CHOXD
sives	CHRED	CHRED
	INCIN	BIODG
		CARBN
		INCIN
K045 Spent carbon from the treatment of wastewaters containing explosives	CHOXD	CHOXD
	CHRED	CHRED
	INCIN	BIODG
		CARBN
		INCIN
K047 Pink/red water from TNT operations	CHOXD	CHOXD
	CHRED	CHRED
	INCIN	BIODG
		CARBN
		INCIN

Note: "n.a." stands for "not applicable"; "fb." stands for "followed by".