

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

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

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