**Section 728.APPENDIX F Technologies to Achieve Deactivation of Characteristics**

The treatment standard for many characteristic wastes is stated in Table T, entitled "Treatment Standards for Hazardous Wastes", as "DEACT and meet Section 728.148 standards". USEPA 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 the CWA or in a CWA-equivalent facility, and that also contain underlying hazardous constituents (see Section 728.102(i)) must 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. This Appendix F presents a partial list of technologies, utilizing the five letter technology codes established in Table C, 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.

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| --- | --- | --- |
| USEPA hazardous waste number/subcategory | Nonwastewaters | Wastewaters |

|  |  |  |
| --- | --- | --- |
| D001 Ignitable Liquids based on 35 Ill. Adm. Code 721.121(a)(1) – Low TOC Nonwastewater Subcategory (containing one percent to <10 percent TOC) | RORGS  WETOX  INCIN  CHOXD  BIODG | n.a. |

|  |  |  |
| --- | --- | --- |
| D001 Ignitable Liquids based on 35 Ill. Adm. Code 721.121(a)(1) – Ignitable Wastewater Subcategory (containing <one percent TOC) | n.a. | WETOX  RORGS  INCIN  CHOXD  BIODG |

|  |  |  |
| --- | --- | --- |
| D001 Compressed Gases based on 35 Ill. Adm. Code 721.121(a)(3) | RCGAS  FSUBS  INCIN  ADGAS fb.  INCIN  ADGAS fb.  (CHOXD; or  CHRED) | n.a. |

|  |  |  |
| --- | --- | --- |
| D001 Ignitable Reactives based on 35 Ill. Adm. Code 721.121(a)(2) | WTRRX  CHOXD  CHRED  STABL  INCIN | n.a. |

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| --- | --- | --- |
| D001 Ignitable Oxidizers based on 35 Ill. Adm. Code 721.121(a)(4) | CHRED  INCIN | CHRED  INCIN |

|  |  |  |
| --- | --- | --- |
| D002 Acid Subcategory based on 35 Ill. Adm. Code 721.122(a)(1) with pH less than or equal to two | RCORR  NEUTR  INCIN | NEUTR  INCIN |

|  |  |  |
| --- | --- | --- |
| D002 Alkaline Subcategory based on 35 Ill. Adm. Code 721.122(a)(1) with pH greater than or equal to 12.5 | NEUTR  INCIN | NEUTR  INCIN |

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| --- | --- | --- |
| D002 Other Corrosives based on 35 Ill. Adm. Code 721.122(a)(2) | CHOXD  CHRED  INCIN  STABL | CHOXD  CHRED  INCIN |

|  |  |  |
| --- | --- | --- |
| D003 Water Reactives based on 35 Ill. Adm. Code 721.123(a)(2), (a)(3), and (a)(4) | INCIN  WTRRX  CHOXD  CHRED | n.a. |

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| --- | --- | --- |
| D003 Reactive Sulfides based on 35 Ill. Adm. Code 721.123(a)(5) | CHOXD  CHRED  INCIN  STABL | CHOXD  CHRED  BIODG  INCIN |

|  |  |  |
| --- | --- | --- |
| D003 Explosives based on 35 Ill. Adm. Code 721.123(a)(6), (a)(7), and (a)(8) | INCIN  CHOXD  CHRED | INCIN  CHOXD  CHRED  BIODG  CARBN |

|  |  |  |
| --- | --- | --- |
| D003 Other Reactives based on 35 Ill. Adm. Code 721.123(a)(1) | INCIN  CHOXD  CHRED | INCIN  CHOXD  CHRED  BIODG  CARBN |

|  |  |  |
| --- | --- | --- |
| K044 Wastewater treatment sludges from the manufacturing and processing of explosives | CHOXD  CHRED  INCIN | CHOXD  CHRED  BIODG  CARBN  INCIN |

|  |  |  |
| --- | --- | --- |
| K045 Spent carbon from the treatment of wastewaters containing explosives | CHOXD  CHRED  INCIN | CHOXD  CHRED  BIODG  CARBN  INCIN |

|  |  |  |
| --- | --- | --- |
| K047 Pink/red water from TNT operations | CHOXD  CHRED  INCIN | CHOXD  CHRED  BIODG  CARBN  INCIN |

Note: "n.a." stands for "not applicable".

"fb." stands for "followed by".

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)