**HYPOCHLORITE DISINFECTION CHECKLIST**

**12VAC5-590-1001 A and C**

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| Project Name: |  | | |
| Reviewed By: |  | Date: |  |

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| **General Information** | |
| Feed Pump Type (i.e. diaphragm or peristaltic) |  |
| Feed Pump Range  Min  Max | gpm  gpm |
| Solution Crock Size: | gal |
| Pump Control Scheme (describe): | |

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| General design requirements (also see 12VAC5-590-1001 A) | |
| Can meet disinfection requirements under all operating conditions?   * Surface Water/GUDI can meet microbial log inactivation? * Groundwater can achieve 4-log virus inactivation (if required)? * Secondary disinfection system can achieve ≥ 0.2 mg/L chlorine residual? | Yes  No  Yes  No  N/A  Yes  No  N/A  Yes  No  N/A |
| Redundancy:   * Surface Water/GUDI/GW 4-log disinfection sized to meet required dose with largest unit out of operation? (not required for GW 4-log by 1001 A 2, but necessary to reliably achieve 4-log inactivation as req’d by 421 A 1 d) * Small groundwater has spare pump or spare equipment readily available from local supplier? | Yes  No  N/A  Yes  No  N/A |
| Feed points:   * Conventional filtration plant has provided feed points at raw water, applied water and filter effluent? * Multiple feed points considered for other types of plants? | Yes  No  N/A  Yes  No  N/A |
| Chlorine solution water piping:   * At surface water plants, pre and post filtration disinfection systems operate independently of each other to prevent siphoning of partially treated water into clearwell? | Yes  No  N/A |
| Provisions to ensure uniform mixing at application point? | Yes  No |
| Adequate residual, and contact time provided for disinfection requirements? | Yes  No |
| Appropriate residual measurement equipment?   * Test method included in Section 440 which refers to 40 CFR 141.131?   + (Most often, DPD Colormetric method in SM 4500-Cl G) * Reads at least to the nearest 0.1 mg/L? | Yes  No  Yes  No  Yes  No |
| Continuous residual analyzer for SW/GUDI ≥ 3,300 population or as required otherwise?   * Alarms provided if required? * Alarm settings adequate?   + High: \_\_\_\_\_\_ mg/L   + Low: \_\_\_\_\_\_ mg/L | Yes  No  N/A  Yes  No  N/A  Yes  No  N/A |

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| Calcium hypochlorite and sodium hypochlorite feed systems (also see 12VAC5-590-1001 C) | |
| Positive displacement solution feeders? | Yes  No |
| Adequate mixing of solution (in solution tank)? | Yes  No  N/A |
| Bulk Delivery Systems   * Bulk tanks of corrosion-proof materials? * Pumps, piping, materials, appurtenances exposed to NaOCl suitable for this use? * Facilities designed to keep temperature and lighting low? * Tanks vented to the outside? * Tanks designed for ease of filling, draining, transfer? * Exhaust/ventilation system corrosion proof and designed to keep employee exposure below Safety Data Sheet limits and OSHA standards? * Eye wash fountain and quick-drench facilities in immediate area? | N/A  Yes  No  Yes  No  Yes  No  Yes  No  Yes  No  Yes  No  Yes  No |

**Calculations (if design notes not provided):**

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