**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 RangeMinMax |  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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