|  |
| --- |
| **General System Information** |
| ***System Name*** |  | **#** |
| ***SOPs Prepared by*** |  | ***Date prepared*** |  |
| ***SOPs Updated by*** |  | ***Date Updated*** |  |
| ***Street address of system*** |  | ***Number of service connections*** |  |
| ***Town*** |  | ***Number of people served*** |  |
| ***Zip code*** |  | ***Treatment method*** |  |
| ***County*** |  | ***Total influent capacity (gpm)*** |  |
| ***Comments*** |  |
| **System Notes** |
|  |

This SOP template is available in MS Word format (doc) or in Printable Document Format (pdf)

These SOPs will help provide consistent, effective practices by system operators and allow unfamiliar operators to provide help if needed.

* **Post your completed template or individual pages where convenient to use and accessible to all operators.**
* Update the template when needed for new equipment, changes in system operation, contact info, etc.

**Consider laminating pages that are posted in humid areas or around chemicals.**

|  |
| --- |
| **Contact Information** |
|  | ***Name*** | ***Primary Phone Number*** | ***Emergency Phone Number*** | ***Email*** |
| ***Owner*** |  |  |  |  |
| ***Owners Rep or Manager*** |  |  |  |  |
| ***Operator in Charge*** |  |  |  |  |
| ***Assistant Operator*** |  |  |  |  |
| ***Wastewater Testing Lab*** |  |  |  |  |
| ***Chlorine Supplier*** |  |  |  |  |
| ***Chemical Supplier*** |  |  |  |  |
| ***Equipment Vendor*** |  |  |  |  |
| ***Pump Supplier*** |  |  |  |  |
| ***Electrician*** |  |  |  |  |
| ***Power Company*** |  |  |  |  |
| ***FRWA Circuit Rider*** |  |  |  |  |
| ***Contractor*** |  |  |  |  |
| ***Solids Removal*** |  |  |  |  |
|  |  |  |  |  |
|  ***24/7 Spill Reporting Hotline*** |  |  |  |  |
|  ***24/7 Emergency***  |  |  |  |  |

|  |
| --- |
| **PWS Name:** |
| **Schedule for Daily Tasks: You can remove or add Task as needed** |
| **Task** | **Notes** |
| **Collect effluent free chlorine residual sample and record on monthly operation report** | The free chlorine residual should be at least \_\_\_ mg/l at the exit point for the chlorine contact chamber (CCC). Also check CCC for solids.  |
| **Check chlorine day tank, record amount used, and refill as needed** | When the level in the chlorine day tank is down to \_\_\_ gals add \_\_\_ qts/gals of \_\_\_\_ % chlorine and \_\_\_ gals of water. |
| **Inspect chlorine feed pump(s)** | Confirm chemical is pumping correctly and there are no air bubbles trapped in the feed line, etc. |
| **Check Nitrate (NO3), Nitrite (NO2), and Ammonia (NH4) levels in effluent.****When checking DO/ORP, ask “Does this match with NOx and NH4 samples?”** | The measured amount of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ should be at least \_\_\_ mg/l at this sample location \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| The measured amount of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ should be at least \_\_\_ mg/l at this sample location \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| The measured amount of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ should be at least \_\_\_ mg/l at this sample location \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| **Record wastewater plant meter readings, lift station run times, & calculate total daily flow** | Average daily flow in summer is \_\_\_\_\_ gals per day (gpd) and in winter is \_\_\_\_\_ gpd. If flows are higher than this for more than three days, there may be a I&I. |
| **Record blower run times and start cycles** | Blowers normally run \_\_\_\_\_ hours per day in the summer and \_\_\_\_\_ hours per day in the winter.  |
| **Conduct a general security check** | Inspect windows, doors, hatches, screens, well caps, fences, gates, lighting, locks, and alarms. Check if locked or set, look for tampering or vandalism. |
| **Check other chemical day tank, record amount used, and refill as needed** | When the level in the \_\_\_\_\_\_\_\_\_\_\_\_ day tank is down to \_\_\_ gals add \_\_\_ qts/gals chemical and \_\_\_ gals of water. |
| **Inspect other chemical feed pump(s)** | Confirm chemical is pumping correctly and there are no air bubbles trapped in the feed line, etc. |
| **Check DO/ORP level in aeration basin(s)** | The measured DO/ORP should be within range \_\_\_\_\_\_\_\_\_\_ at this sample location \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  |
| **Check TSS/TDS in aeration basin(s)** | The measured TSS/TDS should be within range \_\_\_\_\_\_\_\_\_\_ at this sample location \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  |
| **Check weirs and baffles** | Check weirs and baffles for build up or solids. Clean if necessary. |

**In this Appendix, fill out the sections your system needs and delete the rest. For example, if your system does not use gas chlorination, you would delete the Treatment – Gas Chlorination table below.**

|  |
| --- |
| **Return and Waste Rates** |
|  | ***Low*** | ***High*** | ***Comments*** |
| ***Return rate of sludge*** |  |  |  |
| ***Waste rate of sludge*** |  |  |  |

|  |
| --- |
| **Digester Decanting** |
| ***When to Decant*** |  |
| ***How much to Decant*** |  |

|  |
| --- |
| **Collection System**  |
| ***Type of Pipe*** |  |
| ***Force main size(s)*** |  |
| ***Service connection shut-off locations*** |  |
| ***Number of lift stations*** |  |
| ***Lift Station Name or #*** | ***Location*** | ***Collects from what area; feeds to what station(s)*** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

|  |
| --- |
| **Treatment - Liquid Chlorine (hypochlorite)** |
| ***Undiluted strength (5%, 12.5%, etc.)*** |  | ***Target chlorine residual at entry point to system*** ***(ppm)*** |  |
| ***Day tank capacity (gal)*** |  | ***Chlorine to water******mix ratio*** |  |
| ***Day tank filling instructions*** |  | ***Pump make and model*** |  |
| ***Maximum pump rate (gpm or gph)*** |  |
| ***Typical pump speed and stroke settings*** |  |
| ***MSDS*** | MSDS sheet posted where chemical is stored and used and copy is attached here |
| ***Chemical supplier name and contact information*** |  |
| ***Comments*** |  |

|  |
| --- |
| **Treatment – Gas Chlorination**  |
| ***Setting*** |  | ***Target chlorine residual at entry point to system*** ***(ppm)*** |  |
| ***Chlorine (lbs)*** |  | ***Amount of CL2 on*** ***Hand*** |  |
| ***Gas Chlorination instructions*** |  | ***Regulator make and model*** |  |
| ***Chlorine High level alarm setting*** |  |
| ***Chlorine Low level alarm setting*** |  |
| ***MSDS*** | MSDS sheet posted where chemical is stored and used and copy is attached here |
| ***Chemical supplier name and contact information*** |  |
| ***Comments*** |  |

|  |
| --- |
| **Treatment - Other Chemical (e.g. corrosion control)** |
| ***Chemical name*** |  | ***Commercial product strength (pH, %, etc.)*** |  |
| ***Reason for use*** |  | ***Target residual and sample location*** |  |
| ***Day tank capacity (gal)*** |  | ***Day tank mix ratio*** |  |
| ***Day tank filling instructions*** |  | ***Pump make and model*** |  |
| ***Maximum pump rate (gpm or gph)*** |  |
| ***Typical pump speed and stroke settings*** |  |
| ***MSDS*** | MSDS sheet posted where chemical is stored and used and copy is attached here |
| ***Chemical supplier name and contact information*** |  |
| ***Comments*** |  |

|  |
| --- |
| **Treatment - Other (e.g. cartridge filtration, softening, etc.)** |
| ***Treatment description*** |  | ***Design flow rate (gpm)*** |  |
| ***Describe maintenance, parts replacement and backwash procedures*** |  |
| ***Service name and contact information*** |  |
| ***Comments*** |  |