## Alternative Treatment Technology Units Meeting Validation Test Criteria Oregon Administrative Rule 333-061-0050(5)(k)(I) Oregon Health Authority, Drinking Water Services (DWS) ULTRAVIOLET REACTORS

| (Other reactors not on this list may meet the criteria. Contact DWS for details on verfications for reactors not listed.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Manufacturer | Model | $\mathbf{L o g}_{10}$ Inactivation Credit ${ }^{* *}$ |  |  | Max. Flow (gpm) |
|  |  | Crypto. | Giardia | Virus |  |
| Neotech | D438 | 3.5 | 3.5 | 0 | 435 |
| Trojan | UVSwiftSC ${ }^{\text {TM }}$ B03 | 3.5 | 3.5 | 0 | 132 |
|  | UVSwift ${ }^{\text {TM }} 2 \mathrm{~L} 12$ | 3.5 * | 3.5* | 0 | 4,500 |
|  | UVSwift ${ }^{\text {TM }} 4 \mathrm{~L} 12$ | 3.5 * | 3.5 * | 0 | 4,500 |
| Viqua | Pro50/SV50/Sterilight50 | 3.5 | 3.5 | 0 | 70 |
|  | Pro50/SV50/Sterilight50 | 3.0 | 3.0 | 0 | 80 |
|  | Pro24-186 | 5.5+ | 5.5+ | 4.0 | 24 |
| Calgon | Sentinel 24" 9-lamp | 4.0 | 4.0 | 0 | 19,600 |
| atg | UV SP-25-6 | 3.0 | 3.0 | 0 | 495 |
| Wedeco | BX100 | 3.0 | 3.0 | 0 | 387 |
|  | B400XL | 3.0 | 3.0 | 0 | 1,760 |
|  | LBX1000 | 4.0 | 4.0 | 0 | 4,650 |

* If more log inactivation credit is requested after 2015 action spectra correction factors can be re-calculated to improve accuracy.
** $1 \log$ is $90 \%$ inactivation of pathogens (e.g., Crypto.), $2 \log$ is $99 \%, 3.5 \log$ is $99.97 \%, 5.5 \log$ is $99.9997 \%$ inactivation.

| Manufacturer | Model | $\log _{10}$ Inactivation Credit |  |  | Max. Flow (gpm) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Crypto. | Giardia | Virus |  |
| OAR 333-061-0050(5)(k)(J): "Non-Community water systems using only groundwater sources, and having minimal distribution systems as determined by the Department, may use ultraviolet light as the only disinfectant when total coliforms have been detected in the source water and no E. coli has been detected. UV units must meet the specifications of a Class A UV system under the National Sanitation Foundation (NSF) standard 55. The minimum ultraviolet light failsafe dosage set point shall be equivalent to $40 \mathrm{~mW}-\mathrm{s} / \mathrm{cm}^{2}\left(40 \mathrm{~mJ} / \mathrm{cm}^{2}\right)$ with a wavelength between 200 and 300 nanometers." <br> The following are examples of Class A NSF 55 certified models and satisfy the Rule above: |  |  |  |  |  |
| Kinetico | KUV 1200x |  |  |  | 12 |
| Viqua Trojan | UVMax ${ }^{\text {TM }}$ Pro 7 <br> UVMax ${ }^{\text {TM }}$ Pro [x] series |  |  |  | $\begin{gathered} 8.2 \\ \text { up to } 30 \\ \hline \end{gathered}$ |
| UV Pure Technologies | Hallet 15XS <br> Hallet 30 |  |  |  | $\begin{gathered} 14.6 \\ 30 \end{gathered}$ |
| Viqua | $\begin{aligned} & \text { SPV-200 } \\ & \text { SPV-410 } \\ & \text { SPV-600 } \\ & \text { SPV-740 } \\ & \text { SPV-950 } \end{aligned}$ |  |  |  | $\begin{gathered} \hline 2.6 \\ 5.9 \\ 8.6 \\ 11.2 \\ 14.9 \\ \hline \end{gathered}$ |

