**Wastewater Management**

3. If a mixed primary & waste activated sludge is treated in a digester that will destroy 60% of the VSS, determine the sludge volume (a) before digestion, (b) after digestion and, (c) the percent reduction in sludge volume for 2,500 lb (dry basis) of combined primary/waste activated sludge with the following characteristics:

|  |  |  |
| --- | --- | --- |
|  | Primary/Secondary | Digested |
| Solids, % | 4 | 12 |
| Volatile matter, % | 65 | 3 |
| Specific Gravity of Fixed Solids | 2.5 | 2.5 |
| Specific Gravity of Volatile Solids | 1.00 | 1.00 |