(c) The volume of storage tanks at Distribution pumping station acting as forwarding station to other pump stations and to the network should be based on the Average Daily Demand (ADD) including fire reserve in addition to 10% of the design output to the pump station.

(d) All reservoirs should have interconnecting and bypass arrangements.

6.34 Water Quality in Distribution Networks

AADC receive water at Transco interface points of water quality and residual chlorine rates within the limits defined by the RSB. This arrangement reduce the need for new chlorination facilities in AADC system, but not eliminate the need for such facility. Therefore, the chlorination facilities is not covered in details in this design guidelines.

Most of the design works for chlorination facilities at AADC system may be limited to chlorine re-dosing, rehabilitation, upgrading or replacing the existing chlorination systems.

The design of the chlorination facilities shall be carried out according to ADWEA standard specifications.

The designer of the water distribution networks shall consider the water quality by the followings:-

i- Avoid the water stagnation by maintaining reasonable velocities and eliminating the dead ends

ii- Provide water quality sampling points at selected points in the new distribution networks such as at the DMA feeding points, bulk meters, etc..

iii- Provide water quality instrumentations and sensors at selected points in the new distribution networks such as at the DMA feeding points.

iv- Perform water quality modelling for the new networks if requested by AADC.

v- Provide washout or locate fire hydrants at the areas where water may be stagnated to allow flushing out stagnated water.