GEORGIA ENVIRONMENTAL PROTECTION DIVISION

DRINKING WATER PERMITTING & ENGINEERING PROGRAM

SANITARY SURVEY

Of

PUBLIC SURFACE WATER SYSTEM

DATE: _____

WATER SYSTEM NAME: _____

WSID No.: GA_____ **COUNTY:_____**

NAME(s) OF SURVEY INSPECTOR(s): _____

_____

NAME(s) OF SYSTEM OFFICIAL(s)_____
PRESENT DURING THE SURVEY:

_____

GEORGIA ENVIRONMENTAL PROTECTION DIVISION

DRINKING WATER PERMITTING & ENGINEERING PROGRAM

SANITARY SURVEY REPORT SUMMARY

(OVERALL RATINGS)

SYSTEM NAME: _____ **WSID NO.: GA_____**

PART A – SYSTEM EVALUATION

		SAT	UNSAT	N/A	POINTS
Section I.	**Administration**	_____	_____	_____	_____
Section II.	**Source**	_____	_____	_____	_____
Section III.	**Treatment**	_____	_____	_____	_____
Section IV.	**Distribution**	_____	_____	_____	_____
Section V.	**Storage**	_____	_____	_____	_____
Section VI.	**Pumps/Pump Facilities/Controls**	_____	_____	_____	_____
Section VII.	**Monitoring/Reporting/Records**	_____	_____	_____	_____
Section VIII.	**System Management/Operations**	_____	_____	_____	_____
Section IX.	**Operator Compliance/Permit Reqs.**	_____	_____	_____	_____
Section X.	**Emergency Plan/Security/Safety**	_____	_____	_____	_____

AVERAGE POINTS: _____

PART B – SYSTEM DESCRIPTION

****

Follow-up letter sent: **Yes___** **No___**
Follow-up inspection scheduled: **Yes___** **No___**

****

Note: ≥ 90 - 100 : Outstanding Performance
≥ 75 - 89 : Satisfactory Performance
≥ 60 - 74 : Concerned Performance
≤ 59 : Unsatisfactory Performance

DEFICIENCIES NOTED
DURING THE
SANITARY SURVEY

PART A

SYSTEM EVALUATION

Section I. ADMINISTRATION

NAME of the OPERATOR IN-RESPONSIBLE-CHARGE: _____
Certification Class: _____ Expiration Date: _____
Phone Number: _____ Fax Number: _____
Mailing Address: _____
_____
_____
_____

1.	( )	Does the system have at least one (1) operator who is properly certified in the classification required by the Rules, at each shift of plant operation?	***1***Y	N
2.	( )	Does the system have at least two (2) operators who are properly certified in the classification required by the Rules, at each shift of plant operation?	***1Y***	N
3.	( )	Does the system have at least one (1) certified operator at each shift?	***2***Y	N
4.	( )	Does the system have at least two (2) certified operators at each shift?	***1***Y	N
5.	( )	Is the classification of the operator in-responsible-charge comply with the State laws and the Rules for Safe Drinking Water?	***2***Y	N
6.	( )	Does the system have adequate number of water plant operators based on the size and complexity of the treatment processes?	***2***Y	N
7.	( )	Does the system have a certified Distribution System Operator(s)?	***1***Y	N
	( )	Is the number of distribution system operators adequate based on the size and complexity of the distribution network?	***1***Y	N
8.	( )	Does the system have a "Standard Operating Procedures"(SOP) manual? (verify)	***1***Y	N
	( )	Do all the operators follow the established procedures?	***1***Y	N
9.	( )	Does the system have a "Minimum Construction Standards" manual? (verify)	***1***Y	N
	( )	Are the construction and material standards being followed during the construction of water system projects?	***1***Y	N
	( )	Are all the required operators knowledgeable of these standards?	***1***Y	N
10.	( )	Does the system have a "Business Plan"? (verify)	***2***Y	N
11.	( )	Does the system have an "Organization Chart"? (verify)	***1***Y	N
12.	( )	Is the "Permit to Operate a Public Water System" posted at the treatment plant?	***1***Y	N
	( )	Are all the required operators familiar with the permit conditions?	***1***Y	N
13.	( )	Is the "NPDES" permit posted at the water treatment plant?	***1***Y	N
	( )	Are all the required operators familiar with the NPDES permit parameters?	***1***Y	N

Sect.Pts:___

Names of Water Plant Operators and Certification Classifications:

Name	Title	Class	Expiration

COMMENTS:

Section II. SOURCE

NAME of WATER SOURCE(s): (1)_____
(2)_____
(3)_____

1. Watershed Management Program

				(1)	(2)	(3)
1.	( )	Is the entire watershed for the source protected?	***4***Y	N		
	( )	Are efforts being made to purchase all land within watershed?	***1***Y	N		
	( )	Are the critical elements of watershed protected or purchased?	***4***Y	N		
2.	( )	Does the system have an agreement with landowner concerning land use?	***1***Y	N		
	( )	Does system have a plan to acquire control of land use within watershed?	***1***Y	N		
3.	( )	Are all activities within watershed identified and located?	***3***Y	N		
	( )	Have there been changes since the last sanitary survey?	***2***Y	N		
4.	( )	List practices used to mitigate critical activities within the watershed that may degrade water quality: _____				
	( )	Are these practices monitored?	***4***Y	N		
	( )	Should there be any changes to the existing practices?	Y	N		

Sub.Pnts:____

2. Wellhead Protection Program

1.	( )	Is the Wellhead Protection Area (WHPA) delineated?	***5***Y	N		
	( )	Are all potential sources of contaminants identified & located?	***4***Y	N		
	( )	Did the system develop and implement a strategy to manage WHPA?	***4***Y	N		
	( )	Are all sources protected from contamination?	***4***Y	N		
	( )	Does system have a "Wellhead Protection Program" developed by Environmental Protection Division (EPD)/Geologic Survey Branch (GSB)?	***3***Y	N		

Sub.Pnts:____

3. Source Vulnerability Assessment - <u>Surface Water</u>

(Hydrogeologic/hydrologic sensitivity of the source)

1.	( )	Are intake(s) located in turbid water or near the shore? (undesired)	Y	N		
	( )	Are intake(s) located away from the shore in clear water?	***5***Y	N		
2.	( )	Is water being fed from steep slopes? (undesired)	Y	N		
	( )	Is water being fed from shallow slopes?	***5***Y	N		
3.	( )	Is water being fed from land with no vegetation? (undesired)	Y	N		
	( )	Is water being fed from land with thick vegetation?	***5***Y	N		
4.	( )	Is water being fed from paved surfaces? (undesired)	Y	N		
	( )	Is water being fed from highly permeable top soils?	***5***Y	N		

Sub.Pnts:____

4. Source Vulnerability Assessment - GWUDI

1.	( )	Is the Aquifer shallow or close to the surface? (undesired)	Y	N
	( )	Is the Aquifer deep and further beneath the surface?	***5***Y	N
2.	( )	Is the Aquifer overlain by thin unsaturated zone(s)? (undesired)	Y	N
	( )	Is the Aquifer overlain by thick zone(s)?	***5***Y	N
3.	( )	Is the Aquifer overlain by unconfined layer(s) (undesired)	Y	N
	( )	Is the Aquifer overlain by thick confining layer(s)?	***5***Y	N
4.	( )	Does the Aquifer have conduits/sinkholes to or near saturated zone(s)? (undesired)	Y	N
	( )	Aquifers have no conduits to or near saturated zones.	***5***Y	N

Sub.Pnts:____

5. Integrity of the Source Water Structures

1.	( )	Does the infrastructure design meet the current EPD Rules & Standards?	***4***Y	N
	( )	Is the infrastructure design appropriate for the permitted pumping rate?	***4***Y	N
2.	( )	Does the system have a regular maintenance schedule in place?	***4***Y	N
	( )	Is the maintenance schedule appropriate for the design & construction?	***4***Y	N
3.	( )	Has the infrastructure been operating reliably?	***4***Y	N

If not, explain: _____

_____

Sub.Pnts:____

6. Are Potential Sources of Contamination (PSC) Identified and Managed?

1.	( )	Are PSCs located close to the drinking water wells or intakes?	Y	***4***N
2.	( )	Are there physical barriers to contaminant release?	***4***Y	N
3.	( )	Are the standard operating practices designed to prevent contaminant release?	***2***Y	N
4.	( )	Are there contingency plans for accidental release?	***5***Y	N
	( )	Are operations personnel familiar with them?	***5***Y	N

Sub.Pnts:____

7. Source Water Quality

1.	( )	Is the source water quality monitored by the system?	***4***Y	N
	( )	What water quality parameters are being monitored? (list)		

_____

_____

2.	( )	Is there an emergency spill response plan for events that may effect water quality?	***2***Y	N
3.	( )	Is the area around the intake restricted (no access)?	***4***Y	N
4.	( )	Are there any sources of pollution at or near the intake?	Y	***4***N
	( )	What is the system doing to mitigate the sources of pollution?(explain):		

_____

5.	( )	Have there been any significant fluctuations in water quality?	Y	***2***N	
	( )	What is main cause in water quality fluctuations? (list): _____ _____			
	( )	Did system make improvements to mitigate future fluctuations?	***2***Y	N	
	( )	Are improvements performing satisfactorily?	***2***Y	N	
	( )	Are any future improvements needed?	Y	N	
					Sub.Pnts:____

8. Source Water Quantity

1.	( )	What is the water quantity required to meet the peak demand of the water system?	_____ MGD		
2.	( )	What is the available water quantity of the source?	_____ MGD		
3.	( )	Is the source adequate to meet the current and future expected needs of the system, even during times of drought?	***4***Y	N	
4.	( )	Are other sources being investigated to meet the needs? (list): _____ _____	***2***Y	***2***N	
5.	( )	Has the system developed a written water conservation plan?	***2***Y	N	
	( )	Has the system been implementing this water conservation plan, as needed?	***4***Y	N	
6.	( )	Does the system have a meter to monitor production?	***4***Y	N	
	( )	Does the system measure usage by consumers?	***4***Y	N	
					Sub.Pnts:____

9. Location of Source Facilities

1.	( )	Can the source facility be flooded?	Y	***10***N	
2.	( )	Has the source facility ever been flooded?	Y	***10***N	
	( )	If yes, was the operation of the source facility impaired?	Y	N	
	( )	If no, what is the access to the source facility during a flood? (explain): _____			
3.	( )	What measures have been taken to prevent contamination of the raw water at the source facility during a flood event? (explain): _____ _____			
					Sub.Pnts:____

10. Capacity of Source Facilities

1.	( )	What is the design capacity of the source water facility?	_____ MGD		
	( )	What is the historical maximum daily demand of the system?	_____ MGD		
	( )	What is the raw water storage capacity of the system?	_____ MG		
	( )	Given service connections or population, are they reasonable?	***5***Y	N	
2.	( )	Is the system structure silting up?	Y	***2***N	
	( )	Is the sump of the source water supply pumps silting up?	Y	***2***N	
	( )	Is there any dead fish, wildlife animals or manmade debris floating?	Y	***1***N	
3.	( )	Are the source water supply facilities capable of meeting the required capacity with the largest raw water pump out of service?	***5***Y	N	
4.	( )	Does the system check the operating characteristics of the existing units periodically and compare them to the original operating characteristics?	***3***Y	N	
	( )	Should the capacity of the unit be derated?	Y	***2***N	
	( )	If so, what is the new capacity?	_____ MGD		
					Sub.Pnts:____

11. Design of Source Facilities - Ground Water Supply Facilities

1.	( )	What is the depth of the well?	_____ FT	
	( )	Is the well encased into bedrock/ unweathered subsurface rock strata?	***2***Y	N
	( )	Is annular space around the well casing filled with grout or bentonite clay?	***2***Y	N
2.	( )	Is the well properly sealed at the surface?	***2***Y	N
	( )	Does casing extend at least 12 inches above the well slab?	***2***Y	N
	( )	Does the well vent terminate above maximum flood level with a turned down gooseneck and corrosion resistant screen?	***2***Y	N
3.	( )	Is there an acceptable tap for raw water sampling?	***1***Y	N
4.	( )	Is the well protected from vandalism and accidents?	***1***Y	N
5.	( )	Do the overall piping, valving, the site and electrical system appear to be maintained?	***2***Y	N
	( )	Does the electrical system have lightning protection?	***2***Y	N
	( )	Is there an auxiliary power supply?	***2***Y	N
6.	( )	Has the source(s) been evaluated for GWUDI?	***1***Y	***1***N
	( )	If the well is GWUDI, is proper treatment provided (filtration, disinfection)?	***1***Y	***1***N

7. ( ) Well Descriptions:

Well No.: ____ Location: _____

Tested Capacity: _____
Casing Diameter:_____ Material: _____
Well Casing Grouted: _____
Casing _____ " Above Concrete Slab: _____
Concrete Slab: _____
Pump Block: _____
Sanitary Seal: _____
Screened Casing Vent: _____
Raw water Sample Tap: _____
Deep Well Air Line: _____
Access Port: _____ Meter: _____
Check Valve:_____ Blow off: ____
Air Release Valve: _____
Pump: Subm. _____ Turbine: ____
Pump Capacity: _____
Pumps Housed: ____ Locked: ____
Area Fenced: _____
Site Description: _____

Well No.: _____ Location: _____

Tested Capacity: _____
Casing Diameter:_____ Material: _____
Well Casing Grouted: _____
Casing _____ " Above Concrete Slab: _____
Concrete Slab: _____
Pump Block: _____
Sanitary Seal: _____
Screened Casing Vent: _____
Raw water Sample Tap: _____
Deep Well Air Line: _____
Access Port: _____ Meter: _____
Check Valve:_____ Blow off: ____
Air Release Valve: _____
Pump: Subm. _____ Turbine: ____
Pump Capacity: _____
Pumps Housed: ____ Locked: ____
Area Fenced: _____
Site Description: _____

Sub.Pnts:____

12. Design of Source Facilities - Surface Water Supply Facilities

1.	( )	Is the source water quality the best possible?	***4***Y	N
	( )	Can the best quality of water be withdrawn? If so, how? (explain): _____		
	( )	Is there an area around the source facility that is restricted?	***4***Y	N
	( )	How is the area marked? Is marking adequate? (explain): _____		

( ) Are there any nearby sources of contamination evident? Y ***4***N
( ) If so, what is being done to protect the source water? (explain):
_____

2. ( ) What conditions cause fluctuations in the raw water quality? (explain):
_____

( ) Is the system taking any steps to minimize the impact? (explain):
_____

3. ( ) Can a unit be taken out of service for maintenance and the facility remains operational? ***4***Y N
( ) If so, how? (explain): _____

4. ( ) Can water be withdrawn during a prolonged drought? (adjustable intake depth) ***4***Y N
( ) What is the minimum projected water level? _____ FT
( ) What is the level of the lowest withdrawal point? _____ FT

Sub.Pnts:____

13. Design of Source Facilities - <u>Springs</u>

1. ( ) Is the spring area protected from contact with animals and vandalism? ***4***Y N

2. ( ) Is the spring box watertight, with a lockable, overlapping lid or cover? ***2***Y N
( ) Does the spring-box have a screened overflow? ***2***Y N
( ) Is there a drain with a screen and shutoff valve? ***2***Y N
( ) Is the supply intake located at least 6 inches above the bottom and screened? ***2***Y N

3. ( ) Is there a diversion ditch around the upper end of spring area? ***2***Y N
( ) Is there an impervious barrier over the spring area to keep out rainwater and surface contamination? ***2***Y N

4. ( ) Does the spring in general comply with the EPD Rules and Minimum Standards? ***4***Y N

5. ( ) Spring Descriptions:

Sub.Pnts:____

Spring No.____ Location: _____

Tested Capacity:_____
Spring Enclosed:_____
Spring Box Covered:_____
Surface Runoff Diverted:_____
Area Fenced:_____
Screened Vent/Overflow:_____
Pumping Equipment Housed:_____
Pump: Subm._____ Turbine:_____
Pump Capacity:_____
Pump House Locked:_____
Contact Chamber Size/Volume:_____
Contact Chamber Baffled:_____
Detention Time:_____
High Service Pump: Centrifugal___
Turbine:_____
High Service Pump Cap.:_____
Site Description:_____

Spring No.____ Location: _____

Tested Capacity:_____
Spring Enclosed:_____
Spring Box Covered:_____
Surface Runoff Diverted:_____
Area Fenced:_____
Screened Vent/Overflow:_____
Pumping Equipment Housed:_____
Pump: Subm._____ Turbine:_____
Pump Capacity:_____
Pump House Locked:_____
Contact Chamber Size/Volume:_____
Contact Chamber Baffled:_____
Detention Time:_____
High Service Pump: Centrifugal___
Turbine:_____
High Service Pump Cap.:_____
Site Description:_____

14. Condition of Source Facilities

1.	( )	How often does plant staff visit the facility? (specify): _____			
2.	( )	Does the facility appear to be well maintained (grass mowed, equipment painted, facilities kept clean, etc.)?	***20***Y	N	
					Sub.Pnts:____

15. Transmission of Source Water

1.	( )	Do the transmission lines deliver all of the raw water directly to the treatment plant?	Y	N	
2.	( )	Are the transmission lines reliable for providing a continuous supply of raw water to the treatment plant?	***20***Y	N	
					Sub.Pnts:____

COMMENTS:

Section III. TREATMENT

NAME of WATER TREATMENT PLANT: _____
IDENTIFY TREATMENT PROCESS TYPE: _____

1. Location of Treatment Facilities

1.	( )	Is the treatment plant located at a level below the 100-year flood line?	Y	***10***N	
2.	( )	Are there any known sources of contamination in the vicinity of the treatment plant?	Y	***10***N	
					Sub.Pnts:____

2. Treatment Plant Schematic/Layout Map

1.	( )	Does the drawing(s) show the name of the facility and date of the last modifications made to the drawings?	***5***Y	N	
2.	( )	Are the drawings up-to-date?	**5**Y	N	
3.	( )	Does the schematic or layout maps(s) identify treatment type(s)?	***5***Y	N	
4.	( )	Is there a treatment unit that appears to be inappropriate?	Y	***5***N	
					Sub.Pnts:____

3. Capacity of Treatment Facilities

1.	( )	What is the design capacity of the treatment facilities?	_____ MGD		
	( )	What is the historical maximum daily demand of the water system?	_____ MGD		
	( )	What is the source water storage capacity of the system?	_____ MG		
	( )	Given service connections or population, are treatment facilities reasonable?	***5***Y	N	
2.	( )	Are treatment facilities capable of meeting the required capacity with the largest unit out of service?	***5***Y	N	
3.	( )	Can the treatment process be interrupted by power outages, etc?	Y	***2***N	
	( )	Is there a backup or standby power available? (identify)	***4***Y	N	
	( )	Can the operator demonstrate that backup power systems operational?	***1***Y	N	
4.	( )	Does the system check the operating characteristics of the existing units periodically and compare them to the original operating characteristics?	***3***Y	N	
	( )	Should the capacity of the unit be derated?	Y	N	
	( )	If so, what is the new capacity?	_____ MGD		
					Sub.Pnts:____

4. Treatment Processes and Facilities - Presedimentation

1.	( )	Is the total capacity of the presedimentation basins large enough to accomplish the purpose of reducing turbidity?	***20***Y	N	
2.	( )	Are the presedimentation facilities periodically cleaned? How often? _____	Y	N	
					Sub.Pnts:____

5. Treatment Processes and Facilities - Flow Control and Metering Systems

1.	( )	Are flow measurement devices installed at the source water inlet and the finished water outlet?	***10***Y	N
	( )	Are they functioning?	***5***Y	N
	( )	How often are they calibrated to assure accuracy? (specify): _____		
2.	( )	Are there adequate flow control and/or measurement devices throughout the treatment process?	***5***Y	N

Sub.Pnts:____

6. Treatment Processes and Facilities - Rapid Mix

1.	( )	Does the rapid mix unit visually appear adequate?	***3***Y	N
2.	( )	Are coagulant chemicals being fed continuously during treatment plant operations?	***2***Y	N
3.	( )	Does the plant have multiple mix units?	***1***Y	N
	( )	How often is maintenance done? (specify): _____		
4.	( )	Is the mechanical equipment working?	***3***Y	N
	( )	Are there any hydraulic inadequacies?	Y	***3***N
5.	( )	Is the rate of mixing adjustable, so that correct mixing can be provided at all flows?	***2***Y	N
6.	( )	What is the design G?	_____ sec^{-1}	
	( )	Is it within the generally accepted range? (700 - 1,000 sec^{-1})	***2***Y	N
	( )	What is the detention time?	_____ sec	
	( )	Is detention time within accepted range? (15 - 60 seconds)	***2***Y	N
7.	( )	Have rapid mix units been evaluated for cross-connection?	***2***Y	N

Sub.Pnts:____

7. Treatment Processes and Facilities - Chemicals and Chemical Feed Systems

1.	( )	What chemicals are used? (Pre): _____ _____ (Post):_____		
2.	( )	Do chemicals conform to NSF Standard 60?	***5***Y	N
3.	( )	Are the chemicals used for treating water appropriate for meeting Water Quality goals?	***2***Y	N
4.	( )	Does plant have capacity to apply chemicals above the current maximum daily use?	***1***Y	N
5.	( )	Are the chemical application points appropriate for the various chemicals?	***1***Y	N
6.	( )	Are the chemical feed systems compatible with the chemical used?	***1***Y	N
	( )	Is the general condition of the chemical feed equipment acceptable?	***1***Y	N
7.	( )	How often is the chemical feed rate checked for each chemical?		
8.	( )	Is the chemical feed equipment adjustable?	***1***Y	N

	( )	Is the control of the chemical feed equipment manual or automatic? (circle)		
	( )	Does the system use day tanks for liquid chemicals that are purchased in large quantities?	Y	N
9.	( )	Is a standby feeder and/or metering pump provided for each chemical?	***1***Y	N
	( )	Is it operational?	***1***Y	N
	( )	Is it large enough to replace the largest unit that might fail?	***1***Y	N
10.	( )	Is backflow prevention provided on the water lines used for chemical feed makeup water?	***1***Y	N
11.	( )	Is the chemical storage area capacity adequate to allow space for free access for loading and unloading of chemicals?	Y	N
	( )	Is the chemical storage area safe?	***1***Y	N
	( )	Is containment provided for a potential spill?	***1***Y	N
	( )	Are incompatible chemicals stored together?	Y	***1***N
	( )	Are facilities properly labeled?	***1***Y	N
12.	( )	Is the general condition of the building/room housing the chemical feed equipment acceptable?	***1***Y	N
	( )	Are dusty and dry chemicals, and feed equipment housed separately?	***1***Y	N
	( )	Is proper and adequate ventilation provided?	***1***Y	N

Sub.Pnts:____

8. Treatment Processes and Facilities - <u>Coagulation/ Flocculation</u>

1.	( )	What type of flocculation facilities is used? (baffled or mech. mixers)	_____	
	( )	Does the coagulation/flocculation process visually appear adequate?	***4***Y	N
2.	( )	Is there any evidence of clumps of coagulants in the first compartment of the flocculator?	Y	***3***N
3.	( )	Is the mechanical equipment working?	***3***Y	N
	( )	Are there any hydraulic inadequacies?	Y	***2***N
4.	( )	Does a written preventive maintenance program exist?	***2***Y	N
5.	( )	Is the rate of mixing adjustable, so that the correct mixing can be provided at all flows?	***2***Y	N
6.	( )	What is the velocity gradient, G, for the flocculation process? (specify):	_____ sec-1	
	( )	Is G within the generally accepted range?(first stage: 50-100 sec $^{-1}$; second and third Stage: 20-50 sec $^{-1}$)	***2***Y	N
	( )	What is the peripheral tip speed of the mixers? (if applicable):	_____ ft/sec	
	( )	Is the tip speed within the generally accepted range? (0.5 - 2.0 ft/sec)	***1***Y	N
	( )	What is the GT? (G times detention Time):	_____	
	( )	Is GT within the generally accepted range? (20,000 - 120, 000)	***1***Y	N
	( )	What is the detention Time in the flocculation basin? (specify):	_____ min	
	( )	Is detention Time within the generally accepted range? (20 - 60 min)	***2***Y	N

Sub.Pnts:____

9. Treatment Processes and Facilities - Sedimentation/ Clarification

1.	( )	What type of sedimentation/clarification process being used? (horizontal flow, inclined, upflow): _____		
	( )	Does the sedimentation/clarification process visually appear adequate?	***3***Y	N
2.	( )	Is the flow distributed evenly to all basins?	***3***Y	N
	( )	Is the inlet flow distributed uniformly over the full cross section?	***3***Y	N
3.	( )	Is the mechanical equipment working?	***1***Y	N
	( )	Are there any hydraulic inadequacies?	Y	***2***N
4.	( )	Are the basins baffled?	***3***Y	N
5.	( )	What is the surface overflow rate?(conventional: 0.4-0.7, plate settlers: 2-6; upflow clarification: 0.7-1.8 GPM/SQFT):	_____ GPM/SQFT	
	( )	What is the detention time? (1.5 - 4 hr): _____ hr		
	( )	What is the velocity flow? (1.0 - 3.0 ft/sec): _____ ft/sec		
	( )	Are these within the generally acceptable range?	***2***Y	N
6.	( )	Does there appear to be too much sludge in the basin(s)?	Y	***2***N
	( )	Is it impacting settled water performance?	Y	***2***N
	( )	How is sludge removed from the clarifier(s)? (explain): _____		
	( )	How often is the sludge removed? (specify): _____		
7.	( )	What is the settled water turbidity?	_____ NTU	

Sub.Pnts:____

10. Treatment Processes and Facilities - Pressure Filtration System

1.	( )	What kind of media has been installed? (mono media, dual media, multi media): _____		
2.	( )	What is the permitted filtration rate?	_____ GPM/SQFT	
3.	( )	What is the maximum filtration rate at design capacity with one filter out of service?	_____ GPM/SQFT	
4.	( )	When was the last internal inspection of the filters performed? (specify):	_____	
	( )	Were the media and depth, internal piping, and internal surface of the vessel checked?	***3***Y	N
	( )	Can the operator provide copy of the inspection report?	***2***Y	N
	( )	If deficiencies were noted in the report, have they been corrected?	***4***Y	N
5.	( )	Ask the operator to backwash a filter.		
	( )	Is the correct backwash procedure followed based on filter media type, etc.?	***7***Y	N
	( )	What is the high rate backwash flow?	_____ GPM/SQFT	
	( )	Is it adequate?	***4***Y	N
6.	( )	What is the turbidity of the backwash waste at the end of backwash process?	_____ NTU	
7.	( )	What is the turbidity level of the effluent water following the backwash?	_____ NTU	

Sub.Pnts:____

11. Treatment Processes and Facilities - Gravity Filtration System

1.	( )	What type of filtration system is being used? (gravity, constant or declining rate): _____		
2.	( )	What kind of media has been installed? (mono media, dual media, multi media): _____		
3.	( )	What is the permitted filtration rate?	_____ GPM/SQFT	
4.	( )	What is the maximum filtration rate at design capacity with one filter out of service?	_____ GPM/SQFT	
5.	( )	Ask the operator to completely drain a filter that will be inspected and backwashed. Then visually check the filter.		
6.	( )	Is there any visible indication of problems on the surface of the filter?	Y	***2***N
7.	( )	What is the depth of each filter media? (specify): _____ _____ _____ _____		
	( )	Is the media depth adequate?	***2***Y	N
8.	( )	Are there any mudballs?	Y	***2***N
	( )	Is the support gravel mixed with the media?	Y	***1***N
	( )	Is there any improper stratification of media layers?	Y	***1***N
	( )	Are there any significant variations in the elevation of the support gravel?	Y	***1***N
9.	( )	Ask the operator to prepare the filter for backwashing.		
	( )	What are the means and method for backwashing? (Filtered or finished water): _____(Pumped or Tank?)_____		
	( )	Is there an established backwash procedure?	***2***Y	N
	( )	Is the correct backwash procedure followed based on filter media type?	***2***Y	N
	( )	What is the high rate backwash flow?	_____ GPM/SQFT	
	( )	Is the high rate backwash flow adequate? (15 - 23 GPM/SQFT)	***1***Y	N
	( )	Is the distribution of water/air across the filter even?	***2***Y	N
	( )	Is there any boiling of the media?	Y	***1***N
	( )	Are the backwash troughs level?	***1***Y	N
	( )	Are the backwash troughs evenly separated?	***1***Y	N
	( )	Are surface wash arms and nozzles operational and functioning appropriately?	***2***Y	N
	( )	What is the turbidity of the backwash waste at the end of the backwash process?	_____ NTU	
	( )	What is the turbidity level of the effluent water following the backwash?	_____ NTU	
10.	( )	Is the monitoring instrumentation (loss-of-head, effluent flow rate and filtered water turbidity) working for all filters?	***2***Y	N
11.	( )	What criteria are used by the operator(s) to determine when a filter requires backwashing? (specify): _____		
	( )	Do all operators of the treatment plant use the same criteria?	***1***Y	N
12.	( )	Does the system use filter-to-waste in backwashing procedure?	***2***Y	N
13.	( )	Are newly backwashed filters brought back into service at low rates that are Gradually increased in order to minimize post-backwash turbidity spikes?	***1***Y	N

14.	( )	Are filters ever stopped, then started-up again without backwashing them first?	Y	***1***N
	( )	Are filters ever "bumped" to extend filter runs?	Y	N
15.	( )	Is there any means of measuring the backwash flow rate?	***1***Y	N
	( )	Is it working?	Y	N
	( )	When was the flowmeter calibrated last? (specify): _____		
16.	( )	Is the condition of the piping in the filter gallery adequate?	***1***Y	N
	( )	Are pipes in the filter gallery color-coded and marked?	Y	N
	( )	Are there any cross-connections?	Y	***1***N
	( )	Is there a floor drain to remove all leaking water from the filter gallery floor?	Y	N

Sub.Pnts:____

12. Treatment Processes and Facilities - <u>Disinfection</u>

1.	( )	What type of disinfection process and facilities are used at the treatment plant? (list): _____		
2.	( )	Do the responsible operators understand the disinfection process?	***4***Y	N
3.	( )	Are the responsible operators knowledgeable about the process and equipment?	***3***Y	N
4.	( )	How was the T_{10} determined? (calculated or field tracer study):	_____	
	( )	How was the CT determined at this facility? _____		
	( )	What is the total log inactivation obtained?	_____ Log	
5.	( )	Is continuous disinfectant monitoring being done?	***3***Y	N
	( )	Are adequate records kept showing compliance with the CT requirements?	***3***Y	N
6.	( )	What is the chlorine residual leaving the treatment plant?	_____ mg/L	
	( )	Does it meet the SWTR requirements? (0.2 mg/l)	***5***Y	N
	( )	What is the average chlorine residual throughout the distribution system?	_____ mg/L	
	( )	Does the residual provide adequate protection out in the distribution system?	***2***Y	N

Sub.Pnts:____

13. Treatment Processes and Facilities - <u>Waste Streams</u>

1.	( )	How are wastewater from the backwash process and sludge from the sedimentation process managed? (into sewer line, French drain or pond):	_____	
2.	( )	Is the filter backwash water wasted or recycled?	_____	
3.	( )	If recycled, does backwash water receive any treatment to decrease pathogen densities?	Y	N
4.	( )	What is the volume of the waste stream holding tank?	_____ gal	
	( )	What is the volume of the waste stream being recycled? (percentage basis)	_____ %	

5.	( )	How much solids are in the recycled waste streams?	_____		
	( )	How does this compare to the solids in the raw water?	_____		
6.	( )	Are the coagulant dosages adjusted to accommodate the recycle flows?	Y	N	
	( )	Are any jar tests performed to determine the impact of the recycle stream?	Y	N	
7.	( )	Are all discharge and disposal activities in accordance with the NPDES permit?	Y	N	

Sub.Pnts:____

14. In-Plant Cross-Connection Control

1.	( )	Does the system have a cross connection control plan for the plant?	***4***Y	N	
	( )	Is the program active and effective in controlling cross connections?	***4***Y	N	
2.	( )	Are all water uses in the plant identified?	***4***Y	N	
	( )	Are all potable water lines protected with proper backflow prevention devices?	***4***Y	N	
3.	( )	Are the appropriate backflow preventers used for all existing cross connections?	***4***Y	N	

Sub.Pnts:____

COMMENTS:

Section IV. DISTRIBUTION

NAME of the DISTRIBUTION SYSTEM OPERATOR in-responsible-charge: _____

Is the Operator in-responsible-charge properly certified? (verify) Y N

Names of other CERTIFIED Distribution System Operators: (list): _____
_____
_____

1. Distribution Maps and Records

1. ( ) Are there maps of the distribution system? ***5***Y N
   ( ) Are all major features shown (line and valve location, size, and material; fire hydrant location; dead ends; pressure zones; storage tanks, booster stations)? ***3***Y N

2. ( ) When were the maps last updated? _____
   ( ) How are the changes or additions reported and the map(s) updated? (specify): _____

3. ( ) Is there a record system? ***3***Y N
   ( ) Does it include documentation of operation and maintenance repairs, leak detection, and construction standards? ***3***Y N

4. ( ) Are customer complaints and investigation reports kept? (verify it) ***3***Y N
   ( ) Is there an apparent/common problem indicated by the customer complaints? ***3***Y N
   ( ) If yes, what is it? (specify):
   _____

Sub.Pnts:____

2. Field Sampling/Measurements

1. ( ) What is the maximum and minimum residual at the maximum residence time in the distribution system? Max: _____ mg/L, Min: _____mg/L

   ( ) What is the normal residual range in the distribution system? _____ mg/L
   ( ) How often are residual readings taken in the distribution system? _____

2. ( ) What is the maximum and minimum pressure range at the highest point in the distribution system? Max:_____psi; Min: _____psi

   ( ) What is the normal operating pressure in the distribution system? _____ psi

   ( ) How often are pressure readings taken in the distribution system? _____

Sub.Pnts:____

3. Distribution System Design/Material Standards

1. ( ) Did the system establish a "design standard" that specifies minimum requirements for all water lines and appurtenances? (verify) ***3***Y N
   ( ) Does it specify minimum pipe size? ***1***Y N
   ( ) Does it specify minimum line size where fire hydrants are to be provided? ***1***Y N
   ( ) Does it specify design flow for each type of connection? ***1***Y N
   ( ) Does it specify location or spacing of valves? ***1***Y N
   ( ) Does it specify direction of valves? (right or left opening) ***1***Y N

( ) Does it specify types of valves to be used? ***1***Y N
( ) Does it specify appurtenances required for flushing dead-end lines? ***2***Y N
( ) Does it specify minimum cover or depth of bury requirements? ***1***Y N
( ) Does it specify pressure testing to determine that there are no leaks? ***1***Y N
( ) Does it specify disinfection of water lines? ***2***Y N
( ) Does it specify construction or installation requirements? ***1***Y N

2. ( ) What kinds of piping materials are in the distribution system? (specify):
_____

3. ( ) If the water system does not have "construction standards" for water mains, what criteria is being used for sizing water line, selecting pipe materials, installing the lines, etc.? (specify): _____

4. ( ) Is the "standard" or "method" adequate to protect the integrity of the distribution system all the time? ***2***Y N

5. ( ) Are "standards" actually followed? ***2***Y N

Sub.Pnts:____

4. Distribution System Maintenance Procedures

1. ( ) Does the system have a maintenance procedure for all components of the distribution system? ***6***Y N
( ) If not, is anything being done to maintain the system components? ***2***Y N
( ) What? _____

2. ( ) Does the system regularly flush the water mains within the distribution system? ***6***Y N

3. ( ) Does the system have a program for inspecting and exercising valves? ***4***Y N

4. ( ) Does the system regularly inspect and operate its fire hydrants? ***2***Y N

Sub.Pnts:____

5. Disinfection of New Water Lines

1. ( ) Does the system have a procedure for disinfecting and flushing new water lines? ***8***Y N
( ) If not, what steps does the system follow when installing new water lines?
_____

( ) Do they comply with the acceptable standards and requirements? ***8***Y N

2. ( ) Are there reports or test results that document the flushing and disinfection of new water mains and the subsequent testing? ***4***Y N

Sub.Pnts:____

6. Disinfection of Repaired Water Lines

1. ( ) Does the system have a procedure for disinfecting and flushing repaired water lines? ***8***Y N
( ) If not, what steps does the system follow when repairing existing water lines? _____

( ) Are there adequate repair materials on hand? ***8***Y N

2. ( ) Are there reports or test results, which document disinfection of repaired water mains and any subsequent bacteriological testing? ***4***Y N

Sub.Pnts:____

7. Flushing Procedures

1. ( ) Does the system have a procedure for flushing a portion of the distribution system on a regular basis? ***10***Y N

2. ( ) Are there reports or records that document the portions of the system that have been flushed and the date of the flushing? ***10***Y N

Sub.Pnts:____

8. Cross-Connection Control

1. ( ) Does the system have a formal written program to address cross-connections? ***3***Y N
   ( ) If not, what steps does the system take to eliminate cross-connections? (specify): _____

2. ( ) Is the cross-connection program being implemented? ***4***Y N

3. ( ) Is there an inspection of new construction as well as follow-up inspections to ensure that at all potential cross connections are eliminated? ***3***Y N
   ( ) Is there a follow-up inspection? ***3***Y N

4. ( ) Is there a requirement for the annual testing of the installed backflow prevention devices? ***7***Y N
   ( ) What documentation is available? (specify):
   _____

   ( ) What qualifications must a tester have? (specify):
   _____

   ( ) How many certified testers of cross-connection devices are available? (specify): _____

Sub.Pnts:____

9. Elimination of Water Loss

1. ( ) Is all water metered at the point of entry into the distribution system? ***3***Y N

2. ( ) Are all customers metered? ***3***Y N

3. ( ) How often are the meters checked and calibrated, if necessary? (specify):
   _____

4. ( ) Is there a leak detection program? ***3***Y N

5. ( ) Is the water loss for the system calculated? ***2***Y N

   ( ) What is it? _____ %

   ( ) Is it <15%? ***1***Y N
   ( ) Is it <10%? ***8***Y N

6. ( ) If the water loss for the system is greater than 10%, what is the system doing to reduce its water losses? (specify): _____

Sub.Pnts:____

10. Purchased Water / Consecutive System

1. ( ) Is there booster disinfection at the point of connection? Y N

2. ( ) Is there a booster pump station at the point of connection? Y N

3. ( ) Is there a backflow prevention device at the point of connection? Y N

4. ( ) Is there a metering device at the point of connection? Y N

5. ( ) List the public water systems that the water is purchased from:

(a) System Name: _____ WSID No.: _____
Source Type: Ground ____ Surface: ____ Amount Purchased (monthly average): _____ MG

(b) System Name: _____ WSID No.: _____
Source Type: Ground ____ Surface: ____ Amount Purchased (monthly average): _____ MG

(c) System Name: _____ WSID No.: _____
Source Type: Ground ____ Surface: ____ Amount Purchased (monthly average): _____ MG

(d) System Name: _____ WSID No.: _____
Source Type: Ground ____ Surface: ____ Amount Purchased (monthly average): _____ MG

(e) System Name: _____ WSID No.: _____
Source Type: Ground ____ Surface: ____ Amount Purchased (monthly average): _____ MG

(f) System Name: _____ WSID No.: _____
Source Type: Ground ____ Surface: ____ Amount Purchased (monthly average): _____ MG

COMMENTS:

Section V. FINISHED WATER STORAGE

1. Types of Storage

1.	( )	List the types of storage facilities in the system: (i.e. clearwell, ground storage, elevated, hydropneumatic): _____			
2.	( )	Are the storage facilities covered or otherwise protected?	***5***Y	N	
3.	( )	Does the overflow pipe discharge above ground to an open basin or splash pad?	***3***Y	N	
	( )	Is the overflow pipe equipped with a flap valve or screened?	***3***Y	N	
4.	( )	Do the storage facilities have means to drain them?	***3***Y	N	
5.	( )	Do the air and roof vents have a screen?	***3***Y	N	
	( )	Are vents covered or face downward to protect the tank from rain?	***3***Y	N	
					Sub.Pnts:____

2. Location of Storage

1.	( )	Are there any potential sanitary hazards in the area?	Y	***7***N	
	( )	Are the hazards close enough to be of concern to the storage facilities?	Y	***3***N	
	( )	If so, what and where are the hazards? _____			
2.	( )	Are there any physical features on or around the site that could damage the tank?	Y	***5***N	
3.	( )	Is the site well maintained?	***5***Y	N	
					Sub.Pnts:____

3. Capacity of Storage Tanks

1.	( )	Is the total (ground and/or elevated) storage capacity adequate for daily demand?	***10***Y	N	
2.	( )	In case of elevated storage tanks, are tanks properly sized and elevated to assure adequate pressure throughout the distribution system?	***10***Y	N	
					Sub.Pnts:____

4. Design and Storage Tank Components

1.	( )	Check to see if the tanks have at least the following components in good condition.			
	( )	Roof sloped to prevent standing water.	***2***Y	N	
	( )	No leakage through the roof.	***2***Y	N	
	( )	A lockable access hatch on the roof, with a raised curb.	***2***Y	N	
	( )	Vent covered with fine corrosion resistant screen?	***1***Y	N	
	( )	Water level measurement device (level indicator, scada system etc.)	***1***Y	N	
	( )	Overflow terminates with a flap valve or screened on the end.	***2***Y	N	
	( )	Inlet and outlet piping located to ensure proper circulation of water.	***2***Y	N	
	( )	Drain to remove accumulated silt from the bottom of tank.	***1***Y	N	
	( )	Access openings on the side.	***1***Y	N	
	( )	Access ladder with proper safety equipment.	***1***Y	N	
	( )	Valves on inlet and outlet for isolation.	***1***Y	N	
	( )	Bypass around the tank for maintenance.	***1***Y	N	

2. ( ) Check to see if a hydropneumatic tank have at least the following components in good condition.

( )	Tank is located completely above ground.	***4***Y	N
( )	Tank meets ASME standards with an ASME nameplate attached.	***2***Y	N
( )	Access port for periodic inspections.	***2***Y	N
( )	Pressure relief device with a pressure gauge.	***3***Y	N
( )	Control system to maintain proper air/water ratio.	***3***Y	N
( )	Air injection lines equipped with filters to remove contaminants from the airline.	***2***Y	N
( )	Sight glass to determine water level for proper air/water ratio.	***2***Y	N
( )	Adequate valving for isolation and bypass for maintenance.	***2***Y	N

Sub.Pnts:____

5. Painting of Storage Tanks

1. ( ) When was the last time the interior surface of the tank was painted? (specify): _____

   ( ) What type of paint was used? (specify): _____

   ( ) Was the paint used lead-based paint? Y ***6***N

2. ( ) Does the paint conform to ANSI/NSF Standard 61 for potable water use? ***10***Y N

3. ( ) Is the paint in good condition? (visual observation - exterior surface) ***4***Y N

Sub.Pnts:____

6. Cleaning and Maintenance of Tanks

1. ( ) Do you observe signs of cracks, leaks, rust, corrosion, failure in steel supports, etc? Y ***5***N

2. ( ) How often are inspection and cleaning performed? (specify): _____

3. ( ) How often does the system have its storage tanks inspected by a qualified contractor? _____

4. ( ) Does the system have a plan for continued maintenance of distribution system pressure when the tank needs to be removed for maintenance? ***10***Y N

5. ( ) After interior maintenance has been performed, are tanks disinfected before used? ***5***Y N

Sub.Pnts:____

7. Site Security

1. ( ) Is the fence surrounding the tank site intruder-resistant? (active tanks) ***10***Y N

2. ( ) Are access hatches locked? (active tanks) ***10***Y N

Sub.Pnts:____

COMMENTS:

Section VI. PUMPS/PUMP FACILITIES/CONTROLS

1. Pumps in General

1.	( )	Are the types of pumps used by the system appropriate for the intended use?	***7***Y	N
2.	( )	Do the actual type, number or capacities of the pumps comply with the approved design?	***3***Y	N
	( )	If not, when did the modifications to the pumps take place? _____		
3.	( )	In general, are the capacities of the pumps adequate for their intended used?	***5***Y	N
4.	( )	In general, is the number of pumps located at each facility adequate?	***5***Y	N
5.	( )	What is the firm capacity of the water plant's pumping station?	_____ MGD	
6.	( )	What is the total capacity of the water plant's pumping station?	_____ MGD	

Sub.Pnts:____

2. Conditions of Pumps

1.	( )	Are all the critical pumps operational?	***8***Y	N
	( )	If not, when does the system intend to repair or replace the pump(s)? (specify): _____		
2.	( )	Are the pumps vibrating excessively, overheated, making excessive noise, or producing an odor?	Y	***6***N
3.	( )	Are the pumps regularly maintained and lubricated in accordance with the manufacturer's recommendations?	***6***Y	N

Sub.Pnts:____

3. Pumping Station

1.	( )	Is the pumping station subject to flooding?	Y	***5***N
	( )	If so, what provisions are provided to accommodate the flooding? _____		
2.	( )	Is the location of the pump station subject to electrical outages?	Y	***4***N
	( )	Does the system have an emergency standby power?	***3***Y	N
3.	( )	Is the pumping station secure from unauthorized entry and vandalism?	***3***Y	N
4.	( )	Is the lighting adequate for security and maintenance?	***1***Y	N
5.	( )	Can the piping in the pumping station freeze?	Y	***1***N
	( )	If yes, is heating provided?	Y	N
6.	( )	Is the station equipped with ventilation?	***1***Y	N
	( )	If so, does it work and is it adequate to maintain a reasonable temperature?	Y	N
7.	( )	Is there a floor drain to collect all leaks? (Is the floor drain operable?)	***1***Y	N
8.	( )	Are the pumps, valving, and other major equipment items tagged?	***1***Y	N
	( )	If not, how does the system number the equipment for maintenance purposes? _____		

Sub.Pnts:____

Section VII. MONITORING / REPORTING / DATA VERIFICATION

1.	( )	Check the system's water quality monitoring plan for conformance with regulatory requirements.		
2.	( )	Does the water quality-monitoring plan for quality control purposes (non-regulatory monitoring) appear to be adequate for this system?	***2***Y	N
3.	( )	Verify that the water quality-monitoring plan is being followed by checking the test results.		
	( )	Are proper testing procedures being followed?	***2***Y	N
4.	( )	Verify that all in-house testing as well as equipment and reagents being used conform to accepted test procedures.		
	( )	Are the equipment and facilities for monitoring adequate?	***1***Y	N
	( )	Are the reagents out of date?	Y	***1***N
	( )	Are the test results logged?	***1***Y	N
	( )	Are past logs stored in a manner they are available or accessible ? (verify)	***1***Y	N
5.	( )	Are there any MCLs, treatment techniques, monitoring or reporting violations or Orders for the water system?	Y	***2***N
	( )	If so, is there a compliance plan? (verify)	Y	N
6.	( )	Have the required sampling plans been submitted and/or approved by EPD?	***1***Y	N
	( )	If no, what action is being taken to prepare and submit plans? _____		
7.	( )	Does the system have an up-to-date and reasonable monitoring data?	***1***Y	N
8.	( )	Do the data reported match field log books?	***1***Y	N
9.	( )	Does the operator use test results to identify treatment adjustments?	***1***Y	N
10.	( )	Is there a procedure for calibrating monitoring equipment, both laboratory and on-line?	***1***Y	N
	( )	Are the calibration standards acceptable?	***1***Y	N
11.	( )	Is the system following the regulatory monitoring plans below:		
	( )	VOC monitoring (Phase I Rule)	Y	N
	( )	SOC/ IOC monitoring (Phase II / V Rule)	Y	N
	( )	TCR	***1***Y	N
	( )	Lead and Copper Rule	Y	N
	( )	Turbidity and disinfection monitoring plan (SWTR)	***1***Y	N
	( )	Disinfection and Filter Profiles, if necessary (IESWTR)	***1***Y	N
12.	( )	Is a certified laboratory being used for all testing?	***2***Y	N

Sect.Pnts:____

COMMENTS:

Section VIII. SYSTEM MANAGEMENT/ OPERATION

1.	( )	What changes have been made since the last survey in the system management? (specify) _____		
2.	( )	What changes have been made since the last survey in the system personnel? (specify) _____		
3.	( )	What changes have been made since the last survey in the system budget? (specify) _____		
4.	( )	Are the system's files up-to-date with the latest correspondence on compliance monitoring, plans of the system showing changes made since the last survey, sampling plans, compliance issues, and other management related issues?	***2***Y	N
5.	( )	Has the system established any water quality goals?	***2***Y	N
6.	( )	Does the operators know what the plant goals are?	***1***Y	N
	( )	Do operators monitor to assess whether goals are being met and then make any appropriate process control adjustments and measure the results of the adjustments?	***1***Y	N
7.	( )	Does the system have a means of clearly indicating to its own staff who has the responsibility for various functions and who has the authority to make decisions and approve changes to policies, procedures, system operations, and other areas pertinent to treatment plant performance and water supply quality?	***2***Y	N
8.	( )	Are there any short-term and long-term plans that the system is developing and implementing?	***1***Y	N
9.	( )	Does open, effective communication occur between management and personnel?	***1***Y	N
10.	( )	Is the number of personnel adequate to perform the work required?	***2***Y	N
11.	( )	Is there cross-training required of the individuals within the system?	***1***Y	N
12.	( )	Is there an O&M manual for the system?	***1***Y	N
	( )	Are there SOPs for the system?	***1***Y	N
	( )	Are there SMPs for the system?	***1***Y	N
	( )	Are these documents complete and accurate?	Y	N
	( )	Are these documents readily available to all staff for their use?	***1***Y	N
	( )	Are they being implemented?	***2***Y	N
13.	( )	Does the system have a Business Plan to demonstrate its financial and managerial capacity to comply with all drinking water regulations in effect, or likely to be in effect?	***1***Y	N

Sect.Pnts:____

COMMENTS:

Section IX. OPERATOR COMPLIANCE and PERMIT REQUIREMENTS

1.	( )	Does the system employ an operator(s) of the appropriate certification level(s), as specified in state requirements?	***5***Y	N
2.	( )	Are operator certifications current for all system personnel?	***3***Y	N
3.	( )	Are all personnel meeting the minimum renewal requirements for operator certification? (i.e. continuing education requirements)	***4***Y	N
4.	( )	Are the system personnel adequately trained?	***3***Y	N
5.	( )	Do the operators appear to be well informed about various components of their water system?	***3***Y	N
6.	( )	Does the system appear to be well operated and maintained?	***2***Y	N

Sect.Pnts:____

Section X. EMERGENCY PLAN / SECURITY / SAFETY

1.	( )	Does the system have established emergency procedures?	***0.5***Y	N
2.	( )	Are all the system personnel familiar with the emergency plan?	***0.5***Y	N
3.	( )	Does the system have a Safety Program?	***0.5***Y	N
4.	( )	Have the operators been adequately trained in safety procedures and proper handling of all utilized chemicals and materials?	***2***Y	N
5.	( )	Are operators familiar with the MSDS sheets?	***0.5***Y	N
6.	( )	Does the utility comply with the safety requirements as prescribed by OSHA?	Y	N
7.	( )	Does the utility have a good safety record?	***1***Y	N
8.	( )	In general, does security at the facilities appear to be adequate?	***1***Y	N
9.	( )	Are chemicals and supplies stored properly?	***1***Y	N
	( )	Are oxidizers, corrosives, and flammables stored in separate areas and in closed, marked containers?	***1***Y	N
10.	( )	Are proper warning signs for "hearing protection" provided at noisy areas?	***0.5***Y	N
	( )	Are proper "high voltage" signs provided where needed?	***0.5***Y	N
	( )	In general, are the warning signs provided at the water system facilities adequate?	***1***Y	N
11.	( )	Is adequate ventilation provided in necessary areas?	***0.5***Y	N
12.	( )	Is adequate safety equipment provided and required?	***0.5***Y	N
13.	( )	Is a self-contained breathing apparatus available?	***0.5***Y	N
14.	( )	Are all chlorine room doors posted with warning?	***0.5***Y	N

	( )	Do chlorine room doors open outward to outside?	***1***Y	N	
15.	( )	Is the fan in the chlorine room vent to outside?	***0.5***Y	N	
	( )	Is the exhaust fan operational?	***1***Y	N	
	( )	Is the intake located close to the floor?	***0.5***Y	N	
16.	( )	Is automatic chlorine leak detector available for the chlorine room?	***0.5***Y	N	
	( )	Are ammonia bottles provided?	***0.5***Y	N	
17.	( )	Are the chlorine feed and storages isolated from other facilities?	***0.5***Y	N	
	( )	Are windows provided to view the chlorine room's interior?	***0.5***Y	N	
18.	( )	Are the chlorine cylinders adequately restrained?	***0.5***Y	N	
19.	( )	Are chlorine leak repair kits available?	***0.5***Y	N	
20.	( )	Is there an eye washing station/ safety shower at the water treatment plant?	Y	N	
21.	( )	Is there an auxiliary power for the water treatment plant?	***1***Y	N	
22.	( )	Is the fire department familiar with the facilities and their contents?	***0.5***Y	N	

Sect.Pnts:____

COMMENTS: