

Replace PDF pages 23-30 of 652
of the NPDES application
package with these pages.

Chemical Additives

1. Identify all chemical additives that have been introduced to any waste stream over the past two years.

Chemical Additive Name	Outfall / IMP No.	Purpose	Usage Frequency	WQBEL- based Max Allowable Usage Rate Calculated	Requested Max Usage Rate	Units
Hypersperse MDC714	001	Antiscalant for RO membranes	24 hours for 1-2 days	125,757	16	gal/day
Sodium Hypochlorite	001	Biocide	As-needed	944	5	gal/day
Sodium Hydroxide	001	Neutralizing Agent / pH Control	As-needed	Approved on 3/10/2015	< 1	gal/day
Aluminum Sulfate	001	Water Treatment	As-needed	Waiting for WQBEL- Chemical request form included. Approved for use by letter.	10	gal/day
CP 837 Chloride (Zinc Orthophosphate for drinking water)	001	Corrosion Control / biocide	As-needed	Waiting for WQBEL- Chemical request form included. Approved for use by letter.	2	gal/day

2. List all chemical additives that the applicant is requesting approval to use upon issuance of the permit by DEP. Identify the point of introduction on a line or process diagram.

Chemical Additive Name	Outfall / IMP No.	Purpose	Proposed Usage Frequency	WQBEL (ug/L)	Max allowable usage (gal/day)	Proposed Max Usage Rate	Units
NALCO 77352NA	001	Biocide	As-needed	34.4	17.4	< 1	gal/day
3D TRASAR 3DT198	001	Corrosion Inhibitor	As-needed	6,336	3,208	20	gal/day
NALCO H150M	001	Biocide; neutralized after treatment	2 treatments / yr	7.45	18,861	600	gal/day
NALCO 1315	001	Neutralizing Agent	2 treatments / yr	2,329,383	1,179,430	15,000	gal/day
3D Trasar 3DT120	001	Circulating Water Treatment - Component cooling water systems	As-needed	102,866	52,084	5	gal/day
Sulfuric Acid	001/701	Neutralization Agent / pH Control [PreTreatment System (RO / UF / DI trailers)]	Continuous	988	500	5	gal/day
Nalco 8158- (same as alum sulfate)	001	Coagulant	As-needed	69,882	35,383	<1	gal/day
PRE-TECT 2040HP	001	Corrosion inhibitor	As-needed	Waiting for WQBEL - New Chemical Request form included		3	gal/day
PRE-TECT PT7000	001	Corrosion inhibitor	As-needed	Waiting for WQBEL - New Chemical Request form included		3	gal/day
Boric Acid	001	Pressurized Water Reactor Treatment	As-needed	Waiting for WQBEL - New Chemical Request form included		10	lbs/day

Chemical Additive Name	Outfall / IMP No.	Purpose	Proposed Usage Frequency	WQBEL (ug/L)	Max allowable usage (gal/day)	Proposed Max Usage Rate	Units
Lithium Hydroxide (Lithium)	001	pH control	As-needed	Waiting for WQBEL- New Chemical Request form included		2	lbs/day
Hydrazine 35% (Arch Chemicals)	001	Corrosion inhibitor – (also for RO, DI)	As-needed	Waiting for WQBEL- New Chemical Request form included		5	gal/day
TRASAR TRAC103	001	Corrosion inhibitor	As-needed	Waiting for WQBEL- New Chemical Request form included		< 1	gal/day
NALCLEAR 7744	001	Water treatment - flocculant	As-needed	48	24	< 1	gal/day
Aluminum Sulfate	001	Water treatment	As-needed	Waiting for WQBEL- New Chemical Request form included		10	gal/day
CP 837 Chloride (Zinc Orthophosphate for drinking water)	001	Corrosion control / biocide	As-needed	Waiting for WQBEL- New Chemical Request form included		2	gal/day
OPTIMER 7139 PLUS	001	Water treatment	As-needed	Waiting for WQBEL- New Chemical Request form included		< 1	gal/day
Zinc Acetate Dihydrate	001	Internal boiler water treatment Corrosion control agent.	As-needed	Waiting for WQBEL- New Chemical Request form included		< 1	lbs/day
Sodium Hypochlorite	001	Biocide (multiple locations) Also RO, DI, UF as needed	2hrs application / day	37.3	944	300	gal/day
Sodium Bisulfite	001	Neutralizing Agent	As needed	41,780	21,154	< 1	gal/day
Sodium Hydroxide	001	Neutralizing Agent / pH Control	As needed	3,392	1,717	< 1	gal/day
Citric Acid	001	Neutralizing Agent	As needed	17219	8718	< 1	gal/day

Chemical Additive Name	Outfall / IMP No.	Purpose	Proposed Usage Frequency	WQBEL (ug/L)	Max allowable usage (gal/day)	Proposed Max Usage Rate	Units
Hypersperse MDC714	001	Antiscalant for RO membranes	24 hours for 1-2 days	363,645	125,757	16	gal/day
Klaraid IC1172	001	RO, DI, UF trailer		34,701	17,570	<1	gal/day
Nalcolyte 7134	001	Radwaste treatment system. Coagulant. 99% consumed.	As needed	Waiting for WQBEL- New Chemical Request form included			gal/day

3. List all chemical additives in the same order as question 2, above, and provide the requested information. For chemical additives that are not on DEP's Approved List, submit New Chemical Additive Request Form(s) to DEP's Central Office. For chemical additives that are on DEP's Approved List but a Chemical Additives Notification Form was not previously submitted, attach a Chemical Additives Notification Form to the application.

Chemical Additive Name	On Approved List? (Y/N)	Notification Form Attached? (Y/N)	Notification Form Previously Submitted? (Y/N)	Notification Form or Approval Request Submission Date	Analytical Method
NALCO 77352NA	Y	Y	Chemical usage rate approved by letter	10/14/2010	
3D TRASAR 3DT198	Y	Y	Chemical usage rate approved by letter	10/14/2010	colorimetric
NALCO H150M	Y	Y	Chemical usage rate approved by letter	10/14/2010	
NALCO 1315	Y	Y	Chemical usage rate approved by letter	10/14/2010	
3D Trasar 3DT120	Y	Y	Chemical usage rate approved by letter	10/14/2010	photometric
Sulfuric Acid	Y	Y			
Nalco 8158	Y	Y	Chemical usage rate approved by letter	10/14/2010	
PRE-TECT 2040HP	N	New Chemical Request form attached	Chemical usage rate approved by letter	10/14/2010	Ion chromatograph
PRE-TECT PT7000	N	New Chemical Request form attached	Chemical usage rate approved by letter	10/14/2010	Ion chromatograph
Boric Acid	N	New Chemical Request form attached	Chemical usage rate approved by letter	10/02/1997	
Lithium Hydroxide (Lithium)	N	New Chemical Request form attached			
Hydrazine 35%	N	New Chemical Request form attached	Chemical usage rate approved by letter	02/28/2002	
TRASAR TRAC103	N	New Chemical Request form attached	Chemical usage rate approved by letter	10/14/2010	
NALCLEAR 7744	Y	Y	Chemical usage rate approved by letter	10/14/2010	
Aluminum Sulfate	N	New Chemical Request form attached			
CP 837 Chloride (Zinc Orthophosphate for drinking water)	N	New Chemical Request form attached			

Chemical Additive Name	On Approved List? (Y/N)	Notification Form Attached? (Y/N)	Notification Form Previously Submitted? (Y/N)	Notification Form or Approval Request Submission Date	Analytical Method
OPTIMER 7139 PLUS	N	New Chemical Request form attached			
Zinc Acetate Dihydrate	N	New Chemical Request form attached			
Sodium Hypochlorite	Y	Y	Y	03/10/2015	photometric
Sodium Bisulfite	Y	Y	Y	03/10/2015	
Sodium Hydroxide	Y	Y	Y	03/10/2015	
Citric Acid	Y	Y	Y	03/10/2015	
Hypersperse MDC714	Y	N	Y	11/12/2024	
Klaraid IC1172	Y	Y	Chemical usage rate approved by letter		
Nalcolyte 7134	N	New Chemical Request form attached			