

*If you are using a printed copy of this procedure, and not the on-screen version, then you **MUST** make sure the dates at the bottom of the printed copy and the on-screen version match. The on-screen version of the Collider-Accelerator Department Procedure is the Official Version. Hard copies of all signed, official, C-A Operating Procedures are available by contacting the **ESSHQ Procedures Coordinator, Bldg. 911A***

C-A OPERATIONS PROCEDURES MANUAL

14.4.1 Operational Control Form for AGS Cooling Water Systems

Text Pages 2 through 4

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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Approved: _____ *Signature on File* _____
 Collider-Accelerator Department Chairman Date

M. Van Essendelft

BNL Environmental Management System Operational Controls Form

Operational Control For Significant Environmental Aspects: AGS-004-CWS	Completed By: <u>M. Van Essendelft</u> Date: <u>February 29, 2008</u>
<p>1. Operation(s): C-A Cooling Water Systems</p>	
<p>2. Activity(ies):</p> <ul style="list-style-type: none"> • Chemical storage • Chemical transfer / transport • Cooling tower blow-down to recharge basin • Radioactive waste generation • Radioactive atmospheric discharges • Water consumption 	
<p>3. Operational Controls (technological, operational, procedural operating criteria):</p> <ul style="list-style-type: none"> • Secondary containment • Hi / low level alarms • Leak detection systems • Weekly system monitoring by Drew Industrial Division of Ashland Chemical • Monthly effluent monitoring/reporting • Inspections of chemical storage/feed systems • Labeled containers for recycling solder/solder tailings • C-A OPM 2.19, Operator Response to "Make-up" Alarms • C-A OPMs 8.16.1 through 8.16.8, LINAC Cooling Water System OPMs • C-A OPM 8.20, Handling and Disposing of Hazardous Waste • C-A OPM 8.20.2, Radioactive Waste Disposal • C-A OPM 8.22, Handling and Disposal of Non-Hazardous and Recyclable Solid Waste • C-A OPM 8.20.1, C-A Hazardous Waste Collection Station • C-A OPM 8.18.1, General Water Treatment • C-A OPM 8.18.1.a, Water Treatment Services Agreement with Drew Industrial Division of Ashland Chemical • C-A OPM 8.18.5, C-A Deionizer Resin Exchange Procedure • C-A OPM 8.31.c, Deionizer Maintenance • C-A OPM 8.31.e, Draining and Filling Systems Checklist • C-A OPM 8.31.f, Water Transfer Checklist • C-A OPM 10.2, Response To Tritiated Water Spills • C-A OPM 10.1.d, Operator Response to C-A Water Spills • C-A OPM 2.28, C-A Procedure for Work Planning and Control for Operations • C-A OPM 1.14, General requirements For Liquid and Outdoor Storage • Tier I program and self-evaluations 	

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4. Maintenance Plan(s): <ul style="list-style-type: none"> • PE annual cross-connection control plan (PE Maint. Mgmt. Center database) • C-A Water Systems Group inspection of chemical storage systems • Weekly analysis of cooling water specified in Drew Industrial contract • PE maintenance of chemical feed systems 	
5. Actions to be Taken if Controls Fail: <ul style="list-style-type: none"> • See C-A OPM 3.0, Local Emergency Plan for the C-A Department • Call spill response hotline – X2222 or 911 • Adjust water chemical levels if found to be outside limits. 	
6. Records: <ul style="list-style-type: none"> • Tier I Inspection records / Tracking Database • Operational Control Form • Process Assessment Form • C-A Family ATS documentation on completion of Environmental Management Program, Section 10 Tasks • ORPS report (for qualifying liquid spills only) • Weekly analytical results on cooling system water (Drew), • Monthly SPDES sampling and DMR (EWMSD) • Chemical distribution system maintenance records (PE) • C-A Water Systems Status of Equipment Log • Satellite Area inspections records • Tank inspection records 	
7. Responsibilities: [(a) to ensure controls are in place; (b) to ensure controls keep working; (c) to take action when controls fail; (d) to create and keep records relative to operational controls]	
Name	Responsibility
C-A Water Systems Tech Supervisor	Daily inspections of chemical storage systems Testing of hi/low level systems Testing leak detection systems Adjust chemical concentrations if limits exceeded Monthly inspection of storage tanks

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Name (cont.)		Responsibility (cont.)	
EWMSD		Recharge basin monitoring	
PE		Annual Cross Connection Control testing / maint.	
Drew		Weekly water analysis, chemical control recommendations, recommendations for chemical feed station upgrades, evaluation of corrosion control results.	
PE		Maintenance of chemical feed systems	
C-A Waste Management Representative		Satellite Area inspections	
Tier I Inspection Committee		Tier I Documentation	
8. Training:			
Name	Training		Date
C-A Water Systems Technical Supervisor	Haz. Waste Generator Rad. Waste Generator		NA
Drew Industrial techs	Contractor vendor orientation		NA
Building Staff	See also: EMS Training package for this operation		NA