



**Biosolids Management Program
Manual**
Atlantic County Utilities Authority
Atlantic City, New Jersey

June 4, 2013

Element 01 – Atlantic County Utilities Authority (ACUA) Biosolids Management Program (BMP) Manual

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The Biosolids Management Program (BMP) Manual describes the system employed to administer the Atlantic County Utilities Authority (ACUA) wastewater and biosolids program. The ACUA is committed to managing the BMP consistent with the Manual of Good Practice prescribed by the National Biosolids Partnership (NBP) and operating in the mode of continuous improvement with respect to biosolids quality, regulatory compliance, environmental performance, and relationship with interested parties. Specific information regarding the ACUA's structure is contained here: [Document 1- Overview of the Atlantic County Utilities Authority](#)

Responsible Parties:

Vice President, Wastewater

Procedures:

1. The Vice President, Wastewater will:
 - a) Approve the BMP manual and commit to the NBP program as described in the ACUA's [Biosolids Management Policy](#).
 - b) Revise the BMP Manual when needed, as described in the remaining elements of this manual. Detailed procedure for revisions is located in [Element 12 – EMS Documentation, Document Control, and Recordkeeping](#) and [Element 14 – Nonconformances: Preventative and Corrective Action](#), to be consistent with the ACUA's policies as stated in the [Document 2 - Employee Manual](#).
 - c) Monitor that the monthly schedule of tasks is completed on an annual basis, following the [Process Flow Table](#) to ensure the tasks are examined and updated yearly. The assigned party responsible for the tasks is noted in the BMP Manual and the Process Flow Table.
 - d) Inform ACUA management and Wastewater staff of significant revisions to the BMP Manual.
 - e) Post the BMP Manual on the ACUA's Intranet for access by all ACUA staff and on the ACUA's website for access by interested parties.
 - f) Provide notice to contractors of the ACUA's BMP manual in the form of a [Letter of Understanding](#) and follow [Table 1.7](#) for Contractor Services. and
 - g) Conduct site visits to the locations of the ACUA's sludge contractors
2. The BMP Manual is intended to be a "living" document. Revisions are expected as new information is obtained, changes to existing critical control points, operational controls, procedures, processes, changes in regulatory requirements

Any printed version of this document is not a controlled document.

and other management systems occur, and as experience and input from interested parties, is gained.

3. ACUA's Vice President, Wastewater, shall make revisions to the BMP Manual on an annual basis. The Authority Vice President, Wastewater has the authority to commit people and resources to the biosolids management activities according to the four key outcomes of quality management practices, better relations with interested parties, regulatory compliance, and environmental performance.
4. The Authority Vice President, Wastewater, shall provide notification of significant changes to the biosolids program to interested parties such as; the Operators and Maintenance Employees of the ACUA's Wastewater Group, the President of the Authority, the Board of Commissioners of the Authority, the Authority's Chief Engineer and Maintenance Manager, the New Jersey Department of Environmental Protection, and the Authority's Member Municipalities.

References:

[Document 1- Overview of the Atlantic County Utilities Authority](#)

[Document 2- Employee Manual](#)

[Table 1.7](#)

[Biosolids Management Policy](#)

[Process Flow Table](#)

[Letter of Understanding](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer; and Table 1.7 to Procedure and References	3/11/2013

Element 02 – Biosolids Management Policy

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The ACUA has prepared a Biosolids Management Policy consistent with the principles set forth in the NBP [Code of Good Practice](#) and includes the ACUA's additional biosolids program commitments. The approved Biosolids Management Policy is detailed in [Document 3 – Resolution-Policy](#). The following describes the ACUA's procedures for revising the Biosolids Management Policy.

Responsible Parties – The BMP Implementation Team as identified by the staff below:

Vice President, Wastewater
Director of Operations
Technical Assistant
Comptroller/Director of R&D
Project Analyst – Finance

Procedures:

1. The Vice President, Wastewater, will ensure that the ACUA's Biosolids Management Policy is implemented and communicated to the rest of the BMP Implementation Team and other interested parties, using one or more of the communication tools listed under [Element 9 – Communication](#).
2. If revisions to the current policy statement are needed because of changing conditions, environmental conditions and regulatory requirements, the Vice President, Wastewater, will notify the rest of the BMP Implementation Team of the issue and suggested changes through the [Corrective Action/Improvement Form](#). Should any changes to the Policy need to occur, the ACUA's Board of Directors would need to approve any and all changes to the Policy before any revisions are made, through a Board resolution.
3. All Board approved revisions to the Biosolids Management Policy will be documented through the Corrective Action/Improvement Form. All ACUA Employees have access to the Corrective Action/Improvement Form on the ACUA's Intranet, to bring up revisions and suggestions to the BMP Manual for consideration. Recommended revisions to the policy may also be included in the annual BMP Management Review.
4. If revisions to the Biosolids Management Policy are approved, the Vice President of Wastewater will communicate the revised policy as per Step 1 above under the direction and consensus of the BMP Implementation Team. The Project Analyst – Finance will document the changes after the Vice President, Wastewater approves the changes.

Any printed version of this document is not a controlled document.

References:

[Document 3 – Resolution-Policy](#)

[Code of Good Practice](#)

[Corrective Action/Improvement Form](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer	3/11/2013

Element 03 – Critical Control Points

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The ACUA has identified Critical Control Points (CCP) that need to be managed to avoid problems with the biosolids quality and potential environmental impacts. The CCPs are identified in [Table 3.1 – CCPs Chart](#). The following describes the ACUA procedures for identifying, updating, and maintaining the critical control points and associated environmental impacts within the ACUA's BMP and for meeting legal, quality, environmental protection, and public acceptance goals.

Responsible Parties –

Vice President, Wastewater

Procedures:

1. On an annual basis in August, the Vice President, Wastewater will direct the Director of Operations and Technical Assistant to coordinate the review of the CCPs by their respective direct reports including Shift Supervisors, Relief Supervisors, and WWTP Operators. The Shift Supervisors, Relief Supervisors, and WWTP Operators will simultaneously review and revise the associated Standard Operating Procedures; Operational Controls; Monitoring & Measurement; and Environmental Impacts as required, as a result of the revised CCPs. Proposed changes to the CCP Tables and affected Elements will be forwarded to the Vice President, Wastewater by the Director of Operations and Technical Assistant.
2. The Director of Operations and Technical Assistant will initiate the review & revision process without written direction any time operational changes warrant a change in CCPs.
3. The Vice President, Wastewater will review and approve the proposed changes, update the CCP Tables, and forward the revised CCP Tables to the Director of Operations and Technical Assistant for distribution to the Shift Supervisors, Relief Supervisors, and WWTP Operators.
 - a. For minor changes during the year the Vice President, Wastewater will inform Shift Supervisors, Relief Supervisors, and WWTP Operators via email. The Vice President, Wastewater will direct the Shift Supervisors, Relief Supervisors, and WWTP Operators to print out and insert the updated version of the CCP Table in the BMP Manual.

-
4. The following procedure shall be used to review and update the selection of critical control points:
- a. The ACUA's BMP Implementation Team shall review information in Table 3.1 on an annual basis, when there are regulatory changes or whenever major operational changes occur.
 - b. Revisions to Table 3.1 (if any) shall be documented in writing, in the ACUA's corrective action form, by the ACUA's BMP Implementation Team, who shall then be responsible for ensuring that any necessary changes are made to Table 3.1 in the BMP Manual.
 - c. If revisions to the critical control points are made by the ACUA's BMP Implementation Team, information related to roles/responsibilities, operational controls, monitoring/measurement and any other relevant areas of the BMP (including potential environmental impacts listed in Table 3.1) shall also be reviewed and modified as appropriate.
 - d. Following an operational change that requires revisions to the critical control points or their associated environmental impacts, the ACUA's BMP Implementation Team shall inform the NBP and the third-party verification auditor in writing of the changes.

5. A summary of significant changes to the CCPs will be published in the [Biosolids Management Program Performance Report](#) described in Element 15.

References:

- [Table 3.1 – CCPs Chart](#)
[Biosolids Management Program Performance Report](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer	3/11/2013

Element 04 – Legal and Other Requirements

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The ACUA is subject to various legal and regulatory requirements. The following describes the ACUA's procedures for identifying and tracking federal, state, local, and voluntarily adopted legal and other requirements applicable to the ACUA's BMP.

Responsible Parties –

Vice President, Wastewater
Director of Operations
Technical Assistant

Procedures:

1. The Vice President, Wastewater, the Director of Operations, and the Technical Assistant are responsible for tracking proposed or actual legislation and regulations that may affect the ACUA's biosolids management activities. Designated staff will actively track information sources for potential or actual regulatory changes that could affect the ACUA's biosolids management activities. The main sources for information are:

- New Jersey Association of Environmental Authorities – NJ AEA
- New Jersey Water Environment Association - NJWEA
- Water Environment Federation - WEF
- National Association of Clean Water Agencies - NACWA
- National Biosolids Partnership - NBP
- New Jersey Department of Environmental Protection - NJDEP
- USEPA Region 2

2. The Vice President, Wastewater will notify the Director of Operations and the Technical Assistant, to review any potential or actual regulatory changes for potential impacts on biosolids operational activities.

3. After identifying such regulatory changes, the Director of Operations, and the Technical Assistant will complete a [Corrective Action/Improvement Form](#) to be reviewed by the Vice President, Wastewater directing the Director of Operations, and the Technical Assistant to:

- a. Adjust operational controls and measures to ensure compliance with the revised laws and regulations, including updating of the ACUA's permits and legal requirements documented in [Table 4.1 – ACUA Wastewater Permits, Title V Emissions Limits for Incinerator B](#), and [Table 4.1a – Legal Requirements- ACUA](#)

b. Review and revise the associated [Table 3.1 – CCPs Chart](#), Standard Operating Procedures; Operational Controls; Monitoring & Measurement; and Environmental Impacts as required, as a result of the regulatory change.

4. Designated staff will attend conferences and seminars on an as-needed basis to expand their knowledge and understanding of regulatory requirements and to be made aware of regulatory issues and to communicate these issues to ACUA staff.

5. Staff is encouraged to retain membership and participate in organizations such as WEF, AEA, and the NJWEA. Staff shall stay abreast on current legal/regulatory issues by attending workshops, and monitoring trade magazines/newsletters through the organizations listed above. ACUA staff will participate in collective responses to legal/regulatory issues initiated by such organizations.

6. The procedure used by ACUA to identify, track, and assess the potential effects of new or revised regulations that may affect ACUA's BMP is described below.

The ACUA belongs to various Environmental and Professional organizations which monitors, advocates and develops technical and environmental management procedures. The Authority participates in these organizations various technical programs, conferences and workshops, and, subscribes to these organizations newsletters, email alerts, etc. ACUA contracts with our various vendors assuring our interested parties that we are doing things honestly and that even our vendors must protect the local environment.

The following is a list of these types of organizations:
New Jersey Association of Environmental Authorities
New Jersey Water Environment Association
Water Environment Federation
National Association of Clean Water Agencies
National Biosolids Partnership
New Jersey Department of Environment Protection

EPA REGION 2

Alia Roufaeal

USEPA Region 2

Div. of Enforcement and Compliance Assist.

290 Broadway - 20th Floor

New York, New York 10007-1866

Tel: 212-637-3864

Fax: 212-637-3953

ROUFAEAL.ALIA@EPAMAIL.EPA.GOV

NEW JERSEY DEP

Mary Jo Aiello, Chief

Bureau of Pretreatment and Residuals

NJ DEP

P.O. Box 029

Trenton, NJ 08625-0029

Any printed version of this document is not a controlled document.

Tony Pilawski
Bureau of Pretreatment and Residuals
NJ DEP
401 E. State Street, P.O. Box 029
Trenton, NJ 08625-0029
Tel: 609-633-3823
Fax: 609-984-7938
ANTHONY.PILAWSKI@DEP.STATE.NJ.US

- a. The NBP Implementation Team is responsible for ensuring that ACUA is aware of potential changes to regulations. The NBP Implementation Team shall:
 1. Identify potential changes to regulations through review of information from various sources identified in the procedure above.
 2. Evaluate potential effects on ACUA's biosolids program.
 3. Determine the appropriate actions and schedule, including the need to involve other ACUA staff.

- b. The following procedure is used to ensure that new legal and other requirements are appropriately communicated and implemented:
 1. The NBP Implementation Team shall be responsible for communicating new requirements (for example, monitoring and reporting requirements)
 2. The NBP Implementation Team shall make any necessary changes to the BMP Manual and related documents.

7. A summary of changes to binding legal requirements affecting the ACUA's biosolids management program will be published in the [Biosolids Management Program Performance Report](#) described in Element 15.

References:

[Table 3.1 – CCPs Chart](#)
[Table 4.1 – ACUA Wastewater Permits](#)
[Table 4.1a – Legal Requirements- ACUA](#)
[Biosolids Management Program Performance Report](#)
[Corrective Action/Improvement Form](#)
[Title V Emissions Limits for Incinerator B](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer	3/11/2013

Element 05 – Goals and Objectives for Continual Improvement

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The ACUA has established a set of Goals and Objectives for Continual Improvement. The following describes the ACUA's procedures for establishing and maintaining operational and environmental goals and objectives consistent with the ACUA's Biosolids Management Policy.

Responsible Parties –

Vice President, Wastewater
Project Analyst – Finance

Procedures:

1. ACUA shall set or revise [goals and objectives](#) for its BMP on an annual basis. The goals and objectives shall be finalized no later than August of each year by the Technical Assistant.
2. The BMP Implementation Team shall draft a set of goals and objectives considering:
 - a. ACUA Biosolids Management Policy;
 - b. Input (if any) received throughout the year from the general public, regulators, elected officials, and other interested parties; and
 - c. Input from ACUA staff.

Each goal shall include a short statement identifying its benefit to overall biosolids management activities.

3. Goals shall be established using SMART criteria (Specific, Measurable, Achievable, Relevant and Time-bounded).
4. Goals and Objectives shall be set considering each of the following-- Environmental Performance, Regulatory Compliance, Quality Management Practices and Relations with Interested Parties
5. The Authority Vice President, Wastewater, shall review and approve goals and objectives; drafts may be revised by the BMP Implementation Team.
6. New or revised goals and objectives shall be included in the [Biosolids Management Program Performance Report](#) described in Element 15.
7. Final goals and objectives shall be posted in [Table 5.1 – Goals and Objectives](#).
8. The [BMP Implementation Team](#) shall prepare an action plan to support each goal that contains schedules, milestones and necessary resources which will be

Any printed version of this document is not a controlled document.

published in the Biosolids Management Program Performance Report described in Element 15.

9. The Technical Assistant shall be responsible for tracking progress toward each goal on a regular basis.

References:

[Document 8 – Goals and Objectives](#)

[Table 5.1 – Goals and Objectives](#)

[Biosolids Management Program Performance Report](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer and Updated the Goals and Objectives noted in Document 8 and Table 5.1	3/11/2013

Element 06 – Public Participation in Planning

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The public participation program is consistent with the ACUA's current public interest and historical levels of public involvement and provides stakeholders with opportunities to express their views and perspectives relative to environmental impacts, program performance, potential areas of improvement, and program [goals and objectives](#). The following describes the ACUA's procedures for documenting public input and incorporating it into the ACUA's BMP.

Responsible Parties –
President

Procedures:

1. ACUA shall use a combination of formal and informal mechanisms to provide opportunities for the public to participate in the planning process, as per the [Code of Good Practice](#).
2. Where reasonable and appropriate or when legally required, opportunities shall be provided for the public to formally participate in planning processes. This determination shall be made by the President.
3. Opportunities are available for the public to provide input through informal avenues.
4. Formal and informal participation mechanisms used by ACUA are listed in [Table 6.1](#).
5. Information regarding the third party verification process shall be shared with affected [interested parties](#) using any of the formal or informal participation opportunities identified in Table 6.1, as deemed appropriate by the President.
6. ACUA shall record and respond to significant input received from interested parties. A contact form shall be used to record, when possible, the names, addresses, phone numbers and e-mail addresses of interested parties.
Reference: http://www.acua.com/acua/contact_us.aspx
7. ACUA shall meet with the 14 participating communities serviced by the ACUA's Regional Wastewater Treatment Facility on an annual and semi-annual basis. These participating communities include: Absecon, Atlantic City, Brigantine, Egg Harbor City, Egg Harbor Township, Galloway Township, Hamilton Township, Linwood, Longport, Margate, Northfield, Pleasantville, Somers Point and Ventnor. The ACUA shall meet with the participating communities individually on an annual basis and as a whole on a semi-annual basis to discuss the ACUA's BMP Program.

Any printed version of this document is not a controlled document.

References:

[Document 8 – Goals and Objectives](#)

[Table 6.1 Public Participation Mechanisms](#)

[Code of Good Practice](#)

Contact Form: http://www.acua.com/acua/contact_us.aspx

[Interested Parties](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer	3/11/2013

Element 07 – Roles and Responsibilities

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The following describes the ACUA's procedures for identifying the staff responsible for biosolids management activities.

Responsible Parties –

Vice President, Wastewater
Director of Operations
Technical Assistant
Deputy Chief Financial Officer/Director of R&D
Project Analyst – Finance

Procedures:

1. On an annual basis in August, the Vice President, Wastewater will notify the Director of Operations to coordinate the review of the "Roles and Responsibilities" in Element 7 and to update the associated operational SOPs if required. Proposed changes to the "Roles and Responsibilities" and associated SOPs will be forwarded to the Vice President, Wastewater by the Director of Operations.
2. The Director of Operations will initiate the review & revision process without written direction any time operational changes or a shift in position responsibilities warrant a revision to their respective staff. The review and revision process shall also review existing roles and responsibilities whenever significant operation changes are made to ensure that roles and responsibilities are appropriately defined. The general descriptions of the roles and responsibilities for the BMP Implementation Team are provided below:
 - a. Vice President, Wastewater – The Authority Vice President, Wastewater, acts as the BMP Coordinator and is responsible to push for continual improvement toward the ACUA's main goals of optimizing water quality, odor control performance, and minimizing costs. These duties include:
 1. Scheduling quarterly meetings with the BMP Implementation Team to include, follow up on all cost saving and environmental improvement initiative, and the identification of new opportunities to improve performance or to reduce costs.
 2. Continually track the ACUA's progress toward its top BMP priorities and continually seek opportunities toward continual improvement.
 3. Prepare Biosolids Management Program Performance Report and report BMP progress to the ACUA Board Members, the BMP Implementation Team, and all ACUA employees.

-
4. Take the necessary steps to obtain the approvals from the ACUA Board Members required to implement the BMP improvement projects.
 5. Provide the human, technical, and financial resources necessary to execute the BMP responsibilities effectively; and
 6. Define and document the roles and responsibilities of contractor(s) retained to perform various biosolids management activities and BMP functions through service agreements.
- b. Director of Operations – The Director of Operations is responsible for the daily operation of the Wastewater Treatment Plant and the overall performance of the Wastewater Treatment Plant, including the lab, the industrial pre-treatment program, and the regulatory compliance program. The Director of Operations duties include:
1. Advising the Vice President, Wastewater when underperforming capital is identified and needs to be replaced;
 2. Review of the SIU draft permits and applications for non-SIU activities;
 3. Annual review of plans and procedures linked to the BMP Manual; and
 4. The monitoring of seasonal changes in biological processes to develop associated process control requirements (including but not limited to blanket levels, sludge age, return sludge rates, and dissolved oxygen levels).
- c. Technical Assistant – The Technical Assistant shall act as the sludge program coordinator, developing trends for the Wastewater Treatment Plant including operating equipment performance, chemical, fuel and energy usage. The Technical Assistant's duties include:
1. Trend development for the incinerator to include operating equipment performance, chemical, fuel and energy usage;
 2. Maintaining chemical inventories;
 3. Implementation and review of the NBP's goal and objectives; and
 4. Informing suppliers of equipment, services and other supplies of the Authority's BMP rules and policies.
- d. Deputy Chief Financial Officer/Director of R&D – The Deputy Chief Financial Officer/Director of R&D supervises the review and analysis of financial aspects of the technical and environmental processes and procedures utilized at the Wastewater Treatment Plant. The Deputy Chief Financial Officer/Director of R&D's duties include:
1. Researches technical and financial information regarding new regulatory and purchasing/accounting requirements as well as state of the art technology for the Wastewater Treatment Plant; and
 2. Take the responsibility as the lead auditor for the ACUA's internal audit team
- e. Project Analyst – The Project Analyst helps to write, review, analyze, and make updates the ACUA's BMP Manual. The Project Analyst's duties include:
1. Review of financial, technical, and environmental processes and procedures for the BMP Manual; and
 2. Writing and updating of the BMP Manual.

3. The Vice President, Wastewater will review and approve the proposed changes, updating the “Roles and Responsibilities” in Element 7, and forward the revised changes to the Director of Operations for distribution to the ACUA’s staff.

4. The roles and responsibilities of contractors, including hauling ash, delivering of chemicals, and the contracted maintenance of the incinerator, will be incorporated into biosolids contracts in the form of a [Letter of Understanding](#).

5. The Project Analyst-Finance shall review with the Human Resources Department on an annual basis in August that the job descriptions referenced below still accurately reflect the responsibilities those employees have in regards to the BMP. Updates will be made as necessary to the current positions below.

Job Descriptions:

[President](#)

[Vice President, Wastewater](#)

[Chief Engineer](#)

[Director of Operations](#)

[Director of Electrical and Mechanical Services](#)

[Deputy Chief Financial Officer/Director of Research and Development](#)

[Technical Assistant](#)

[Shift Supervisor](#)

[Relief Supervisor](#)

[Lab Director](#)

[Safety and Risk Coordinator](#)

[Network Manager](#)

[Communications Manager](#)

[Water Pollution Control Operator III](#)

[Water Pollution Control Operator II](#)

[Water Pollution Control Operator I](#)

[Project Analyst - Finance](#)

[Director of HR and IT](#)

[Education and Public Outreach Assistant](#)

6. A summary of changes to “Roles and Responsibilities” in Element 7 in ACUA’s BMP will be published in the Biosolids Management Program Performance Report described in [Element 15 – Biosolids Management Program Performance Report](#).

References:

[Element 15 – Biosolids Management Program Performance Report](#)

[Job Descriptions Reference](#)

[Letter of Understanding](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer; and updated the VP, WW duties	3/11/2013

Element 08 – Training

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The ACUA ensures that employees and contractors within the ACUA's BMP are trained in performing assigned duties. Employees receive training which, at a minimum, provides general awareness of the BMP Manual and how each employee's assigned roles and responsibilities relate to the entire biosolids value chain. The following describes the ACUA's procedures for maintaining a training program related to the ACUA's BMP.

Responsible Parties –

Vice President, Wastewater
Director of Operations
Safety and Risk Coordinator

Procedures:

1. On an annual basis in August, the Vice President, Wastewater will notify the Director of Operations that the Vice President, Wastewater will conduct a BMP Awareness Training. This training is intended for employees involved in the biosolids value chain. All ACUA wastewater operation shifts including: Shift Supervisors, Relief Supervisors, and Water Pollution Control Operator's III, II, and I's shall attend the annual training. The attendance to the training will be documented in the [BMP – Training Sign-In Sheet](#) and held on the ACUA's BMP team site (Referenced here: <http://insideacua/shared/sps/bmp/default.aspx>) under "Trainings-Documentation" for reference. This training should be coordinated to occur before any verification or interim audit, and the training shall be based on performance and operational needs, as determined by the Authority Vice President, Wastewater. Training shall be linked to environmental performance, regulatory compliance, relations with interested parties, and quality biosolids management practices in the BMP manual.
2. Training requirements for contractors include that contractors know of ACUA's BMP Manual and the contractor's responsibilities in that Manual.
3. Designated staff members are to attend conferences and seminars on an as-needed basis to expand their knowledge and understanding of their assigned roles and responsibilities. Formal training hours are documented in Human Resources archives.
4. The Vice President, Wastewater, shall identify relevant training required for contractors providing services and/or materials to the ACUA through contract language. Training occurs through a variety of mechanisms, including (but not limited to):

- Shift meetings
- Group Meetings
- On the job training
- Review of internal reports
- Review of external publications
- Safety and emergency response training sessions
- Vendor training as referenced in [Document 7 - Policy and Procedures for Use of ACUA Receiving Facility](#)
- Professional Organizations (AEA, NJWEA, and WEF)
- Approved On-Line/Correspondence Courses
- Tuition Reimbursement Program

5. A summary of BMP Training Activities will be published in the [Biosolids Management Program Performance Report](#) described in Element 15.

Annual refresher training shall be held on the following subjects listed below and kept on file with a hardcopy or in the Great Plains (GP) system, Human Resources Software (By the Safety and Risk Coordinator under the supervision of the Director of HR and IT) and/or CMMS System.

1. Right To Know
2. Lock Out – Tag Out
3. Confined Space Procedures
4. DPCC/DCR Plan (Hazardous Substance Spill Plans)
5. BMP Training
6. Stormwater Training
7. Hazardous Waste Operations Refresher

References:

[Document 7 - Policy and Procedures for Use of ACUA Receiving Facility](#)
[Element 15 – Biosolids Management Program Performance Report](#)
 ACUA’s BMP team site (<http://insideacua/shared/sps/bmp/default.aspx>)
[BMP – Training Sign-In Sheet.](#)
[Trainings-Documentation](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer	3/11/2013

Element 09 – Communication

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The following describes the ACUA's procedures for providing up-to-date information to its employees, interested parties, and biosolids customers regarding the ACUA's BMP through public education and outreach.

Responsible Parties –

Vice President, Wastewater

Procedures:

1. On an annual basis in January, the Vice President, Wastewater will request a list of completed public education, outreach activities and tours related to the ACUA's BMP from the Director of Operations, Communications Manager, and Education and Public Outreach Assistant. The Authority Vice President, Wastewater, shall have primary responsibility for ensuring effective communications on the part of ACUA as it relates to the biosolids operations and the BMP. The annual request should be made in January for activities completed in the previous calendar year. The identification of interested parties shall also be updated to include interested individuals and organizations. A listing has been developed to include:

- a. A list of individuals, referenced here: [Interested Parties](#), whom are interested in ACUA's biosolids program and/or BMP related activities. Current "interested individuals" include:
 - State Biosolids Regulators
 - Biosolids Customers
- b. Contact information for interested individuals maintained in the Authority's Customer Relations Management (CRM) system that is maintained and updated by all CRM staff. Individuals are added to this list, if they provide contact details, when they tour ACUA facilities or call the Authorities Automated Customer Service System.

2. When the Biosolids Management Program Performance Report is complete, the Vice President, Wastewater will work with the Communications Manager to incorporate a link to the Biosolids Management Program Performance Report, on the ACUA's website <http://www.acua.com/acua/content.aspx?id=3930>.

3. The Vice President, Wastewater will work with the ACUA's Network Manager to maintain the National Biosolids Partnership page on the ACUA's website. The website will include: [Document 3 – Resolution-Policy](#), [Table 4.1 – ACUA Wastewater Permits](#),

[Table 4.1a – Legal Requirements- ACUA](#), [Table 5.1 – Goals and Objectives](#), [Biosolids Management Program Performance Report](#), and a detailed report of the independent third party BMP verification audit results.

4. The Vice President, Wastewater will work with the ACUA staff to develop factsheets for public distribution regarding the ACUA's biosolids program and general biosolids information. Specific approaches used to facilitate communication, and the frequency of their use includes:

- a. Meetings,
- b. Emails,
- c. Letters,
- d. Reports,
- e. Tours,
- f. Speaker Presentations,
- g. Newspaper articles & Quarterly Newsletters
- h. Television and Radio programs,
- i. Web Site, Social Media
- j. Automatic Call Distribution System-Live Operators

5. The ACUA's Contact Form: http://www.acua.com/acua/contact_us.aspx is available for the public to report incidents, complaints, comments, and/or suggestions specifically to the ACUA's BMP.

6. ACUA recognizes that communication initiated by interested parties and other individuals may take a wide variety of forms including telephone calls, letters, email, meeting participation, internet contact or other forms. ACUA shall give equal weight to all forms of communication. An effort shall be made to initially respond to all inquiries or requests for information within 24 hours of receipt of the inquiry or request. Complex inquiries/requests may require additional response time.

- a. Simple inquiries or requests for information shall not be documented. These may include phone calls related to routine questions, and other similar inquiries/requests.
- b. Significant or detailed requests for information, inquiries or complaints shall be documented. These may include detailed requests for information by interested parties, including homeowners, regulators and elected officials. Acceptable documentation methods include letters, memorandums, email records, telephone logs, written meeting summaries, notes to files, or other similar methods.

7. A summary of education and public outreach related to the ACUA's BMP will be published in the Biosolids Management Program Performance Report described in Element 15.

References:

[Document 3 – Resolution-Policy](#)

[Table 4.1 – ACUA Wastewater Permits](#)

[Table 4.1a – Legal Requirements- ACUA](#)

[Table 5.1 – Goals and Objectives](#)

ACUA's website <http://www.acua.com/acua/content.aspx?id=3930>

Any printed version of this document is not a controlled document.

[Biosolids Management Program Performance Report](#)
Contact Form: http://www.acua.com/acua/contact_us.aspx
[Interested Parties](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer	3/11/2013

Element 10 – Operational Control of Critical Control Points

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The following describes the ACUA's procedures for identifying, updating, and maintaining the operational controls, standard operating procedures, and work management practices at CCPs throughout the ACUA's BMP.

Responsible Parties –

Vice President, Wastewater
Director of Operations
Technical Assistant
Project Analyst - Finance

Procedures:

1. On an annual basis in January, the Vice President, Wastewater will direct the Director of Operations and Technical Assistant to coordinate the review of their Operational Controls by their respective staff to include: Shift Supervisors, Relief Supervisors, and Water Pollution Control Operators III, II and I staff. The Shift Supervisors, Relief Supervisors, and Water Pollution Control Operators III, II and I staff will simultaneously review and revise the associated Critical Control Points, Monitoring & Measurements, and Environmental Impacts as required, as a result of the revised Operational Controls. Operational controls have been identified by the ACUA's Vice President, Wastewater, Director of Operations, and Technical Assistant, based on consideration of information contained in the [Code of Good Practice](#), legal and other requirements, and state best practices; as well as personal experience of ACUA staff. Operational controls and related procedures include preventative & predictive maintenance procedures, work management systems and any relevant contracted procedures. The ACUA utilizes a [Computerized Maintenance Management System \(CMMS\)](#) to track and manage preventative maintenance and work order procedures for maintaining assets. Current operational controls are found in [Table 3.1 – CCPs Chart](#) of the BMP Manual.

2. The Director of Operations and Technical Assistant will initiate the review & revision process without written direction any time operational changes warrant a change in Operational Controls.

3. The Director of Operations shall update the [Table 3.1 – CCPs Chart](#) the Project Analyst shall review this update and the Vice President, Wastewater shall approve the proposed changes. The Vice President, Wastewater shall forward the revised CCP Tables to the Director of Operations, Chief Engineer, Director of Electrical and Mechanical Services and Technical Assistant for distribution to the Shift Supervisors, Relief Supervisors, and Water Pollution Control Operators III, II and I staff.

Any printed version of this document is not a controlled document.

4. Changes shall be documented through the [Corrective Action/Improvement Form](#), as well as in the [Biosolids Management Program Performance Report](#) developed by the Vice President, Wastewater.

5. Operational controls and operating procedures of biosolids contractors will be located in the detail specifications of the contract documents as the ACUA's BMP evolves.

References:

[Table 3.1 – CCPs Chart](#)

[Biosolids Management Program Performance Report](#)

[Code of Good Practice](#)

[Computerized Maintenance Management System \(CMMS\)](#)

[Corrective Action/Improvement Form](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer	3/11/2013

NOTE: THAT ANY CRITICAL CONTROL POINTS OR OPERATIONAL CONTROLS IDENTIFIED IN APPENDIX F OF THE NBP'S NATIONAL MANUAL OF GOOD PRACTICE BUT NOT SHOWN HERE WERE CONSIDERED BUT DETERMINED, THROUGH EXAMINATION OF FACILITY OPERATIONS, TO NOT BE RELEVANT TO THE PROCESSES USED AT THIS FACILITY

Element 11 – Emergency Preparedness and Response

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The Emergency Operating and Response Program – Wastewater Division was created to minimize response time to potential emergency situations, including situations that may result in problems with biosolids quality, public health and safety, or public acceptance of the ACUA's BMP. The following describes the ACUA's procedures for reviewing and revising [Document 4 - Emergency Operating and Response Program – Wastewater Division](#).

Responsible Parties –

Vice President, Wastewater

Procedures:

1. On an annual basis in February, the Vice President, Wastewater will direct the Director of Operations, Technical Assistant, and the Safety and Risk Coordinator to review their respective sections of the Emergency Operating and Response Program – Wastewater Division. If necessary, the Emergency Operating and Response Program – Wastewater Division will be revised, printed and maintained in Shift Supervisor's Office as well as maintained on Inside ACUA.
 2. The Director of Operations, Technical Assistant, and the Safety and Risk Coordinator will initiate the review process without written direction any time an Emergency Operating and Response Program – Wastewater Division is used in an actual emergency situation and revise if necessary. Interim revisions to specific sections of the program are made when there are changes to procedures, personnel, service providers, or equipment and structures.
 3. Requirements for emergency procedures and response plans for biosolids contractors will be located in the detail specifications of the contract documents as the ACUA's BMP incorporates the [Letter of Understanding](#) to the current contracts.
 4. A summary of changes to the Emergency Operating and Response Program – Wastewater Division related to the ACUA's BMP will be published in the [Biosolids Management Program Performance Report](#) described in Element 15. In addition employees and contractors directly involved with the Program and associated changes shall be notified directly, referenced here [Signed -Letters of Understanding](#).
 5. Testing and training with respect to safety and emergency response procedures is conducted on a periodic basis as determined by the ACUA Safety & Risk Manager. The need to require contractors performing work related to ACUA biosolids activities to develop Emergency Response and Preparedness Plans shall be determined on a case-by-case basis.
- Any printed version of this document is not a controlled document.

by-case basis by the Technical Assistant after consulting with the ACUA Safety & Risk Manager and/or Engineering Group.

References:

- [Document 4 - Emergency Operating and Response Program – Wastewater Division.](#)
- [Biosolids Management Program Performance Report](#)
- [Letter of Understanding](#)
- [Signed -Letters of Understanding](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer	3/11/2013

Element 12 – EMS Documentation, Document Control and Recordkeeping

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The following describes the ACUA's procedures for reviewing and revising the documentation related to the ACUA's BMP.

Responsible Parties –

Vice President, Wastewater
Director of Operations
Deputy Chief Financial Officer/Director of R&D
Technical Assistant
Project Analyst – Finance

Procedures:

1. The following documents related to ACUA's BMP or relevant biosolids management activities are considered "controlled" documents:
 - a. The BMP Manual
 - b. SOPs
 - c. Regulatory Reports and supporting data

Note: Any printed versions of the above listed documents are not a controlled document. Each of the above listed documents will note: "Any printed version of this document is not a controlled document."

2. The following guidelines for record retention are based upon regulatory requirements or internal standards. The applicable retention period is initiated with sample date for analytical records, whereas the period is initiated with the report date when maintaining report records.
 - a. Title V – All regulatory reports, log sheets, analytical data and bench sheets are maintained for a period of five years.
 - b. Electronic data is maintained for a minimum of five years
 - c. NJPDES – All regulatory reports, log sheets, analytical data and bench sheets are maintained for a period of five years.
 - d. Electronic data is maintained for a minimum of five years.
3. Standard operating procedures and the BMP Manual shall contain the following document control information:

Any printed version of this document is not a controlled document.

Approved By:		
Date issued:		
Date last reviewed:	By:	(as relevant)
Date last revised:	By:	(as relevant)

4. All BMP documents, including policy statements, process control SOPs, equipment maintenance SOPs and all other relevant SOPs and the BMP Manual shall be maintained on the BMP team website located here:
<http://insideacua/shared/sps/bmp/default.aspx>
5. All BMP documents bearing the document control information, described in Step 3 of this procedure, shall also include a revision history, as outlined below:

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised

6. All revisions under these efforts shall be documented under the [Corrective Action/Improvement Form](#) and approved by the Vice President, Wastewater.
7. The following records shall be maintained electronically, beginning with the original documents
 - a. BMP Manual
 - b. Internal audits
 - c. External audits
 - d. Corrective Action/Improvement Form
 - e. SOPs
 - f. Biosolids Management Program Performance Report
8. The Vice President, Wastewater will:
 - a. Create, maintain and be responsible for the hardcopy of the Master BMP Manual. Also, the Vice President, Wastewater will be responsible for the electronic copies of the BMP Manual located at:
<http://insideacua/shared/sps/bmp/default.aspx>
 - b. Upon a revision to any Element or Document, update the Version Number, Version Date, and Revision History.
 - c. Email the Director of Operations, Technical Assistant, Shift Supervisors, Relief Supervisors, and Water Pollution Control Operators III, II, and I staff notifying of the changes in the manual, and notifying them to go to the website or the server to receive any updated version.
 - d. Review and revise the BMP Manual and core procedures on an annual basis every August.

Any printed version of this document is not a controlled document.

e. Upon a revision to any Element or Document, the Project Analyst-Finance will archive obsolete or old versions of the BMP Manual and its Elements and Documents. Hard copies of old versions should be discarded. Electronic copies of archived Elements and Documents should be followed by an existing naming system located at: <http://insideacua/shared/sps/bmp/default.aspx> under [Archived - BMP Manuals – Elements – Documents](#).

9. The Director of Operations and Technical Assistant (or their delegated staff) will update the Version Number, Version Date and Revision History of their respective operational SOPs.

10. The BMP Manual will be approved by the Vice President, Wastewater and reviewed by the Deputy Chief Financial Officer/Director of R&D (or delegated staff) for compliance with ACUA's Employee Manual and Policies.

11. After any change or addition of any procedures in an Element or Document, the manual must be approved by the Vice President, Wastewater. The BMP Implementation Team will use the Corrective Action/Improvement Form to document and make resolution changes to the BMP Manual. The Vice President, Wastewater will review all resolutions and either reject and/or send back for alternative resolution, or approve. Once approved the BMP team member assigned the task shall incorporate the resolution change into the manual and communicate changes to the appropriate ACUA staff. These changes will be sent to the Deputy Chief Financial Officer/Director of R&D for compliance with ACUA's Employee Manual and Policies.

12. Documentation, document control and recordkeeping requirements for biosolids contractors will be located in the detail specifications of the contract documents as the ACUA's BMP evolves. In addition employees and contractors directly involved with the Program and associated changes shall be notified directly, referenced here [Signed - Letters of Understanding](#).

13. A summary of changes to the documentation related to the ACUA's BMP shall be published in the [Biosolids Management Program Performance Report](#) described in Element 15.

References:

ACUA's BMP team site <http://insideacua/shared/sps/bmp/default.aspx>
[Archived - BMP Manuals – Elements – Documents](#)
[Biosolids Management Program Performance Report](#)
[Corrective Action/Improvement Form](#)
[Signed -Letters of Understanding](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer; and the "Note" in Step 1 of the Procedure	3/11/2013

Any printed version of this document is not a controlled document.

Element 13 – Monitoring and Measurement

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The ACUA has established monitoring and measurement procedures and practices to ensure compliance with applicable requirements, measure performance at CCPs, and track progress toward achieving biosolids program goals and objectives. The following describes the ACUA's procedures for identifying the monitoring and measuring for biosolids management activities identified on the CCP Tables.

Responsible Parties –

Vice President, Wastewater

Procedures:

1. On an annual basis in August, the Vice President, Wastewater will direct the Director of Operations and the Technical Assistant to coordinate the review of the Monitoring/Measuring/Record Keeping section of the CCP tables by; Shift Supervisors, Relief Supervisors, and Water Pollution Control Operators III, II, and I staff. The Shift Supervisors, Relief Supervisors, and Water Pollution Control Operators III, II, and I staff will simultaneously review and revise the associated Standard Operating Procedures; Operational Controls; CCPs; and Environmental Impacts as required, as a result of the revised Monitoring/ Measuring/Record Keeping. Proposed changes to the Monitoring/Measuring/Record Keeping section will be forwarded to the Vice President, Wastewater by the Director of Operations and Technical Assistant.
 2. Analytical or instrumentation data is stored electronically in relevant databases as follows:
 - a. Operations reporting/process control system – The Authority employs a sophisticated computerized SCADA system to collect real time information from instruments and sensors located throughout the treatment plant. The process control is maintained by the Director of Wastewater Operations and the Technical Assistant with assistance provided by Information Systems staff. Revisions to the system are made by the wastewater operations staff and/or Information Technology staff.
 - b. Laboratory data system – Pertinent information associated with samples analyzed by the Authority's laboratory is stored in the Laboratory Information System. This includes, but is not limited to: raw data, analyst information and analytical methodologies. The Laboratory Information System is maintained by the Lab Director.
 - c. Maintenance Tracking System – The Authority also uses a maintenance tracking system that tracks the status of preventative maintenance work, generates maintenance work orders as needed and tracks the progress of work orders. This system is critical to maintaining critical treatment process
- Any printed version of this document is not a controlled document.

units and ensuring their optimal performance and maximizing equipment reliability.

- d. Progress towards meeting [goals and objectives](#) (Element 5) shall be tracked at intervals deemed appropriate by the Vice President, Wastewater.
- e. The Vice President, Wastewater, the Director of Wastewater Operations and the Technical Assistant shall all monitor various key performance indicators for monitoring, measurement and reporting for clean air, clean water and land use requirements.

3. The Director of Operations and Technical Assistant will initiate the review & revision process without written direction any time operational changes warrant a revision to their respective Monitoring/Measuring/Record Keeping sections.

4. The Project Analyst – Finance updates the Monitoring/Measuring/Record Keeping column in the [CCP Tables](#) per the Director of Operations and Technical Assistant revisions. The Vice President, Wastewater will approve and/or reject the proposed changes, and shall forward the approved revised CCP Tables to the Director of Operations and Technical Assistant for distribution to the Shift Supervisors, Relief Supervisors, and Water Pollution Control Operators III, II, and I staff.

5. Monitoring and measuring activities and submittals for legal requirements are detailed in [Element 04 – Legal and Other Requirements](#).

6. Monitoring and measuring activities associated with tracking the progress toward achieving program goals and objectives are detailed in [Element 05 – Goals and Objectives](#).

7. Monitoring and measurement requirements for biosolids contractors will be located in the detail specifications of the contract documents in the ACUA's [Letter of Understanding](#). In addition employees and contractors directly involved with the Program and associated changes shall be notified directly, referenced here [Signed -Letters of Understanding](#).

8. A summary of changes to Monitoring/Measuring/Record Keeping in the ACUA's BMP will be published in the [Biosolids Management Program Performance Report](#) described in Element 15.

References:

[Table 3.1 – CCPs Chart](#)

[Table 5.1 – Goals and Objectives](#)

[Biosolids Management Program Performance Report](#)

[Letter of Understanding](#)

[Signed -Letters of Understanding](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer	3/11/2013

Any printed version of this document is not a controlled document.

Element 14 – Nonconformances: Preventive and Corrective Action

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The following describes the ACUA's procedures for preventing, investigating, and correcting nonconformances with BMP procedures and/or regulatory requirements related to the ACUA's biosolids program.

Responsible Parties –

Vice President, Wastewater
Director of Operations
Technical Assistant

Procedures:

1. Legal/Regulatory Requirements are specifically identified in ACUA's permit. The permit(s) contains procedures for investigating nonconformances of legal/regulatory requirements identified in the permit. The following table identifies the general areas and responsible person(s) for investigating nonconformances in these areas.

<u>General Area</u>	<u>Responsible Persons</u>
Pretreatment/ Operations – Wastewater Treatment/ Biosolids Treatment & Distribution	Vice President, Wastewater; Director of Operations and the Technical Assistant

- The [Corrective Action/Improvement Form](#) documents all major and minor nonconformances, noncompliances and deficiencies and accounts for any changes to the ACUA's BMP Manual or related documents. The Corrective Action/Improvement Form shall identify a responsible party (Director of Operations, Deputy CFO/Director of R&D, Technical Assistant, or Project Analyst) whom will be responsible for a resolution to the nonconformance, noncompliance or deficiency. The BMP Implementation Team will use the Corrective Action/Improvement Form to document and make resolution changes to the BMP Manual, including the use of the Corrective Action Form to address findings associated with the results of the internal BMP audit and the audits conducted by the third party auditor.
- To complete a Corrective Action/Improvement Form, the ACUA will follow the workflow documented in the [BMP Corrective Action](#) document.
- The Vice President, Wastewater will review and either reject or approve the corrective action resolutions and notifies the responsible party to either revisit the resolution or implement the approved resolution.

5. Records of all corrective actions will be maintained by the Vice President, Wastewater in the Corrective Action/Improvement Form. The Vice President, Wastewater tracks the progress of the Corrective Action/Improvement Form through the ACUA's intranet and on a biweekly basis. Each Corrective Action/Improvement Form is assigned an estimated completion date for the assigned party to follow when forming a resolution for the Vice President, Wastewater to evaluate. The Vice President is responsible for tracking the Corrective Action/Improvement Forms through the ACUA's intranet and monitors the forms on a biweekly basis through an "Outlook" reminder to track all the forms.

6. A summary of identified major and minor nonconformances, noncompliances, and deficiencies along with their respective corrective action(s) related to the ACUA's BMP will be published in the [Biosolids Management Program Performance Report](#) described in Element 15.

References:

- [Biosolids Management Program Performance Report](#)
- [BMP Corrective Action](#)
- [Corrective Action/Improvement Form](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer, Step 3 in the Procedure, the BMP Corrective Action reference, and the tracking on a biweekly basis through Outlook in Step 5 of the Procedure	3/11/2013

Element 15 – Biosolids Management Program Performance Report

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The following describes the ACUA's procedures for preparing an annual performance report to review and summarize the ACUA's BMP.

Responsible Parties –

Vice President, Wastewater

Procedures:

1. The Vice President, Wastewater will prepare the Biosolids Management Program Performance Report by August of each year detailing the program performance of the previous calendar year.
2. The Vice President, Wastewater will submit a draft of the report to the BMP Implementation Team for review. The report will include but not be limited to:
 - a. Summaries of monitoring data and other measurements that demonstrate the performance of ACUA biosolids program relative to established goals, objectives and legal requirements.
 - b. Summaries of actions that have been taken on a voluntary basis.
 - c. Progress towards achieving biosolids program goals and objectives.
 - d. A summary of internal audits.
 - e. Contractor activities: The ACUA has identified three contractors associated with having biosolids activities with the ACUA's Biosolids Program. The activities include transportation of biosolids ash to the ACUA's landfill, consulting for engineering services associated with the ACUA's incinerator, and the contracting of services for polymer associated with the ACUA's Biosolids Program.
 - f. A summary of independent third party audits (as applicable).
 - g. A summary of corrective actions
3. After review, the Vice President, Wastewater will approve the report and will work with the Network Manager and Communications Manager to post the Biosolids Management Program Performance Report on the ACUA's website, located here: <http://www.acua.com/acua/content.aspx?id=3930>, and on the company Intranet. The performance report shall be available online at the ACUA's intranet located here: <http://insideacua/shared/sps/bmp/default.aspx> under [Biosolids Management Program Performance Reports](#) after the Management Review in Element 17.

Any printed version of this document is not a controlled document.

References:

ACUA's BMP team site (<http://insideacua/shared/sps/bmp/default.aspx>)

ACUA's website <http://www.acua.com/acua/content.aspx?id=3930>

[Biosolids Management Program Performance Reports](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer	3/11/2013

Element 16 – Internal EMS Audit

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The following describes the ACUA's procedures for conducting periodic internal audits of the ACUA's BMP.

Responsible Parties –

Deputy Chief Financial Officer/Director of R&D

Procedures:

1. ACUA shall conduct annual internal audits of the BMP by August of each year. The Deputy Chief Financial Officer/Director of R&D will plan and execute the internal audit in accordance with the guidance provided in [Table 16.1](#). These internal audits shall be completed according to the schedule in [Table 16.2](#) and address program activities completed during the previous operating period.
2. The audit shall be conducted by an ACUA BMP Internal Audit Team under the direction of the Deputy Chief Financial Officer/Director of R&D. The BMP Internal Audit Team shall consist of the ACUA's Deputy Chief Financial Officer/Director of R&D, a Project Analyst, and Wastewater operational staff. The audit shall evaluate the effectiveness of the BMP, including progress toward goals and objectives, response to non-conformances, management review, public participation, and communications. Specific BMP Elements may be evaluated as a part of this review, at the discretion of the Deputy Chief Financial Officer/Director of R&D.
3. All documents and records related to internal audits shall be maintained on the ACUA's intranet located here: <http://insideacua/shared/sps/bmp/default.aspx>
4. The NBP BMP Guidance Manual and other appropriate documents shall be made available as a resource to the audit team. The objective methods listed in the [Document 5 – NBP Auditor Guidance](#) are as follows:
 - i. Document and records review
 - ii. Interviews
 - iii. Direct observation

The internal audits will include each of the seventeen elements and the four critical outcomes. A sample internal audit program is included in [Document 16.1](#). The plan for each internal audit year will be written prior to the start of the audit and will conform to Document 5 – NBP Auditor Guidance.

Any printed version of this document is not a controlled document.

5. Nonconformances found during the internal audit will follow procedures from Element 14 – Nonconformances: Preventive and Corrective Action. The audit results will act as the corrective action form to the ACUA’s BMP Manual.

6. A summary of the internal audit activities and resulting recommendations from the Biosolids Internal EMS Audit will be published in the Biosolids Management Program Performance Report described in Element 15 and be included in the management review described in Element 17.

7. The BMP Internal Audit Team shall prepare and submit a written report to the Authority Vice President, Wastewater, summarizing the internal audit results and corrective actions (if necessary) that have already been taken or shall be taken to address any non-conformances. The audit report may be a standalone document or may be included as part of other prepared reports (e.g. the Biosolids Management Performance Report). The audit report shall be available here:
<http://insideacua/shared/sps/bmp/default.aspx>

8. The Deputy Chief Financial Officer/Director of R&D, shall periodically evaluate the need to provide training or guidance to the internal auditors and shall be responsible for coordinating any subsequent activities related to training or guidance.

References:

[Document 5 – NBP Auditor Guidance](#)

[Document 16.1](#)

[Table 16.1](#)

[Table 16.2](#)

ACUA’s BMP team site (<http://insideacua/shared/sps/bmp/default.aspx>)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer	3/11/2013

Element 17 – Periodic Management Review of Performance

Version Number: 2
Version Date: 5/20/2013

Approved By:	Chris Harris
Date issued:	3/11/2013
Date last reviewed:	By: 3/11/2013
Date last revised:	By: 5/20/2013

Purpose:

The ACUA will conduct an annual management review in September of each year to identify any required improvements to the ACUA's BMP, as identified through internal or third party verification audits, changing circumstances, and/or the ACUA's commitment to continual improvement. The following describes the ACUA's procedures for conducting the management review of the ACUA's BMP.

Responsible Parties –

President
Vice President, Wastewater

Procedures:

1. The Vice President, Wastewater will submit the final version of the Biosolids Management Program Performance Report in September of each year (prepared in Element 15) to the President for review upon its completion. The scope shall include:
 - a. Review monitoring data and other measurements that demonstrate the performance of ACUA BMP relative to established goals, objectives and legal requirements.
 - b. Review progress towards achieving biosolids goals and objectives.
 - c. Review internal audit results.
 - d. Review of performance relative to each of the 17 elements of the BMP.
 - e. Review third party audit results.
 - f. Review the need for changes in existing policy or the adoption of new policy to support the BMP and biosolids related activities.
 - g. To facilitate the review, the BMP Implementation Team shall prepare a written report that addresses each of the above areas. The report shall include recommendations (if any) for changes that should be considered by the Vice President, Wastewater.
 - h. The report and management review shall be carried out in close coordination with the Biosolids Management Program Performance Report and the internal BMP audit. To the extent practicable, an effort shall be made to develop a single report on an annual basis.
 - i. The Vice President, Wastewater, shall have a meeting with the BMP Implementation Team to discuss the report.
 - j. Any changes to policies, goals and objectives, plans, procedures, work practices and other BMP elements deemed necessary as part of the

Any printed version of this document is not a controlled document.

management review shall be documented by the Vice President, Wastewater.

- k. The Vice President, Wastewater shall develop a schedule and action plan to address recommendations from the management review by utilizing the ACUA's Corrective Action/Improvement Form. The form will address the recommendation and set a timeline for a resolution to be developed by one of the BMP Implementation Team as referenced in Element 14. The form will allow for all recommendations from the management review, to be documented for completion.

2. The Vice President, Wastewater shall schedule a follow-up meeting with the President to discuss the report and to address the possible need for changes to policy, the goals and objectives, the BMP and other elements based on internal audit results, external verification audits by third parties, changing circumstances, and the commitment to continual improvement.

3. The Vice President, Wastewater will maintain, at a minimum, the following related to its management review, as referenced in [Document 6 – Management Review Guidance](#):

- a. Schedule and scope for review.
- b. Documentation of findings, evaluation, and follow-up actions.
- c. Documentation of changes to policies, plans, procedures, practices and other BMP elements that occur as a result of the management review findings, evaluation, or follow-up actions.

4. A summary of Management Review activities and suggestions will be published in the Biosolids Management Program Performance Report described in Element 15.

References:

[Document 6 – Management Review Guidance](#)
[Management Review - 2013](#)

Revision History:

Version Number	Version Date	Description of Revision	Date Last Revised
1	3/11/2013	Original Issue	
2	5/20/2013	Added Document Control Footer	3/11/2013