

**Recommendation to the National Biosolids  
Partnership on a Biosolids EMS Third Party  
Verification Program**

**Prepared By  
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**With Assistance From  
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## Executive Summary

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### EMS Blueprint Elements

The National Biosolids Partnership (NBP) has developed the *National Biosolids Code of Good Practice*, a set of principles and strategic biosolids industry goals that emphasize best practices, communication, and the implementation of environmentally sound management programs. The NBP has also developed four other pieces of an Environmental Management System (EMS) Blueprint: the *Elements of an Environmental Management System for Biosolids (EMS Elements)*; *National Manual of Good Practice*; *EMS Guidance Manual*; and *Third Party Verification*. An EMS provides an organization a standardized and comprehensive framework to assure that biosolids activities are managed effectively.

The NBP's *National Manual of Good Practice for Biosolids* identifies critical control points within the wastewater system, the wastewater treatment facility, and the solids handling system that should be considered as part of any biosolids management program. The NBP's *EMS Elements* establish management system requirements for effectively managing biosolids activities at all critical control points. Organizations that commit to the NBP *Code of Good Practice* commit to develop an EMS for biosolids that conforms with the *EMS Elements*. The *Code of Good Practice* also commits an organization to conduct an independent, third party verification to document conformance with the *EMS Elements*.

This document contains a set of recommendations for the NBP on a *Third Party Verification* program for organizations that wish to demonstrate their commitment to the *Code of Good Practice* and conformance to the *EMS Elements*. These recommendations were prepared on the consensus direction of two project groups, the Options Development and Advisory Groups, representing a broad range of biosolids operators, managers, stakeholders and other interested parties (see attachments for group members).

### EMS Program Goals

The NBP goals for developing an EMS program are the following.

- To promote environmentally sound and accepted biosolids management practices.
- To help program participants demonstrate to their communities that they are committed to go beyond meeting regulatory requirements and to explain how they are working to improve their environmental performance.
- To help participants involve their communities in defining improved performance or areas that still requires attention.

### Third Party Verification Overview

In order to achieve the NBP's goals of increased public acceptance of environmentally sound biosolids management practices, the participants from the Options Development and Advisory Groups recommend that independent, third party verification in the form of an EMS audit would be a mandatory requirement for recognition from the NBP's biosolids EMS program. To be consistent with the *EMS Elements*, the EMS audit scope would include the entire biosolids value chain (pretreatment through ultimate disposition).

Wastewater treatment organizations that commit to the NBP's *Code of Good Practice*, have an EMS in place for six months, and submit a complete application demonstrating conformance with the NBP's *EMS Elements* would have an independent, third party auditor (or audit team) conduct an on-site EMS verification audit. The independent third party auditor conducting the EMS audit would be a certified EMS auditor, have at least five years of biosolids and wastewater program management experience, and have received additional NBP EMS program-specific training. Participating organizations that demonstrate the implementation of an EMS consistent with the NBP program expectations during the initial verification audit and subsequent interim audits would receive program recognition for five years.

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## Project Process

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### Participants

Two groups of volunteers were formed for the development of this recommendation.

- The Options Development Group (ODG) was composed of 14 members, most of whom were wastewater industry professionals. The ODG was responsible for providing substantive input and direction on the biosolids EMS third party verification recommendations.
- The Advisory Group (AG) was composed of 22 representatives of the broader biosolids responder communities including: agriculture, forestry, environmental and conservation organizations, the food processing industry, Native American Tribes, state and federal regulatory agencies, trade press, local community organizations, wastewater and biosolids program managers and public information officers, public health, and academia. The Advisory Group's role was to provide feedback on the direction of the ODG and provide the perspectives of the biosolids responder community.

### Process Involvement

- The Options Development Group (ODG) met face-to-face four times between March and September 2000. In addition, the group reviewed documents and provided substantive input between meetings on the draft recommendation and research to be conducted by the project contractors.
- The Advisory Group (AG) members were interviewed individually for approximately one hour by the project contractors prior to the first meeting of the ODG. The purpose of the interviews was to allow the contractor to bring in the perspective of the Advisory Group members to the first meetings of the ODG and allow the ODG to start down a path that would take into consideration the views of the biosolids responder community. AG members also participated in a series of two briefings, in June/July and again in late August, to provide input on the direction of the ODG and the draft elements of the third party verification recommendation.

In September, both groups met face-to-face. On September 20 the Advisory Group met alone with the purpose of making sure that all AG members were up to speed on the current draft third party verification recommendation, as well as the relationship between third party verification and the NBP's *Elements for a Biosolids EMS*. On September 21, the Advisory and Options Development Groups met jointly with the purpose of reaching agreement with members of both groups on as many of the third party verification program elements as possible. Then, the Options Development Group met alone on September 22 to discuss specific changes to the final third party verification recommendation.

The goal for this process was for both groups to reach joint consensus on a set of recommendations for the NBP. The members of both the Options Development and Advisory Groups have reviewed this document. The 20 recommendations in this document represent the consensus agreement of the Options Development and Advisory Group members.

(Note: the attachments to this document are provided for background purposes and do not represent the consensus agreement of the Options Development and Advisory Group members.)

The last recommendation in the document (Recommendation 20: Small Utilities) describes how the NBP should commit to obtaining the resources necessary for small utilities to participate in the third party verification program. Members of the Options Development and Advisory Groups believe that their support of this set of recommendations as a whole is dependent on the NBP's commitment to assisting those small utilities.

### **Preliminary Research**

In preparation for the first meeting of the Options Development Group, Ross & Associates researched and compared a variety of voluntary, environmental improvement initiatives with a verification or certification component. For each of these initiatives, the purpose of the verification component was to ensure that participants had adopted certain desired behaviors (e.g., use of best industry practices or specific improvements to environmental performance). Ross & Associates used this research to develop a characterization of the major verification program elements. The characterization and the comparison of the initiatives researched were presented to provide the Options Development Group background information on a variety of options for what an NBP third party verification program might look like.

The following were identified as the major elements of a generic verification program.

*Overall Approach* - The programs researched include a variety of approaches. Some require that independent third parties conduct verification audits, while others allow peer reviewers or self-declared statements as the basis for program entry. Several programs were tiered and allowed for different levels of participation and verification. Additionally, some of the programs are strictly voluntary and participants received indirect benefits from participation (e.g., belief that it will lead to increased marketability of products), whereas, for other programs, third party verification is mandatory for eligibility to specific, direct benefits such as association membership or regulatory flexibility.



- *Audit Procedures* - The audit procedures spelled out who looks at what during the verification/certification audit. One part of the audit procedures is the audit protocol, which specifies the checklist of what an auditor is examining. Most of the programs examined include in their audit procedures a combination of paperwork review and on-site visit for verification. The specifics of the audit procedures varied by the focus of the program (e.g., forestry improvement initiatives looked at on-the-ground forestry practices). In all cases, the role of the auditor is to verify that some pre-specified set of required activities, practices, and/or level of performance exist, consistent with the expectations and requirements of program participation.
- *Organizational Framework* - The programs researched are implemented and overseen by a variety of organizational structures including government agencies, trade associations, non-governmental organizations, and private enterprises.
- *Auditors* - Each program includes some sort of process for providing, training, and accrediting auditors.
- *Audit Funding* - In the programs researched, audits are generally funded two ways: 1) the organization being audited pays the auditor (or auditing firm) directly, or 2) audits are covered in overall program fees or membership dues.

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### Recommendation 1: Overall Third Party Verification Approach

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**Recommendation Statement:** The ODG and AG believe that, to achieve the NBP's goal of increased public acceptance of biosolids management practices, independent, third party verification in the form of an EMS audit should be a mandatory requirement for participation in the NBP's biosolids EMS program.

The ODG and AG recommend that, to receive program recognition, participating organizations must successfully demonstrate the implementation of an EMS consistent with the NBP program expectations during an independent, third party verification audit and subsequent interim audits. The ODG and AG's consensus agreement to recommend that all participants be required to undergo independent, third party verification audits is contingent on the NBP's acceptance of Recommendation 20, which addresses the resource needs of smaller utilities (see Recommendation 20: Small Utilities for further discussion).

The ODG and AG view the NBP EMS program recognition as a "seal of approval" of the biosolids management program, not as a seal of product quality assurance (as product quality would not be directly tested as part of the EMS audit). The ODG and AG anticipate that, similar to other management system verification programs, participants could use the NBP seal to advertise that their biosolids management program has attained a high standard of excellence. The ODG and AG recommend that the NBP develop a seal that could be used on buildings, equipment, signs, promotional literature, or other items as deemed appropriate (except for biosolids products) and a statement indicating the basis of the seal. The ODG and AG also recommend that the NBP consider expanding the program in the future to include an assessment of the quality of the final biosolids product.

**Background:** The ODG examined and discussed a variety of verification program approaches including peer reviews, self-certifications, tiered approaches, and third party verification. The ODG believed that peer reviews and self-certifications could be substantially lower in cost, but were insufficient in their ability to demonstrate the objectivity necessary for program credibility. The ODG believed that tiered programs, which allowed for a range of verification types, had the potential to be confusing to the public and could diminish the value of achieving program verification. The ODG found that independent, third party verification would best support the goals and objectives of the NBP's EMS program. Interviews and briefings with AG members strongly reinforced the notion that engaging an independent, third party to conduct the EMS audits would be critical to public acceptance.

During their joint meeting, the ODG and AG discussed whether program verification would provide a seal of product quality or recognition of the biosolids management program. Members of both groups understood the latter to be more consistent with the intent of the NBP program. Given the NBP program focus on management system verification and recognition, several members of the AG expressed the belief that it would be inappropriate to use the NBP "seal of approval" on biosolids products. AG members indicated that it would be misleading to place a management system verification seal on biosolids products, as the public would likely incorrectly interpret such a seal as an indicator of product quality assurance. AG members indicated that to provide a product quality label, the NBP would need to engage in direct product quality testing.

The current uncertainty about product quality standards raised concerns about incorporating quality testing into the NBP program at this point. Members of both the AG and ODG indicated an interest in future development of product quality standards that could be used in a product quality certification program. Several members of the AG and ODG expressed a preference for a single NBP seal that would include biosolids product quality certification and environmental management system verification.

The ODG and AG discussed whether or not the program should require a single level of participation and provide a single level of program recognition. Early in the process, members of the ODG agreed that, for the sake of simplicity and clarity (and thus public acceptance) of the EMS program, that the NBP should provide for one level of involvement. However, at the final meeting in September, members of the AG expressed a range of opinions about whether the NBP should require that all participants meet the same program expectations and receive the same recognition. Some AG members believed that not all potential participants would be performing at the same level, nor would their EMSs be at the same stage of development, and suggested that requiring the same program expectations might reduce program participation. These members suggested that the NBP should consider a variety of levels of program recognition (e.g., bronze, silver, gold).

The ODG and AG agreed that determining the levels of program participation and recognition is a high-level policy decision that the NBP will need to make and falls outside the scope of third party verification.

**Rationale:** The ODG and AG believe that requiring an independent, third party EMS verification audit would provide the most credibility with the responder community. Other forms of verification, such as peer reviews or self-declarations, are not seen by the ODG and AG as having enough credibility necessary to achieve NBP's public acceptability objectives. Both groups further believe that a single type of program verification would provide the greatest clarity of meaning to NBP EMS program participation.

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## Recommendation 2: Third Party Verification Functions

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**Recommendation Statement:** The following provides a high-level description of the functions that the ODG and AG recommend be addressed by an organization (or organizations) to implement and oversee the NBP's EMS Third Party Verification program. The NBP has already begun work on several of the functions that provide oversight and direction for the overall EMS program.

### **Current NBP Functions**

- Define overall program goals and objectives.
- Develop and maintain as current a manual of good practices, EMS elements, and EMS implementation guidance documents.
- Develop and maintain program entry criteria.

### **Verification Program Oversight and Direction Functions**

- Collect and process program fees.
- Receive and screen program applications
- Design NBP EMS program-specific auditor training.
- Provide a verification appeals process and develop the mechanics for appointing appeals board members to support it.
- Conduct a biannual verification system evaluation.
- Include a balanced representation by the biosolids responder community in the appeals board and biannual verification system evaluation.
- Accredite auditors (including establishing more detailed minimum auditor qualifications relative to size of facility, type of treatment, location in management structure, etc. and a process for removing auditor accreditation).
- Develop and maintain auditor guidance and audit checklist.

### **Audit Implementation Functions**

- Conduct EMS paperwork review or "desk audit".
- Make final verification determinations (made by auditing organization based on the recommendation of the field auditors).
- Track program participation and verification status.
- Provide accredited and trained auditors.
- Coordinate and provide auditors to conduct an initial, on-site verification audit for those organizations that have successfully completed the EMS paperwork review.
- Coordinate and provide auditors for interim audits.
- Coordinate and provide auditors for re-verification audits.

The ODG and AG believe that the following additional functions also need to be performed in support of the overall NBP EMS program. These functions fall outside the scope of third party verification.

- Conduct annual, overall NBP EMS program reviews and prepare annual reports.
- Include a balanced representation of the biosolids responder community in the overall NBP EMS program review and annual report preparation.

- Prepare NBP EMS program marketing materials using “lay persons” language that describe the EMS program and meaning of verification.
- Coordinate a pool of peer mentors to provide technical assistance and advice to program participants.

**Background:** From the research, which compared a variety of voluntary, environmental improvement initiatives with a verification or certification component, the ODG developed an understanding of the basic functions required to implement a verification program. The ODG created the above list of functions to meet those basic functions as well as any specific needs of the NBP’s EMS program.

Several AG members expressed a belief that the NBP needs to consider its role in promoting the EMS program on a national scale and describing for the public what program verification means. AG members indicated that the earlier such marketing materials are developed, the more beneficial they will be to program participants. AG members also indicated that it will be important to use language that the public and others, such as environmental justice organizations, use and are familiar with.

Finally, members of the ODG and AG expressed a belief that the NBP should involved a balanced representation of the biosolids responder community in the overall EMS program evaluation and annual report preparation, verification system evaluation, and in the verification appeals process. ODG and AG members believed that such involvement would help maintain the credibility of the overall program and the verification system with members of the responder community.

**Rationale:** The ODG and AG believe these functions to be necessary for running the NBP third party verification program and for meeting the needs of program participants.

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### Recommendation 3: Leveraging Verification Service Providers

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**Recommendation Statement:** The ODG and AG believe that the NBP should look to “leverage” the expertise and infrastructure of existing organizations to support, in particular, the third party verification implementation functions. The ODG and AG recommend that the NBP do the following.

- Contract with an existing verification service provider to provide EMS auditors to conduct the third party verification audits.
- Select a single verification service provider through a competitive process.
- Include in the verification service contract a provision for stable, acceptable audit fees.
- Move to multiple service providers as soon as program participation levels allow.

**Background:** Early in the process, the ODG identified the significant investment that would be required by the NBP to develop its own ability to implement all of the verification program functions. Under the direction of the ODG, Ross & Associates researched a number of systems auditing organizations, including certified ANSI-RAB registrars, to verify if it would be feasible for the NBP to take an approach that included utilizing another organization to implement some portion of the program functions. The ODG believed that the NBP could leverage the investment of resources made by existing verification providers who already had the infrastructure in place to provide trained auditors and verification services. The research conducted by Ross & Associates indicated that, although the pool of qualified organizations would initially be small, it would be

possible to leverage existing organizations to take on audit implementation functions. The findings of that research are presented in Attachment F to this document.

The ODG also considered an approach that would allow organizations to choose their own consultants to conduct a third party verification. However, the ODG believed that this approach could create the perception of a conflict of interest from organizations directly paying consultants. Additionally, the ODG noted a concern that there could be incentives in place for consultants to find problems that require follow up work.

Several members of the AG expressed interest in exploring the concept that local health department staff could be used to conduct audits or inspect remote operations, which are likely to be land application sites. Early in the process, members of the ODG considered this option, but decided that auditors for the NBP EMS program should be systems-based auditors.

Members of the AG expressed some concern with an approach that provided a “monopoly” to a single verification service provider. However, AG members understood that having a single organization conduct the audits would ensure consistency for the audits and auditors, and provide an established reputation for quality, independent audits. Additionally, the AG understood that, in the short term, the number of program participants likely would not warrant multiple service providers. Members of the AG indicated that they would be comfortable with an approach that utilized a single verification service provider in the short term, provided that the NBP ensures stable and acceptable audit fees. Members of the ODG and AG agreed that the NBP should move to utilize multiple service providers as soon as program participation levels allow.

Members of the AG and ODG discussed whether or not they had any preference for the NBP utilizing a private versus a nonprofit organization to provide the verification services. Given the limited size of the current pool of verification service providers that could meet the needs of the NBP program, the groups did not want to further limit the potential pool by expressing a preference for private or nonprofit. The groups agreed that a more important factor was the credibility of the verification service provider and not whether the organization was private or nonprofit.

**Rationale:** The ODG and AG believe that having an independent organization conduct the third party verification audits is critical to the credibility of the program by reducing perceptions of conflicts of interest. Additionally, the ODG and AG believe that this approach would be more cost effective than the NBP developing its own ability to implement all of the program functions.

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#### Recommendation 4: Organization Attributes

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**Recommendation Statement:** The ODG and AG recommend that the NBP consider the following desirable attributes to determine the proper organization for conducting the recommended oversight and implementation functions.

##### **Verification Program Oversight and Direction Organization Attributes**

- Ability to receive and process money for independent, third party audits.
- Existing, favorable public recognition or the ability to achieve it.
- Committees and/or staff to conduct the functions.

- Ability to provide an independent body with balanced representation by the biosolids responder community for an appeals and program evaluation process.

#### **Audit Implementation Organization Attributes**

- Ability to deliver qualified auditors / teams.
- National in scope, with the ability to provide regionally based auditors.
- ANSI-RAB registrar accreditation.
- An established reputation for delivering high quality audits.
- History of audit performance.
- Wastewater industry experience (biosolids value chain).
- Ability to support the NBP's objectives, by increasing the credibility of the NBP's EMS program.

**Background:** The ODG did not believe it to be within their scope to identify a specific organization or organizations to oversee and implement the NBP third party verification system. They believed it likely that the NBP would need to assess objectively the appropriate organizations and select through a competitive process. The ODG did believe it to be within their scope to recommend desirable attributes that the NBP could use to evaluate organizations and developed the above list.

**Rationale:** The ODG and AG believe that focusing on these desirable attributes will ensure that the organizations selected to conduct the program oversight and audit implementation functions meet the NBP's program needs, as well as establish and maintain the credibility needed for achieving the NBP's goal of increased public acceptance of biosolids management practices. Members of the ODG and AG understand that there might be few organizations that have all of the above qualities, and thus do not consider these to be minimum criteria but desirable attributes.

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#### **Recommendation 5: Timing and Frequency for Conducting Audits**

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**Recommendation Statement:** The ODG and AG recommend that independent, third party EMS audits occur with the following timing and frequency.

- A full, on-site, independent, third party verification audit would be conducted after the EMS paperwork review or "desk audit".
- Full, independent, third party re-verification audits would be conducted every five years.
- Partial, interim audits would be conducted annually between full verification audits. Consistent with the conditions specified in Recommendation 7, a participant could utilize internal interim audits to substitute for selected independent, third party interim audits. Irrespective of the type of interim audits conducted, the third party auditor must cover the entire EMS during the interim cycle.
- The pattern for verification and interim audits would, therefore, is as follows.
  - Year 0 - Verification audit
  - Year 1 - Interim audit (third party required)
  - Year 2 - Interim audit (third party optional)
  - Year 3 - Interim audit (third party required)

Year 4 - Interim audit (third party optional)

Year 5 - Re-verification audit

**Background:** The ODG looked at the ISO 14001 standard as well as other verification program approaches in considering the appropriate timing and frequency for third party verification EMS audits. The ODG considered a number of potential time periods over which program recognition would apply before a full re-verification audit would be required.

The ODG recognized that the recommended timing and frequency is less aggressive than many other programs (e.g., ISO 14001 certification lasts for three years with interim audits conducted every six to nine months), but believed the public participation and information disclosure recommendations would create a highly transparent program that would increase responder community comfort with the recommended audit timing and frequency.

**Rationale:** The ODG and AG believe that five years achieves a balance between the degree of detailed oversight provided by third party auditors and the annual cost and staff requirements of the program to a participant. To enhance oversight during the interim years, the ODG and AG believe that the interim audit should focus on a detailed review of system health, with key checks made on such indicators as the corrective action system, management review process, and preventive action requests.

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#### Recommendation 6: Audit Procedures

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**Recommendation Statement:** The ODG and AG recommend that the EMS audit follow the following procedures.

- To allow for the accumulation of sufficient auditable data, an organization must have an EMS in place and functioning for at least six months prior to program application. Furthermore, an organization must have completed and responded to at least one internal EMS audit.
- The lead auditor is assigned and conducts the EMS paperwork review or “desk audit”. Organizations whose EMS paperwork review indicates conformance with the *EMS Elements* are notified, and a verification audit team is organized. The number of auditors required is determined by the size of the operation being audited. Typically, EMS audits include two auditors for 2-3 days. Organizations whose EMS paperwork review indicate that the EMS does not appear to conform with the *EMS Elements* are notified, presented with an explanation, and provided an opportunity to make corrections and reapply in the future.
- The verification audit team conducts an on-site audit. The first step in the on-site audit is an entrance meeting to introduce the auditor and brief facility staff on the audit scope and activities. The next step is a tour of the facility, during which the auditor observes operations, identifies areas of focus, and identifies employees to question about the EMS and its implementation. Once the facility tour is completed, the auditor conducts interviews with employees, reviews on-site documentation, and if necessary, revisits parts of the facility. The auditor may interview members of interested parties to assess public participation and communications. The on-site audit concludes with an exit meeting, during which all system strengths, weaknesses, and nonconformance identified during the audit are presented to the organization and a final opportunity is made available for the organization to provide

any additional information. (Further information on and explanations of nonconformance are provided in Recommendation 8.)

- Once any major EMS nonconformance that were identified in the audit and any appeals made by the participant have been resolved, the third party verification EMS auditor makes a verification recommendation and prepares working draft audit summary and detailed findings reports. The auditor will provide these working draft documents to the participant for review. This review allows the participant to ensure the technical accuracy of audit findings and develop observations for inclusion in the final summary and detail audit reports.
- The auditor prepares a final audit summary and detailed findings reports and submits them simultaneously to the participant and the NBP. An outline of the elements included in an audit report is available in the Audit Protocol Attachment to this document.
- Program verification is good for five years, as long as annual interim audits determine that the EMS continues to function consistently.

**Background:** The ODG looked to examples of other verification programs in developing the procedures for the NBP’s EMS audit. The paper work review (or EMS desk audit), on-site visit, and audit report were standard elements of systems auditing programs.

The AG members discussed whether or not pre-audit readiness assessments should be a mandatory part of the third party verification program. While agreeing that, for reasons of cost, the readiness assessments should be optional, members of the ODG and AG indicated that they believed participants who did not spend the resources on the readiness assessment would likely incur additional costs during the verification audit, as the auditor would be more likely to find major nonconformance (which require the auditor to revisit and check on those elements). The ODG and AG agreed that the NBP should consider creating a pool of wastewater industry peers to assist with these readiness assessments (see Recommendation 15: Peer Participation).

Members of the ODG and AG also discussed a “pledged commitment” status for organizations that choose to submit a letter pledging their commitment to the *Code of Good Practice* to the NBP as they begin developing their EMS. The ODG and AG acknowledged that the creation of this pledged status falls outside the scope of third party verification but believed the NBP should consider the creation of such a status and what it would mean.

**Rationale:** The ODG and AG believe that the above procedures would provide for an EMS audit that would meet the needs of the NBP’s program and be sufficiently consistent with other systems auditing approaches as to have credibility with the public.

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### Recommendation 7: Interim Audits

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**Recommendation Statement:** The ODG and AG recommend that, to provide program credibility, regular, interim audits conducted on-site by the independent, third party auditor should occur between re-verification.

- Interim audits would focus on ensuring “system health” (i.e., that the system is doing what it is supposed to) in between verification audits. Individual interim audits would cover only a portion of the EMS and include a check on the organization’s progress toward performance goals and objectives.

However, over the course of the five years of interim audits, the third party auditors would cover the entire EMS. Interim audits would also include an examination of the management review process, corrective action requests and responses, and preventive action requests.

- Participants could choose to substitute internal, interim audits for third party, interim audits in years two and four, provided the results of the internal audits are fully publicly disclosed and the independent, third party audit is not needed to ensure proper system functioning and health. During years in which a participant chooses to substitute internal, interim audits for third party, interim audits, the participant must self-certify system conformance with the *EMS Elements* by providing the NBP with a signed self-certification statement.
- The need for interim audits would be discussed by the participant and the auditor during the audit-planning meeting at the beginning of the verification cycle, as well as at each interim audit. Thus, the participant would always know in advance if a third party, interim audit would need to be conducted during the coming year.

**Background:** The ODG found that most systems verification programs had a pattern of regular verification, interim, and re-verification audits. Verification programs include regular, on-site visits in the form of “partial audits” (usually referred to as maintenance or interim audits) between full verification audits to ensure EMS stability. Because of the ability for staff, policies, and procedures at organizations to change rapidly, interim audits are common practice for verification programs, unless a short re-verification cycle is in place (e.g., full verification audits happen every year or every other year). Because interim audits only look at a part of the EMS, they are typically less resource intensive than full verification audits.

Based on an early draft of the third party verification recommendations, the ODG received feedback from the NBP’s Steering Committee regarding the frequency of interim audits. Members of the Steering Committee questioned the need for annual visits, were concerned that costs could be excessive, and were concerned that annual interim audits by a third party could have too much overlap with internal audits. In response to this input, the ODG discussed adding some flexibility to the interim audit cycle. Specifically, the ODG explored the concept that, to address concerns regarding audit costs and staff resource impacts, the interim, third party audits could be substituted with internal, interim audits in years two and four, as long as the results of all internal audits were made publicly available. Regardless of the number of interim audits conducted, the ODG believed that the entire EMS would still need to be covered by the third party auditor during the interim audit cycle (between re-verification). Additionally, the ODG believed that substituting the third party, interim audits in years two and four with internal, interim audits should be based on system performance from the previous audit. Thus, the auditor could require the third party, interim audit if system performance in the previous audit indicated a need for a re-visit the following year.

**Rationale:** The ODG and AG believe that interim audits would increase NBP program credibility by requiring that an independent auditor visit each participant regularly. Because interim audits are partial audits and thus less resource intensive than full verification audits, the ODG and AG believe that regular interim audits would create a good balance between program credibility and audit costs.

Further, the ODG and AG believe that allowing for substitution of third party, interim audits with internal, interim audits in certain years, based on performance, and having the results of the internal audits provided to the public and the NBP, would maintain the credibility of the third party verification system and create a

system that reasonably assures ongoing and consistent system health, while allowing some relief and flexibility for program participants.

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### Recommendation 8: System Nonconformance

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**Recommendation Statement:** Consistent with the continual improvement emphasis of the NBP's EMS program, the ODG and AG recommend that minor and major system nonconformance identified during verification and interim audits be handled in the following manner.

- Minor nonconformance is expected as program participants seek continual improvement. A minor nonconformance is one that, when taken by itself, does not indicate a systemic problem with the EMS. It is typically a random or isolated incident. The ODG and AG recommend that, if the auditor identifies any minor nonconformance during a verification or interim audit, the organization resolve the nonconformance and provide documentation to the auditor within 30 days of the audit. Individual findings of minor nonconformance would not prevent an organization from successfully completing a verification or interim audit and obtaining entry to or continual participation in the NBP EMS program.
- A major nonconformance occurs when one of the elements in the *EMS Elements* is not addressed by the EMS or has not been addressed adequately. Major nonconformance can occur when an organization has put a process or procedure in place, but has not implemented it or cannot yet demonstrate effective implementation. A major nonconformance can also occur if a significant number of minor nonconformance in a given activity, or against a given element, point to a systemic failure. If the audit team has identified a major nonconformance, the organization would be expected to resolve the nonconformance and have the auditor conduct another on-site visit to verify that the nonconformance had been addressed. Failure to address a major nonconformance identified during a verification audit could prevent an organization from becoming a certified participant in the NBP EMS program. A recommended time frame for correcting major nonconformance is 90 days, subject to negotiations with the auditor. The ODG and AG recommend that, if a nonconformance is resolved within the 90-day time period (or other mutually agreed-upon time frame), the auditor would only be required to check that the nonconformance had been addressed. However, if the major nonconformance has not been addressed within the 90-day time period (or other mutually agreed-upon time frame), the auditor would be required to conduct a full verification audit. Failure to address a major nonconformance that has been identified during an interim or re-verification audit within the 90-day time period (or other mutually agreed-upon time frame) could result in the organization having their program participation status revoked.

**Background:** The ODG looked at definitions of nonconformance developed by ANSI-RAB in developing its own definitions of major and minor nonconformance.

**Rationale:** The ODG and AG believe that the NBP should not expect that all EMSs will be perfect. In fact, a fundamental principle behind environmental management systems is continual improvement. Thus, the ODG and AG believe that minor nonconformance of a nature that does not indicate systemic failure should not prevent an organization from achieving program recognition. Corrective actions to minor nonconformance would be examined during subsequent annual interim audits.

The ODG and AG further believe that major nonconformance that indicate systemic failure must be addressed and corrected in order for an organization to attain NBP EMS program recognition. The groups believe that for the program to have credibility, organizations could not be verified and provided program recognition if major nonconformance were not corrected.

The ODG and AG believe that the NBP, likely in consultation with the audit implementation organization, further define major and minor nonconformance in the auditor guidance, including providing an indication of the relative weight of element requirements. Auditors will need this objective information to make decisions regarding program verification.

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### Recommendation 9: Public Participation

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**Recommendation Statement:** The ODG and AG believe that actively seeking and creating meaningful opportunities for interested party involvement in the planning, ongoing implementation, and independent third party auditing of a program participant's EMS is crucial to achieving the NBP's goal of public acceptance. In light of this belief, the ODG and AG recommend that independent third party auditors verify that program participants have undertaken the following public participation actions.

- During the EMS planning process informed interested parties about the third party verification audit process and obtained input on possible approaches for engaging interested parties as audit observers.
- During the EMS planning process, actively sought and created meaningful opportunities for public input relative to the biosolids value chain environmental impacts and related environmental performance goals and objectives.
- Notified, in advance, the public of their intent to have a third party audit, including providing an opportunity for interested parties to provide input on the scope of the audit.
- Created a system to maintain active, ongoing engagement with and responses to interested parties.

Consistent with the principle that “outcomes matter”, auditors may use the state of relationships with interested parties as one indicator of system health. For example, if, during EMS document review, an auditor consistently encountered written complaints related to truck traffic, the auditor might view this as an indicator that the participant's corrective action system is functioning inadequately. In this context, however, auditors will not judge the validity of interested party perspectives, nor will they expect a participant to have accommodated all perspectives. Auditor guidance will make it clear that substantial local tailoring is expected and that participants must remain fully in control of the decisions they make once interested party perspectives are understood.

The participant would determine the method for engaging interested parties in EMS planning and implementation, which can be formal or informal, but at a minimum, would reflect the degree of historic and current interest in the organization's biosolids management activities. Thus, participants could demonstrate a commitment to public participation through a variety of methods.

The make-up of the public would be determined by the participant, but should reflect interested party perspectives, including those parties potentially impacted by the organization's biosolids management activities.

In conducting the audit, auditors would primarily rely on EMS documentation to verify public participation actions. However, the auditor, after consultation with the participant, could interview interested parties as necessary to verify the adequacy of a participant's actions.

**Background:** Feedback from the AG indicated that a crucial element to gaining public acceptance of the NBP program's biosolids management practices is to have proactive public participation early in EMS development (specifically in identifying environmental impacts and setting performance goals and objectives for the biosolids program), in the third party audit, and on an ongoing basis. The ODG and AG discussed, but have not recommended, that the NBP program dictate specific minimum performance measures (discussed further under Recommendation 11). Alternatively, the AG indicated that for public acceptance, interested parties would need to be informed of and provided a meaningful opportunity to be involved in setting performance goals. AG members said that public participation in setting performance goals would likely generate greater public acceptance of an approach that did not have dictated performance minimums.

Feedback from AG members also indicated that participants should have the flexibility to choose a set of public participation activities that best meet their local needs. ODG members discussed a variety of successful public participation mechanisms that organizations already have in place and believed that the NBP's program should find many of those mechanisms sufficient to meet program requirements. The NBP's *Guidance Manual for a Biosolids EMS* provides some examples of potentially useful public participation methods.

Feedback from the AG members indicated that organizations should not be required to resolve the concerns of all interested parties. Members of both the AG and ODG acknowledged that there can always be some parties who are not satisfied that their concerns have been addressed or parties who are fundamentally opposed to certain biosolids management practices, regardless of the organization's environmental performance or how active and meaningful the public participation effort has been.

Finally, to ensure participants can create an audit plan that will clearly address interested parties' perspectives, (and therefore provide audit results with the greatest likelihood of increasing public acceptance) the ODG and AG discussed the need for a notification to the public of audit intent. This, however, led to the concern that such a notice could create a flood of audit observation requests that a participant might have difficulty managing. In response to this concern, the ODG and AG have recommended that participants build into their EMS planning a discussion with interested parties about observing the third party audit. The group members believed this would provide the participant the best opportunity to manage expectations about audit results, articulate any constraints needed on audit observation, and understand how best to conduct the audit to gain maximum public acceptance.

**Rationale:** Members of the ODG and AG believe that the third party audit approach described will establish meaningful public participation (believed to be crucial to achieving the NBP's public acceptance objective), while providing program participants maximum flexibility in and control over the public participation approaches they utilize to meet NBP program expectations.

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## Recommendation 10: Practices

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**Recommendation Statement:** The ODG and AG believe that the auditor should verify that, in selecting biosolids management practices, a participant has considered and, to the extent applicable and practicable, utilized the best practices identified in the *Manual of Good Practice* and other recognized sources as identified by the participant, provided that auditor qualifications provide a suitable basis for making these judgements and auditor guidance provides specific and clear direction to auditors on how to examine and verify suitable practice selection.

The ODG and AG recommend that an auditor examine practice selection in the following manner.

- An auditor would examine existing biosolids management practices in light of the NBP *Manual of Good Practice*, operating under the presumption that the participant knows best, which practices to select for its operation. Additionally, the auditor would presume that choices on practice selection are not made “in a vacuum” and can be influenced by local political and economic situations. Thus, local tailoring of practice selection is necessary and appropriate.
- If an organization adopts practices that appear inconsistent with the *Manual of Good Practice*, the auditor would ask the participant to explain if the practices are inconsistent and why. Inconsistencies with the *Manual* would not necessarily prevent verification if a suitable explanation is provided. However, an auditor could, if they believed the participant’s choices did not adequately reflect the NBP’s expectations and that the participant’s explanation for inconsistencies with the *Manual* was not suitable, identify this as a nonconformance.
- The *Manual of Good Practice* intends to be “practice neutral”: it provides management practices for all wastewater solids and biosolids management alternatives. Thus, auditors would only look at those practices that are relevant to the given organization and its biosolids ultimate disposition. For example, if an organization has selected thermal drying, then the auditor would only look at what the *Manual* suggests for best thermal drying practices. The auditor would not question the organization’s choice of thermal drying, unless it was substantially inappropriate for the selected biosolids end use.

**Background:** During the initial interviews with members of the AG and in later briefings, the AG members expressed the importance of including a strong, auditable commitment to best biosolids management practices. Additionally, the NBP’s *Code of Good Practice* commits organizations to implement best practices. The ODG and AG members believed that an auditable commitment to best practices and performance would be a key link to credibility with the responder community and to achieving the NBP’s ultimate goal of increased public acceptance of biosolids management practices.

In its early discussions, the ODG considered including specific practice requirements. However, the group rejected such requirements as too inflexible given the range in size and operations of organizations that may desire to participate in the NBP EMS program. At the same time, the ODG acknowledged the credibility to be gained with responders by creating an auditable link to best practices.

Two members of the ODG expressed discomfort with asking auditors to judge the suitability of a participant’s practice selection. The first member indicated that the qualifications of individual auditors and/or audit teams must be fully sufficient to make such judgements. The second member believed that auditor guidance must be carefully crafted to provide auditors with specific and concrete direction on how to examine and verify suitable practice selection. In the absence of these commitments, the two members would not support this

recommendation. All members of the ODG and AG supported the inclusion of these commitments in this recommendation.

**Rationale:** The ODG and AG believe that auditors should have the ability to identify and question practices that are substantially inconsistent with the *Manual of Good Practice*. The members of the ODG and AG believe that the auditable link to the *Manual of Good Practice* described above will be critical to establishing and maintaining program credibility with the responder community while allowing the flexibility of locally tailored biosolids management practices.

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### Recommendation 11: Performance

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**Recommendation Statement:** Consistent with the principle that “outcomes matter”, the ODG and AG believe that continual improvement of environmental performance, with respect to established environmental performance goals and objectives, should be one auditable indicator of EMS health. In this context, the ODG and AG recommend that the third party auditor verify that a participant has done the following.

- Identified potential environmental impacts and related critical control points, with respect to the entire biosolids value chain.
- Established environmental performance goals and objectives that are aligned with identified environmental impacts and related critical control points.
- Achieved (or otherwise made suitable efforts to attain) continual improvement in all aspects of biosolids management, including improvements in environmental performance related to goals and objectives.

**Background:** During initial interviews and in later briefings, the AG members expressed the importance of including a strong, auditable commitment to environmental performance. The AG members believed that an auditable commitment to performance would be a key link to credibility with the responder community and to achieving the ultimate goal of the NBP of increased public acceptance of biosolids management practices.

Both the ODG and AG discussed separately and jointly the possibility of establishing specific, auditable environmental performance minimums as a basis for NBP EMS program participation. Members of both groups ultimately rejected this prescriptive approach as too inflexible and infeasible. At the same time, members of both groups believed strongly that public acceptance is critically linked to the ability of the NBP and individual program participants to demonstrate that the EMS produces meaningful environmental performance improvements. The approach reflected in this recommendation builds on the *Code of Good Practice* commitment to continual improvement and looks to ensure that NBP participants focus, not just on well planned and functioning EMS machinery, but environmental outcomes as well.

One member of the ODG expressed concern that the recommendation as written overlooks the critical role the selection and implementation of operational controls will play in attaining and sustaining environmental performance. In response to this concern, the groups agreed that auditor guidance should explicitly address the relationship of operational controls to performance and provide direction to the auditor on how to discuss such controls with participants, particularly in situations where performance difficulties arise.

Additionally, members of the AG and ODG believed that auditor guidance should be developed to bring clarity to the requirement that a participant must demonstrate that the EMS produces meaningful environmental performance improvements.

**Rationale:** The members of the ODG and AG believe that the described auditable link to continual improvement of environmental performance is important to establishing and maintaining program credibility with the responder community while allowing the flexibility of locally tailored biosolids management performance goals.

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## Recommendation 12: Regulatory Compliance

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**Recommendation Statement:** The ODG and AG believe that the third party verification audit should be a comprehensive, systems-based, regulatory compliance evaluation rather than a full, regulatory compliance audit with a compliance status determination. Consistent with this belief, the ODG and AG recommend that the third party verification audit relationship to regulatory compliance be the following.

- Auditors would verify that a participant has established a comprehensive set of regulatory compliance-based goals and objectives, including a means of measurement designed to indicate regulatory compliance outcomes, as part of their EMS.
- Auditors would examine, and record as “findings of fact” in the audit report, a participant’s performance (as indicated by the performance measures during EMS document review) with respect to these regulatory compliance-based goals and objectives.
- As one part of the objective evidence collected, an auditor would examine the results of the most recent regulatory compliance inspection.
- Auditors would use the findings of fact, the review of the most recent regulatory inspection, as well as direct observation of selected regulatory compliance endpoints, as indicators of compliance management system health and the likelihood that the participant is meeting, at the time of the audit, its commitment to regulatory compliance with all applicable federal, state, and local biosolids requirements.
- Auditors would provide in their audit report, an statement based on the findings of fact, as to the adequacy of the compliance management system in meeting the participant’s commitment to regulatory compliance. Auditors would not make regulatory compliance determinations.
- Program recognition would, therefore, indicate that a participant is effectively maintaining a management system that ensures substantial regulatory compliance and is responding in a timely and appropriate manner to all instances of potential regulatory noncompliance.
- Auditors would also verify that participants have conducted periodic self-audits as part of the environmental management system. Independent third party auditors would verify, as part of their

systems audit, that participants are making such internal checks, and that, if problems have been identified, the participant made appropriate and timely corrective actions.

**Background:** The ODG discussed the importance of improving public confidence in regulatory compliance assuredness (e.g., that an independent entity is ensuring that utilities are highly attentive to and successful in their efforts to meet compliance obligations). However, the ODG struggled with the nature of the audit and reporting required to enhance public confidence. Specifically, the ODG discussed that regulatory compliance auditing is different from EMS auditing, and requiring the auditors to essentially conduct two different audits could substantially increase audit costs (by as much as double). ODG members also believed that auditors making a regulatory compliance statement would inappropriately take on regulatory agency functions, would prove very difficult given the often subtle considerations associated with regulatory compliance determinations, and may require a concurrence loop with relevant regulatory agency personnel. Finally, the ODG believed that a systems audit, which verifies the existence of a robust EMS, provides a better indication of a participant's commitment to meeting and going beyond regulatory compliance obligations on an ongoing basis than a regulatory compliance audit, which looks only at a given point in time.

During the joint meeting in September, a cross-section of AG members indicated a belief that a full regulatory compliance audit, resulting in a statement of regulatory compliance status would be necessary for the NBP program to have credibility with the public. Upon further discussion, these AG members indicated that they would be comfortable with the approach described above, in lieu of a full regulatory compliance audit, provided that there is up front, proactive engagement of the public in defining regulatory compliance-related performance goals and objectives (see Recommendation 9: Public Participation), as well as full transparency in the form of audit reports being made available to the public (see Recommendation 13: Information Disclosure).

Members of the ODG and AG believed that it would be beneficial to draw on the NBP demonstration pilots to develop auditor guidance that would define the nature of regulatory compliance performance. This would allow participants and auditors to understand better the boundaries with regard to meeting program requirements.

**Rationale:** The ODG and AG reached agreement about the need to improve public confidence of regulatory compliance assuredness (e.g., that an independent entity is ensuring that NBP program participants are highly attentive to and successful in their efforts to meet or exceed regulatory compliance obligations). Consistent with the NBP's focus on a system audit approach, the ODG and AG members believe that the audit should determine (and assure for program participants) that a robust compliance management system is in place that effectively identifies and tracks regulatory compliance obligations, proactively identifies potential regulatory compliance issues, quickly detects regulatory compliance problems, and addresses regulatory compliance problems in a timely fashion. The ODG and AG believe that the approach described above, which includes establishment and examination of comprehensive, compliance-based goals and objectives, would provide the basis for the NBP and individual program participants to ensure interested parties that the EMS is effectively translating the commitment to regulatory compliance into consistent performance with respect to compliance outcomes. At the same time, this approach would not require a full regulatory compliance audit, which could be costly and inappropriately take on regulatory functions.

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### Recommendation 13: Information Disclosure

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**Recommendation Statement:** The ODG and AG believe that full transparency of the EMS planning process and EMS performance (particularly with respect to environmental performance and audit outcomes) is critical to the credibility of the NBP program. Consistent with this belief, the ODG and AG recommend that the findings of third party audits be handled in the following manner.

- Auditors would prepare a working draft audit summary report and a detailed audit findings report. (The ODG and AG have used the term “working draft” to indicate their intent that a participant, if they so choose, would be able to hold draft audit findings confidential.) The audit reports would reflect the complete results of the audit, including areas of strength and weakness. The auditors would provide these working draft documents to participants for review. This review would allow the participant to ensure the technical accuracy of audit findings and develop observations for inclusion in the final summary and detailed audit reports.
- Auditors would then prepare final audit summary and detailed finding reports, attach the observations of the participant, and submit the final summary and detailed findings reports simultaneously to the participant and the NBP.
- Participants would be expected, and auditors would verify, that audit summary reports have been proactively shared with interested parties. The participant would have flexibility with regard to the format in which these summaries are shared (e.g., an annual report, ongoing newsletter, web site, etc.).
- Auditors also would verify that the participant had created a streamlined procedure for releasing the detailed audit report such as a standardized form letter that, upon receipt, can lead to the timely release of the audit report upon request.

**Background:** The ODG had substantial discussions on information disclosure, in particular on the handling of detailed audit findings. Initially, the ODG discussed that, given that most NBP EMS program participants are likely to be public utilities and subject to locally applicable public information disclosure requirements (e.g., local Freedom of Information Act equivalents), participants should make detailed audit findings available through locally applicable public information disclosure requirements.

However, feedback from members of the AG indicated that making detailed audit findings available only through public information disclosure requirements could create the appearance that participants are making it difficult for members of the public to access detailed audit findings and create the perception by the public that the participant could have reason to not be forthcoming with audit findings. Members of the ODG agreed that this perception would not lead to program credibility and increased public acceptance of biosolids management practices. As such, members of the ODG and AG agreed that a streamlined process for submitting written requests to obtain detailed audit results would be more consistent with the NBP’s program goals.

**Rationale:** The ODG and AG believe that the approach to information disclosure recommended provides the transparency needed to establish and maintain credibility with the responder community by making audit results and performance information easily available, while providing program participants the ability to manage audit findings to ensure appropriate context and clarity is provided.

**Recommendation Statement:** The ODG and AG recommend that the third party audit relationship of contractors and remote operations be the following.

- Contractors - During verification audits, the auditor would examine contract documents and conduct interviews with contractors in order to determine if contractor roles and responsibilities are defined, as consistent with the *EMS Elements*. During the audit, full EMS documentation would be made available from contractors and a contractor representative would attend the audit.
- Remote Operations (whether operated by applicant organization or by contractor) - The auditor and participant would discuss the scope of remote operations (how many, where) in preparing the audit plan. For all remote operations, the auditor would examine EMS documents and conduct interviews (could be conducted via telephone). The auditor would select only a random field sampling of remote operations to be included for direct observation in the form of an on-site visit. If a remote operation is a considerable distance from the participant facility, the intent would be to have local/regional auditors do remote site checks to keep audit costs lower (the lead auditor would audit remote operations close to the participant's main facility). Local auditors would send information on remote operation audit findings to the lead auditor. If the third party auditor finds that documentation and interviews are inadequate to satisfy the auditor that there is a healthy system throughout all remote operations, then the auditor may find it necessary to visit additional sites or take further actions to determine the health of those parts of the biosolids EMS.

**Background:** The ODG believed that on-site visits to remote operations, whether operated by contractor or not, are necessary for program credibility. The ODG discussed whether or not auditors should have to visit all remote operations in order to verify an organization. The cost implications of such a requirement quickly became evident to the group. The ODG sought to balance program credibility with audit costs by not requiring that all remote operations receive on-site visits. The ODG believed that the NBP will need to develop auditor guidance that addresses what would be considered a reasonable amount of sampling (i.e., how many sites need visiting).

In its discussions, the ODG defined remote operations as those operations not on the same property or facility and included a wide range of operations, from land application sites in the same county to facilities across the country, whether operated by the applicant organization or contracted out.

AG members indicated that some remote operations may take place on private property not owned by the participant or its contractor (e.g., land application on a private farm). In this case, the participant or its contractor would need to include a contract clause to provide right of entry.

Additionally, ODG members indicated that flexibility in the audit plan would be necessary to address the intermittent and changing nature of some remote operations (e.g., land application at certain sites might be halted during winter months).

**Rationale:** The ODG and AG believe that the approach presented will enhance program credibility by examining management practices throughout the full biosolids value chain, while also keeping audit costs reasonable.

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## Recommendation 15: Peer Participation

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**Recommendation Statement:** The ODG and AG recommend that participants in the NBP EMS program be able to choose to have peers participate in their EMS program. Peers could observe the independent third party audit and serve as a resource for the participant (e.g., by providing technical assistance, conducting audit readiness assessments, providing advice on corrective actions, etc.). However, peers could not be part of the audit team.

**Background:** Members of the ODG and AG believed that peer organizations could provide assistance to other program participants in a variety of ways. Feedback from AG members who have participated in peer programs indicated that a variety of benefits, such as technical assistance and advice could be gained from peer participation in an EMS verification program.

The ODG considered having peers conduct the verification audits or be part of the audit team. However, the ODG did not believe that peer auditors alone would create the perception of objectivity sufficient to be credible with the public. Additionally, the ODG believed that to have peers as part of the third party audit team would preclude them from being able to provide valuable feedback and technical advice.

**Rationale:** The ODG and AG believe that allowing industry peers to participate as technical advisors would make available valuable resources to program participants while maintaining program credibility.

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## Recommendation 16: Verification System Evaluation

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**Recommendation:** The ODG and AG recommend that the organization conducting the program oversight and direction functions conduct the following tasks.

- Create a team to conduct a verification system evaluation every two years (including a random review of audit reports and a review of the auditor training materials and process).
- Include a balance of biosolids responder community interests in the verification system evaluation team.

**Background:** Most of the verification programs that the ODG looked at as examples included some form of verification system and program oversight. Often, this oversight was conducted by an independent organization or involved stakeholders in some manner.

Members of the AG believed it essential that the verification system evaluation be part of an overall NBP EMS program evaluation. Because the third party verification system is integrated with other parts of the EMS blueprint, such as the *EMS Elements*, which spell out system requirements, members of the AG believed that the overall program evaluation and verification system evaluation should be integrated. Members of the ODG and AG acknowledged that design of an overall EMS program evaluation would need to be developed by the NBP and falls outside the scope of third party verification.

**Rationale:** The ODG and AG believe that conducting regular verification system evaluations and involving a balance of biosolids responder community interests will help maintain program credibility with the responder community.

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### Recommendation 17: Verification Appeals

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**Recommendation Statement:** The ODG and AG recommend that the NBP EMS program provide an independent appeals process for those organizations that would like to question their verification status. Program participants who appealed an interim or re-verification audit and had previously obtained verification status would retain their verification status until the appeal had been resolved. The verification appeals process should involve a balance of biosolids responder community interests.

**Background:** During the briefings, several AG members indicated that a balance of interests should be represented on the appeals board. The AG members further believed that who appoints the representatives to participate in the appeals process and how these representatives are appointed can affect program credibility.

The ODG believed, and members of the AG confirmed, that an appeals process will make organizations that wish to participate in the program more comfortable with the auditor's role in interpreting the auditable requirements that allow for tailoring to local circumstances.

**Rationale:** The ODG and AG believe that an independent appeals process, with a balance of interests represented, will help maintain program credibility with the public and participant comfort with the auditor's role.

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### Recommendation 18: Auditor Qualifications

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**Recommendation Statement:** The ODG and AG believe that all independent, third party auditors who participate in the NBP biosolids EMS program must have the following minimum qualifications.

- Have not provided consulting services to any organization they audit in the two years prior to an audit and for two years after, in order to prevent a conflict of interest.
- Have a minimum of 5 years experience in wastewater treatment and biosolids program management.
- Be an ANSI-RAB certified ISO 14001 Lead EMS Auditor (if the audit is conducted by a team, at least one auditor must be a certified Lead EMS Auditor) or an approved equivalent certification for lead EMS auditor.
- Be knowledgeable of applicable federal biosolids regulations, the NBP *Manual of Good Practice*, the NBP *Code of Good Practice*, the NBP *EMS Elements*, and the NBP *Guidance Manual*.
- At the time of the audit, be familiar with applicable state/local requirements and practices.
- Have completed an NBP-developed and approved auditor training course.

**Background:** The ODG discussed that it would be desirable for auditors to have knowledge of applicable state and local biosolids regulations. The group acknowledged that it would be infeasible to require all auditors to be knowledgeable of all 50 state and numerous local regulations. The ODG believed that requiring that auditors be regionally based would result in auditors being more familiar with state and local regulations.

AG members indicated that the NBP will need to establish more detailed minimum auditor qualifications relative to size of facility, type of treatment, location in management structure, etc.

**Rationale:** The ODG and AG believe that this combination of skills and experience will provide auditors who are competent in systems auditing as well as familiar with wastewater and biosolids program management.

These skills, and the requirements regarding conflicts of interest, will also provide for auditors that are seen as credible by the biosolids responder community and the public.

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## Recommendation 19: Audit Funding

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**Recommendation Statement:** The ODG and AG recommend that payment for third party verification services as part of the NBP's EMS program work in the following manner.

- The organization being audited would pay for third party auditor services in the form of a program participation fee, through the organization responsible for the high-level program functions.
- Auditors would pay for their own special training and certification.
- Verification system overhead would be handled through an annual fee assessed on each participating organization. Seed money to incubate the verification system would likely be necessary until a “critical mass” of participating organizations is reached.

**Background:** During the initial interviews, several AG members mentioned the difficulty that public utilities could have in going through the official contract procurement process to obtain verification services. The AG members indicated that it is easier to pay a fee for program participation, than to procure a contract for third party verification services. Thus, ODG and AG members believed that a program participation fee should cover verification service costs.

Research on existing auditor certification programs indicated that it is standard practice for auditors to pay for their own training and certification costs.

Cost estimates on third party verification audits, collected by Ross & Associates as part of the research requested by the ODG, are provided in the Attachments to this document.

**Rationale:** The ODG and AG believe that setting up a program fee would make paying for third party verification services easier for public utilities, given the nature of typical contract procurement procedures. The ODG and AG believe that seed money to start the verification system would help keep participant costs stable (and reasonable) while the EMS program gains participants sufficient in number to cover all costs through participation fees.

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## Recommendation 20: Small Utilities

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**Recommendation Statement:** The ODG and AG believe that, given the resource requirements associated with the NBP's program requirements of implementing an EMS and having it verified by an independent third party, it is likely that some smaller organizations may find the resources required prohibit them from program participation and prevent them from receiving the benefits of participation (e.g., increased public acceptance of biosolids management practices). The ODG and AG's recommendation for third party verification depends on the commitment of the NBP to allocate resources necessary to allow for EMS program participation by smaller organizations. The ODG and AG recommend that the NBP make the following commitments to address the needs of smaller organizations.

- The NBP would commit to obtaining financial resources for smaller organizations to help offset the cost associated with third party verification services.
- The NBP would commit to using the demonstration pilot projects to gain a refined understanding of the resource needs of smaller organizations for EMS design and implementation, as well as for third party verification.
- The NBP would commit to reexamine participation by smaller organizations if financial resources are not secured.
- The ODG would commit to reconvene, if necessary, to modify the third party verification approach to ensure participation is available to smaller organizations. The ODG already has significant background on the issue and alternative solutions.
- The NBP would commit to setting aside resources required to reconvene the ODG as necessary.
- The NBP would commit to addressing other resource needs of small organizations, besides financial resources for third party verification audits. For example, technical assistance in the form of tool kits and peer mentors will also provide valuable support for small utilities in EMS design and implementation, as well as in preparing for third party verification audits.

**Background:** Early in the process, several members of the AG and ODG raised the concern that smaller utilities may not have the resources available to participate in the NBP EMS program should third party verification be a required component. Several options for meeting the needs of smaller utilities were discussed by the ODG, including the consideration of a tiered program approach. Members of both the ODG and AG believed, however, that a single type of verification and program participation would provide greater clarity of meaning to NBP EMS program participation. In addition, members of both groups believed that independent, third party auditors would give the NBP the most credibility with the responder community.

In its discussions, the ODG identified that a primary barrier to participation by smaller utilities would be financial and other resources required to implement an EMS and pay for a third party audit. Having identified this problem as a resource issue, the ODG chose to address the resource issue directly and not potentially compromise program credibility through adopting a tiered program approach.

In its discussions, members of the ODG and AG have considered a small utility to be < 5 mgd. However, the groups acknowledged that the definition of small utilities, which could be based on population size or flow, and the process by which resources are distributed (e.g., how a utility demonstrates need) are a policy decision for the NBP and fall outside the scope of third party verification.

**Rationale:** The ODG and AG believe that obtaining the resources, both in the form of direct financial assistance and technical assistance, will be critical for the participation of smaller utilities, given the program requirements for a third party verification audit. The ODG and AG would find it necessary to reevaluate the third party verification system and requirements for smaller utilities should the NBP not accept this recommendation to obtain resources for smaller utilities to participate in the EMS program.

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Attachment A: Definitions

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**Biosolids** – solid organic matter recovered from a wastewater treatment process and used especially as fertilizer – usually used in plural.

**Biosolids Management Program** – a comprehensive program covering all aspects of the organization’s biosolids activities throughout the biosolids value chain, including management processes for all critical control points in order to mitigate environmental impacts, meet legal and other requirements and execute action plans to achieve biosolids program goals and objectives.

**Biosolids Program Goal(s)**– performance improvement goals that are consistent with an organization’s biosolids management policy to assure biosolids activities comply with applicable laws and regulations, meet quality and public acceptance requirements and prevent other unregulated adverse environmental and public health impacts by effectively managing all critical control points. Biosolids program goals may include but are not limited to compliance with specific regulatory requirements, expanding beneficial use, improving biosolids quality, improving public acceptance and reducing or eliminating direct/indirect negative environmental impacts.

**Biosolids Program Objective(s)** – a detailed performance improvement requirement, quantified wherever possible, based on a biosolids program goal. One or more objectives must usually be met in order for the underlying goal to be achieved.

**Biosolids Public Acceptance Requirements** – biosolids physical, chemical, biological and aesthetic characteristics and management methods that must be met consistently and reliably in order to achieve public acceptance of the organization’s selected biosolids management method(s).

**Biosolids Value Chain** – sequence of activities from wastewater pretreatment, discharge and collection through wastewater treatment, solids treatment and handling, storage, transportation, and final disposition of biosolids that impact the quality and stability of biosolids and their suitability for the selected management method.

**Continual Improvement** – EMS process for systematically improving the overall management of biosolids to achieve the organization’s biosolids program goals and objectives set forth in the organization’s biosolids management policy and the National Biosolids Partnership Code of Good Practice.

**Corrective Actions** – specific actions and steps taken to correct an organization’s nonconformance(s) to policies, procedures, and other legal, quality and public acceptance requirements, and to mitigate any resulting negative impacts on the environment.

**Critical Control Points** – those locations, unit processes, events, and activities throughout the biosolids value chain under the organization’s direct control or influence that require effective policies, programs, procedures, practices, monitoring and measurements to assure the biosolids activities meet legal, quality and public acceptance requirements. Critical control points include all biosolids management activities that are covered under applicable legal and other requirements.

**EMS Audit (Internal)** – a systematic internal audit process for objectively evaluating whether an organization’s environmental management system for biosolids conforms to the requirements of its Biosolids Policy and the *EMS Elements*.

**EMS Audit (Third Party Verification)** – a systematic, structured audit of the organization’s biosolids EMS performed by a qualified independent third party auditor using a standardized protocol to verify conformance with the requirements of the *EMS Elements*.

**EMS Documents** – various documents that collectively comprise the biosolids environmental management system documentation, including the biosolids management policy, procedures, practices, operating instructions, and other supporting documents required by the environmental management system and applicable biosolids laws and regulations.

**Environmental Impacts** – any change to the environment (positive or negative) including public health, public nuisance and odor problems, that wholly or partially result directly or indirectly from the organization’s activities, products or services, including those activities associated with biosolids management, and those activities that alter (positively or negatively) the acceptable disposal/use method or create public nuisance and public health risks.

**Environmental Management System for Biosolids (EMS)** – an organized management system that meets the requirements of the *EMS Elements* for achieving the biosolids management policy requirements and for developing, implementing, reviewing, and maintaining effective biosolids management programs, procedures and practices. The EMS needs to manage all critical control points associated with biosolids activities where there is a potential to create significant negative environmental impacts.

**Interested Parties** – individuals or groups concerned with or affected by the environmental performance of an organization’s biosolids management activities. These parties include customers, regulators, local residents, the media, environmental groups, and the general public.

**Legal Requirements** – the environmental federal, state and local laws and regulations that are applicable to an organization’s biosolids management program activities.

**Nonconformance** – a deviation from the established biosolids management program and EMS requirements that has the potential to create a noncompliance situation or significant environmental impact.

**Noncompliance** – a deviation from federal, state and local laws, regulations and other compliance requirements applicable to the organization’s biosolids management activities.

**Objective Evidence** – policies, ordinances, procedures, manuals, inspection checklists, operating logs, annual reports, various other documents, and various records – monitoring, inspection, enforcement, training, etc., that objectively document conformance with the *EMS Elements* requirements

**Operational Controls** – ordinances, regulations, standard operating procedures, practices, technology, instrumentation and process controls, monitoring and other criteria developed, implemented, and maintained by an organization to ensure effective management of all critical control points associated with its biosolids management activities; including conformance with biosolids management policy requirements; and achievement of biosolids program goals and objectives.

**Organization** – enterprise, authority, or institution, or part thereof, responsible for individual or a combination of, biosolids management activities.

**Practices** - environmental management actions or techniques that are consistent with, or go beyond, regulatory requirements.

**Performance** - objective measures of practice/procedure outcomes on environmental endpoints and compliance.

**Preventive Actions** – specific actions and steps taken to identify, analyze, and eliminate the root causes of noncompliance(s) and nonconformance(s) and to put in place permanent solutions that will prevent a recurrence.

**Procedures** - replicable management system activities that support the consistent maintenance of practices and achievement of objectives.

**Public Participation** - specific approach (es) and action(s) taken by an organization to involve interested parties and the general public in its biosolids management program, including establishing improvement goals and objectives.

**Responder Community** - those groups or individuals from whom the organization is seeking a favorable change in response due to the organization's participation in the NBP program (for example, local community members may respond differently to the organization due to actions taken).

**Stakeholders** – employees, contractors, public officials, regulators, community residents, public interest groups and other public and private organizations with an interest in biosolids management activities.

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## Attachment B: Audit Protocol

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### **EMS Paperwork Review**

Upon receipt of the EMS paperwork, the audit implementation organization will assign a lead auditor to review the documentation and compare it with the requirements presented in the *EMS Elements* to determine its completeness.

If the EMS paperwork appears insufficient to conform to the requirements of the *EMS Elements* (i.e., if required documents are missing or several documents do not address all the specified topics) the lead auditor will contact the representative of the organization to ascertain whether other paperwork exists that has not been supplied. If paperwork still appears to be insufficient once it has all been reviewed, the lead auditor will inform the organization that there are deficiencies in the documentation that need to be addressed before a site visit for verification is appropriate. The lead auditor will also inform the NBP of the situation.

If the EMS paperwork is complete, the lead auditor will determine, based on the size and complexity of the facility, whether it is necessary to involve additional auditors in order to complete the site visit within a reasonable time. The lead auditor will determine how many additional auditors are necessary, and contact appropriately qualified people to ascertain their availability. Once the audit team has been selected the lead auditor will schedule a time for the site visit with the representative of the organization being audited.

If there are EMS nonconformance identified by the auditor in the EMS paperwork that appear relatively minor, the paperwork will be held by the auditor until the organization demonstrates that the nonconformance have been resolved. If the nonconformance in the paperwork is significant, the paperwork will be returned to the organization with a recommendation that significant additional work is required on the documents before a verification audit is warranted.

If the only nonconformance found in the EMS paperwork are ones that may be addressed prior to, during, or immediately following the site visit, the lead auditor will contact the representative of the organization to confirm the dates of the site visit and outline the requirements. These requirements include availability of a private room and/or working area, use of a telephone, provision of lunch on site, and availability of relevant personnel, including top management, for interviews. Following this contact, the lead auditor will provide a tentative agenda to the representative of the organization.

### **Site Visit**

The site visit will start with an entrance meeting, which will be led by the lead auditor. The purpose of this meeting is for the lead auditor to introduce the audit team, brief the environmental representative, facility manager and staff on the scope of the audit, audit team activities and requirements, review the schedule for the audit and employee interviews and discuss any other relevant aspects of the audit process.

The entrance meeting will be followed by a thorough tour of the facility to familiarize the audit team with the different processes that occur at the site. During the site tour the audit team will observe operations, identify areas of focus, and identify employees to question about the environmental management system and its implementation. This tour will generally take several hours.

Once the tour is completed, the audit team will conduct interviews, review on-site documentation, and if necessary revisit parts of the facility. Interviews will assist the auditors in determining whether employees are familiar with the environmental policy and its requirements, and their specific environmental responsibilities. Review of on-site documentation and records allows the auditors to determine whether the procedures are being implemented as written and that appropriate records are being kept. When specific questions arise that the environmental representative cannot answer, or that require a review of specific areas, an auditor may go back out into the plant accompanied by a facility representative to interview an employee or look for written evidence. Such evidence might include monitoring logs, training records, posted notices or meeting minutes. If written evidence is not available, the auditor will need to question a sample of relevant employees to determine that their answers are both consistent and support the EMS.

The audit team will use the *EMS Elements* and a checklist (to be developed) as a guide to ensure that all parts of the EMS are in place and functioning well. Indicators of whether the EMS is indeed functioning properly are the progress toward the objectives and targets set by the organization, the existence and completeness of corrective action reports and/or preventive action reports, and minutes from management review committee meetings showing progress on the EMS and management review of this progress. If progress on the objectives and targets is not consistent with the deadline set when they were created, there should be written evidence that this is being addressed and appropriate adjustments made. Corrective and/or preventive action reports should exist (no program is perfect), include responsibilities and acknowledgment of these responsibilities, be up-to-date and be signed by the appropriate personnel. Management review committee meetings should be attended by a quorum of top-level management and the minutes should record their actions taken on the EMS.

During the audit, the audit team will work cooperatively with the representative of the organization being audited and will keep this representative informed of any findings and potential findings as they are discovered. This will allow the organization to provide additional information as available to assist the auditors in assessing the EMS appropriately.

Audit team members will meet independently of representatives of the organization to discuss any questions and findings resulting from the interviews and document review and determine exactly where nonconformance exist. The audit team will strive for consensus regarding the nonconformance, and the audit team leader will make the final decision. Minor nonconformance involve discrepancies within an element of the *EMS Elements* or the participant's environmental management system that are easy to remedy and do not significantly affect the implementation of the environmental management system and commitment to comply with the NBP's *Code of Good Practice* – a systemic problem is not indicated. Major nonconformance are those where important portions of or an entire element is not addressed or has not been addressed adequately. Major nonconformance also exist if an element is being disregarded sufficiently during participant operations that it is having a noticeable effect on the participant's environmental compliance, environmental impacts, or the quality of the product being produced – there is a systemic failure.

Prior to the exit meeting, EMS strengths, weaknesses, and all nonconformance identified during the audit will be recorded on a finding sheet that will be presented to the representative of the organization at the exit meeting.

The exit meeting will be held with representatives of the organization to present the findings of the audit. A final opportunity will be provided for the organization to present additional information that may not have been available during the interviews. The tentative outcome of the audit will be discussed at the exit meeting.

## **Outcome**

The lead auditor will make a verification recommendation and prepare working draft audit summary and detailed findings reports. The auditor will provide these working draft documents to the participant for review. This review will allow the participant to ensure the technical accuracy of audit findings and develop observations for inclusion in the final summary and detailed audit reports. After the participant has reviewed the draft reports and prepared any observations, the auditor will prepare final audit summary and detailed findings reports, attach the participant's observations, and submit all of the documents simultaneously to the participant and the NBP.

## **Format for Audit Report**

### *Title Page*

- Heading: National Biosolids Partnership EMS Audit Report
- Participant's name and address
- Audit team members' names and roles
- Reference documents:
  - NBP *EMS Elements*
  - Participant's environmental policy and environmental management system
  - Date issued
  - Date revised
  - Other
  - Signatures of participant representative and lead auditor with date

### *Body of Document*

- Attendance sheets for entrance and exit meeting
- List of any remote operations included in audit
- Pre-audit document review summary:
  - List of documents reviewed citing any deficiencies
  - List of requirements for documentation taken from *EMS Elements* along with references to relevant participant documents that meet each of the requirements
- Findings sheets indicating nonconformance with the requirements, organized by department, and referencing each requirement that has a nonconformance by number from the *EMS Elements*, participant environmental management system, or other relevant document
- Auditors' recommendation regarding NBP program verification

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**Attachment C: Auditor's Areas of Inquiry**


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The following table is provided for example purposes only. It does not reflect a consensus product of the Options Development and Advisory Groups.

This table is meant to be a starting point for detailed auditor guidance to be developed during program implementation. Further development and refinement of this table needs to await decision-making by the NBP to create consistency between the Third Party Verification Recommendation, the *EMS Elements*, and the *EMS Guidance* documents. In particular, the NBP will need to reach agreement on how a participant will objectively demonstrate conformance with any one of the given elements. In light of the current lack of consistency, this table attempts to look across the Third Party Verification Recommendation, the *EMS Elements*, and the *EMS Guidance* documents to pull out a few example areas. Only three areas have been selected here, but the NBP will need to develop auditor areas of inquiry for all 17 elements in the *EMS Elements*.

<b>Element</b>	<b>Requirement</b>	<b>Starting Point</b>	<b>Example Questions/Guidance</b>	<b>Conform (Y-N-N/A)</b>	<b>Comments</b>
1.0 Biosolids Management Policy	1.1 Visible on site and in organizational documents	Review documents, notice board, etc	<p><i>Interview:</i> Where is your biosolids management policy posted for viewing? Please show me (if not seen on site tour).</p> <p><i>Document Review:</i> Review EMS Manual for inclusion of policy.</p> <p><i>Site Tour:</i> Look for posted policy.</p>		
1.0 Biosolids Management Policy	1.2 Incorporated into biosolids programs, procedure, and practices	Procedures and practices	<p><i>Interview:</i> Show me how your policy has been incorporated into biosolids programs, procedures, and practices.</p> <p><i>Document Review:</i> Assess incorporation of policy into program, procedure, and practice documents.</p> <p><i>Site Tour:</i> N/A</p>		
<b>Element</b>	<b>Requirement</b>	<b>Starting Point</b>	<b>Example Questions/Guidance</b>	<b>Conform (Y-N-N/A)</b>	<b>Comments</b>
1.0 Biosolids Management Policy	1.3 Communicated to employees	Targeted employees and	<i>Interview:</i> Ask targeted employees and contractors their understanding of the		

	and contractors	contractors	<p>policy and how they are told about it.</p> <p><i>Document Review:</i> Review training materials, logs and any literature distributed, etc. for inclusion of policy. Review contract documents for inclusion of policy.</p> <p><i>Site Tour:</i> N/A</p>		
1.0 Biosolids Management Policy	1.4 Made available to interested parties upon request	EMS management rep.	<p><i>Interview:</i> What provisions are there for making the policy available to interested parties upon request?</p> <p><i>Document Review:</i> Review communications procedures for responding to requests for the policy. Review documentation listing individual requests for the policy from interested parties and responses to those requests.</p> <p><i>Site Tour:</i> N/A</p>		
1.0 Biosolids Management Policy	1.5 Commits to the Code of Good Practice	Biosolids Management Policy	<p><i>Interview:</i> N/A</p> <p><i>Document Review:</i> Review policy language for commitment to the Code of Good Practice.</p> <p><i>Site Tour:</i> N/A</p>		
<b>Element</b>	<b>Requirement</b>	<b>Starting Point</b>	<b>Example Questions/Guidance</b>	<b>Conform (Y-N-N/A)</b>	<b>Comments</b>
3.0 Legal and Other Requirements	3.1 Maintain documented procedures for identifying and tracking legal and other requirements	Procedures	<p><i>Interview:</i> Please describe your procedures for tracking and identifying legal and other requirements.</p> <p><i>Document Review:</i> Review procedures for identifying</p>		

			and tracking legal and other requirements.  <i>Site Tour: N/A</i>		
3.0 Legal and Other Requirements	3.2 Include a management process for incorporating changes and new requirements	EMS management rep. / meeting minutes	<i>Interview: How are changed and new legal and other requirements incorporated?</i>  <i>Document Review: Review management meeting minutes for reference to incorporated changed or new legal or other requirements.</i>  <i>Site Tour: N/A</i>		
3.0 Legal and Other Requirements	3.3 Establish and maintain records of applicable legal and other requirements	Records	<i>Interview: Where are your records of applicable legal and other requirements?</i>  <i>Document Review: Examine records of applicable legal and other requirements</i>  <i>Site Tour: N/A</i>		
<b>Element</b>	<b>Requirement</b>	<b>Starting Point</b>	<b>Example Questions/Guidance</b>	<b>Conform (Y-N-N/A)</b>	<b>Comments</b>
9.0 Communications and Public Outreach	9.1 Establish and maintain a process for making a) the biosolids management policy, b) legal and other requirements, c) goals and objectives, d) periodic Biosolids Management Program Performance Reports, and e) Third Party Audit	Records / Community Relations or Outreach Department	<i>Interviews: What is your process for making materials about your EMS and biosolids management policy available to interested parties?</i>  <i>Document Review: Review procedures for making information (items a - e) available to interested parties.</i>  <i>Site Tour: N/A</i>		

	Summaries available to interested parties.				
9.0 Communications and Public Outreach	9.2 Include a procedure for receiving, recording, and responding to inquiries from interested parties	Records / Community Relations or Outreach Department	<p><i>Interview:</i> What are your procedures for receiving, recording, and responding to inquiries from interested parties?</p> <p><i>Document Review:</i> Review lists of individual requests for information and their responses.</p> <p><i>Site Tour:</i> N/A</p>		
<b>Element</b>	<b>Requirement</b>	<b>Starting Point</b>	<b>Example Questions/Guidance</b>	<b>Conform (Y-N-N/A)</b>	<b>Comments</b>
9.0 Communications and Public Outreach	9.3 Define the external communication s roles and responsibilities of contractors.	Contract documents / targeted contractors	<p><i>Interview:</i> Have the external communications roles and responsibilities been communicated to you? How?</p> <p><i>Document Review:</i> Examine contract documents for definition of external communications roles and responsibilities.</p> <p><i>Site Tour:</i> N/A</p>		
9.0 Communications and Public Outreach	9.4 Communicate relevant information about biosolids management activities and EMS to operating staff, supervisors, and managers.	Memos to employees / targeted employees	<p><i>Interview:</i> Has relevant information about the biosolids management activities and EMS been communicated to you? How?</p> <p><i>Document Review:</i> Examine memos and communications to employees for relevant information</p> <p><i>Site Tour:</i> N/A</p>		

<p>9.0 Communications and Public Outreach</p>	<p>9.5 Establish a streamlined procedure for making third party audit reports available upon request</p>	<p>Records / Community Relations or Outreach Department</p>	<p><i>Interview:</i> What is your procedure for making Third Party Verification Audit Reports available to interested parties upon request?</p> <p><i>Document Review:</i> Examine procedures. Examine lists of individual requests for Audit Reports and their responses.</p> <p><i>Site Tour:</i> N/A</p>		
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Attachment D: Options Development Group members

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Robert Bastian	US Environmental Protection Agency
Ned Beecher	New England Biosolids and Residuals Association
Myron Erickson	Wyoming, MI
Suzanne Flores	Jacksonville, FL
Jane Forste	Jane Forste and Associates
James Horne	US Environmental Protection Agency
Greg Kester	Wisconsin Department of Natural Resources
Dean Marriott	Portland, OR
Michael Moore	Orange County, CA
Thomas Murphy	New York, NY
Robert O'Dette	Synagro Corporation
Richard Sustich	Chicago, IL
Diane Taniguchi-Dennis	Albany, OR
Lisa Vogel	King County, WA

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Attachment E: Advisory Group Members

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Robert Adamski	New York, NY
Blake Anderson	Orange County, CA
Robert Bonne	Cary, NC
Paul Burnet	Oregon Department of Environmental Quality
Herschel Elliott	Pennsylvania State University
Ken Evans	Arizona Farm Bureau
Chris Gannon	Warm Springs Tribal Confederation
Gordon Garner	Louisville & Jefferson County
Nancy Girard	Conservation Law Foundation
Nora Goldstein	JG Press
Joe Haworth	LA County Sanitation District
Rick Jarman	National Food Processors Association
Carolyn Jenkins	New England Interstate Water Pollution Control Commission
Jeff Lape	US Environmental Protection Agency
Jason Morrison	Pacific Institute
Ed Pinero	Pennsylvania Department of Environmental Protection
Paul Schur	University of Connecticut
Jerry Speir	Tulane Institute for Environmental Law and Policy
Chris Toth	San Diego, CA
Bob Williamson	Kansas City, MO
Pat Wood	Georgia Pacific

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Attachment F: Research Conducted on Registrars and Program Costs

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**Registrars & Verification Service Providers**

- Contact with ANSI/RAB, NSF-ISR, AQA-USA, Perry Johnson Registrars, and Quality System Registrars (QSR)
- Consultations with project subcontractor from Environment International who is an ANSI/RAB certified Lead EMS Auditor
- In total, researched two dozen ANSI/RAB certified registrars (web searches, e-mail exchanges, phone calls)
- Many registrars are expanding their scopes to meet growing market needs and view NBP program as a potential business opportunity.
- One registrar indicated they would be somewhat reluctant to engage in a non-accredited registration program (e.g., ISO 14001 is accredited), but would be very interested in finding out more about the program.

**Cost Estimates**

- Cost estimates obtained generally fell in the range of \$1200 - 1350 per auditor day, plus travel
- Cost estimates for program overhead were \$50-100K per year for a program of 25 utilities