Water Sector National Incident Management System (NIMS) Implementation Objectives

As utility personnel plan and prepare for emergencies, a common question arises: "How do I implement the National Incident Management System (NIMS) at my utility?" Although the Federal Emergency Management Agency (FEMA) developed NIMS compliance requirements for state, local, and tribal governments, they have not developed requirements for individual sectors, such as the water sector. In the absence of specific requirements, this document provides recommended water sector NIMS implementation objectives that integrate NIMS principles into utility operations and planning. It is recommended that public drinking water and wastewater systems coordinate with their local emergency management agency (EMA) when implementing these objectives to check whether the local government NIMS compliance requirements also apply to their utilities.

What is NIMS?

Homeland Security Presidential Directive (HSPD) 5 tasked the Department of Homeland Security to develop and administer NIMS. HSPD 5 also requires federal departments and agencies to adopt NIMS planning and response concepts. States, territories, local jurisdictions, and tribal entities must adopt NIMS in order to receive federal preparedness assistance.

NIMS, originally published in 2004, establishes a comprehensive, national approach to incident management that is applicable at all jurisdictional levels, across all agencies, and to all domestic incidents regardless of size. NIMS is flexible but still provides a set of standardized organizational structures, as well as requirements for processes, procedures, and systems designed to improve the ability of responders (public and private) to work together. NIMS supports the effective use of mutual aid and assistance agreements. Many Water and Wastewater Agency Response Networks (WARNs) use the concepts of NIMS for a more successful program.

What are the Main Components of NIMS?

There are five main components of NIMS:

- Preparedness;
- Communications and information management;
- Resource management;
- Command and management; and
- Ongoing management and maintenance.

Each of these components is described in detail in the NIMS document and includes a number of key themes. As utilities begin to incorporate NIMS concepts and principles into their preparedness planning, many are surprised to learn that they are now considered first responders. HSPD 8, published in 2003, formally acknowledged the vital role that public works (which, as defined by HSPD 8, includes drinking water and wastewater utilities) personnel play in response to an incident. NIMS encourages and helps all first responders to work together to provide mutual aid and assistance to one another as effectively and efficiently as possible.

Preparedness

Many water utility professionals believe that implementing NIMS only requires taking one or two classes. However, a utility should adopt NIMS by incorporating it into its emergency preparedness, response, and security activities. Some utilities have formally issued a policy requiring the use of NIMS. Subsequently, these utilities have updated their existing plans and procedures to ensure consistency with NIMS. As defined in the NIMS document, preparedness covers the elements of planning, training, and exercises.

What are the Benefits of NIMS?

- Strengthens response capabilities by following a nationally adopted, standard, flexible practice for emergency response;
- Improves mobilization, deployment, utilization, tracking, and demobilization of needed resources;
- Establishes protocols for improved communication with other first responders and support personnel;
- Reduces the time delay to access mutual aid and assistance resources; and
- Allows integration with other local and state emergency response agencies.

NIMS Implementation Objectives for the Water Sector*
Preparedness
Planning
1. Revise Emergency Response Plans (ERPs) to incorporate NIMS principles such as ICS.
2. Maintain mutual aid and assistance agreements with response partners and participate in a Water and Wastewater Agency Response Network (WARN).
Training
3. Use existing resources for NIMS trainings, such as USEPA's Water Sector ICS-NIMS Training.
4. All staff completes IS-100PWa (ICS) and IS-700a (NIMS) at a minimum.
5. Managers/Supervisors complete ICS-200a, ICS-300a, ICS-400a, and IS-800B National Response Framework (NRF) as appropriate.
Exercises
6. Incorporate NIMS principles into exercises, such as a corrective action process.
7. Participate in an all-hazards, multi-agency, and multi-jurisdictional exercise program such as those offered by LEPCs and EMAs.
Communications and Information Management
8. Use NIMS terminology and clear text, avoid using acronyms.
9. Use tools during an incident or event to promote a common operating picture (e.g., ICS Form 209 and/or SitRep).
Resource Management
10. Inventory resources and type them according to local protocols and the AWWA Water & Wastewater Mutual Aid & Assistance Resource Typing Manual.
11. Purchase interoperable equipment (e.g., radios).
12. Use a WARN program to help obtain needed resources.
13. Participate in jurisdictional credentialing (e.g., first responder ID cards) if applicable.
Command and Management
Incident Command System
14. Use ICS to manage all incidents and events.
Multi-Agency Coordination System
15. Use your jurisdiction's Emergency Operations Center (EOC) for incident support in addition to mutual aid and assistance such as a WARN.
Public Information
16. Use the Joint Information System during an incident or event, for example, designating a Public Information Officer.
17. Ensure that all water use advisories and notices are compliant with the Public Notification Rule and fully coordinated with other public notifications regarding the incident.

* Based on FEMA's FY2008 NIMS Compliance Objectives

Planning

Many utilities are implementing NIMS by preparing emergency response plans (ERPs) and business continuity plans (BCPs), and by becoming members of Water and Wastewater Agency Response Networks (WARNs). If your utility has not yet developed an ERP or BCP, or considered joining a WARN, it is in your best interest to do so. Be sure to coordinate your planned response actions with other local first responders.

Training

The second element of preparedness is training. At a minimum, all utility staff who would likely be involved in the response to an incident should complete the following courses:

• Basic Incident Command System (ICS) IS-100PWa; and
• NIMS, An Introduction IS-700a.

These courses are offered for free online through FEMA's Independent Study website at http://training.fema.gov/IS/NIMS.asp. USEPA is currently offering free in-person

versions of these trainings at various locations throughout the country.

One advantage to attending a USEPA-sponsored training is that the standard FEMA courses have been tailored to the water sector and contain relevant teaching examples and group activities. To find a USEPA training location near you and to register, please visit http://cfpub.epa.gov/safewater/watersecurity/outreachresult.cfm?outreach_id=92&type=1. The water sector-specific materials used during USEPA's in-person classes are also available online (see the link at the end of this fact sheet).

If you hold a supervisory or management role within your utility, more training is recommended. For example, utility personnel who serve as first-line supervisors or in management roles should also complete ICS IS-200a training. Utility executives and senior officials may wish to consider taking the 2-hour state-offered ICS Overview G402 course. Complete details regarding NIMS courses and who at your utility should complete them can be found in the NIMS Five Year Training Plan, available at http://www.fema.gov/emergency/nims/NIMSTrainingCourses.shtm.

Exercises

Exercises comprise the last element of preparedness. Many preparedness organizations, such as Local Emergency Planning Committees (LEPCs) and either local or state EMAs, already plan and conduct all-hazard exercises that incorporate NIMS. Utilities should reach out to these preparedness organizations and take part in the exercises they conduct. This will ensure that a utility's ERP is coordinated with other local emergency plans. In addition, this participation allows utility staff to take part in professionally facilitated exercises with minimal utility resource expenditure. It also allows utility personnel to develop working relationships with other local first responders before an emergency occurs.

Utilities with more resources may wish to consider conducting their own exercises and inviting other first responders to attend. Exercises should to be designed and conducted in accordance with the Homeland Security Exercise and Evaluation Program (HSEEP) guidance. Scenarios and exercise materials can be obtained from the USEPA's Water and Wastewater Emergency Response Tabletop Exercises tool at http://www.epa.gov/safewater/watersecurity/tools/trainingcd/. This tool will be updated with new all-hazards scenarios and a new format to comply with HSEEP guidance. Once the tool is finalized, it will be posted on USEPA's website at http://cfpub.epa.gov/safewater/watersecurity/tools.cfm.

Also consider these points when you are developing, conducting, or participating in exercises:
• Incorporate NIMS components, such as ICS;
• Ensure key staff have a role;
• Capture and incorporate lessons learned into an exercise after action report; and
• Implement corrective actions identified in the after action report by updating your utility's ERP and other plans and procedures.

Communications and Information Management

Communications and information management is another component of NIMS that should be implemented. An important aspect of communications is for utilities to use common NIMS terminology and what is referred to as clear text. Common NIMS terminology includes, for example, using the title Incident Commander for the person with overall responsibility for managing an incident. The use of common terminology greatly reduces confusion between jurisdictions and agencies working together during a larger incident, since all first responders across the country are learning the same, common NIMS terminology.

Clear text refers to the principle that utility personnel should always use plain English when communicating during an incident. Other agencies and jurisdictions are not familiar with your utility-specific acronyms or jargon, and your use of them will only lead to confusion on larger incidents and when mutual aid and assistance agreements are activated. For example, the acronym SCADA is not understood by everyone outside of a utility!

Information management is necessary so that everyone responding to an incident is on the same page, or shares a common operating picture. One information management tool that already exists and can be readily adopted by utilities is the Situation Report, or SitRep. The SitRep format has been in use for years, and is a proven way to present incident information to others so that a common operating picture can be developed and shared. The daily national SitRep can be found on FEMA's website at http://www.fema.gov/emergency/reports/index.shtm. Another tool that can be used at the local level is the ICS Form 209 - Incident Status Summary.

Resource Management

Resource management is another critical component of NIMS implementation. Resources include utility personnel, equipment, supplies, and materials. Under NIMS, all resources should be typed, which means that resources are classified by their function (category), class (kind), and their performance or capability (type). Once a resource is typed, it is very clear to first responders what resource they are asking for, and it helps to ensure that the first responder receives the resource that he or she requested.

Utilities should consider inventorying and typing their resources. This can be done in conjunction with jurisdiction efforts (local, county, or state level). The American Water Works Association's Water and Wastewater Mutual Aid and Assistance Resource Typing Manual provides a large number of typed water sector resources that are commonly requested during water sector related incidents. This free document is available at http://www.nationalwarn.org. Resource inventories can be kept using a hard copy system, such as a card catalog, or by using a spreadsheet, database or other digital program, such as the online resource lists maintained by many WARN programs.

Additional NIMS implementation objectives under this component include:
• Procurement and/or use of interoperable equipment, such as radios. This allows utility response personnel to readily communicate with other first responders in their jurisdiction.
• Participation in your jurisdiction's development or implementation of a credentialing system. This will help verify the identity and qualifications of emergency personnel responding to an incident.

Command and Management

The Command and Management component within NIMS is designed to enable effective and efficient incident management and coordination by providing a flexible, standardized incident management structure. The structure is based on three key organizational constructs: the ICS, Multiagency Coordination System (MACS), and Public Information.

Incident Command System (ICS)

HSPD 5 requires that federal agencies manage all domestic incidents under ICS. During large incidents, utilities should be prepared to coordinate with state and federal agencies using ICS. Utilities can practice using ICS when responding to routine emergencies such as main breaks. This will ensure that utility personnel are familiar with NIMS common terminology and how the ICS functions, which will be an advantage when working with other local, state, and federal first responders during a larger incident.

Multiagency Coordination System (MACS)

The primary function of the MACS is to coordinate activities above the field level and to prioritize the incident demands for critical or competing resources. At the management level, the MACS assists with the coordination of field operations. The MACS consists of a combination of elements: personnel, procedures, protocols, business practices, and communications integrated into a common system.

The MACS can be implemented from a fixed facility (such as an Emergency Operations Center or EOC) or by other arrangements outlined within the system. Utilities should learn the location, contact information, and organizational structure of the EOC that serves their community. In addition, utilities should ensure that they are represented within their local EOC during emergencies. The EOC can help a utility to obtain resources during an incident.

Public Information

If public information or notices (e.g., water use advisories) are to be disseminated during an incident, the Public Notification Rule must be followed. NIMS principles regarding public information further support this rule. In addition, utilities should have templates for foreseeable public notifications such as boil order or system bypass notices. These templates help to ensure that no detail is overlooked and that notifications are consistent. A Public Information Officer (or individual serving in that capacity) prepares the notification, which is then approved by the Incident Commander prior to issuance. At larger incidents, the Public Information Officer may need to coordinate the utility's public notice with public notices from other agencies involved in the response. The bottom line is that a clear, consistent message needs to go to the public from all agencies and jurisdictions taking part in public notifications.

Ongoing Management and Maintenance

Just like your ERP, NIMS is constantly being revised and changed based on best management practices and lessons learned. NIMS was first revised in 2008. If you have comments about NIMS or have suggestions to improve NIMS, you can contact the NIMS National Integration Center at 202-646-3850 or FEMA-NIMS@dhs.gov.

NIMS implementation may appear daunting, but in actuality it relies on many best practices already in use by water and wastewater utilities as well as other agencies and jurisdictions. These best practices have been adopted under NIMS so that mutual aid and assistance can be as effective as possible.

To learn more about NIMS, please visit:

http://www.epa.gov/watersecurity
(click on "Emergency/Incident Planning" and scroll down to NIMS)

http://www.fema.gov/emergency/nims
(FEMA's official NIMS website)

http://cfpub.epa.gov/safewater/watersecurity/
outreachresult.cfm?outreach_id=92&type=1
(learn about U.S. EPA's water sector ICS and NIMS training)

http://cfpub.epa.gov/safewater/watersecurity/home.
cfm?program_id=8#nims
(download the water sector ICS and NIMS presentations here)