DEVELOPMENT AND IMPLEMENTATION OF AN EMERGENCY RESPONSE PLAN

Based on work with Catawba Indian Nation and IHS

4 March 2020 TUS at Coushatta
DEVELOPMENT AND IMPLEMENTATION OF AN EMERGENCY RESPONSE PLAN

Outline

❖ Emergency Response Plan Background
❖ Emergency Response Plan Development
❖ Emergency Response Plan Implementation
❖ Application of the Emergency Response Plan
❖ Roundup, Review, and Questions
Emergency Response Plan Background

- An Emergency Response Plan (ERP)
  - Is not a new idea
  - Designed to cover the *anticipated mishaps* that *WILL* occur when operating mechanical and piped systems
  - Generated to *reduce reactivity* of Utilities during unanticipated mishaps
  - Promote Asset Inventory, Planning, & Tracking
Emergency Response Plan Background

- Requirement of the America Water Infrastructure Act
  - 6 mo. After Risk and Resilience Assessment Certification
  - Systems $\geq 100,000$ by 30 Sep 2020
  - Systems 50,000 to $<100,000$ by 30 Jun 2021
  - Systems 3,300 to $<50,000$ by 31 Dec 2021
  - 5-year cycle for recertification

- AWIA does not directly apply to most Tribal Systems
DEVELOPMENT AND IMPLEMENTATION
OF AN EMERGENCY RESPONSE PLAN

Outline

❖ Emergency Response Plan Background
❖ Emergency Response Plan Development
❖ Emergency Response Plan Implementation
❖ Application of the Emergency Response Plan
❖ Roundup, Review, and Questions
Emergency Response Plan Development

❖ Template Started before Approved & Published AWIA-2018

➢ Original plan part of Master Utility Plan project with Poarch Creek – EPA and IHS IA NS-09-M10 (July 2013)

➢ ERP Templating for Catawba began Jul/Aug 2017

❖ Template has the following note:

*This ERP was created based on work by Poarch Band of Creek Indians and their engineer CDG (CDGE.com) for an Indian Health Service (IHS) Project NS-09-M10 with funding and oversite by IHS and EPA Region 4 for templating for all tribes in EPA Region 4 and Nashville Area IHS. The original template is modified to fit the needs and requirements of the Catawba Indian Nation by IHS Tribal Utility Consultant and the Tribal managers and operations staff.
DEVELOPMENT AND IMPLEMENTATION OF AN EMERGENCY RESPONSE PLAN

Emergency Response Plan Development

Template Cover Page
DEVELOPMENT AND IMPLEMENTATION OF AN EMERGENCY RESPONSE PLAN

Emergency Response Plan Development

Template Table of Contents
The ________ Indian Nation must comply with all applicable federal and State of ________ laws regarding public health, security, emergency planning, and local right-to-know laws. Key laws addressing water system security and preparedness are:

- Public Health Security and Bioterrorism Response Act of 2002
- Safe Drinking Water Act
- Emergency Planning and Right-To-Know Act
- American Water Infrastructure Act 2018

The Tribal systems also will comply with applicable state and local laws.
The Catawba Indian Nation has formed an independent *Tribal Emergency Response Commission (TERC)* in accordance with its option under the Title III of the Emergency Planning and Community Right-To-Know Act. Title III contains four major provisions:

1) Planning for chemical emergencies,
2) Emergency notification of chemical accidents and releases,
3) Reporting of hazardous chemical inventories, and
4) Toxic chemical release reporting.

The structure and procedures of the TERC provide the overall framework for emergency response planning pertaining to the Tribe’s water & wastewater systems.
The document is consistent with, and should be considered, an integral part of the Catawba Indian Nation ERP.

The Tribal ERP serves as an umbrella for water/wastewater system emergency preparedness.

The 2002 Bioterrorism Act requires water utilities to coordinate, to the extent possible, with Local Emergency Planning Committees (LEPC) to develop and implement an ERP. (Work with other local Utilities.)

The Tribal ERP contains plans for coordinating with local, state, and federal emergency management agencies.
DEVELOPMENT AND IMPLEMENTATION OF AN EMERGENCY RESPONSE PLAN

Emergency Response Plan Development

Template Table of Contents
Emergency Response Plan Development

- Critical Planning Coordination

- Unidirectional Flushing Plan
- Bacteriological Sampling Plan
- Safely and Health Plans
- Water line re-pressurization procedures (SOPs)
- Spill response procedures (SOPs)
- Etc.
Catawba Indian Nation
of South Carolina
Bacteriological Sampling Plan
For the Catawba Indian Nation
Old Res
PWSID 4650063
Reservation
Plan Summary Pages 5 – 7

<table>
<thead>
<tr>
<th>Approval Date</th>
<th>Signature &amp; Title</th>
<th>Signature &amp; Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision Date</td>
<td>Revision Reason</td>
<td>Signature</td>
</tr>
</tbody>
</table>

Date: 17 October 2018
Page 1 of 7

DEVELOPMENT AND IMPLEMENTATION OF AN EMERGENCY RESPONSE PLAN

Emergency Response Plan Development
Critical Planning Coordination

❖ Bacteriological Sampling Plan
<table>
<thead>
<tr>
<th>Master Utility Plan</th>
<th>Safety and Health Program</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>S&amp;H – 03 Confined Space Entry</td>
<td>S&amp;H – 15 Work Zone &amp; Trenching Excavation</td>
</tr>
<tr>
<td>S&amp;H – 09 Ladders</td>
<td>S&amp;H – 16 Traffic Control</td>
</tr>
<tr>
<td>S&amp;H – 10 Lockout Tagout</td>
<td></td>
</tr>
</tbody>
</table>

Re-pressurization Examples 1 – 3

Re-pressurizing an Isolated Pipe Segment after a Break Repair

Example #1

1. Ensure that non-impacted pipe segments outside the repair area have effective and sufficient Chlorine (Cl2) residuals prior to opening the isolation valves. If those pipe do not have sufficient Cl2 residuals, flush the system pipes up to the break area first.

2. Finish all break repairs.

3. Re-Pressurize the Pipe Segment by Opening Valve #1 (Keep Valve #2 Closed). This allows for the...
Sanitary Sewer Overflows SOP

Managerial Lead: ______________________
Field Lead: ______________________
Media Contact: ______________________

Must develop a personnel action plan in order to effectively address all the issues. Plan should include who does what once a problem is found. Need defined roles for Leadership, Management, Field Personnel, Samplers, if needed, Door to Door Notifiers, and so on. Each general task will have people or groups assign to complete tasks and management will need to fill in the gaps. Each task will likely have a given SOP or the like.

Address cause of the overflow: Sewer/MH plugged or restricted, force main broken, lift station pumps not operating, power outage, control panel malfunction, or etc. Simultaneous address the overflow and impacted area(s).

A. Impact on Ground (Lime Application SOP)
   1. Estimate the quantity and begin to address cause(s) and repair system [Sewer Collection System Rehabilitation, Repair, or Abandonment of given sewer collection facility (Gravity Sewer, Manhole, Lift Station, Force Main)] while simultaneously addressing the health and environmental health concerns.
   2. Contact Catawba Authorities (use Chain of Command - Lines of Authority – Tribe List)
   3. Contact State or Local Authorities as deemed necessary (use Off Reservation

Spill response procedures (SOPs)
DEVELOPMENT AND IMPLEMENTATION
OF AN EMERGENCY RESPONSE PLAN

Outline

❖ Emergency Response Plan Background
❖ Emergency Response Plan Development
❖ Emergency Response Plan Implementation
❖ Application of the Emergency Response Plan
❖ Roundup, Review, and Questions
Emergency Response Plan Implementation

- Communicate with Tribal Leadership
- Run through a Table Top exercise with Operators and Managers
- Communication & Building relationships with surrounding entities
- Full field tests with reviews and lessons learned (Internal/External) ➔ plan modifications
DEVELOPMENT AND IMPLEMENTATION OF AN EMERGENCY RESPONSE PLAN

Outline

❖ Emergency Response Plan Background
❖ Emergency Response Plan Development
❖ Emergency Response Plan Implementation
❖ Application of the Emergency Response Plan
❖ Roundup, Review, and Questions
DEVELOPMENT AND IMPLEMENTATION OF AN
EMERGENCY RESPONSE PLAN

Application of Emergency Response Plan

Positives Benefits of Using the Catawba Emergency Response Plan

1) Reduced Out of Service Time
2) Reduced Boil Water Order Times
3) Improved Customer Service
4) Reduced Complaints (Customers are better informed)
5) Public Notices are Streamlined & Out via Multiple Media outlets with the same message

Tribal Administration appreciates getting the information in a timely, well-organized, and ready-to-go (distribute) manner.
DEVELOPMENT AND IMPLEMENTATION OF AN EMERGENCY RESPONSE PLAN

Application of Emergency Response Plan

Used the Plan to have controlled system shut down

1) Used Notification processes
2) Used Alternate Water Sources
3) Used Alternate WW Handling
4) Used the Unidirectional Flushing and Re-pressurization Processes/Plans
5) Used Department Interaction Guideline

From: Elizabeth Harris <Elizabeth.Harris@catawba.com>
Sent: Thursday, December 19, 2019 4:57 PM
To: Catawba Indian <catawba indian@catawba.com>
Subject: Water Shutdown- January 6th

All,
In speaking with Scott, the Water Department has tentatively scheduled a shut down of water on the Old Reservation on January 6th for hydrant and valve installation. We will have a deluxe heated portable toilet trailer with 3 stalls (similar to the one at the Yap Ye Iswa Festival) here that day for staff use. We will also have plenty of drinking water and hand sanitizer available.

Please let me know if you have any questions.

Thanks,
Elizabeth Harris
Tribal Administrator
Catawba Indian Nation

Administration Greatly Appreciated not having to send home everyone!
Application of Emergency Response Plan

Does this look like an emergency to you?

What would you do with this Situation?
Old Res lost all Water Pressure/Supply (July or August 2019)

City 12-inch Water Main supplying Old Res impacted by Guardrail post though the main (Took several hours to repair)

Notified Customers ➔ Boil Water Order & Notified DHEC

Unidirectional Flush Entire System

Notified Bacti Sampling Company

Flushed Highpoint FH to help remove air

Lifted Boil Water Order

Still Milky Water due to City’s system ➔ lasted about 2 weeks
DEVELOPMENT AND IMPLEMENTATION OF AN EMERGENCY RESPONSE PLAN
Application of Emergency Response Plan

How about a 24-inch Water break?
Oct 2020
DEVELOPMENT AND IMPLEMENTATION OF AN EMERGENCY RESPONSE PLAN

Application of Emergency Response Plan

- Coushatta Use of the Template: Experience summary via Ms. Jill Gradney

- Chitimacha Use of the Template: Experience summary via Mr. Johnny Burgess
Emergency Response Plan

An Emergency Response Plan (ERP)

- Designed to cover the anticipated mishaps that WILL occur when operating mechanical and piped systems
- Generated to reduce reactivity of Utilities during unanticipated mishaps
- Promote Asset Inventory, Planning, & Tracking
- Complies with EPA and other Requirements