



# Importance and Benefits of Stakeholder Outreach and Community Involvement: The Hanford Experience

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# The Current Situation

## The Current Situation

- **Fukushima Dai-ichi station accident has resulted in difficult issues with the public**
  - Damaged credibility of government and industry officials
  - Difficult demands from stakeholders
  - These issues have slowed and complicated recovery in Fukushima area
- **At end of Cold War, U.S. experienced similar issues**
  - Americans discovered that many U.S. nuclear production sites had released wastes and contamination into environment
- **Before U.S. could begin cleanup, a long process of rebuilding public trust was necessary**
- **Japan may be able to benefit from lessons learned in U.S. experiences**



Fukushima airborne release



Waterborne release at Hanford Site, Washington State, 1963

## The Current Situation (cont'd)

- **The Cold War was “fought” in U.S. on many “battlefields”**
  - U.S. nuclear production sites are those “battlefields”
  - 10 major nuclear sites; more than 60 smaller nuclear sites
  - Budgets went for production; not waste control and cleanup before 1989
- **Hanford Site in Washington State was largest production site**
  - Most prolific waste releases to environment
- **Hanford was first site to begin process of engaging public and stakeholders in solving waste problems**
  - Stakeholders include:

Local elected officials	Business, farming, and fishing industry leaders
Sportsmen	Native American nations and tribes
Local citizens	Education and school leaders
Environmental groups	Regulators
Others	



## The Hanford Experience

# The Hanford Experience

- **I represent URS Corporation and have participated in Hanford public involvement and stakeholder outreach programs for more than 22 years**
  - Public involvement and outreach resulted in huge benefits to cleanup:
    - Workable solutions
    - End points negotiated and agreed
    - Lower costs because time delays and lawsuits were avoided
    - Positive relationships and publicity
- **URS cleans up more nuclear sites than any other company in world**
  - Holds two major cleanup contracts at Hanford Site



Reactor cleanup along Columbia River shoreline, Hanford Site



Nuclear production area of central Hanford

# The Hanford Experience (cont'd)

- **Hanford Site in Washington State was founded in 1940s to produce plutonium**
- **Primary U.S. plutonium production site for 45 years**
  - Produced 2/3 of all military plutonium in U.S. (more than 50 metric tons)
  - Manufactured and irradiated nearly 91 million kilograms of solid metal uranium fuel
  - Operated 9 large production reactors
- **Waste generation huge**
  - Two-thirds of all waste in the U.S. Department of Energy (DOE) complex today
    - More than 1.6 billion m<sup>3</sup> liquid wastes to soil
    - Approximately 600,000 m<sup>3</sup> buried solid wastes
    - 216,000 m<sup>3</sup> high-level waste in tanks
    - Uncounted trillions m<sup>3</sup> waste waters to Columbia River



Historical H Reactor at Hanford Site

## The Hanford Experience (cont'd)

- **Hanford was extremely secretive**

- Information closely controlled regarding production, wastes, accidents, and incidents, environmental releases, worker exposures, etc.
- Many false reassurances about safety and control of wastes and contamination given by officials to public throughout production era



Secret document cover and security poster at Hanford, 1950s



## The Hanford Experience (cont'd)

- **False reassurances from officials**

*“The amounts [of radioisotopes in separations gases] are entirely innocuous and approach the levels of natural radioactivity found in the atmosphere at any location in the country” (1945)*

*“Nothing is to be gained by informing the public” (1959)*

*“As far as we are aware, there has been no damage to fish from radioactivity release in the Columbia River” (1959)*

Many other statements



Waste releases were secret for more than 40 years



# The Hanford Experience: Loss of Public Trust

In 1986-87, historical documents about Hanford operations and wastes began to be declassified and released to public

•Media and many sectors of public reacted strongly

- Emotional reactions included:

- Shock and surprise
- Denial and disbelief
- Anger
- Sadness
- Blame
- Dread of future
- **Outrage**



Portland, Oregon newspaper, 1990



URS Experience in Public Involvement and Stakeholder Outreach



Cleanup and Site Restoration at Fukushima Dai-ichi



## Reactions to Adverse Events

## Effects of Unexpected, Adverse Events on People

- When the unexpected happens, people feel **Outrage!**
  - Fear
  - Anger
  - Surprise and disbelief
  - Distrust
  - Sorrow and loss
  - Dread of future
  - **Outrage** is essentially: “all the things people worry about that the experts ignore”
- **Outrage is irrational**
  - Based on perception and beliefs
  - Not subject to technical, rational reasoning
  - But very real!



Deepwater Horizon oil spill burning in Gulf of Mexico, 2010

## Effects of Unexpected, Adverse Events on People (cont'd)

**Hazard + Outrage = Risk**

**Hazard = The actual event (objective)**

**Outrage = The emotional response to event (subjective)**

**Risk = The combined total of objective and subjective components with which you have to deal**

- Universal formula in risk communication
- This risk is not the same as technical risk, or risk measured in risk analysis
- This risk is the **result** you must address:
  - Fear
  - Anger
  - Surprise and disbelief
  - Distrust
  - Sorrow and loss
  - Dread of future



Family looks frightened and angry

*Emotions mirror those of grief - A “Community Grief Process”*

## Effects of Unexpected, Adverse Events on People (cont'd)

- **Hazard multiplies according to:**
  - How bad is it when it happens?
  - Times probability (how likely is it to happen?)
- **Surprise is always a factor!**
  - If people were told or believed the event could not or would not happen, they are more **outraged**



Despair and shock in China

## People's Responses to Unexpected, Adverse Events

- **Many factors can add to outrage**
  - Is the situation you are asking people to accept:

Voluntary?	Coerced?
Natural?	Industrial?
Familiar?	Unfamiliar?
Memorable?	Not memorable?
Dreaded?	Not dreaded?
Chronic?	Catastrophic?
Knowable?	Not knowable?
Controlled by the "recipients?"	Not control by recipients?
Fair?	Unfair?
Morally relevant?	Morally irrelevant?
Can the recipients trust the person (s) advocating the new situation (Note: not "should" they trust this person)	No trust?
Is the process responsive?	Unresponsive?
Was a former promise broken or will it be broken in new solution/condition?	No promises broken?

***The more answer in the unfair, unfamiliar, coerced categories, the more OUTRAGE***





## The Hanford Experience: Initial Reaction and Recovering Public Trust

### The Hanford Experience: Initial Response

**Initially, Hanford's response to public criticism was not helpful**

- Approach was called “DAD” – Decide, Announce, Defend
  - Unilateral decision making
    - Public and other agencies not involved in decision making
  - Top → Down
  - Attitude that scientists/managers/experts “know best”
  - Assumption that wastes were too complex for average person to understand
  - Defensive posture when solutions of “experts” were rejected by public
  - Dismissing “value statements” from public as being less worthy than technical expertise
  - Not listening



This speaker is not sharing, dialoguing, or listening

# The Hanford Experience: Recovering Public Trust

To move forward, Hanford officials had to adopt new methods of communicating with -- and reaching -- stakeholders

- Healthy outcome of a grief process is:
  - Acceptance
  - Moving forward
- In Hanford's case, moving forward meant going ahead with cleanup

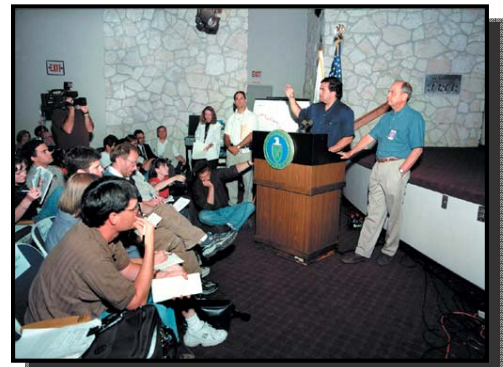


Team of Hanford workers clean out a spent fuel pool

# The Hanford Experience: Recovering Public Trust (cont'd)

However, physical cleanup work could not begin in the "DAD" atmosphere

- First task was to build relationships among all interested parties (stakeholders)
  - Had to establish trust!
- Methods
  - Public informational meetings: many!
  - Multiple meetings are required by U.S. environmental laws
    - Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); or Resource Conservation and Recovery Act (RCRA)
  - Even when not required by law, such meetings are essential!



Congressman from Hanford District, along with Secretary of Energy, meet with public, 2000

# The Hanford Experience: Recovering Public Trust (cont'd)

## Decision-making Team established

- DOE, U.S. Environmental Protection Agency (EPA), Washington State
  - Former sole decision maker yielded and shared power!
- Signed Hanford Consent Order\* (first of its kind in U.S.)
  - A **living document**
    - Acknowledged it would change over time as more information became known
    - Sets cleanup milestones, standards for cleanup, and future land use end-states
    - Now nearing its 25th anniversary (in 2014)
    - Has undergone approximately 1,000 individual changes in almost 23 years



Signing Hanford's Consent Order, 1989

\*Hanford Federal Facility Agreement & Consent Order



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# The Hanford Experience: Recovering Public Trust (cont'd)

## Hanford Advisory Board (HAB)

- Established in 1994 and funded by DOE
- Large body representing multiple aspects of region
  - Local government officials
  - Economic and business development interests
  - Environmental groups
  - Hunting and fishing groups
  - Native American tribes and nations
  - Community "at large" individuals
  - Public Interest groups (often "antagonistic" to traditional Hanford)
  - Hanford workers
  - Local and state health officials
  - Officials of neighbor state of Oregon
- Meets regularly in public forums
- Organized into 5 key committees
- Issues formal advice to DOE, EPA, and Washington State on various cleanup issues at **POLICY** level
- Must give **consensus advice**
  - Demands debate and agreement among members



HAB working committee session, 2010



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# The Hanford Experience: Recovering Public Trust

## Other methods

- Hanford Natural Resources Trustee Council
  - Entities with special interests in environment
    - U.S. Department of Fish & Wildlife
    - Washington State Department of Fish & Wildlife
    - Native American nations
- Hanford Site Tour Program
  - Large program to bring members of public onto Hanford Site in buses in spring/summer months to see cleanup firsthand
  - Also virtual tours and films
- Vigorous website and social media sites to broadcast cleanup news
  - Can spin toward propaganda at times (must try to avoid)
- Special meetings and briefings



Hanford Site public tour in historic B Reactor, 2009



## Learning from the Hanford Experience: Some Approaches

# Learning from the Hanford Experience: Some Approaches

- **Some example approaches (employed in all methods):**
  - Listen!
  - Be empathetic
  - Be honest
  - ***People will forget most of what you do and say, but they will never forget how you make them feel***



77 non-verbal factors have been measured in interpersonal communications

# Learning from the Hanford Experience: Approaches (cont'd)

- **Err on the alarming side**
  - Communicate worst-case news first
  - It is much easier to later say “It’s not as bad as we feared,” than “It’s worse than we thought”
- **Don’t lie; don’t tell half the truth**
  - Don’t minimize
  - Don’t “dribble out” truth in small batches
- **Be first to acknowledge any gaps, unproven aspects or weaknesses in your data or solutions**
  - Don’t wait to be asked about them



Deepwater Horizon oil drill rig explosion and leak in Gulf of Mexico, 2010, was example of poor communication, as news kept changing and getting worse over several days, weeks



In Japan, communication issues occurred



## Learning from the Hanford Experience: Approaches (cont'd)

- Pay attention to **outrage**
- **Outrage** tells you that people are afraid
  - Frightened people pick up more negative information than positive information
- **Repeat your statements when necessary**
  - Repeating information makes it more familiar, therefore less frightening
- **Keep it simple but don't talk down to people**
  - People are less tolerant of complexity when upset



Reactions to frightening, unexpected news on September 11, 2001, in U.S.

## Learning from the Hanford Experience: Approaches (cont'd)

- **Don't be "the Expert" (especially not the technical expert)**
  - "Experts" are often trusted least in upsetting situations
- **Acknowledge the moral relevance of pollution**
  - Don't compare imposed risks with natural risks
- **Emphasize shared concerns**
  - "We all want clean, safe power"



Experts are rarely trusted when people are afraid

## Learning from the Hanford Experience: Approaches (cont'd)

- **Everything matters:**
  - Your spokesperson(s)
    - Including number of presenters
  - Dress
  - Mannerisms
  - Eye contact
  - Body language and posture
  - Use of charts and handouts
  - Food and drink
  - When and where meetings are held
  - Format of meetings
  - Many other factors



Too many suits!



Don't be the guy with the coffee!

## Learning from the Hanford Experience: Approaches (cont'd)

- **Get out into the field as much as safely possible**
  - Verifies that you have first-hand information
  - Makes you a real person (human, brave, someone audience can relate to)
- **Take stakeholders into the field with you if safe and practical**
- **Use “star power” if you can get it**
  - Sports, political, or media stars
- **Celebrate successes along the way, even if small**



U.S. President George Bush at “Ground Zero” site of World Trade Center attacks, New York City, 2001

## Learning from the Hanford Experience: Approaches (cont'd)

- **Practice!**
- **Rehearse all aspects of presentations with real role-playing**
  - Where and how you will stand, gestures, how you will respond to questions, etc.
- **Many other approaches can be suggested and learned**

Facing this angry crowd takes patience, good listening skills, and practice!



You don't want to be facing this group without training

## Suggestions and Planning

## Suggestions and Planning

- **Write a Stakeholder Outreach and Public Involvement Plan**
  - This Plan needs to be part of the overall cleanup program
    - Part of an integrated, holistic approach
    - It can save money and effort by planning waste forms and end-points before wasting effort
- **Involve professionals who have done similar work**
- **Seek advice from stakeholders on many levels**
- *Decide your main messages and simplify them into a few words*
- *Plan your work and work your plan!*
  - Many specific methods and suggestions can be offered to Japan upon request



Training is available to handle the emotional questioner (left) and the angry questioner (right)



## Conclusions

## Conclusions

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- **It is never too late to restore public confidence and cooperation**
  - Even if there have been problems so far...
  - Opportunities exist to avoid future public contention and restore harmony
    - Implement functional stakeholder participation
    - Engage public and local officials so they are not barriers to cleanup
    - Agree on reasonable land use, end-state, and cleanup standards
  - Deliver on any promises made: “Do the things you say you will do”
    - Meet schedules
    - Control costs
    - Cost and schedule performance requires a robust baseline, underpinned as far as possible by experience
- **URS is available to offer assistance in these and other areas if required**