



Re: Fw: White Paper on Off-Site Cleanup Following a Nuclear Power Plant Incident

Stuart Walker to: Charles Openchowski

07/28/2010 12:22 AM

I took a quick stab at a rewrite. Take a look and lets discuss.



epafemanrcwhitepaper072710_stuart.doc

Charles Openchowski

page 3 needs major work . . . ----- Forwarde...

07/27/2010 04:38:38 PM

From: Charles Openchowski/DC/USEPA/US
To: Stuart Walker/DC/USEPA/US@EPA
Date: 07/27/2010 04:38 PM
Subject: Fw: White Paper on Off-Site Cleanup Following a Nuclear Power Plant Incident

page 3 needs major work . . .

----- Forwarded by Charles Openchowski/DC/USEPA/US on 07/27/2010 04:38 PM -----

From: Kathryn Snead/DC/USEPA/US
To: Stuart Walker/DC/USEPA/US@EPA, Charles Openchowski/DC/USEPA/US@EPA, Jennifer Mosser/DC/USEPA/US@EPA, Susan Stahle/DC/USEPA/US@EPA, Lee Tyner/DC/USEPA/US@EPA, Jean Schumann/DC/USEPA/US@EPA
Cc: Lee Veal/DC/USEPA/US@EPA, Jeffrey Blizzard/DC/USEPA/US@EPA
Date: 07/27/2010 03:51 PM
Subject: White Paper on Off-Site Cleanup Following a Nuclear Power Plant Incident

To all,

Please find attached a draft white paper on Off-Site Cleanup Following a Nuclear Power Plant Incident, developed by Jeff Blizzard of my office. Jeff and I would like some initial feedback on this white paper, to see if it covers the right issues and concerns.

I know many of you are deeply embroiled in the Gulf Oil Spill (I've spent many days chatting with Lee down at the EOC!) so I recognize that getting feedback may be challenging at this time. However, we also have a Senior Officials Exercise and a Principals Level Exercise coming up on a nuclear power plant incident in August and September, so it may be worth taking a look at this fairly soon. If possible, try to get comments back to Jeff and me by **August 6, 2010**, so he has time to make changes and share this with NRC and FEMA in advance of the exercises. If you're too busy, just let us know when you'll have time to look at this.

[attachment "epafemanrcwhitepaper072710.doc" deleted by Stuart Walker/DC/USEPA/US]

As always, thanks for your help and expertise. Let either Jeff or me know if you have any questions.

Kathryn K. Snead
Center for Radiological Emergency Management
Office of Radiation and Indoor Air
Environmental Protection Agency
Mail Code: 6608J
1200 Pennsylvania Avenue NW
Washington, D.C. 20460-1000
202-343-9228

**NRC-FEMA-EPA White Paper:
Potential Authorities and/or Funding Sources for Off-site Cleanup Following a
Nuclear Power Plant Incident**

Background:

- The Environmental Protection Agency (EPA), the Nuclear Regulatory Commission (NRC), and the Federal Emergency Management Agency (FEMA) began a series of quarterly meetings in 2009 to discuss unresolved concerns regarding off-site environmental cleanup following a nuclear power plant incident.
- NRC recently indicated to FEMA that they would not be taking the lead for off-site environmental cleanup after a nuclear power plant incident. NRC suggested EPA would be the appropriate agency to lead such efforts.
- NRC also indicated the the Price Anderson Act would be unable to pay for environmental cleanup after a nuclear power plant incident, only for compensation for damages incurred (e.g., hotel stays, replacement costs for property and personnel items, lost wages, etc).
- FEMA convened a workgroup to discuss the following issues related to nuclear power plant incidents: potential Agency roles (e.g., who would lead cleanup efforts); cleanup authorities; and fund sources.
- Evaluation of language from the *Price-Anderson Act*, *the Stafford Act*, and *EPA's policies and expectation that the CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) would generally not be used for response actions to address releases from NRC-licensed sites including nuclear power plants*, may indicate a potential gap in authority to perform or oversee and fund off-site cleanup following a nuclear power plant incident, depending on the circumstances of the incident and the subsequent declarations of the federal government.
- The Report to Congress from the Presidential Commission on Catastrophic Nuclear Accidents (See Attachment D)¹: outlines a number of concerns regarding nuclear power plant incidents. The report covers the sourcing of funds under a "Major Disaster," a "Catastrophe," and how to prepare and respond to a "catastrophic disaster."
 - Current plans do not cover "long-duration accidents that have impacts over large land areas".
 - The authority of the Court to award damages does not extend to executive branch powers.
- The following are questions and concerns are unresolved:

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¹ "Report to the Congress from the Presidential Commission on Catastrophic Nuclear Accident." State of Nevada, n.d. Web. 1 Jul 2010.

- Under what authority will off-site cleanup following a nuclear power plant be conducted?
- What is the funding source for off-site cleanup following a nuclear power plant incident?

Objective:

- Provide current understanding on potential authorities and sources of funding for off-site cleanup following a nuclear power plant incident.

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Potential Cleanup Authority and/or Funding Source # 1: Price-Anderson Act

- Examples of Potential Circumstances Where It May Be Appropriate to Use the Price-Anderson Act: In addition to an accident, the nuclear power plant incident may be the result of: theft or sabotage; the transportation of nuclear fuel to a reactor site; or the storage of nuclear fuel at a reactor site.
- Possible Actions under the Price-Anderson Act:
 - Provide financial assistance to utilities operating nuclear power plants that have experienced an incident.
 - For individuals who have suffered damages:
 - Those who suffered bodily harm, sickness, or disease will receive financial assistance.
 - Evacuees receive property damage and loss expenses as well as living expenses.
 - Local and State governments can receive financial assistance to assist with evacuations, sheltering, and other immediate response activities.
- Funding Source for the Price-Anderson Act:²
 - Under the *Price-Anderson Act*, American Nuclear Insurers (ANI) provides nuclear power plants with financial assurance by creating insurance funding pools under both a primary and a secondary insurance policy.
 - **Primary Insurance Policy:** Each year, a premium is paid by utilities that operate nuclear power plants – this premium provides offsite private insurance of \$300 million.
 - **Secondary Insurance Policy:** If an incident exceeds the \$300 million, each reactor would pay a prorated share of up to \$95.8 million. This secondary pool contains approximately \$8.6 billion.
- Potential Gap in Covering Off-site Cleanup under the Price-Anderson Act:
 - These funding pools can only be accessed by a federal agency if the federal agency itself has property that has suffered damages during an incident.
 - ANI does not cover environmental cleanup costs under their primary insurance policy. While not explicitly stated, there is no expectation that the secondary insurance policy will differ in coverage from the primary insurance policy.

² "U.S. NRC Office of Public Affairs." *Fact Sheet: Nuclear Insurance and Disaster Relief Funds*. Nuclear Regulatory Council, February 2008.

Potential Cleanup Authority and/or Funding Source # 2: CERCLA

- Examples of Potential Circumstances Where It May Be Appropriate to Use CERCLA:
EPA has a policy for regions to consult with Headquarters before taking CERCLA response actions to address NRC-licensed facilities. For further information see page 8 of "Interim Final Evaluation of Facilities Currently or Previously Licensed NRC Sites under CERCLA" at <http://www.epa.gov/superfund/health/contaminants/radiation/pdfs/nrc.pdf> and pages 7-8 of "Distribution of Memorandum of Understanding between EPA and the Nuclear Regulatory Commission" at <http://www.epa.gov/superfund/health/contaminants/radiation/pdfs/transmou2fin.pdf>.

Deleted: The nuclear power plant incident may include substances that are not excluded from CERCLA (e.g., Polychlorinated Biphenyls (PCBs) from transformers, or commingled material (known to include at least some non-excluded substances)).

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- Possible Actions under CERCLA:
 - CERCLA investigative authorities may be used to determine the nature and scope of the release during the early phase of the incident.
 - CERCLA response authorities may be utilized for off-site cleanup on privately- and publicly-owned property.
- Funding Source for CERCLA:
 - CERCLA trust funds, or funding provided by a Potentially Responsible Party (PRP).
- Potential Gap in Covering Off-site Cleanup under CERCLA:
 - The definition of "release" under CERCLA excludes "source, byproduct, or special nuclear material from a nuclear incident" (See Attachment A) meeting certain conditions. If the nuclear power plant incident meets those conditions (there is no commingling of other substances such as chemicals or even radionuclides from a previous release), then CERCLA may not be applicable for paying for compensation for damages caused by the nuclear incident.

Deleted: to the release or a portion of the release.¶ During the early phase of an incident, EPA On-Scene Coordinators will perform a CERCLA investigation to determine what portion of the release, if any, is excluded from CERCLA

Potential Cleanup Authority and/or Funding Source # 3: *Stafford Act*

- Examples of Potential Circumstances Where It May Be Appropriate to Use the *Stafford Act*: If the President declares the incident an “emergency” or a “major disaster” (See Attachment B), then a federal agency may utilize its resources to support incident response efforts.
- Possible Actions under the *Stafford Act* (See Attachment C):
 - If the President declares the incident a “major disaster,” then the President may direct a federal agency to assist with support efforts with or without reimbursement.
 - Deploy personnel, equipment and supplies
 - Coordinate disaster relief with other agencies
 - If the President declares an “emergency,” the process is similar to a “major disaster.” The only important difference is that the President may “provide emergency assistance through Federal agencies”.³
- Funding Source for the *Stafford Act*:
 - The funding source is specified via Mission Assignments provided to federal agencies under the *Stafford Act*.
 - If the Mission Assignment provides funding, then *Stafford Act* funds will be used for financial assistance and reimbursement to the designated federal agency for a period of up to 60 days.
 - If the Mission Assignment does not provide funding, then the designated federal agency may utilize funding from existing authorities (e.g. *CERCLA*), particularly if there is no congressional funding.
- Potential Gap in Covering Off-site Cleanup under the *Stafford Act*:
 - Under certain provisions, the *Stafford Act* may cover cleanup activities incurred during the early phases of a nuclear power plant incident response regardless of the authorities of the federal agency performing or overseeing the cleanup, under Section 502b of the Act; however, this section is limited to a timeframe of 60 days following the incident.

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³ Bazan, Elizabeth. "Robert T. Stafford Disaster Relief and Emergency Assistance Act: Legal Requirements for Federal and State Roles in Declarations of an Emergency or a Major Disaster." *Congressional Research Service*. The Library of Congress, 16/Sep/2005. Web. 9 Jul 2010. <<http://www.au.af.mil/au/awc/awcgate/crs/r133090.pdf>>.

Findings:

Potential Authorities and/or Funding Sources for Off-Site Cleanup Following a Nuclear Power Plant Incident

- *Price-Anderson Act:*
 - ANI does not cover environmental cleanup costs under their primary insurance policy. It is anticipated that the secondary insurance policy will behave in a similar manner.
- *CERCLA:*
 - In consultation with Headquarters, EPA On-Scene Coordinators may perform a *CERCLA* investigation to determine the nature and scope of the release from the nuclear power plant incident. This will determine if the is excluded from *CERCLA*.
 - If the release is not excluded from *CERCLA*, then *CERCLA* cleanup actions can be performed at on-site and off-site properties.
 - The funding source for *CERCLA* cleanup actions would be the *CERCLA* trust fund or PRP funds unless there was not a separate congressional appropriation.
- *Stafford Act:*
 - If the President declares the incident an “emergency,” then designated federal agencies may perform cleanup actions regardless of existing authority as specified in Mission Assignments under Section 502b of the *Stafford Act* for up to 60 days following the incident.
 - The funding source of *Stafford Act* Mission Assignments under Section 502b is the *Stafford Act*.

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Gap in Authority and Funding Source for Off-Site Cleanup Following a Nuclear Power Plant Incident

- If the release, or a portion of the release is excluded from *CERCLA*, and the response is beyond the initial 60-day timeframe for Mission Assignments under Section 502b of the *Stafford Act*.

Attachment A
CERCLA Section 101(22)
Definition of "Release"

CERCLA section 101(22)'s definition of "release" potentially excludes some releases that could occur during certain NPP incidents; depending on the circumstances, these excluded releases might not be subject to CERCLA response authority. For example, if there was no current or previous release of chemical contamination and there was no previous release of radioactive contamination at the site, CERCLA may not be able to pay for damages resulting from the release. The definition states (boldtype added for emphasis):

"(22) The term "release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant), but **excludes** (A) any release which results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons, (B) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine, (C) **release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954, if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of such Act, or, for the purposes of section 104 of this title or any other response action, any release of source byproduct, or special nuclear material from any processing site designated under section 102(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978, and** (D) the normal application of fertilizer. [§ 101(22) amended by PL 99-499]"

Attachment B
Stafford Act Section 102 (5122)
Definitions

The Stafford Act section 102 (5122) defines “Emergency” and “Major Disaster.” This section explains the role of the federal government in an “Emergency” and a “Major Disaster.” The definition states (boldtype added for emphasis):

Sec. 102. Definitions (42 U.S.C. 5122)*

“As used in this Act -

(1) **“Emergency”** means any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States.

(2) **“Major disaster”** means any natural catastrophe (including any hurricane, tornado, storm, high water, winddriven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.”

Attachment C
Stafford Act
Subchapter IV – Major Disaster Assistance Programs

Subchapter IV – Major Disaster Assistance Programs of the *Stafford Act* outlines the Federal Government’s role if the President declares a major disaster.

§ 5170a. GENERAL FEDERAL ASSISTANCE {Sec. 402}

“In any major disaster, the President may--

1. Direct any Federal agency, with or without reimbursement, to utilize its authorities and the resources granted to it under Federal law (including personnel, equipment, supplies, facilities, and managerial, technical, and advisory services) in support of State and local assistance efforts;
2. Coordinate all disaster relief assistance (including voluntary assistance) provided by Federal agencies, private organizations, and State and local governments;
3. Provide technical and advisory assistance to affected State and local governments for
 - A. the performance of essential community services;
 - B. issuance of warnings of risks and hazards;
 - C. public health and safety information, including dissemination of such information;
 - D. provision of health and safety measures; and
 - E. management, control, and reduction of immediate threats to public health and safety; and
4. Assist State and local governments in the distribution of medicine, food, and other consumable supplies, and emergency assistance.”

§ 5192. Federal emergency assistance {Sec. 502}

a. Specified

“In any emergency, the President may--

1. direct any Federal agency, with or without reimbursement, to utilize its authorities and the resources granted to it under Federal law (including personnel, equipment, supplies, facilities, and managerial, technical and advisory services) in support of State and local emergency assistance efforts to save lives, protect property and public health and safety, and lessen or avert the threat of a catastrophe;
2. coordinate all disaster relief assistance (including voluntary assistance) provided by Federal agencies, private organizations, and State and local governments;
3. provide technical and advisory assistance to affected State and local governments for--
 - A. the performance of essential community services;
 - B. issuance of warnings of risks or hazards;
 - C. public health and safety information, including dissemination of such information;
 - D. provision of health and safety measures; and
 - E. management, control, and reduction of immediate threats to public health and safety;
4. provide emergency assistance through Federal agencies;
5. remove debris in accordance with the terms and conditions of section 407 [42 U.S.C. § 5173];
6. provide assistance in accordance with section 408 [42 U.S.C. § 5174]; and [(Pub.L. 106-390, § 206(b), October 30, 2000)]
7. assist State and local governments in the distribution of medicine, food, and other consumable supplies, and emergency assistance.

b. General

Whenever the Federal assistance provided under subsection (a) with respect to an emergency is inadequate, the President may also provide assistance with respect to efforts to save lives, protect property and public health and safety, and lessen or avert the threat of a catastrophe.”

Attachment D
Report to the Congress
Presidential Commission on Catastrophic Nuclear Accidents
Section II & Section III – Commission Assumptions & Observations

This attachment is a report given to Congress by the Presidential Commission on Catastrophic Nuclear Accidents. It provides insight and guidance to important funding and assistance questions during a recovery phase. The report states (boldtype added for emphasis):

II Commission Assumptions

B. Source of funds

“As noted earlier, the commitment to provide additional funds if the ceiling on liability is exceeded has been a fundamental premise of Price-Anderson since its enactment. **A decision as to the source of funds beyond the amount of aggregate public liability currently provided for in the Act will have to be made by Congress if it is ever called upon to discharge this commitment. The task of the Commission did not include the identification of sources of funds.** Indeed, there is no special expertise in the Commission membership to address this essentially political question. The Commission simply notes that it has not come upon any new source of funds not already considered in the Congressional deliberations related to the last extension of the Act.”

III. Observations

“While Radiological Emergency Response Plans are prepared for every nuclear power station in accordance with requirements of the Federal Emergency Management Agency (FEMA) and the NRC, **it is not clear that these plans extend to long-duration accidents that have impacts over large land areas or involve large populations.** The Commission was not able to draw any conclusions, based on the testimony it received, as to how large numbers of citizens could be sheltered over an extended period of time or permanently relocated. Even large natural disasters in the United States offer little help in postulating a response in the United States equivalent to the need at Chernobyl of evacuating over 135,000 people, most of them permanently. And no planning for such a possibility was brought to the Commission's attention.”

“While an accident at a nuclear power plant would initiate the response of the utility, state and local government, federal government, volunteer organizations, and insurance groups, it is not at all clear what organization would be in charge of prolonged, extensive evacuations, and of restoration of governmental infrastructures and overwhelmed state and local response capabilities that might follow a large nuclear accident. While the court would take charge of the payment of claims, its authority to act could not extend to executive branch powers. **The Presidential declaration of an emergency leads to rather limited financial assistance being made available through FEMA, and the FEMA representative who addressed the Commission believed the potentially more useful Presidential declaration of a major disaster was limited to natural events.**”