



**Technical Assistance Services for Communities**  
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**Community Advisory Group 05-09**

## **Comments on Draft Community Involvement Plan for the TVA Fossil Plant Release Site**

**18 December 2009**

### **I. Document summary**

As a part of the legal agreement between the Tennessee Valley Authority (TVA), the U.S. Environmental Protection Agency (EPA), and the Tennessee Department of Environment and Conservation (TDEC), TVA was required to create a Community Involvement Plan ("the Plan"). The Plan begins with a very thorough description of TVA Plant functions, site history, community demographics and site accident details. Then, the Plan discusses an interview process that TVA conducted with fifty community members. TVA's goal was to gain a sense of the concerns and questions the community may have related to the coal ash spill; the document states that TVA used these interviews as a basis for the development of the community involvement program to be implemented during the cleanup progression. The program includes: establishing and updating an administrative record and information repository for public access to cleanup documents; holding meetings; sending out quarterly updates; and implementing a Technical Assistance Program that provides funding for an independent technical advisor to a local community group.

### **II. General comments**

1. Public Interviews: It is not clear how the 50 public interviews were used by TVA to make this plan responsive to the public's needs. Due to the following, the interview approach and analysis of the results are of concern: (1) TVA hand-selected members of the community to participate in the interviews; (2) TVA employees personally conducted the interviews. An independent third party would likely receive more truthful, open answers; (3) Fifty interviewees is equivalent to 0.4 percent of the combined populations of Kingston and Harriman and less than 0.1 percent of the total population of Roane County (using the population counts provided in the Plan). Fifty is a small sample size and unlikely to represent the full range of community concerns; (4) The results of the interviews were not analyzed scientifically with percentages or other numerical comparisons and preclude a clear understanding of the primary concerns and the number of citizens who share the same opinions on issues related to the site.
2. Relationship with the agencies: The Plan states that the Roane County Community Advisory Group (CAG), which formed to represent the community

independently of cleanup agencies, will be advised by EPA and TVA during the cleanup. This information inaccurately represents the relationship between the CAG and the cleanup agencies. Agencies commonly assist CAGs during cleanups by providing regular updates regarding substance and process related to the cleanup and making available whatever technical, management or legal expertise that the CAG may need to effectively engage in the cleanup. The CAG's advisor is a third party entity that is not affiliated with the cleanup agencies. EPA community involvement specialists do provide advice, as requested by a CAG. The point is that the CAG must operate independently and be perceived by the community as operating independently from the agencies.

3. Ecological quality, "Section 3.3.3. Environmental": This section does not address any environmental issues related to the biological characteristics of the site, including plants and wildlife. The lack of environmental concerns is another indicator that the limited number of interviewees may have impacted the representation of concerns about the site. TVA could note that though interviewees did not specifically address issues pertaining to fish and natural resources, TVA will be providing information about how they will be restoring the habitat and improving environmental quality.
4. Vulnerable populations: According to the numbers provided in the Plan, over 40 percent of Roane County's population is in a vulnerable age category (either under five years old, under 18 or over 65). Citizens that fall into these age categories are vulnerable because they are more susceptible to health effects from environmental pollution, as well as infectious disease, than healthy adults. TVA could acknowledge this percentage and indicate that it will be doing its best to ensure the cleanup will protect these special populations' health.
5. Public input: It is unclear whether or not TVA will make revisions to future cleanup documents after receiving input from the community during public comment periods. The common procedure used under Superfund (CERCLA) is as follows: a Draft document is completed for all agencies to review and the public may have an opportunity to comment; the agency makes revisions and a Draft Final is released to the public; public comments are taken; a final document is released. The language in the Plan could be revised to reflect this sequence of events that allows for real public participation. Broader public participation is permitted and may include release of the Draft to the CAG before the public release date in anticipation of the CAG taking time to review it and make comment.
6. Missing data: According to the Plan, "Data shows that concentrations of metals in the ash are below the limits for classification as a hazardous waste." This data is not available in the EE/CA Work Plan, nor is there a reference in the Work Plan to direct readers elsewhere to obtain the information. In addition, this statement is misleading because the fly ash is exempt from classification as a hazardous waste due to federal law, the Bevill Amendment. The Plan could be reworded to

state: “Coal ash is exempted from classification as hazardous waste by the Bevill Amendment” and indicate how the public can find the data that proves the waste does not need be disposed of in a hazardous waste landfill. The public should be aware that there are levels of certain constituents in the fly ash that present a threat to human and ecological health.

7. Official name of the project: EPA and TVA have used at least three different names for the accident site and the cleanup effort. The Plan calls it the TVA Fossil Plant Release Site. The EPA Web site calls it TVA Kingston Fly Ash Release. TVA’s EE/CA Work Plan uses the name Kingston Fly Ash Recovery Project. The agencies could discuss this problem and make a decision regarding the official name of the cleanup site that distinguishes it from the fossil plant so that one name is used uniformly over the course of the cleanup.
8. Enhanced Public Involvement: Public involvement serves several purposes, including engaging and empowering the affected community, improving the cleanup in process and substance and adding another review to actions that will affect the lives of community members. Thus, an enhanced public involvement program (with appropriate plan) is in the interest of all parties. Public involvement could be greatly enhanced in the Plan with 1) commitments to provide CAG briefings; 2) monthly and quarterly public events; 3) a commitment to maintain information on the TVA Web site; 4) written update reports to the public; 5) including the CAG on technical updates/reports among other measures.

### III. Specific comments

1. 2.3.4 Sampling and Monitoring, paragraph 3, page 11: The text in this paragraph indicates that data show concentrations of metals in the ash below the limits for classification as a hazardous waste. EPA uses the Toxicity Characteristic Leaching Procedure to determine how much of the contaminants will leach out of the ash (and thus, become bioavailable) and compares that number to a federal standard, but this method and the data from this testing are not mentioned in the Plan or the EE/CA Work Plan. Moreover, there is a distinct set of standards used to determine the threat posed to human health and ecological quality, which is not clarified in the Plan. The Plan gives the impression that because the ash does not qualify for disposal in a hazardous waste landfill under the Bevill Amendment, there is no threat to human health or wildlife. Using the data provided in Table 8 of the EE/CA Work Plan, TASC prepared a comparison of the maximum detected concentrations of metals at the TVA site to the federal hazardous waste parameters listed under CERCLA (see Table 1 below). These maximum concentrations will be used for the risk assessments that will determine the threats to human and ecological health posed by the site, according to the EE/CA Work Plan. The text in this section of the Plan could be reworded to provide a clearer understanding of classification of fly ash. The Plan could be edited to state: “Coal ash is exempted from classification as hazardous waste by the Bevill Amendment” and provide a reference so that the public can

see the leachate data for themselves. The public should be aware of the leachability test and the exemption of coal ash under the Bevill Amendment.

**Table 1.** Comparison of Maximum Detected Concentrations at the TVA site to Federal Hazardous Waste Parameters (based on the preliminary screening results for ash given in Table 8 of the EE/CA Work Plan)

Contaminant/Constituent in ash	Federal hazardous waste parameters* (mg/L)	Maximum detected concentration at TVA site (mg/L)
Arsenic	5.0	166
Barium	100	1410
Chromium	5.0	68
Lead	5.0	60.5
Mercury	0.2	0.2
Selenium	1.0	17.8

\*If any of the constituents present in waste fall within one of the four characteristics of hazardous waste according to RCRA and are present in concentrations above the parameter, that waste is considered hazardous. Coal waste is exempted from this classification system.

2. 2.3.4 Sampling and Monitoring, paragraph 4, page 11: The Plan states that the average concentrations of metals in the ash are similar to the range of concentrations that are expected in native soil in Tennessee. Averaging sample concentrations does not give a true representation of the risk posed by the contaminants to the public and the environment. It is important to give the public a clear understanding that there are samples that exceed state and federal standards and local or state background levels. The text could state that the cleanup will not underestimate the risk to public health by using averaged samples as the basis for cleanup.
3. 3.1 Community Profile, fourth paragraph, page 13: Rather than just list the information provided in the Community Profile, the Plan could use it to perform some informative calculations. According to the numbers, 42.9 percent of the affected population is in a vulnerable age category, including children under the age of five, children under age 18, and seniors aged 65 and above. These three age groups are the most susceptible to environmental pollution. Children are not little adults; they have not fully developed and their immune systems are not as strong as adults'. Seniors also have weaker immune systems. A revised draft could indicate that with such a large proportion of vulnerable age groups in the general population, TVA will take extra care when conducting human health risk assessments to be protective of their health and wellbeing.
4. 3.2.1 Outreach, final paragraph, page 14: TVA's reasoning for buying property near the spill site is vague. It is unclear how the residents and houses were impacted by the recovery efforts when the TVA began buying houses so quickly after the accident. In addition, it is unclear whether the reasoning is related to health issues. If this is the case, it is confusing that professional staff now reside

in the purchased houses. TVA could further explain the basis of its decision-making in this section.

5. 3.2.2 Public Meetings/Open house, page 15: Holding an open house is not evidence of community involvement – it's the number of community members who attend the event. The Plan does not indicate the specific number of citizens in attendance at the open house events and public meeting. TVA cannot be sure that its messages and information are reaching far into the community if it does not keep track of the number of citizens that attend its events. Including these numbers in the Plan would also make clear to readers the extent to which the community is choosing to participate in TVA's outreach.
6. 3.2.4 Communications, last paragraph, page 16: There was confusion brought forth at the agencies' Availability Session on November 10, 2009 about which Web site serves as the primary resource for information regarding the site and the cleanup. The Plan could mention EPA's Web site also, identify what differences exist between TVA's Web site and EPA's, and what the purpose is of each. For public understanding, it would be beneficial if TVA explained what resources are available on its Web site and which resources are available on [www.epakingstontva.com](http://www.epakingstontva.com).
7. 3.3 Key Community Concerns, entire section: TVA's analysis of its interviews with community members is characterized by general statements and quotations from individuals, rather than a scientific approach that would indicate a number, or percentage, of residents with an opinion on a certain point. While the open-ended questionnaire does not lead the interviewee by giving him or her pre-selected answers to choose from, there is not a good way to analyze this type of survey in order to give a true comparison of the community's opinions. The survey analysis could include a list of topics and concerns brought up in the interviews and the number of citizens who mentioned each topic to show the range of concerns and patterns of comments.
8. 3.3 Key Community Concerns, paragraph 1, page 16: There are several issues presented in this paragraph that undermine the credibility of the community interviews. The number of citizens interviewed is very small compared to the overall population. Fifty interviewees is approximately 0.4 percent of the combined populations of Kingston and Harriman and less than 0.1 percent of the total population of Roane County (using the population counts provided in the Plan). Fifty is a small sample size and therefore unlikely to represent the full range of community concerns. Secondly, the interviewees were hand-selected by TVA, which would indicate that the community as a whole was not given the chance to participate and give its opinion. Lastly, the interviews were conducted by TVA employees rather than an independent third-party. This sampling design is flawed when compared to professional, scientific methods. Ideally, TVA would conduct a second interview or survey that would be made available to the entire populations of Roane County, Kingston and Harriman, conducted by an

independent party and then analyzed using numbers and comparisons to determine patterns and a broader range of concerns.

9. Section 3.3.3. Environmental, page 18: This text indicates that local citizen concerns about environmental media are limited to questioning how contamination might impact the natural resources they rely on and how that might impact their health. As such, environmental concerns related to nature itself (e.g. wildlife, native plants) are not referenced in this section. This absence may indicate that the fifty interviews conducted were not enough to gather a full range of information on concerns or that the topic was not brought forward from the interviews into the report.
10. Section 4.1.1 Required Activities, Administrative Record and Information Repository, bullet two, page 22: The text referring to public comment leaves readers with an unclear understanding of whether the public's input will lead to document revisions and thus, revisions to the actual work conducted during cleanup.
11. Community Advisory Group, bullet three, page 25: The text states that "EPA and TVA will advise members of this CAG throughout the response process." The text could be revised to indicate that the CAG will select its own, independent advisor but that EPA and TVA will be providing the CAG with regular updates as to substance and process related to the cleanup. In addition, this section could include more language on the updates EPA and TVA have already been providing and any other regular correspondence that occurs between the agencies and the CAG. If TVA and EPA intend to provide more than the minimum requirements of CERCLA, then those enhancements should be spelled out in the Plan.
12. 4.2.2 Non-Time Critical Removal Actions, last paragraph, page 30: This section emphasizes that timeliness is critical to the cleanup progression, but it is silent on how the comments on and suggested changes to the Work Plan will be incorporated into the work outlined within it. The language in this section could be edited to include information on whether the Work Plan is finalized or if there is room for editing before work begins in spring 2010.

## Contact Information

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