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**A Qualitative Study Investigating the Effectiveness of the NTS CAB to  
the U.S. Department of Energy**

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## **ABSTRACT**

Environmental Management Site Specific Advisory Boards (SSAB) were Implemented by the U.S. Department of Energy (DOE) as means for stakeholder involvement in decision-making and recommendations related to environmental management activities at DOE sites throughout the United States. As part of this process, the Nevada Test Site Community Advisory Board (NTS CAB) was formed in 1995. This project examines the effectiveness of the NTS CAB in aiding the DOE in the decisions made concerning environmental management activities at facilities located in Nevada using secondary data sources and background information. Results show that the NTS CAB is an effective entity and proves to be effective in aiding the DOE. This study provides a greater understanding of the benefits of the SSAB to the DOE and its stakeholders, and promotes further improvement of future stakeholder initiatives.

## **INTRODUCTION**

The Office of Technology Assessment (1991) argued that there was a “...need for a decision-making-process acceptable to all interested parties—through which public concerns can be addresses and resolved” to ensure public acceptance of cleanup-related activities. Advisory boards were suggested as an answer to this need (DOE, No Date). The site Specific Advisory Board (SSAB) was created to involve the public in decisions made by the Department of Energy (DOE) on environmental management activities at nine nuclear facilities. The SSAB members are volunteer stakeholders who provide recommendations to the DOE on environmental management issues including, but not limited to: environmental restoration, waste management, site closure, project completion, science and technology activities, budget prioritization, and other relevant environmental management issues (NTS CAB, ND). Each SSAB holds meetings that are open to the public. At these meetings the public are encouraged to pose questions, provide comments and make statements on environmental management issues.

To ensure that the SSABs operated within an established, approved framework, DOE established standard guidelines to include the following (DOE, ND):

- SSAB activities must comply with the Federal Advisory Committee Act (FACA) <sup>1</sup>
- Each board must develop a mission statement and standard operating procedures

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<sup>1</sup> FACA was passed to ensure that advice rendered to the executive branch by the various advisory committees, task forces, boards, and commissions, be both objective and accessible to the public (GSA, no date).

- DOE sites must provide sufficient funding in support of SSAB activities
- Board members must be recruited from potentially affected communities surrounding each site (The process by which SSAB members are selected is crucial to the credibility of the group and the credibility of agency decisions. The selection process will be highly visible and members must be selected through a fair and open process.) (Applegate, 1997)

The purpose of investigation is to examine the effectiveness of the NTS CAB on the DOE's environmental management program. Secondary data were used to evaluate the NTS CAB. Based on my initial review of the literature, I predict that the majority of members are dedicated and committed to the CAB. Even though there may be issues difficult in reaching consensus with all the members, I am confident that members work well together and procedures are well organized. As for access to technical expertise and knowledge, each member has a different background knowledge of issues pertaining to the NTS and I expect that members do not have a difficulty accessing technical expertise/knowledge. I also predict that to the best of their ability they remain open and responsive to the public by involving the community.

## **REVIEW OF THE LITERATURE**

For background information on the DOE sites and their community advisory boards, I accessed websites created by the Department of Energy-Headquarters, and the Department of Energy Nevada Test Site, the Community Advisory Board for Nevada Test Site Programs, and Environmental Protection agency sites. To gain an overall understanding of SSAB activities, it was also important for me to review and

understand other DOE sites and their respective community advisory boards. I also attended several board meetings to gain a better understanding of SSABs in general and to specifically look at the NTS CAB. By attending the meetings I was able to view the board interacting with both the, DOE EM program representatives and the Nevada public. Key examples of these interactions are the Underground Test Area (UGTA) monitoring well siting recommendation project, and the CAB's annual four public meetings, which the DOE EM representatives also attend.

In another article providing background information, Santos and Chess (2003) used two approaches were used to evaluate SSAB: theoretical-based criteria and participant-based criteria. The study conducted interviews with the U.S. Army Restoration Advisory Board (RAB) in Memphis. Membership included a local official, local citizens, and military representatives. The study also used background information of the RAB, such as meeting minutes, news coverage, RAB charter or bylaws, site technical summaries, and other areas of importance. After reading this study I became interested in not only the DOE's perception of the CAB, but also how effective they are in representing the public. This study found that the community members and the army members were disagreeing on many issues. Community members felt that their concerns were not being addressed, while the U.S. army representatives believed that their concerns were unimportant and off subject since they did not pertain to cleanup issues. Veering off subject is an issue that keeps a board from approaching consensus, but involving the public is a crucial part of the CAB process (Santos and Chess, 2003).

UGTA project member, S. Reid observed a similar situation with the UGTA committee, where most of the questions being asked of the committee lead back to the Yucca Mt. Project, which is outside the CAB's view. Reid also observed that at UGTA presentations the committee had been especially careful to explain technical concepts and terms plainly for the "layman" audience, but that there is still a gap among members between members and the public. Reid is confident that this is a problem the CAB is worthy to address, but is nonetheless a challenge given it's mission (Reid, S. personal communication, April 24, 2005)

In *Communication and the Evolution of Society*, J. Habermas uses a theory to address the fairness, cooperation, and collaboration in public participation, in which suggests that communication is the root of cooperation and will ultimately result in fairness and therefore competence can be achieved. Habermas calls this theory "the validity basis of speech." The goal of this process is to come to an agreement and to come to an agreement there must be mutual understanding, shared knowledge, shared trust and unity with one another. These are some of the many components a CAB should have (Habermas, 1979)

Applegate (1997) reports what elements makes a CAB effective and how to involve the public in environmental decision-making. Applegate used six criteria to describe what a board should consist of, which are cooperation, leadership, commitment, information, fairness, and transparency. Applegate goes into depth of each criteria importance when evaluating a CAB. Many of the criteria overlap and are directly related to the other, for example strong leadership values in a CAB can result in fairness and good cooperation, information, and even commitment.

In another article related to Community Advisory Boards, Bierle's (2002) article used 239 published case studies of stakeholder involvement with environmental decisions to evaluate the quality of stakeholders' decision-making. This case study asks the question of how well stakeholders use scientific information to implement recommendations and whether or not they disregard this information for political convenience. Accessing technical expertise and knowledge and setting aside personal interest topics is part of my criteria of evaluating the NTS CAB. The case study used averages of all the studies involved to come to the conclusion that there should be little apprehension about the stockholders' decision process and stakeholder involvement is improving decisions (Bierle, 2002). The next section provides method and data to determine effectiveness of the NTS CAB.

## **METHOD AND DATA**

Several forms of secondary data were analyzed to evaluate the NTS CAB. The secondary data includes Solt's "Observation Summary Report" (2002), "CAB Feedback" survey (2003), Kozeliski's "CAB Online Questionnaire Results" (2004) and Neill's "Stakeholder Involvement with Environmental Management: The Community Advisory Board for Nevada Test Site Programs" (2004). Each source of data contains a vast amount of information about the CAB and a different approach of analyzing the board. The criteria chosen to analyze the CAB were based on Applegate (ND) and Bierle(2002):

- The efficiency and organization of the NTS CAB meetings
- The NTS CAB's ability to access technical expertise and knowledge

- The NTS CAB's involvement with the community, based on encouraging and assisting the community to understand key issues

Comparing the various types of data will provide a better understanding of the relationship between the NTS CAB, the DOE and the local public.

## **RESULTS**

Solt (2002) report was based on attending a single meeting. Solt expressed a concern for unorganized procedures, and lack of commitment from members due to poor attendance at meetings without specifying quantities. A further concern was public involvement, where questions were never fully answered. Solt reported that the NTS CAB was unorganized, uncommitted and unconcerned with public involvement, yet most of her critical reviews did not provide specific details or quantities. (See table 1)

In contrast with Solt's critical review, in October 2003, 9 of the 15 CAB members participated in a feedback survey. An overwhelming majority felt that the NTS CAB was open and responsive toward the public's viewpoints and concerns. The members also expressed that the CAB always assisted the public in understanding key issues. Members expressed that they wanted take on more work and that they also wanted to learn more about issues concerning the NTS CAB, showing a great level of commitment to the NTS CAB. Other questions relevant to this study were based on access to technical expertise and knowledge, in which all participants agreed that information, was always readily accessible. (See table 1)

Similar and more in depth results were gathered from Kozeliski's questionnaire (2004). In this survey 9 of 15 CAB members responded. Questions related to the process

of recommendations and other procedures revealed that the participants were satisfied with procedure efficiency. All members planned to stay involved with the NTS CAB for the rest of their term, which expresses commitment in all members that participated. All participants agreed that accessibility to technical expertise and knowledge was easily accessible and all members agreed that during public meetings concerns were always heard and addressed. (See table 1)

The quality of stakeholder involvement in the Nevada test site community advisory board is a key part of my project and studies such as Neill's (2004) article is a good reference article for my project. The article's purpose is to examine the quality of stakeholder involvement in environmental management decision-making at the NTS. Prior to the investigation a former member expressed concern that members were hesitant to provide criticism to the DOE EM staff. Neill used a survey method completed by the CAB members to evaluate the quality of EM decisions. The result of the survey did reveal that there was tension among members, but this could have been from other issues including misunderstandings and lack of communication between members on issues requiring agreement. Disagreements on issues during meetings are important topics to evaluate because it may be the cause of ineffectiveness in an advisory board. (Santos, Chess, 2003) In the end Neill (2004) found that decisions and recommendations being made by the Nevada community advisory board were of high quality and members appeared to cooperate with each other. Questions related to the procedures revealed that all members were content with meeting efficiency and fairness. Participants also agreed that the community understands more about issues pertaining to the NTS after attending meetings. Furthermore all participants agreed that the NTS CAB leads to a win-win

situation for the Community and the DOE. (See table 1) These results will assist me in further evaluation of the NTS CAB using my personal observations. (H.R., Neill, 2004)

## **DISCUSSION**

Although I only spent a short time with the NTS CAB I felt that my various types of meetings had given good insight to the CAB's procedures and I witnessed the opposite of what Solt reported. During meetings it was possible to witness first hand how the NTS CAB members cooperate with each other and it appeared that members collaborated well on various issues in an efficient, organized manner. The NTS CAB's level of commitment appeared to be high, which was obvious through the high attendance and participation in discussions. Members and public (during public meetings) were encouraged to voice their opinions and comment on issues and according to Reid, the NTS CAB is assisted the public in understanding technical terms. There is an overwhelming differences with the Solt's observations in each criteria covered and with every data source. This may be a result of Solt only attending a single meeting, which leaves the information inadequate to form a fair opinion of the NTS CAB. All other sources coincide with each other on all criteria applicable. These surveys may also suggest that self-reported results are often a more confident point of view and with a limited sample size, the surveys have restricted analytical data.

## **CONCLUSION**

In conclusion, Solt's observation and the other data sources from over the past years reveal that the CAB has improved drastically and demonstrate to be an effective SSAB. My own observations are a strong case that the CAB is effective in aiding the

DOE, even though my attendance was limited to 3 meetings. Further research would be useful in understanding more of the NTS CAB's abilities to assist to DOE, such as attending more meetings. Attending sub committee meetings and technical presentations would be useful when evaluating the CAB's technical background knowledge. Although the case study method using the data collected was useful, a survey method would also give good quality data for additional studies on the NTS CAB.

**APENDIX**

**Table 1: Data Sources Analyzed**

<b><u>CRITERIA</u></b>	SOLT (2002)	CAB FEEDBACK (2003)	NEILL (2004)	KOZELISKI (2004)
<b>PROCEDURE</b>	CRITICAL COMMENTS- “Lack of following a consensus model”	NOT APPLICABLE	STABLE COMMENTS- All members agreed that CAB procedures are fair and efficient	STABLE COMMENTS- 100% Satisfied with procedure efficiency
<b>COMMITMENT</b>	CRITICAL COMMENTS- CAB is unsure of what commitments are needed to be effective	STABLE COMMENTS- Many members expressed that they wanted to be more committed to board and learn about more complex issues	STABLE COMMENTS- “Respondents consider themselves to be very involved with meeting plans for public meetings, budget prioritization, and locating additional monitoring wells.”	STABLE COMMENTS- All members plan to complete their term as members of the NTS CAB
<b>ACCESS TO TECHNIAL EXPERTISE AND KNOWLEDGE</b>	NOT APPLICABLE	STABLE COMMENTS- 100% Agree information is easily accessible-“Yes very much so, we always get the information and any help we want or need...”	STABLE COMMENTS- 7/7 Respondents rated access to scientific information very high.	STABLE COMMENTS- 100% agreed easily accessible support
<b>INVOLVEMENT WITH COMMUNITY</b>	CRITICAL COMMENTS- CAB Lead public in “circles” when answering questions	STABLE COMMENTS- 100% Agreed that CAB assists in the understanding of the communities viewpoints 100% agreed that all dissenting opinions are heard	STABLE COMMENTS- All participants agreed that the community understands more about issues pertaining to the NTS after attending meetings. All agreed that the NTS CAB leads to a win-win situation for the Community and the DOE.	STABLE COMMENTS 100% agreed concerns are always heard and addressed

**Table 2: Freire Meeting Observations Analyzed**

<b><u>CRITERIA</u></b>	<b>FREIRE (2004-2005)</b>
<b>PROCEDURES</b>	STABLE COMMENTS- Procedures took place in an efficient and organized manner
<b>COMMITMENT</b>	STABLE COMMENTS-Attendance was high in 2 of the 3 meetings and participation was also high.
<b>ACCESS TO TECHNICAL EXPERTISE AND KNOWLEDGE</b>	NA
<b>INVOLVEMENT WITH COMMUNITY</b>	STABLE COMMENTS- Public was encouraged to give comments and ask questions. Booklets and newsletter pamphlets were also distributed during meetings.

**Resume**

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