

**PUBLIC PARTICIPATION IN THE ENVIRONMENTAL PERMITTING PROCESS:
DEVELOPMENT OF A PUBLIC INVOLVEMENT PLAN (PIP) FOR STAKEHOLDERS
IN NORTHERN NEW MEXICO**

by

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Abstract

Public Participation in the Environmental Permitting Process: Development of a Public Involvement Plan (PIP) for Stakeholders in Northern New Mexico

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In recent years the New Mexico Environment Department (NMED) has tried to provide more opportunities for public participation related to permitting activities beyond what the regulations currently require. Those efforts were mostly unsuccessful and created more animosity between stakeholders and the NMED. In an effort to mitigate stakeholders' dissatisfaction with regard to opportunities for public involvement under current Federal regulations, the purpose of this research is to develop a Public Involvement Plan (PIP) that details the steps the NMED should take to involve and educate the public in the permitting process.

Using Los Alamos National Laboratory's (LANL) Resource Conservation and Recovery Act (RCRA) Permit as a test case, this research assessed the attitudes of local communities affected by activities at RCRA-permitted facilities. An online survey was distributed to a target group of NGOs (Non Governmental Organizations) known to be actively involved in RCRA-permitting issues at LANL. The survey requested information about current opportunities for public participation, satisfaction or dissatisfaction with those opportunities, and potential methods for improving communication. Individual interviews were conducted with leaders of targeted NGOs to help identify how stakeholders prefer to be informed and when they should be afforded opportunities to participate in the permitting process. These NGOs were also asked to make recommendations for the PIP and identify methods and opportunities to educate the public on the permitting processes under RCRA.

The two significant conclusions of this research are: 1) there is a severe lack of communication between NMED and local communities affected by LANL and 2) many local stakeholders need a better understanding of how the permitting process functions so they can be more efficient and successful participants in permitting activities at LANL. A PIP is a vehicle for addressing both of these issues. Although stakeholders agreed that a PIP was critical for improving public participation, public recommendations about how to inform and involve the public through the PIP varied considerably. Development of a final PIP will require cooperation, participation, and input from both the NMED and the public.

Approved



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I. INTRODUCTION

Many federal environmental regulations, such as the Resource Conservation and Recovery Act (RCRA) and the Clean Water Act (CWA), mandate public participation related to permitting activities. However, public participation is restricted to commenting on specific types of documents and participating in prescribed meetings and hearings. Many of the non-governmental organizations (NGOs) in New Mexico have expressed frustration and concern with the level of participation included in these federal regulations. In recent years the New Mexico Environment Department (NMED) has tried to provide more opportunities for public participation related to permitting activities beyond what the regulations currently require. Those efforts were mostly unsuccessful and created more animosity between stakeholders and the NMED.

In an effort to mitigate stakeholders' dissatisfaction with regard to opportunities for public involvement under current Federal regulations, a Public Involvement Plan (PIP) was developed that details the steps the NMED should take to involve the public in the permitting process beyond what Federal regulations currently require. A PIP is a series of guidelines for public involvement activities to be conducted by, in this case, the NMED¹. It contains goals and policies for actively engaging the public. The PIP details how public participation can be increased, and managed in such a way as to maintain an efficient and functional work environment so that productivity isn't sacrificed.

Using Los Alamos National Laboratory's (LANL or the Laboratory²) Hazardous Waste Facility Permit (Permit³) as a test case, the purpose of this research is to assess the attitudes of local

¹ For the purposes of this paper, NMED refers to the Hazardous Waste Bureau because, per EPA, they have the authority to implement the RCRA program.

² Los Alamos National Laboratory is referred to as "LANL" or "the Laboratory" throughout this paper.

³ LANL's Hazardous Waste Facility Permit is referred to as "the Permit" or "RCRA Permit" throughout this paper.

communities affected by LANL and ascertain community members' opinions about how to improve communications between the public and the NMED with regard to RCRA-permitting activities at LANL. LANL is a high profile, complicated facility with several downwind communities. Communities like San Ildefonso Pueblo, Santa Clara Pueblo, the City of Española, and the City of Santa Fe (a population of approximately 250,000 people) have strong connections to the land and have been extremely vocal in recent permitting activities at LANL. It is therefore appropriate to use stakeholders interested in permitting activities at LANL as a model to develop a PIP.

II. OBJECTIVES

Even with the expanded public participation requirements adopted by EPA in 1996, local communities and NGOs in the vicinity of LANL are displeased with the level of involvement and opportunity for participation they're currently afforded. This was evident from the public's reaction to the Public Hearing on LANL's Proposed RCRA Permit held in April and May of 2010. During open, public comment sessions, members of the public expressed their lack of understanding of the Public Hearing process as well as their displeasure with the limited methods of notification used to disseminate information to the public regarding LANL's proposed RCRA Permit.

Using the RCRA-permitting process at LANL as a model, the objective of this research is to develop an effective PIP that involves and informs the public in the RCRA-permitting process, beyond what the regulations currently require and in a meaningful, efficient manner. A secondary objective is to make recommendations to the NMED regarding potential trainings, short courses, or other methods designed to educate the public about RCRA permitting and the Public Hearing process.

III. BACKGROUND

The Laboratory is a multidisciplinary research facility owned by the U.S. Department of Energy (DOE) and managed by Los Alamos National Security, LLC. The Laboratory is located in north-central New Mexico, approximately 60 miles northeast of Albuquerque and 20 miles northwest of Santa Fe. The Laboratory site covers 40 square miles of an area known geologically as the Pajarito Plateau. Among other disciplines, LANL treats and stores hazardous waste and therefore they require a Permit to conduct those activities under RCRA.

The NMED's Hazardous Waste Bureau (HWB) is responsible for implementation of New Mexico's hazardous waste program, through authorization from the U.S. Environmental Protection Agency (EPA) for the RCRA Subtitle C (hazardous waste) program. NMED is the regulatory agency that issues and enforces LANL's RCRA Permit.

The "General Public" with respect to LANL, is made up several types of communities located adjacent to or in the immediate vicinity of LANL (Attachment A). The city of Española is approximately 15 miles northeast of LANL and there are several other smaller communities in the vicinity of LANL, such as White Rock (~1 mile), Pojoaque, and Tesuque. There are 19 Indian Pueblos, including San Ildefonso Pueblo, which shares LANL's southern border. There are also many NGOs that have been heavily involved in RCRA-related issues at LANL, such as Concerned Citizens for Nuclear Safety (CCNS), Southwest Research and Information Center (SRIC), Nuclear Watch New Mexico, Honor our Pueblo Existence (HOPE), Embudo Valley Environmental Monitoring Group (EVEMG), Tewa Women United, and Amigos Bravos. All have provided their input in one capacity or another (e.g., comments in response to a public notice, public meetings, etc.).

The relationship between these three groups, LANL, NMED and the public, is complex and contentious. For the purpose of this paper, I will focus on the relationship between NMED and the public.

By law, NMED must provide opportunities for public involvement at specific stages during the RCRA-permitting process. To date, NMED has upheld its legal obligations under RCRA. In fact, in 2007, NMED went above and beyond what the regulations require by including all interested parties in the negotiations for LANL's RCRA-Permit. Negotiations of this nature are generally limited to the permit applicant (LANL) and the regulatory agency (NMED). Although, NMED has made a concerted effort to increase public participation, it is a constant struggle to provide such opportunities while maintaining an efficient work environment.

Members of the public have a wide range of opinions when it comes to NMED's commitment to public involvement. Some stakeholders openly admit their distrust of NMED and its efforts to protect their quality of life and natural resources. Some are frustrated with NMED's outreach efforts. Others feel NMED is doing their job and provide adequate information in a timely manner. One thing is certain when dealing with such a large constituency; it's difficult to make everyone happy.

A. Public Participation under RCRA

Section 7004(b) of RCRA and EPA's permitting regulations, found in 40 Code of Federal Regulation (CFR) Parts 124 and 270, form the foundation for mandatory public participation activities during the permitting process for both operating and post-closure permits. The RCRA permit rules for hazardous waste treatment, storage, and disposal facilities, which include public participation provisions, were originally developed in the early 1980's (45 FR 33066; May 19, 1980 and 47 FR 32274; July 26, 1982). Through public meetings and comments on RCRA-program activities, the EPA determined that stakeholders were dissatisfied with the public participation process because:

- It did not involve the public at an early stage (when changes are more easily incorporated into facility planning).
- It did not provide adequate information.

- It did not provide an equitable opportunity to participate (see 60 FR 63418; December 11, 1995).

In response to these concerns, EPA proposed to expand public participation under RCRA permitting on June 2, 1994 (59 FR 28680). The final rule was published on December 11, 1995 (60 FR 63417) (EPA, 1997). It became effective on June 11, 1996. The new regulations, known as the "RCRA Expanded Public Participation" rule (60 FR 63417, December 11, 1995), require earlier public involvement in the permitting process, expand public notice for significant events, and enhance the exchange of permitting information. The new requirements include: (1) a public meeting held by the facility prior to submitting the part B RCRA permit application; (2) expanded notice requirements, including use of a posted sign, a broadcast notice, and a newspaper advertisement to publicize the meeting; (3) notification of the public when the agency receives a permit application and makes it available for public review and; (4) permitting agency discretion to establish an information repository, which will be supplied and maintained by the applicant or permit holder (EPA, 1996).

B. Opportunities for Public Involvement

The public is afforded opportunities for public participation in RCRA-related activities in two enforceable documents; the March 1, 2005 Compliance Order on Consent (Consent Order) and the RCRA Permit. The Consent Order is an agreement between the NMED and LANL and incorporates all corrective action requirements under RCRA. It contains the requirements for investigation, cleanup, and other requirements for all solid waste management units (SWMUs) and areas of concern (AOCs) at the Laboratory. There are two opportunities for public involvement included in the Consent Order.

The first opportunity is for selection of a remedy at a SWMU or AOC. When there has been a release of contaminants into the environment at a SWMU or AOC and a corrective action or cleanup activity is necessary to protect human health or the environment from the release, the

NMED will require LANL to develop a report known as a Corrective Measures Evaluation (CME). The CME describes all potential remedial alternatives for that site. Based on LANL's CME, NMED will select a remedy or remedies for the SWMU or AOC. The NMED will issue a Statement of Basis for selection of the remedy as well as a Public Notice informing local communities of their opportunity to provide comments on the proposed remedy. The Public Notice is sent to NMED's facility mailing list and an advertisement is placed in local newspapers (i.e., Santa Fe New Mexican and the Albuquerque Journal). The public comment period continues for at least sixty (60) days from the date of the public notice and the Statement of Basis. As part of this process, the NMED will provide an opportunity for a public hearing on the remedy where all interested parties are given a reasonable opportunity to submit data, views or arguments orally or in writing and to examine witnesses testifying at the hearing.

The second opportunity for public participation is NMED's "Corrective Action Complete" determination for SWMUs. This determination is granted by NMED to sites that require no further corrective action. The current RCRA Permit includes three lists of SWMUs; "SWMU's and AOCs Requiring Corrective Action", "Corrective Action Complete with Controls"; and "Corrective Action Complete without Controls." When the Laboratory obtains a certificate of completion under the Consent Order for a SWMU or group of SWMUs, they can initiate a "Class 3 Permit Modification for Corrective Action Complete" under the Permit. Similar to the procedures of a remedy selection, the NMED will issue a Statement of Basis as well as a Public Notice informing local communities of their opportunity to provide comments on the proposed action. The Notice is sent to the facility mailing list and an advertisement is placed in local newspapers. The public comment period continues for at least sixty (60) days. Consistent with the remedy selection process, NMED provides the public an opportunity for a public hearing.

LANL's RCRA-Permit (2010) describes the requirements for treatment, storage, and disposal of hazardous waste at the facility. In addition to the requirements for public involvement mandated

by RCRA (e.g., Permit renewal, Class 2 or 3 Permit Modifications), there are three provisions in the current Permit. The first provision (in accordance with EPA's "RCRA Expanded Public Participation" rule), Section 1.10, requires that LANL establish both an electronic and physical information repository (IR). The electronic IR must be accessible through the internet on LANL's environmental website (www.lanl.gov/environment). LANL must establish the electronic IR and provide the location, nature, and normal business hours of the physical IR by June 30, 2011. The IR must include the following types of documents:

- (1) The Part A and Part B Permit Applications;
- (2) A link to the Permit as it appears on NMED's website (electronic IR only);
- (3) Permit modification requests and any associated Department responses;
- (4) The Waste Minimization Report;
- (5) The Biennial Report;
- (6) Corrective action documents;
- (7) Notices of deficiency or disapproval (NODs), NOD responses, final approval letters, and NMED directions; and
- (8) Notices of violation (NOV), administrative compliance orders, responses required by the NMED, and NMED directions associated with the Permit.

Any new documents must be added to the IR within ten days after the documents are submitted to, or received from the NMED.

Finally, LANL must sponsor an annual training to educate the public of how they can access and utilize the electronic IR. LANL must inform the public 30 days in advance of the training by providing written notice to the facility mailing list (a list maintained by NMED), advertisement in local newspapers, and a link on LANL's environmental website.

The second provision in the Permit, Section 1.10.1, requires that LANL develop and implement a Community Relations Plan. The Community Relations Plan (CRP) describes how the Permittees keep communities and interested members of the public informed of Permit-related activities, including waste management, closure, post-closure, and corrective action. The CRP must also

explain how communities and interested members of the public can participate in Permit-related activities.

The CRP must describe how LANL will:

- Establish an open working relationship with communities and interested members of the public;
- Establish a productive government to government relationship with local tribes and pueblos (including the Pueblos of San Ildefonso, Santa Clara, Jemez, and Cochiti);
- Keep communities and interested members of the public informed of permit actions of interest (*e.g.*, clean-up activities, implementation of the Contingency Plan, Permit modification requests);
- Minimize disputes and resolve differences with communities and interested members of the public;
- Provide a mechanism for the timely dissemination of information in response to individual requests; and
- Provide a mechanism for communities and interested members of the public to provide feedback and input to the Permittees.

The third and final provision, Section 1.13, requires that LANL establish and maintain a list of individuals who have requested e-mail notification. The e-mail notification list is used to notify members of the public when Permit-related documents are submitted to NMED.

Any member of the public may request to be placed on the e-mail notification list through a link provided on LANL's environmental homepage.

Although these requirements for public involvement go above and beyond EPA's expanded public involvement rule, these provisions dictate how *LANL* will keep the public informed and how to participate in Permit-related activities. These provisions provide no guidance for how *NMED* will keep the public informed of Permit-related activities at LANL.

C. Literature Review

Public participation is critical to the environmental decision-making process. Stakeholders can provide insight or ideas into a decision not ordinarily considered by the implementing agency. For instance, Bierle (2002) examined 239 case studies of stakeholder involvement in environmental decision-making. He concluded that more intensive forms of stakeholder involvement are more likely to produce higher quality decisions. Additionally, his results indicated that an overwhelming majority (76% of 121 cases) of cases showed that stakeholders contributed to the quality of the decision-making process through innovative ideas, independent analysis, or new/different information. For example, one case study concerned a plan for navigation and flood control on the Missouri River between Kansas City and St. Louis. Stakeholders took the initiative and performed analysis on the economic, hydraulic, recreational, environmental, and land-use aspects of various levee alternatives. This stakeholder initiative provided valuable information in the decision-making process for the proposed flood control system.

As previously stated, the relationship between the NMED and the public is contentious. Several studies have concluded that an established, mutually agreed upon public involvement process, in this case a PIP, is an avenue for improving this relationship. For example, Branch et. al. (2006) concluded that agency representatives and stakeholder participants use public involvement processes as the principal method for shaping and improving the overall relationship between the agency and the affected community.

The NMED and the Alliance for Transportation Research Institutes' (ATRI) *Final Report on Environmental Justice in New Mexico* (2004) further supports the idea that the opinions of *all* stakeholders are important to the environmental permitting process. The report states that “public confidence is the degree to which the public trusts an Agency of the government to do what is right, and is the product of Agency performance and the public’s expectations.” Communication strategies that move toward increased public participation in affected

communities can provide a means for NMED to gather the most diverse collection of opinions, perspectives, and values from the broadest spectrum of its constituencies, enabling the NMED to make better, more informed decisions.

There may be several ways for NMED to produce high-quality technical decisions without input from the public (beyond the statutory requirements). However, there are few methods that do so while also educating the public, eliciting public values, resolving conflict, and building trust in agencies, as many stakeholder processes do. Clearly, public involvement can be a mutually beneficial tool in the environmental decision-making process as it typically results in better regulatory decisions and improves working relationships between governments and local communities.

IV. MATERIALS AND METHODS

Stakeholder Analysis

A. Interested Party Survey

A questionnaire (Attachment B) was developed to solicit stakeholders' opinions, concerns, and recommendations as to how the NMED can better inform the public about permitting activities at LANL and how they can provide meaningful input into the permitting process. The survey consisted of nine questions. The questions were designed to ascertain the opinions of a focused population (specifically, individuals in downwind communities of LANL) about how to improve communications between the public and the NMED. The survey also requested general information on stakeholder's knowledge of the RCRA- permitting process. This information was intended to identify data gaps in the public's knowledge of the RCRA-permitting process so that the PIP could address educational outreach opportunities.

The questionnaire was constructed and posted online through an online survey website called SurveyMonkey™. SurveyMonkey™ is a company that enables users to create their own Web-based surveys. A link to the survey was included in an email to five NGOs that are actively

involved in RCRA-permitting activities at LANL. Each of the NGOs was asked to distribute the survey to their email distribution lists or post a link to the survey on their website. Responses were due by October 1, 2010. Due to the lack of responses, only two by the established due date, the submittal date was extended to March 15, 2011.

B. Focus Groups/Interviews

In addition to surveys, the five NGOs mentioned above were contacted to set up focus group meetings. The five NGOs were:

- 1) Concerned Citizens for Nuclear Safety (CCNS)
- 1) Southwest Research and Information Center (SRIC)
- 2) Nuke Watch New Mexico
- 3) Embudo Valley Environmental Monitoring Group (EVEMG)
- 4) Honor Our Pueblo Existence (HOPE)

The intent was to hold at least one meeting with each of the aforementioned groups in a classroom setting in a location of each group's choice. The meetings were designed to be informal discussions to ascertain how stakeholders preferred to be informed and when they should be afforded opportunities to participate, in this case, in the RCRA-permitting process.

The purpose of the focus groups was to identify methods and opportunities to educate the public on the RCRA-permitting process. Opinions and concerns voiced in the focus group meetings would provide valuable input for the PIP.

As stated above, the original intent of the research was to hold focus group meetings with local stakeholders; however, it was exceptionally difficult to contact and arrange meetings with members of these organizations. Following multiple failed attempts to contact these NGOs to set up focus group meetings, an alternate method of data collection was employed. Using the script developed for the focus group meetings, individual interviews were conducted with three NGO leaders, as well as Mr. Pete Maggiore, former Secretary of the NMED, and Jim Conca, Director of the Carlsbad Environmental Monitoring and Research Center (see Attachment C for

transcripts of interviews). As part of each interview individuals were asked their opinions about how stakeholders prefer to be informed and when they should be afforded opportunities to participate in the RCRA-permitting process, beyond what the regulations currently mandate. Each interviewee was also asked to make recommendations for the PIP as well as identify methods and opportunities to educate the public on RCRA-permitting processes, such as remedy selections and Public Hearings.

Additionally, the aforementioned NGOs were asked to identify other organizations and individuals interested in participating in my research (i.e., responding to the survey or participating in a focus group session). This type of sampling is known as “snowballing” or “chain referral sampling.” In this method, participants or informants with whom contact has already been made use their social networks to refer the researcher to other people who could potentially participate in or contribute to the study. Snowball sampling is often used to find and recruit “hidden populations,” that is, groups not easily accessible to researchers through other sampling strategies (Denzin, 2000).

V. RESULTS AND OBSERVATIONS

Develop a Handbook

Through the interviews conducted with local leaders of NGOs and environmental organizations as well as the online surveys, several recommendations were put forth to both improve communication between NMED and the public as well as for the contents of a PIP. The first recommendation was to develop a handbook describing the RCRA-permitting process as well as the public hearing process. The handbook should be written by NMED, with input from the public. The handbook should include a tutorial for public participation in the RCRA-permitting process. The tutorial should describe the process by which a facility, such as LANL, obtains a RCRA Permit and when in the process the public has the opportunity to participate. The handbook should also include contact information for a designated person within NMED should

anyone from the public have questions regarding the permitting process. Eventually, the handbook should include similar tutorials for permitting activities under other environmental regulations, such as the Clean Water Act and the Clean Air Act.

In addition to an explanation of the RCRA-permitting process, the handbook should include a description of the Public Hearing process and how a member of the public can participate in the proceeding. It should provide a description of the process from start to finish (e.g., from when a public hearing is requested to the Final Order issued by the Secretary of the NMED) and when in the process the public has the opportunity to participate. Additionally, it was suggested that this handbook include copies of all relevant documents necessary for participation in the Public Hearing process, such as Notices of Intent and written testimony. NMED should also provide copies of such documents on its website. In addition to the handbook, it was suggested that NMED conduct annual or bi-annual classes that provide instruction on the information in the handbook and answer questions from the public. The meetings must be advertised on NMED's website and in local newspapers.

Regularly Scheduled Public Information Meetings

Another suggestion from members of the public was that NMED hold regularly scheduled public information meetings. Currently, NMED holds public meetings immediately following an agency action, such as a Public Notice of a proposed remedy selection. Although meetings of this nature are important, local citizens believe there should be more frequent meetings, for example quarterly or bi-annually, to inform the public of upcoming issues at the Laboratory. One potential method of determining the program for these meetings is to have a representative from the NMED propose an agenda to a small committee consisting of NGO leaders as well as a representative from LANL. In some predetermined amount of time, the committee members would be required to respond to NMED with any changes or suggestions for the meeting agenda.

NMED would then finalize the agenda and notify the public (as well as LANL) through the email notification list of the meeting time, location, and attach the agenda.

Make Newspaper Notices Consistent

All three NGOs identified the need for NMED to make newspaper notices more consistent. Currently, there is no uniform format for public notices issued by the NMED. Each notice is unique in format, size, content and location in the newspaper, which makes them difficult to find. Additionally, NMED is only required to place the notice in the major newspaper that serves the affected community; in this case, the Santa Fe New Mexican, the Los Alamos Monitor, or the Albuquerque Journal. Many of the smaller communities rely on monthly or weekly newsletters rather than the major metropolitan periodicals. To reach these smaller communities, NMED should publish notices in smaller, local publications, such as the Jemez Thunder or the Rio Grande Sun.

Improve Website Navigability

One way for NMED to simplify their dissemination of information is to improve the navigability of their website. Currently, links to documents and other information is not well-organized and difficult to find. Because NMED's website is a tool for the public, it must be user friendly. Many of the NGO leaders drew comparisons to the Waste Isolation Pilot Plant (WIPP) website. The WIPP is a DOE facility that disposes of the nation's defense-related transuranic (TRU) radioactive waste. WIPP began disposal operations in March 1999. WIPP's website includes an easy to find section on the homepage that allows members of the public to join email notification lists and access information related to WIPP's RCRA Permit. A similar design would benefit both NMED's and LANL's websites.

Additionally, members of the public cannot register for the facility mailing list online. NMED still requires that citizens fill out an information card and mail it to the NMED. Their contact information is then entered into the mailing list database manually. Similar to the WIPP, the

NMED must update their website to allow online registration for members of the public to join the facility mailing list.

VI. DISCUSSION AND RECOMMENDATIONS

Although the individuals interviewed had relevant insights regarding this research, the evidence clearly indicates that more opportunities for participation are needed and from a more diverse group of stakeholders. Results hinge on the opinions of eight people. The views of these eight individuals do not represent all of the opinions of the approximately 250,000 people that live within 50 miles of Los Alamos. The major factors inhibiting the response rate was a reliance on five local NGO leaders to either post or distribute the survey.

Stakeholder analysis was the research method for this project. Given the lack of data, one must consider whether an alternative method of research and analysis would be more effective at achieving the project objectives. For example, Rinfrets (2009) use of “frame analysis” to evaluate how interest groups influence the pre-proposal stage of the rulemaking process. Frame analysis is a research method used to analyze how people understand situations and activities (Golden, 1998). Evaluating how communities around Los Alamos understand RCRA-permitting activities could provide valuable information for development of a public involvement plan. Although this research method relies on voluntary participation, the method does not rely on research subjects to distribute information and materials or identify additional subjects.

“South-South exchanges” should be considered as a potential method for development of a PIP. To date, this methodology has been used in the fields of resource management and biodiversity conservation; however, it has applicability to public involvement as well. The premise of South-South exchanges in resource management is to allow people from similar backgrounds and environments to visit each others’ regions to observe and compare for themselves the lifestyles, socio-economic conditions and opportunities, ecosystem characteristics, and resource management successes and challenges that other communities like their own are facing (Heyman

& Stronza, 2010). This methodology could be applied to public participation by coordinating an opportunity for NMED staff and stakeholders to visit another DOE Facility (e.g., Oak Ridge, Savannah River) and observe their public involvement process. This exchange of information may help NMED define its public participation process and allow stakeholders to compare what is done and what is successful at other DOE facilities.

One final recommendation is for NMED to establish an independent monitoring and research center in Los Alamos, similar to the Carlsbad Environmental Monitoring and Research Center (CEMRC) in Carlsbad, New Mexico. Although this recommendation is unrealistic due to funding constraints; stakeholders, the NMED, and the WIPP have been pleased with the CEMRC and the function it serves. It seems logical that a similar facility would be a valuable asset at Los Alamos.

Based on interviews with the members of the public (Attachment C), there are five main points that the PIP should address:

- 1) The public wants information on a regular basis, not piecemeal;
- 2) NMED must focus outreach efforts on reaching smaller, more remote communities (e.g., Pueblos)
- 3) Standardization of all notices issued by NMED.
- 4) Websites must be easily navigable and more useful.
- 5) NMED must provide instruction or materials about how and when to participate in the RCRA-permitting and Public Hearing processes

In view of the main points above and information provided during individual interviews, a public involvement plan (Attachment D) was developed for NMED's review and consideration. The intent is for the NMED to adopt the PIP as part of their public participation procedures in addition to the mandatory requirements under RCRA.

VII. CONCLUSION

Stakeholder involvement in the environmental permitting process is critical. Research clearly indicates that local communities provide unique expertise and insight into such decisions. The two noticeable conclusions of this research are: 1) there is a severe lack of communication between NMED and local communities affected by LANL and 2) many local stakeholders need a better understanding of how the permitting process functions so they can be more efficient and successful participants in permitting activities at LANL. The attached PIP is a vehicle for resolving these issues.

Although the PIP attempts to address these disconnects between NMED and the public, this document is not final. As demonstrated in this paper, communication is essential. For the PIP to be a successful endeavor, both the public and NMED must agree on its applicability and content, and make good-faith efforts towards building trust. Without mutual agreement and trust, their ultimate goal of protecting human health and the environment will not be achieved.

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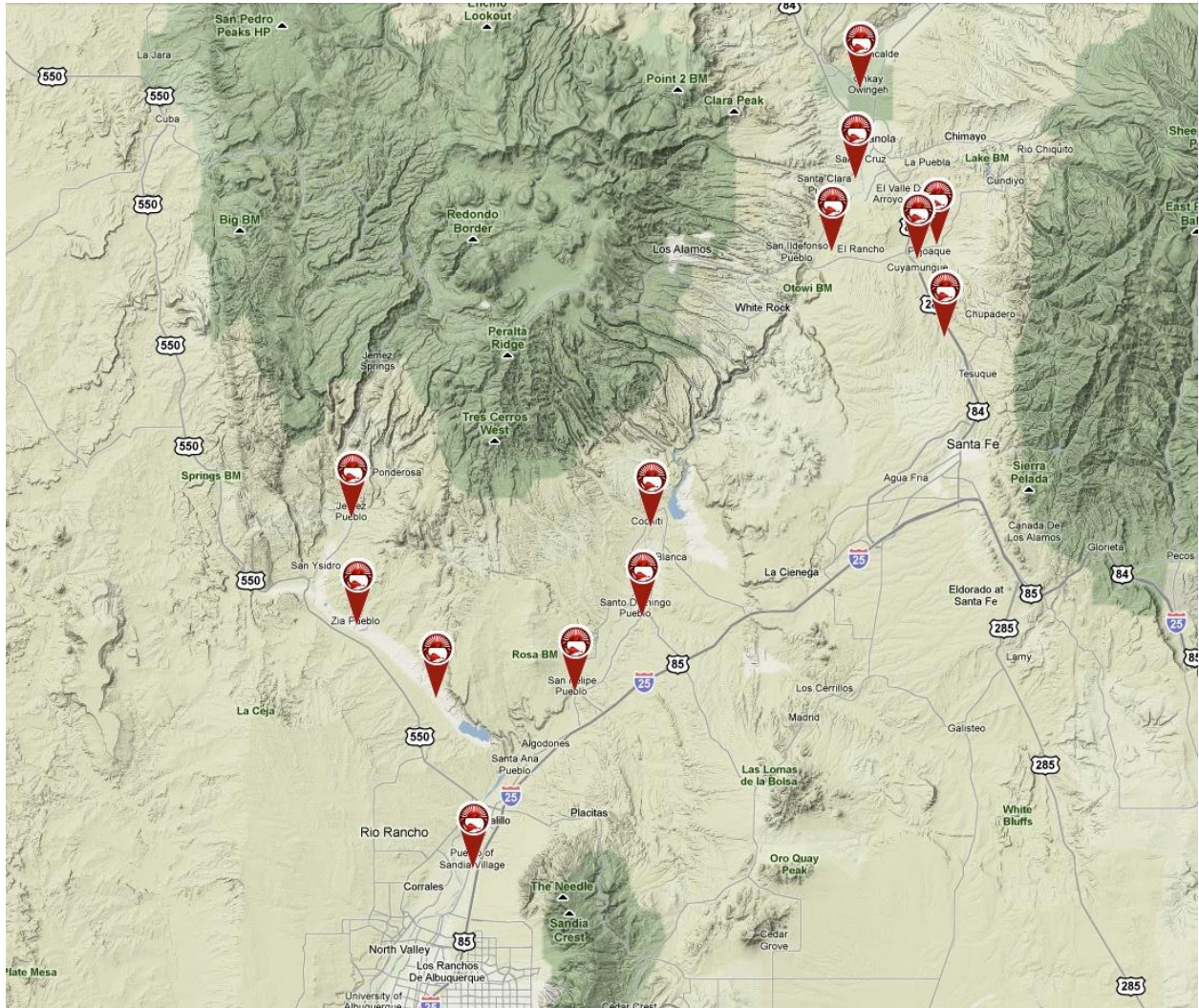
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- 2) <http://www.epa.gov/air/caa/peg/public.html> - Link to public participation info in the CAA (1977).
- 3) http://www.nmenv.state.nm.us/aqb/Control_Strat/Pub_Involve/Pub_Involve-7-03.html - NMED, Air Quality Bureau, public participation information
- 4) <http://www.indianpueblo.org/19pueblos/pueblomap.html> - Website for the Indian Pueblo Cultural Center
- 5) <http://www.wipp.energy.gov/> - Website for the Waste Isolation Pilot Plant (WIPP) in Carlsbad, NM

Attachment A

Map of Los Alamos, NM and Surrounding Communities



Source: Indian Pueblo Cultural Center (<http://www.indianpueblo.org/19pueblos/pueblomap.html>)

Attachment B

Interested-Party Survey

This survey is being conducted by Kathryn Roberts, a graduate student at Duke University's Duke Environmental Leadership (DEL) Program (<http://www.nicholas.duke.edu/del>). This survey is being conducted to assess the attitudes of local communities affected by activities at Los Alamos National Laboratory (LANL) and ascertain their opinions about how to improve communications between the public and the New Mexico Environment Department (NMED). Following compilation of this research, the goal is to develop a Public Involvement Plan (PIP) for the NMED. There are two main objectives of this master's project. The first is for NMED to adopt the PIP as policy and utilize it for all facilities (not just LANL) applying for or renewing permits in New Mexico. The second is (using the PIP as a vehicle) to develop an educational outreach program focused on how the permitting process works under the various regulations so that the public can provide focused, meaningful input into the permitting process. It is most helpful if you complete the survey; however, you are not obligated to answer every question. Your participation in this research is entirely voluntary. This survey will take approximately 15 minutes to complete. Questions? Please contact Katie at: (505) 603-9216 or kmr38@duke.edu.

- 1) What is the best way(s) for NMED to notify you of meetings or opportunities for public comment related to issues at LANL? Circle all that apply.
 - a) Newspaper, if so, what is your local periodical? _____
 - b) Email
 - c) Phone calls
 - d) Mailed Information
 - e) Radio
 - f) Television
 - g) Other, _____

- 2) Do you know the purpose of the Resource Conservation and Recovery Act (RCRA)?

- 3) Would it be beneficial for NMED to provide informational meetings to discuss/explain specific RCRA regulations (e.g., requirements for a RCRA-permit application, requirements pertaining to public participation, storage of hazardous waste, open burning of hazardous waste)?

- 4) If informational meetings were available, which forum would you prefer (circle all that apply):
 - a) A public meeting open to all
 - b) A meeting with a specific non- governmental organization (NGO) and NMED staff
 - c) Individually meet with a member of the NMED staff

- 5) Would you be interested in having NMED employees provide training on the Public Hearing process under RCRA?

- 6) If you answered yes to No. 6, what method of training would be most beneficial to you? Please fill in your preferences from 1 to 4; 1=most beneficial, 4=least beneficial:
Short class____
Brochure/pamphlet____
Informational meeting____
Webinar (internet-based class)____

- 7) Do you know what a Public Involvement Plan (PIP) is?

Yes___

No___

- 8) A PIP is a series of guidelines one uses to conduct public involvement activities. It contains goals and policies for actively engaging the public. In your opinion, what would be the most important aspects of a PIP utilized by NMED to engage communities affected by activities at LANL? Please identify your preferences from 1 to 5; 1=most important, 5=least important.

Identification of affected communities/populations___

Conditions under which the public must be informed___

Method of informing affected communities/populations___

Timing of public involvement___

Methods for public involvement___

- 9) What do you think should be included in a NMED PIP?

Thank you for your time.

Attachment C

Interview with Concerned Citizens for Nuclear Safety (CCNS),

February 15, 2011

KR: Kathryn Roberts

CCNS: Concerned Citizens for Nuclear Safety

KR: Actually this is great. It will record everything and then I can turn it into an audio file and I can just listen to it and type it later. It's great. So, the other thing, let's see, is that I have to make sure that I have told you everything.

CCNS: Okay.

KR: Before we get into the questions. So, you are aware that everything is totally voluntary. That if there is a question that you don't want to answer. Then you don't have to answer it.

CCNS: Okay.

KR: I think I touched upon the personal information issue. I think the only other thing is that I have to remind everyone that the idea is for enemy D to accept this and at the very least review it. Whether or not they finally adopt it is totally out of my control and I would hope that they take it seriously and would adopt but I can't make any guarantees that they will. So ...

CCNS: Okay.

KR: Okay. So ... here's a little bit of background information. I know quite a bit about your organization but why are you interested in permitting activities at LANL specifically?

CCNS: Okay. So I have a question first.

KR: Sure!

CCNS: Will this interview be used, in any way, by the lab?

KR: No.

CCNS: Okay.

KR: This is strictly my own personal research.

CCNS: Okay. So why are we interested in the Lab. Los Alamos National Laboratory is the largest polluter in northern New Mexico with over 21 million cubic feet of buried waste in unlined pits, trenches and shafts. Contamination has already been found in the ground water. Contamination has already been found in the surface water. CCNS sued because there was contamination in the air as a result of violations of the Clean Air Act. In the early 90's we sued. The judge, Federal District judge, found that 31 of the 33 stacks were out of compliance with the Clean Air Act. They are a polluter. They are impacting our communities. They are impacting individuals. There are increased numbers of antidotal stories of weird cancers in northern New Mexico. In Santa Fe that kind of information is not being collected and there's not any kind of public health agencies that are taking this very seriously. That's one of the reasons we are involved in these issues. Umm... the other issues are that LANL is the place where there is expansion of plutonium pit production to maybe 50 to 80 pits per year is going to take place. It's the only place in the country where plutonium pits are being manufactured. Currently the President promised that he was working for a nuclear weapons free world and it's a complete

contradiction that the new budget is , which came out yesterday, has up to 6 billion dollars dedicated to a new nuclear facility located at CMRR project.

KR: Okay. So, I think that explains a little bit too about what your organization – and I don't know if this specific to you but you are obviously speaking for CCMS

CCNS: Yes.

KR: So that pretty much goes to - what you are most concerned with at Los Alamos - Their mission being a big concern and wanting to change that mission.

CCNS: It wouldn't matter if they were making widgets. They're polluting. They have polluted. They're not in compliance with the law period. It wouldn't matter if they were making widgets.

KR: Okay.

CCNS: Or Intel or any of the other large polluters in the state. LANL has basically gotten a free ride for a really, really long time compared to Intel or the San Juan generating plant or Molly Core or the mines down in the Silver City area or the dairies. You know these are all facilities that the New Mexico Environment Department regulates. The fact that the permit was administratively extended for 10 years, the length of one permitting cycle, was huge. And when you compare the LANL Permit to the WIPP Permit the fact that the time for the WIPP Permit, because it was done promptly, the hearing was less than two and a half days. The negotiations were eleven days and people were familiar with the issues and they were able to move through the issues very rapidly. The fact that people were picking up pieces from 20 years ago was significant. And the fact that the Cerro Grande fire happened and the fact that, ummm, so, so much that was promised to the communities following the fire and the amount of funding that was devoted, 345 million dollars, to stop the transport of contamination – the migration of contamination. It wasn't spent properly by the laboratory.

KR: Okay.

CCNS: So those are some – those are some of the concerns that we have about this. So when there is a permitting process going on – we're able to address a myriad of issues with the regulatory bodies as well as with the facility and it seems like it is very good avenue to be able to address the issues in a profound way.

KR: Well, and related to that so... and I'm not going to presume that I know what your answer is to this but ... at present do you trust NMED to make sound decisions in the RCRA permitting process?

CCNS: Um... I'm not going to answer that question because we already have a notice of appeal before the court of appeals and we're trying to intervene in a U.S. District court case.

KR: Okay.

CCNS: That the Department of Justice has filed against the department.

KR: Okay. Umm ... okay I guess, so, unrelated to whether they make sound decisions – do you think that they have the expertise to make those decisions – with the people that they have.

CCNS: I'm not going to answer that.

KR: Okay. So, to date, do you think that you and your organization have been well informed about issues related to the RCRA Permit at Los Alamos?

CCNS: Um... I'm not going to answer that. I'm really here to talk about the public processes

KR: Okay.

CCNS: associated with it. I think that it is a conflict - it's a conflict for me to answer those questions

KR: Okay.

CCNS: when we are involved in litigation.

KR: Not a problem. Okay, well then, on the public aspect of it – how do you currently find out about permitting issues at LANL? Is it via an e-mail distribution list? Is it through a newspaper? How do you find out about what's going on up there?

CCNS: Umm... I find out through the newspaper. Through the e-mail list umm... from the facility mailing list. From the environment department umm... and that goes across the department so I get - I receive the monthly groundwater discharge monthly report . Umm ... I get things from the Surface Water Bureau because I'm on their facility mailing list. I receive information from the Hazardous Waste Bureau because the facility mailing list. Umm... I receive, the Air Quality Bureau is a little bit different

KR: Okay.

CCNS: in terms of those notices , I see in the legals, because I look at the legals.

KR: Okay.

CCNS: but I don't look at them every day and so...

KR: It becomes difficult to keep up, frankly, with all the notices that are going out for each bureau even ... each of them has their own way of notifying the public and so do you think it would be beneficial if they were to come up with some sort of standardized way of notifying the public?

CCNS: Umm... yes. It would be very good because some, like the Solid Waste Bureau, has an ad in the legals and then they have, I think, a small 2 x 3 inch advertisement. Some bureaus have legal notices. Some have ads in the newspaper, you know, like in the regular section and they are different sizes and different types so you have to be really aware of all of the different requirements. Some require a posting of a sign on the facility and I've been involved in the ground water discharge permit public notification requirements before the legislature but one of the things that we did talk about was the need for uniformity and that all goes back to the fact that the state does not have an administrative code that governs all of these things. But in terms of the public, there are inconsistencies if you live in a community that has a newspaper that's published weekly compared to umm.... If you get the Albuquerque Journal because many of the regulations say that it has to be published in the Albuquerque Journal but not everybody reads the Albuquerque Journal so consistency would be umm... and that's one of the reasons why I'm here, you know, is because, anything that is gonna move in that direction for consistency - so the public can know exactly what's going on. My concern in terms of looking at the newspaper in the legals recently is the fact that there have been many postings from the Environment Department and one way to see that the round circle, the emblem of the Environmental Department, is in the ads

KR: Okay.

CCNS: at the top of the ads so it's really easy. I'm concerned about this new administration - whether they're going to take that logo off. You know because you get familiar – I get familiar with looking at –

you know there's Bernalillo county there's the - some of the pueblos have their logos but the Environmental Department their own logo on there so I'm concerned that that might not be a requirement.

KR: Okay, so in terms of this, we'll just call it a standardization of the public notice, so I think keeping the emblem of NMED in the public notice, perhaps standardizing the size, perhaps where it is located in the newspaper but how do you think what's one way to, I don't know if you've considered it, communities where it's not a big paper that's published daily it's published weekly umm... addressing that same issue with a weekly periodical versus a daily.

CCNS: It has to be in both

KR: Okay.

CCNS: as part of the standardization it has to be in both and you know the polluter or the Permittee has to pay for those ads. I think that that is an inconsistency also because I think the Air Bureau publishes the ads after they are approved and so that should be consistent throughout as well. So that there could be a list that says – we sent these ones in for publication and it should be reflected in the permitting fees.

KR: Yah, I would agree because it's not consistent across the board, you know, for Los Alamos and hazardous waste. Specifically, Los Alamos will end up having to pay for some of that but that's not the same across the entire agency and it should be. I would agree with you. Umm So do you think – so you did mention in the e-mail distribution lists so do you find that it's difficult to find on some of these websites whether it's NMED's websites or Los Alamos whether it's specifically difficult to sign up for that distribution list or has it been fairly simple?

CCNS: Oh, I signed up so long ago that I signed up on a piece of paper.

KR: Okay, because one of the things that I've been looking at is – how easy is it for someone who isn't familiar with any of these websites to go on and find, you know, if they want to get involved and they want to receive these notices – how simple is it for them to get on there and find it? And in some cases it is very simple – it's right there on the home page and in other cases you have to do a lot of searching around and someone who is not very computer friendly it's difficult and it tedious and it shouldn't be that difficult. So that's one thing I'm going to be addressing in my paper. Because I think we are in this technological age and I think that the e-mail distribution lists are a good way of quickly notifying people but if it's not simple for them to actually get on the list then it defeats the purpose. So that's one thing that we're gonna be.

CCNS: So you need to look at the website and how you can sign up on the webpage and also on EPA's WIPP page. Because that's where it started, as far as I know, because Ray Lee with the EPA out of Washington D.C. He was instrumental in setting that up and it's really easy to sign up for that.

KR: Okay.

CCNS: And that was probably six or seven years ago so that was a really important thing. It's really important for people to find – to very simply be able to sign up and so like for the Hazardous Waste site I don't recall a place where you can sign up.

KR: There isn't.

CCNS: There isn't.

KR: For right now, at least as far as I can recall, you still have to do it by mail. You have to request a card – fill out the card and send it in and then you’ll be on the distribution list and there are several reasons for that but it’s not very efficient and they need to catch up so ... something to keep in mind.

CCNS: And you should be able to go on the NMED website and say this is my zip code – what are all the facilities within 50 miles of my location so that I can sign up for all of those facilities because I’m concerned - and it should be that you can sign up for - you know air, water, radiation control bureau. You can sign up for all the facilities. So that’s just a whole other morass of things but you could have – because there are permitted facilities under the RAD control bureau and so if you were concerned about what facilities were around your home – you could sign up. And you should be able to sign up within a certain radius as well. Because some places you’d want to know within a hundred miles of your home. As opposed to in Albuquerque you might just want 2 or 3 miles.

KR: Yep, yep.

CCNS: And in your county you should be able to decide what your parameters are.

KR: And one of the things that I’m looking at – you know there are other public involvement plans – EPA has its own public involvement plan. So I am looking at that to see what we can maybe take out of there and apply it here with a little bit more specificity. That’s the great thing about this – I think that one of the things that will come out of it is - Okay well, you know 5 years from now we need to be able to do this on the NMED website and you must have that functionality and so I think that’s great, actually I like that.

CCNS: So you should go to, during the interim, you should go to the legislature and see if you can give your presentation – give your presentation to the legislature.

KR: Okay.

CCNS: And make it a mandatory requirement. I mean you’ve probably seen some of the outrageous bills.

KR: I have.

CCNS: Have you seen those ads where they wanted to say that everything is going to be posted on the internet and there won’t be any newspaper.

KR: No, I haven’t seen that.

CCNS: So I think it’s in The New Mexican today.

KR: Okay.

CCNS: It has red on it and I think it’s sponsored by the American Newspaper Association or something.

KR: Wow!

CCNS: So there’s a bill. I think its 252 or something where they just want to have everything on the internet and it says that a statistic from the U.S. Census Bureau that says that umm... only 1 in 10 people will go to a state or federal website to find out information.

KR: Okay. Switching gears a little bit, in terms of educational outreach, you know, one of the things that I was telling you know when we started – when I was sitting in the hearing and I was listening to the public comment and I was there for every single one and I just – I felt like there was a major lack of

educational outreach from NMED, specifically, and I'm wondering ... do you think that NMED should be the entity that's providing that educational outreach to the public or should it be a joint effort between, you know, whatever the facility is – in this case Los Alamos and NMED and some of the, you know, if you want it to be a specific topic area. You know, if you want it to be radionuclides in surface water ... whatever it may be. Do you think it should be a joint effort? Do you think it should be Enemy D's responsibility to do that? I'm wondering if you have any thoughts about it?

CCNS: Okay. Under the consent order there is a community relations plan that the labs supposed to be following and I think there have been maybe 2 public meetings in the last 6 years.

KR: Six years?

CCNS: Yes, six years – March first, in two weeks. Umm.... There was the MBA B tour and there was something early on. So ... they have not met their requirements for community relations plan. Meeting with the public – there should be a fine for that. The fact that hasn't happened because if there were a regular community relations plan there would be a lot more involvement in this. People would have been more educated about it because it would have included both the consent and order deliverables as well as the permit process.

KR: Okay.

CCNS: I think there is also a community relations plan in the permit requirement. And so I don't know if you've seen these there is also a requirement for an information repository. So this is in the newspaper today. This is for the whip and their information reform. This is for their community relations plan. This is for their information repository. I received this in the mail the other day. I don't know what day this is dated? I don't know – that was probably a couple of weeks ago.

KR: Okay.

CCNS: So we have not received anything like this from LANL. The permits went into effect December 30th

KR: Ah huh.

CCNS: so this is the contrast and so why LANL can't get it together to do this. I don't know if NMED has to fine them on the community relation plan or what. Okay, so that's one aspect. That's one avenue – another avenue is that the NGO 's that participated in the permitting process ... forty days of negotiations – reviewing multiple drafts of the permit umm... not being heard on a lot of the issues – having the lab being able to take back victories that we won during negotiations during the hearing process. It's like meeting the manufacturers specs for the sealants on the floor umm... stuff about emergency preparedness – contingency plans ... really simple, simple things from our view point. And how they got to take that back or how they got to take back what we thought was negotiated in good faith. Umm... on slaught of the amount of materials that it was almost impossible for the NGO's to do any public education what so ever and the fact that those 200 documents, secret documents, were released just a few weeks before the hearing started. Our energies were devoted to that so I think that the community relations plan provide – could provide with public input an avenue for regularly scheduled meetings so that people would know what was going on. And the fact that the budget yesterday, the President's budget, has 326 million dollars – a 38% increase in funding for EM work at the lab and the fact that nobody is participating in that. They also have requirements under the recovery funding to inform the public along the way and Inez and Cynthia Anderson both made commitments that there would be public meetings. We went up and talked to them about the ground water monitoring and what needed to be done around TA-21 that they didn't do.

Because the closest well was a half a mile away and it's a mud rotary well. So they just – we went up there for like 6 weeks in a row. A meeting almost every week and they did not just want to hear that – about that requirement for that because we arguing that we need to have those wells put in now so that we could have proof that the demolition actually worked to minimize the actual chemical contamination going into the ground water and they were just like – No we aren't going to do that and they argued with us and we argued with them and it became very contentious and you know we didn't give up but we just other things came up like the permit hearing.

KR: Right.

CCNS: The other thing is...well.

KR: No, this is good.

Do you think that if...I guess I'm thinking a little bit out loud...but the Community Relations Plan provision in the Consent Order – the requirements for it...I mean, I remember looking over it and they're really vague and do you think that it would be worthwhile to potentially modify the Consent Order to put stricter provisions in for that plan in the Consent Order?

CCNS: Oh, you know, if we open up the Consent Order it's just gonna go away. I mean at this point, under this Administration, it's just gonna dissolve into nothing. So, I don't think that that's a realistic thing, but I think that making the Lab have to do something like this, where we have those meetings, because I think the requirements say they have to meet with us within 180 days, they have to get our input into it, so part of that conversation is to meet quarterly about this and it's gonna be the first Wednesday of the month every quarter – everybody will know that that's what's happening and then once we get into that mode, then we start talking about what's happening with the Consent Order.

KR: Okay

CCNS: I mean that's – because if we open it up...Curry was dead set against opening up the Consent Order.

KR: Yes he was

CCNS: I don't know if James (Bearzi) is holding that position or if that's changing or not. You know if we open up the Consent Order we're gonna want to go back and look at the groundwater requirements and the closure plans, the requirement for closure plans.

KR: So, I think that's a valid suggestion. Do you think that that would be helpful to get other organizations – I'm not going to ask you to speculate about what everyone else thinks, but do you think everyone would be a little bit happier if we decided, "we're going to have quarterly public meetings and we can change locations to accommodate different communities and ahead of time maybe we can agree on a proposed agenda for the meeting and I'm thinking out loud here again, but if there's a small committee put together to figure out what needs to be on the agenda so it's not an onslaught, but open it up as a public meeting quarterly. If you follow the requirement for the Community Relations Plan that would be LANL's responsibility to hold that public meeting.

CCNS: Hopefully NMED would be there. Hopefully it won't be like the CAB where they've said "we're not going to attend the CAB meetings." I mean, that's a whole other set of public participation issues with respect to the...so we would want to have something like a poster session and then an opportunity for discussion. So it would be a 5-7 poster session and then a 7-9 kind of conversation. One of the agenda

items would be “what do you want to hear about for the next quarter?” This is so the Lab can bring in their groundwater issues, they could bring in their air issues, and they could show before and after photos.

You know, in terms of looking at the deliverables under the Consent Order, what like MDA U or some MDA has just...they're getting ready to sign off on the final. That it's cleaned up. We have not received any notice about that. There's no notice requirements for the public under the Consent Order. So we want to make sure that there would be some way that we would be able to keep track of that.

Because remember, part of what we asked for at the beginning of the negotiations is that, and I don't think this is confidential, you prepared a list of the 2100 sites you know and we're going to expand that and Scott can talk about this more but, we've put in a proposal for our own website so that we can follow all of these deliverables for the 2100 sites. Like where can the public participate in all of this because we're not getting that information from anybody. For example, I had to email NMED to get the latest Consent Order schedule. You know and some stuff is right on target because it's not due yet but some stuff is two, three years old...delayed. And so how are we following those deliverables under the Consent Order and how do they impact the schedule for the Permit. There's not really anything under the Permit other than what's happening at TA-54. But that restriction on disposal of LLW is a topic of controversy in the U.S. District Court.

KR: I think utilizing the Consent Order's requirement for a Community Relation Plan under the CMI Plan requirements would be a good place to begin facilitating this educational outreach piece of what needs to happen I think it will be interesting for development of the plan when I put it together of how it's going to work and how it's going to be laid out.

CCNS: And you saw that in this one, the tribes are separate. I don't know if the tribes got separated out in the LANL Permit.

KR: They did, as a matter of fact. I believe that falls under the “government to government” policy, so yes, they would be separated out. So these are from WIPP (public notice letters from WIPP) ?

CCNS: Yes, these are for you.

KR: Thank you. These will be very helpful.

CCNS: You could call Bobby St. John. He's been wonderful

KR: So, this is a document notifying you of...

CCNS: That the Community Relations Plan is going to be mailed to us, is going to be *mailed to us*, by February 28, 2011 for those people on the list who've said they want a mailed copy.

KR: Okay. And you can access it online if you want to?

CCNS: I think comments are due by March 21st. Imagine that!?! Imagine that, look it.

KR: It makes you wonder a little bit why it's working here and not at Los Alamos. So, I think it would be sort of an interesting exercise to compare WIPP and their public participation to date against LANL's.

CCNS: Have you signed up on their website to receive notices?

KR: Yes

CCNS: They provide a link in the email that you click on and it goes directly to the page. Sign up for the LANL groundwater monthly notification. Look and see how many pages you have to go through to find where that report is.

KR: Yes, I remember (chuckling).

CCNS: That issue has not been fixed.

KR: I remember talking about that (in negotiations)

CCNS: It has not been fixed and there is groundwater contamination being detected that they're burying in this process. I think there's nickel, I think there are nitrates. There are new hits of contamination.

KR: Navigation (of the website) needs to be simpler. Ok.

CCNS: And so because it's not as simple as this (WIPP).

KR: That doesn't mean it can't be done.

CCNS: No, but this (LANL's website) makes me feel unqualified and that something is being hidden. Especially when, in 11 years of working at CCNS... is that right? 12-13 years-where was I going – oh, and having dealt with the University of California as an academic and being able to talk to anybody I wanted to at the Laboratory - everything from weapons scientists to people who were running the water quality database. And now having to go through a gatekeeper who is not responsive is very frustrating and something is being hidden through all of this. And to have to ask, under the UC, to receive documents at my door, at my office. People would drop them by. They would figure out how to get the documents to me. And now it's like they can only send you a CD or you can download (the document) from a website. For example, last Friday I asked for a paper copy of the CME, Rev. 2 for Area G and I haven't heard anything back from them. So today's Tuesday, I haven't heard back from them, so probably on Friday, I'll wait a week and send an email to Inez (Dr. Inez Triay).

KR: Okay

CCNS: That I send to George (George Rael) and LBL.

KR: Who is the contact at the Lab out of curiosity?

CCNS: Lorrie Bonds-Lopez. And she's been the contact for a very long time.

KR: Yes. She's the public outreach person.

KR: So we talked a little bit about...(chuckle). No, don't worry, this is great. I want to hear all of this.

KR: So we talked a little bit about quarterly meetings, informational meetings. Do you think there are any other ways that we could go about doing some educational outreach? Do you think mailing pamphlets that provide this type of information - so it doesn't necessarily have to be a public meeting, but just getting the information out - this newsletter, in a way. Do you think that would be helpful?

CCNS: I think what's really required is how to go through the administrative process within NMED. I think there's no handbook, there's no nothing.

KR: I would agree

CCNS: If you're doing something pro bono and you're doing something as a citizen, there's no way you could understand how to go through that. And you see that Don (Don Hancock – Southwest Research and Information Center(SRIC)), and I'll just reference Don, he's been involved in these issues for 30 years, he's gone through a lot of different permitting activities and he understands how you do that. I think the only way that you can learn that right now, is to go through this, through the negotiation process and through the hearing process. We've always been able, CCNS has always been able to negotiate what we wanted through the Permit process. This is the first time we participated, well we participated in the WIPP initial (Permit). Don did most of the work on that, but for the air permit for the CMRR, for the industrial stormwater permit at TA-50. We've been involved in the negotiations, or not even negotiations, but in terms of those permits for the Laboratory, we've been able to accomplish what we wanted to – we met our goals through the negotiation process. So this was a different kind of thing and we were just so slammed. I can't even tell you. It felt like we were standing in front of a fire hose for about ...for months. Actually for...I think it got really serious in July 2009 - for about 18 months total. It took us about 2 weeks to get into a regular routine after the hearing ended because there was just this level of energy you needed to be part of it. And it was...I won't say that.

KR: I completely understand. Being involved in it even in my small capacity I felt very much the same way. I became a paralegal overnight. And I agree that there's no information out there explaining "here's how you go about participating in this process and these are the documents you have to have and in what order and the dates to submit by and who to submit to." That's one thing I want to address in this paper is some sort of pamphlets or a handbook or even a mini class taught by NMED saying "these are the steps, this is the administrative procedure for participating in a public hearing." Because it's convoluted, it's complex, it's a crazy process. I mean, even for you guys who participated in the hearing itself, you know, you guys do this a lot and you're very knowledgeable about the issues, but even so you're just overwhelmed. So understanding that process I think would be extremely helpful.

CCNS: Yes, like what gets filed with the hearing clerk. What's the requirement to do that? How do you take copies over to her? How do you file them electronically? Because some of the parties only filed electronically, some of the parties sent them out by mailing. Some parties did both. Some parties did different things. And so the one thing I really want to emphasize is that, how the NGOs took on the information table at the back of the room (at the hearing) and that people were there at all times to be able to tell people what the process was, what are some suggested talking points, what are some things to read into the record from the secret documents. That was a huge commitment on the NGOs part in order to at least facilitate some kind of public comment.

KR: There are a lot of ways you could go about doing that outreach. What do you think would be the best way? Would you like to see a little handbook so everyone could take it home and be able to review it? Would you like to see that plus a meeting to go over it if people have questions?

CCNS: There has to be something that says "here's the process step by step that you gotta go through." Here's a form for a Notice of Intent to present technical testimony.

KR: Actual examples of the documents themselves?

CCNS: You know, here's the heading of the document, you have to sign it this way, here's where you have to send the certificate of service. It may change during the permit process, but you just have to use the most current version of the form. But those initial documents that we had to file were, you know, overwhelming. Here's a format for bringing in expert witnesses, here's what you have to do in terms of summarizing their testimony, here's what you have to do for this. Here's your packet that's due on this day. And have it all ready the day before its due in case lightning hits your office.

KR: No, I think it's a great suggestion. You know, having all that available...

CCNS: And then the Hearing Officer is going to release a report and this is how you have to respond to that report. And then the Secretary is going to issue a Final Order. But it is very difficult to find any Final Orders or to find the filings from the Permit...to find any models even. What's been a successful model? Is it okay just to say that you sent on the Certificate of Service, you know Lorraine just put "hey we just emailed this to everybody" and other people listed everybody's name. So what's the best format? And how is that going to change under the new Administration. The Notice of Intent, the technical testimony, what happens if you're going to testify? How do you address the Hearing Officer? How formal does it get? Do you talk to the other parties?

KR: Yep. No, absolutely.

CCNS: Because some parties were taken advantage of because they didn't know all the rules.

KR: And they go on forever, the rules associated with this, with this process. So I think it sounds like, maybe the way to go would be to develop some sort of handbook and it has to have the procedure, it has to have all the forms that you would need or at the very least, if it's a form that changes, where to access it. And all of that information needs to be there. Do you think it would be helpful for NMED to have some sort of mini class, or meeting, or whatever you want to call it where they would go through that with people?

CCNS: It would probably be helpful. I'm wondering if they would have a conflict of interest. It would have to be maybe an annual class that takes place on such and such a date to let people know across the board.

KR: Yes. It couldn't be associated with a particular hearing. I would agree. It would have to be an annual or bi-annual class that just says ok "here's the handbook, this is how it works."

CCNS: And maybe if it was every six months one time it could be in the northern part of the state and one in the southern part. If it was quarterly it could be east and west.

KR: Okay.

CCNS: I think that that would be helpful. I think you might need some help from – it would be great if it could be hazardous waste regs, air regs, groundwater...

KR: Split up by regulations...

CCNS: ...surface water, solid waste

KR: Because it is a little different.

CCNS: Each one is a little different. I don't know how much time you have, but if you could get sample ones from the Environment Department and you could just cut-and-paste, that would be really good and you could have Mary (Uhl) or Marcy (Leavitt) look at them. Then that would provide not only an avenue for the public to be able to use but also, if we go to the legislature, to say-this is what the public is dealing with. And you know, you could even just use the northwest/northeast regional landfill issue or Sundland Park or something that's not necessarily LANL, to show these things. Because you have groundwater permits, air permits, surface water permits, and solid waste permits.

KR: So I think for my paper, in terms of time, what will likely happen...I'm going to try, valiantly, to do all of them, but I would say more likely what will happen is I will pull together the RCRA piece. Either in

the main text when I'm talking about recommendations for moving forward or as part of the plan, I'll state that for the purposes of the paper, I'll focus on RCRA, but that the handbook should ultimately include not just RCRA, but air quality, solid waste, groundwater. At least its there and people are aware that it can't just stop at RCRA, it needs to go beyond that.

CCNS: And you should put in the places in the regs - the statutes for like groundwater and then where the regs are. So that if this hazardous waste is the model, but each set of regulations is different and its important for you with your caveat that each media be able to look at the individual regs. Because once you get into air you have construction permits and it's just really, really different.

KR: Yes, I would agree.

CCNS: So maybe RCRA is the easiest. I don't know. Because you...

KR: I don't know. I'd have to look at it.

CCNS: Because under groundwater you have the alternative abatement standards.

KR: Okay. Yes, I'll take a look - because if I can incorporate more than one, I would like to do that. I think air quality might be the most complex to include at this point or at this time, but...

CCNS: Solid waste - you have to put up a big sign on the property - and that's what we want for all of the public notification. There has to be a big sign.

KR: Oh, across the board, not just for solid waste. RCRA, groundwater, everywhere?

CCNS: Yes

KR: I hadn't actually thought about that.

CCNS: You know the big yellow signs that they have for the historic district in Santa Fe?

KR: uh huh.

CCNS: A big yellow sign.

KR: Well-that is all of my questions at this point. That was immensely helpful. I really, really appreciate it.

CCNS: Great-and I also have some comments for you. So have you read the environmental justice listening session?

KR: No

CCNS: Okay. You need to do that.

KR: Okay

CCNS: And you need to incorporate some of those recommendations into your report. Because that was a monumental task for the Environment Department to do that under Derrith Watchman-Moore. There are some really good recommendations in there and you might find some additional things that will help your report because I think people talking about the permitting process.

KR: Is it available on the homepage, do you know?

CCNS: I don't know

KR: That's okay. I can find it.

CCNS: There's a paper copy – I'm not sure if there's a paper copy. Okay-and then with respect to the listening sessions... I'm not going to go there. So, in terms of the information repository, or the information table at the hearing, the public really appreciated having the information table with somebody there to explain the process and provide information – because it was a different process than just making comments like at a DOE EIS meeting, where we're pretty familiar with it. Because this was more formal, it was really important that people were able to have a place where they could ask questions because there was a judge there. It was different. Sometimes the Hearing Officer – and these are comments from another member of CCNS – wasn't listening to the public and at times he was impatient with the public. If NMED wants public involvement, then the contract needs to say that the Hearing Officer needs to pay attention to the public – because, you're familiar with the Shapparell case, you're familiar with the Rhino case – in terms of public participation.

KR: yes

CCNS: Another comment I received was about a recent public meeting about the “Blue Ribbon Commission” – the panel members were not showing impartiality to the people who were testifying. They wanted definitive answers with regard to what their position was. They wanted people to agree with them. So, in terms of having public meetings it's important that the presenters have the ability to listen to the public. That's important.

The other thing is that the information repository (required by the Permit) for the Laboratory is going to be really important in terms of providing information or Permit information, but it should also include, hopefully it will expand and include some Consent Order information as well. But, I'll just reemphasize that when the Laboratory was a not-for-profit, management, M&O contract, it was much more open to providing information to the public. Now that it's a for-profit institution, there's a dramatic difference in the opportunity for access to information. Although the website is more sparkly and things, it's very difficult to find information unless you know where stuff is what the titles of things are. It's very, very difficult.

KR: Well and that across the board, not just Los Alamos, NMED included, they need to do a better job of making links that the public wants access to visible, easy to find, and easy to navigate, that the information is simply presented. It's not rocket science. I think it can be done.

CCNS: Chuckling – Well-sing up at the website.

KR: I will. I'm going to go check it out.

CCNS: So-you have that you're going to provide me with a copy of your final report?

KR: Yes, but that is not going to happen...let's see...the final paper. Well- I graduate May 13th, so the final paper will be signed by everyone will be that week or the week after and they publish them. So, I will get an additional copy – do you think you'll want more than one?

CCNS: Yes.

KR: How many would you like?

CCNS: (Chuckling) Just a couple. Because we gotta see what happens this legislative session with the new...

KR: Okay. Got it. I can do that.

Interview with Nuclear Watch (NW) New Mexico:

February 16, 2011

NW= Nuclear Watch NM

KR: Why are you interested in permitting activities at Los Alamos?

NW: Well, it's an important...the environmental aspects of northern NM are important to us and permitting activities is just one way to have input, direct input into what goes on.

KR: What aspect of it would be of most concern? Their mission, their level of transparency with other organizations and the public...what is it specifically that concerns you?

NW: They need to get out of the nuclear weapons business. That's our main focus. The waste that that has created and is still lying around the area up there is a big concern.

KR: In terms of developing a plan that will work for NMED as well as your organization, right now, do you trust that NMED can make sound decisions about the RCRA-permitting process?

NW: Yes.

KR: Do you think that the staff at NMED has the expertise to make sound permitting decisions?

NW: From what I've seen, yes. Concerning LANL, yes.

KR: Do you think you are well-informed about issues related to the RCRA-permitting process, specifically to LANL?

NW: I think I am, but I think that had nothing to do with NMED. I think it had to do with being part of the RCRA-public hearing. That's how I'm informed. The details of something like that (referring to the public hearing) are very complicated and complex and it just takes a long time to learn it. I think I'm pretty well-informed now.

KR: Right now, there are several ways to find out about issues at LANL, but how do you find out about issues going on at LANL?

NW: RCRA issues going on at the Lab?

KR: Yes. We don't have to limit it to RCRA. I'm curious as to how you find out about issues between NMED and their regulated entities.

NW: Usually, it's mostly through my colleagues who follow it more and keep up with it better than me. Occasionally I'll have to call. If I think a certain report or certain deliverable is due, I'll check the ftp site (at NMED) and see if something new has shown up there. Otherwise, I'll go to the LANL site where they list the documents as well as correspondence back and forth...I'll weed through that. Usually, I don't like going to the LANL site, I'd rather use the NMED ftp site. But, if the document I was looking for wasn't there, I'd be forced to go to the LANL site and try and see if it's been turned in and then I'll call somebody down at NMED.

KR: One thing that I've discovered through my research thus far is that the websites (NMED and LANL) are not easy to navigate...when you're looking for something. A few people have brought up the comparison of the WIPP site and the ability to find things. I think this will likely be a focus in the paper because frankly, these are two DOE facilities in the state and why is one doing this so drastically different than the other?

NW: One is just a cleanup place with a \$300 million budget a year and LANL is a top-secret weapons place and they just have that history of everything being a big secret. Something is happening there. The other thing about the LANL website is that on their long sheet of documents and letters, when you find something, you can't just click it and go to the document. You have to write down the number and then go back to the search. It takes time and the normal person, the normal public won't do that, I don't think.

KR: One thing that I'll be touching on in the paper is educational outreach. One thing I realized while I was sitting in the Permit Hearing was that there's no tutorial, there's no handbook, there's nothing to explain to the general public about how does a permit hearing work, what are the procedures that I have to go through, what are the documents I have to fill out, who do I have to file them with? As you said, it's extremely complicated and in many respects convoluted. Do you think NMED should provide some sort of educational opportunity to go over that process?

NW: I would hate to see them take resources away from their actual job and do that. I think that if there was a big demand and any member of the public had a question about the procedure and called someone at the Hazardous Waste Bureau, they would probably get their question answered. Either than hasn't been happening, or if a lot of people called and asked "how does this work?" or "how does the public get involved?" maybe the Bureau would have done that. It would be handy to have a guide.

KR: One suggestion that's come up is a handbook. It would go through the hearing process not just for RCRA, but for the regulations as well. It could be divided into sections by regulation or whatever the easiest way is to divide it. Because the hearing process is a little bit different per regulation, maybe that's where we start, with a handbook that describes the hearing processes per regulation?

NW: I think if it could be a one or two pager. I think a lot of people don't understand that anyone can request a hearing and be part of the negotiations. That kind of information is not out there. That's part of what should be in the guide. From what I've seen at the Hazardous Waste Bureau I do believe that they would answer anyone's question. If they called the Hazardous Waste Bureau they would probably answer their questions. I don't know about other Bureaus...

KR: I guess it's this contrast between taking the initiative. In many cases maybe it's because a member of the public doesn't know who to call. That could definitely be a reason. That aside, it's this contrast between taking the initiative to pick up the phone versus this information should be available up front- we shouldn't have to call.

NW: That's true. Especially when you don't even know what your questions are until you see the guide. Even before that, there should be a process where the public is better alerted that stuff is actually going on, like "this Permit is coming up", or maybe even things in the paper. But it

doesn't really explain what it means. It's just a thing saying they're having a hearing, but you go to the NMED website and there's nothing on the website explaining what the hearing is and the process for participating.

KR: Usually that explanation goes out with NMED's public notice, but sometimes that's too late. Especially if you do have questions about what it all means. One thing I've been hearing a lot regarding notices is the idea of somehow standardizing the notices themselves. Each of the Bureaus when they put notices in the paper, they all do it differently. They put them in different sections, they're different sizes. Most people don't know where to go or where to look, unlike someone who's consistently involved and knows where to look. One recommendation I plan to put forward in my paper is to standardize, across NMED, public notices for periodicals. Information would include, size requirements, the information required in each notice, the NMED emblem. The symbol would make the notice stand out and be more easily seen.

NW: The DOE NEPA website has a public participation calendar. You click on that and by date, it tells you what events are coming up. Whether there are comments due for a public notice, the date of a hearing, etc. That's what they need. Just to keep you informed.

KR: Absolutely! Having one calendar with everything on it would be a good way to keep people informed.

NW: We were actually thinking of doing one ourselves, for NMED.

KR: One other thing that came up in my research thus far was the need to have general public information meetings. Neither entity is very good at this. They only have them when there's something immediate that they need to inform the public about. One suggestion that's been put forth is having quarterly meetings, as an example. LANL would be responsible for spearheading it and the idea is that a representative from LANL would send out a proposed agenda to a small committee, possibly the heads of the NGOs and NMED, and they could discuss the agenda items for that particular meeting and then send out the agenda to the facility mailing list as well as the newspaper – so everyone knows what the agenda items will be. A general format of a 2-hr poster session and then a 2-hr discussion/question and answer session was proposed. I'm sure the time could be shortened, but it was just a suggestion. What do you think about that type of information meeting?

NW: I think it's good. I think we could tie that to the public participation calendar – when comments are due, when a document is due and then include those as possible agenda items. I think it's difficult keeping track of all the different areas at the Lab.

KR: One thing I've noticed, in my opinion, both NMED and LANL don't do a very good job of notifying people ahead of time. Even right now, the schedule they go off of, the last time it was public noticed was in 2006. You can ask for the draft working schedule and they will give it to you, but very few people even know to ask. It's difficult to keep people up to date on what's going on up there, but that's one way to do it.

NW: That was my question. Why doesn't NMED update that schedule all the time?

KR: They do.

NW: And post it publicly...

KR: That has been suggested too, that they post the working schedule...

NW: updated on the public participation calendar once a month...need to show that submittals get bumped.

KR: That working schedule can change daily. That's one of the reasons that they stopped public noticing the schedule because NMED would notice it and it would change the next day. As long as everyone understands that the schedule is draft and working, it would be a good idea to post it on the website on a monthly basis. That way everyone could have access to it and be able to see it on a regular basis.

NW: I've been trying to get DOE to do some of these things for us and they post a monthly EIS (Environmental Impact Statement) schedule. Although the schedule tends to get pushed back on a regular basis, at least you know what version is out there. At least you know by looking at the schedule that things get bumped back or are on time. At least you have a good idea of what's out there and what's due.

I think a lot of times, NMED feels bad about giving the Lab extra time to do things. I think they fear repercussions from the public if they hear that the Lab got an extra 6 months to do some investigation report.

KR: I can't speak for the agency, but speaking from my own personal experience, yes. It's quite a bit of pressure, especially depending on what site it is. I can't even fathom what would happen if the remedy completion report for Area G is extended. I don't really know what that would look like. I can't imagine it would be good.

NW: I've been thinking about that and it depends on what the remedy was. If it was an acceptable remedy, then the time becomes less important. That's my new theory.

KR: I like that.

NW: If they're basing the remedy on the time they have, then a lot of the potential remedies get bumped off. Extending the time doesn't bother me if it's a good remedy. I'd hate for it to be fixed on a certain time (It has to be this remedy because that's all we have time for). That would be bad. That would be a bad remedy.

KR: I would agree with you.

You and others deal with the public participation aspects of these issues on a daily basis, so if it were Christmas and you could have anything that you wanted included in a PIP, what would you like to see? What do you think is critical for communication to improve between NMED and the public?

NW: Sometimes it's confusing to me and to the public what the relationship is between NMED and the Lab. A lot of times, there may be a public information meeting sponsored by NMED, but the Lab is hosting it. It's very confusing. It would be nice to have some strictly NMED hosted events, where the Lab was not there. I mean, I think the Lab does a fairly good job of hosting

public events but it's confusing that the regulator and those being regulated are so cozy and chummy. In my personal opinion, the Lab works very hard on its PR, so anything that the Lab puts out there has gone through communications or the PR department. I think that it would be nice to have some separation between the Lab and NMED sometimes. That may not answer your question...

KR: I think it does. I mean, I think it goes to defining responsibilities.

NW: I know why this happens. It's because the Lab ends up paying for a lot of this. I don't remember that many meetings where only NMED was present. You had the one for MDA B and I don't think the Lab was there, or were they?

KR: Yes, but I think there's a grey area here. There were members of the Lab there, but they weren't hosting the meeting. They weren't presenting anything, but members of the project team on the LANL side were certainly there. I know that when LANL would host a public meeting, part of the reason for NMED staff to be present was to fact check LANL and make sure that the public wasn't being misled and that all of the information being presented was correct. I have a feeling that LANL probably does the same thing too when they show up for NMED sponsored meetings. I would agree with you that it may be a good idea to have that separation because maybe some members of the public aren't comfortable talking or making comments in front of member of the Lab or even NMED. It's definitely something to consider.

NW: You know a meeting that I don't go to enough is this CRMG meeting. Have you been to any of those?

KR: Hosted by DOE Oversight Bureau. I haven't been. I did when I still worked for NMED.

NW: Those are good meetings because they're kind of informal and the Lab is there but they're only there to answer our questions. So they schedule a person in the month before based on questions and inquiries from the public and the person shows up and gives a presentation. Following the presentation, we ask questions. That's a good meeting.

KR: Because of the informal nature of the meeting? Being able to ask questions and not receive the "PR" answer?

NW: Yes.

KR: I was thinking of going to those meetings to see how they operate because you're not the only person who's suggested that they're good meetings and a good format. Unfortunately, we have yet to determine whether my attendance would be a conflict of interest. The reason being, I can't "represent" LANL in front of NMED and NMED-OB sponsors the meeting. I can go to CAB meetings, I can go anywhere where NMED's not present.

NW: The CAB (Citizen Advisory Board) meetings are very similar. People have questions, then ask the Lab, but I feel that I have to go to those meetings because NMED is not represented. I want to make sure that LANL is giving what I know to be a truthful answer.

KR: Sometimes it's not a black and white answer. People have differences of opinion about how a well is drilled. There are a lot of differing opinions about that. I agree, that it would likely be helpful if NMED was represented.

KR: Those are all of the specific questions that I had. Do you have anything you'd like to add at this time?

NW: No, not at the moment.

KR: Thank you so much for your time.

NW: Thank you.

Interview with Amigos Bravos,

February 21, 2011

AB: Amigos Bravos

KR: I just wanted to go over those questions I sent you and there are a few things I need to go over with you before we get started. One of them is I'm sure you saw from my email that this is strictly a research project to fulfill my Masters Project requirement in my Masters degree program at Duke University. Basically what I'm looking to do is develop a public involvement plan for the New Mexico Environment Department (NMED) because as I was sitting in the Permit Hearing for the RCRA Permit for Los Alamos last year, I realized that there was a major disconnect between the public, NMED and the Laboratory. I started to think that it might be really interesting if, what if these issues didn't exist, what if there was better communication between NMED, specifically, and the public. And so I sort of developed the idea for developing this plan. There's a lot of structure to this and I apologize for that, but there are a few things I have to tell you before we get started.

With your permission, I will be recording the session tonight and the only purpose for that is so I can transcribe our interview. All of the personal identification information will actually be deleted from the transcription so it won't be included in my report or anything like that. The only identifying information will be your organization's name, Amigos Bravos. So if that's alright with you, I will begin recording our conversation.

AB: Ok.

KR: I also wanted to make sure you understand that your participation is completely voluntary. Should you not want to answer one of these questions, feel free to decline to do that. That's perfectly acceptable. I think that's it. Those are the big ticket items.

AB: Ok.

KR: If it's easier, we can go through the questions that are in the survey that I sent you.

AB: Ok. Whatever is easier is fine with me.

KR: Well, this is actually sort of an important one...it's a pretty standard question. The question in the survey asks what's the best way for NMED to notify you, but I'm sort of interested in how you currently find out about RCRA issues, but it doesn't have to be specific to RCRA. I know that your organization is very involved in surface water and groundwater issues. So, how do you find out when there are issues going on up at the Lab?

AB: Well, at the Lab...well actually that's an interesting question because mostly we get information word-of-mouth. But on certain things like on groundwater discharge permits lists, the NMED will provide notification of groundwater discharge permits reviews. We also get notices from EPA, with regard to all the NPDES permits when they are up for review. Those generally come hard copy. In terms of Core permits from the Army Core of Engineers, we usually get those by email. So that's how we presently get notifications.

KR: OK, so they're either mailed notices to you...mostly.

AB: Yes. I mean, I would certainly prefer email specifically to me as well as mail because the hard copy is nice to have, but I would prefer email over anything mailed or hard copies.

KR: Ok. As I said before, I know that you and your organization are focused mainly on the surface water and groundwater issues associated with Los Alamos, but since I'm using the RCRA permitting process basically as my model for developing the public involvement plan, I have to ask the question, because a lot of people have told me no, but do you know what the purpose is of RCRA? Do you know what it does?

AB: Well, pretty much. My understanding of it is that it deals with hazardous waste and protects the environment from those wastes.

KR: And you would be correct! Ok, so one thing that has come up in my research and some people have made very specific suggestions regarding this, but do you think it would be beneficial for NMED to provide informational meetings or public meetings to discuss or explain specific RCRA regulations, maybe regarding the RCRA Permit application or even how to participate in the permitting process?

AB: Yes, all of the above really. We certainly prefer to be notified ahead of time before the actual RCRA Permit is put out for public comment if possible. Those are the most productive meetings for the draft...when we're able to meet with NMED staff to discuss the components of the Permit.

KR: So, those types of meetings, do you think it's more productive for NMED to meet with any member of the public in a large forum or do you think it would be more beneficial for them to meet individually per organization? For example, you know if one or two staff members were able to come up and meet with Amigos Bravos and talk to them and have a more open discussion and answer questions about the Permit.

AB: Well, I think it's really important that there will be public meetings in general. Those meetings seem to be the most productive. We wouldn't insist that NMED come up here necessarily (Taos), we would be willing to come down to Santa Fe.

KR: I think that, looking at this very open-mindedly, what would work best for improving the communication? I think that, for the most part, NMED does try to reach out to the different communities and travel to the different communities. But, it's just difficult. And it's difficult for everyone. So it's not just on them. So possibly, some sort of a rotating schedule or something of that nature would be beneficial. I don't know how involved at all with the public hearing that happened last spring, April – May timeframe, for the RCRA permit. But one thing that I noticed, because I was there and present for almost every minute of it, and one thing that I realized was that there wasn't any kind of guidance for the public, about how the hearing works. Just the administrative procedural aspects of it, those really weren't communicated. There was, obviously, notice given that there was going to be a hearing, but there was no information about "this is how you participate in the hearing". So my question is: do you think you would be interested, or at least your organization be interested in having NMED employees provide training on the public hearing process?

AB: Yeah, of course. That would be very helpful. I wasn't at the RCRA hearing, and I'm not familiar with that hearing, but to see how they may be different to a groundwater discharge permit or mines and minerals. In terms of ground water discharge permits, at least are really

improving ... I'm much more familiar with that process and how to become a party to that type of hearing. But I don't know how the RCRA process works.

KR: Right, well, one of the suggestions that's been put forward thus far is possibly to have some sort of a handbook, actually, that is divided up per regulation so um or even by bureau, however you would prefer to look at it, but it would be able to outline, per regulation, for ground water, for surface water, for RCRA, whatever it may be – the actual permitting process and the procedure for participating in that process, as well as, the procedure for participating in the public hearing process under each of the individual regulations. Because they do vary. Not a lot, but enough that you should be aware of the difference between them. So, that's been one suggestion that's been put forward. I don't know how you feel about that.

AB: That would be very helpful.

KR: OK, and one other suggestion that was put forward was: in addition to the handbook, something that people can walk out with, was NMED potentially holding, not necessarily quarterly, but maybe annually or bi-annually a short class or information session that actually goes through the handbook and it provides explanatory language in addition to the handbook so that people know how to use it and know how to interpret it. Would you consider participating in something like that?

AB: I think the organization would participate in a group, but I think a handbook would work just as well for our organization.

KR: Yeah, I thought it was a great suggestion. I really liked it.

AB: In terms of the public, if the public really wants to participate in the hearings, it would be extremely helpful. I'm just thinking for us, our organization – the handbook is probably more appropriate.

KR: So in terms of a public involvement plan, they vary a great deal, and I guess in a world where you could have anything that you wanted, what would you like to see incorporated in a public involvement plan? It could be related to notifications – how people are notified. It could be related to the frequency of public information meetings, and their locations. Thus far, I've heard a lot of suggestions of what should be included in this type of a plan, but now I'm asking you. What would you want to see in that type of a plan?

AB: Let's see, you listed 5 different things there. They would all be important things to have in the plan. I guess, I would want to see contact information on the various different issues depending on whether it's a ground water issue, or a surface water issue or hazardous waste issue.

KR: No, that's helpful actually. So one thing that I've noticed – it looks to me, from your website, that most of your research, a lot of your products is put online. And, with that in mind, one thing that frustrates me a little bit is the ease of navigating NMED's website and being able to find the information that you need easily, and someone who's very computer friendly and knowledgeable, it's not such a daunting task. But there are several members of the public who are not as familiar with computers as the rest of us are, so the big ticket items, and being able to find information easier. And actually, that goes for LANL's environmental website too, it's not user-friendly. So, I'm wondering if you have any thoughts about navigating these website and if you or any of your staff have had any issues with that.

AB: Well, I know it took a bit of a learning curve to learn some of the LANL stuff; learning how to navigate that website that they have. I don't really have expertise in how to design a website like that, but I do like the concept of having everything on a website, to be able to understand easily, having everything accessible. Or maybe even just having a public participation page on the website. You can go directly to that, and it can give you links to other places.

KR: Ok, those are really all of the questions that I had for you. Is there anything that you wanted to ask me? Is there anything about the research in general?

AB: I do have one additional comment I think on this and that is: Because the affected communities are primarily Native American communities, I think it would be good if the public information package on the website or hard copy, to have somebody from the Native American community take a look at how to best express the issues for, so that they are easily understood by these communities. Reference points are different – the language is very different. Have someone go out to those communities. It would be good to have that expertise, to have them maybe ...

KR: No, I think that's an extremely valid point especially with the number of pueblos in and around Los Alamos itself. I am trying to set up some interviews with the organization – the organization "HOPE", and with Tewa Women United. So hopefully, I can get those set up and speak with them because I think they, absolutely, have some very interesting perspectives and insights into this process and I also think that sometimes they are communities that are very difficult to reach out to. They don't have the same access to the internet, to computers in general. Even the local periodicals – so it's difficult to reach them. So at this point, NMED has to do a better job of reaching out to those communities.

AB: Yeah, I agree. Once you've done this work, you'll have a product?

KR: I will. That was actually going to be my next question to you. If you would like a copy of my final paper, I can certainly get that to you. I can e-mail it, or give you a hard copy – whichever you'd prefer.

AB: That would be great, if you could e-mail it. That would be good.

KR: I can certainly do that.

Interview with Jim Conca of the Carlsbad Environmental Monitoring and Research Center (CEMRC)- March 1, 2011

1) Could you please provide a brief description of the Carlsbad Environmental Monitoring and Research Center (CEMRC), with particular attention to its relationship to WIPP, why it was established and your role at the CEMRC

The success of any high-profile, routinely misperceived project such as a nuclear facility is strongly tied to the degree of public participation and understanding. With CEMRC and the monitoring program, the public, State and local government were engaged from the outset with many public meetings and small focus groups, as well as discipline-specific workshops and invited technical presentations, held to address individual issues and develop a widely-acceptable monitoring program for the region.

To recap the WIPP site and CEMRC's role in it, the Waste Isolation Pilot Project (WIPP) is a deep geologic transuranic defense waste disposal site located 2130 ft (655 m) below the surface in a particularly massive portion of the Permian-age Salado Salt Formation in the arid Delaware Basin of southeastern New Mexico and west Texas (Fig. 1). WIPP is situated between Carlsbad and Hobbs, two towns each with less than 30 000 people and each about 30 miles (48 km) from WIPP. WIPP is an example where public engagement has constantly been at a high level. Constructed and ready for operation in the early 1980s, WIPP began accepting nuclear waste on 26 March 1999. WIPP is licensed and permitted to accept only transuranic waste (>100 nCi/g but <23 Curie/liter) generated from defense operations. As of 2010, WIPP has disposed of over 75,000 m³ of transuranic waste in over 135,000 containers (fifty-five gallon drums, standard waste boxes and 10-drum overpacks; see www.wipp.energy.gov), equivalent to about 350,000 fifty-five gallon drums. While most of the waste contains primarily alpha-emitters like Pu which do not require significant shielding, a fraction of the waste contains radionuclides that emit the more penetrating gamma radiation. When containers have surface dose rates greater than 200 mrem/hr (2 mSv/hr), they must be remotely handled with shielded casks and delivery vehicles. These higher dose rates mostly result from gamma and hard-beta emissions during the decay of isotopes such as ¹³⁷Cs and ⁹⁰Sr/⁹⁰Y that came from reprocessing defense spent fuel.

From the standpoint of addressing operational and environmental risk, as well as public concerns, WIPP has had broad and detailed site characterization and extensive human health and environmental monitoring. In addition to the regulatory compliance monitoring required by the repository licensee, and also conducted by the State of New Mexico and previous entities, the local community demanded a sophisticated environmental monitoring program carried out by an independent academic institution that would conduct a science-based monitoring and research program, not monitoring only for compliance. The Carlsbad Environmental Monitoring and Research Center (CEMRC), in the Institute for Energy and the Environment in the College of Engineering at New Mexico State University, resulted from these negotiations (<http://www.cemrc.org>). Its construction and operations were funded by a grant from DOE that allowed complete public transparency and academic freedom. The

public was directly involved in the monitoring program and helped determine the environmental media and priority chosen for the monitoring program.

Constituents and properties measured by the CEMRC monitoring program include, but are not limited to, gross alpha/beta, ^7Be , ^{212}Bi , ^{213}Bi , ^{214}Bi , ^{144}Ce , ^{249}Cf , ^{60}Co , ^{134}Cs , ^{137}Cs , ^{152}Eu , ^{154}Eu , ^{40}K , ^{233}Pa , $^{234\text{m}}\text{Pa}$, ^{212}Pb , ^{214}Pb , ^{106}Rh , ^{125}Sb , ^{208}Tl , ^{228}Ac , ^{234}U , ^{235}U , ^{238}U , ^{230}Th , ^{232}Th , ^{228}Th , ^{241}Am , ^{238}Pu , $^{239,240}\text{Pu}$, various volatile organic compounds (VOCs), and many inorganic constituents normally analyzed in air, soil and water, particularly constituents of interest to the Resource Conservation and Recovery Act (RCRA). The *in vivo* bioassay (whole body counting) program at CEMRC participates in the Department of Energy's *In Vivo* Laboratory Accreditation Program (DOELAP) via WIPP, and is currently accredited to perform the following direct bioassays - transuranium elements via L x-ray in lungs, ^{241}Am , ^{234}Th , ^{235}U , fission and activation products in lungs including ^{54}Mn , ^{58}Co , ^{60}Co and ^{144}Ce , and fission and activation products in total body including ^{134}Cs and ^{137}Cs (and ^{57}Co , ^{88}Y and ^{133}Ba).

Unlike most environmental programs which only monitor down to compliance or action levels, the mission of CEMRC was to monitor to below background levels, indeed to push the minimum detection limits farther than is normally done in order to observe what would happen in the environment and what effect WIPP operations would have on everything in the environment. As a result some approaches needed to be completely rethought, such as increasing counting times on alpha spectroscopy to over 5000 minutes in order to routinely achieve the femtoCurie level for Pu and Am, or adopting a 12-detector array for *in vivo* bioassay in order to detect Pu in the lungs using its 17.5 keV gamma ray. These changes necessitated debates as to the meaning of such low limits, their challenges in light of traditional procedures and equipment, and what were the statistical ramifications of such a monitoring philosophy. As with air and people, levels of activity in drinking waters, soils, sediments and surface waters have never exceeded historic levels, and are discussed in detail in previous reports that can be found at www.cemrc.org.

I was Director of CEMRC from 2004 to 2010, acting as the Chief Executive Officer, responsible for management of scientific/technical programs, facilities, operation and budget, personnel, obtaining funding, conflict resolution and supervision of NMSU staff together with WTS, LANL and LES NEF staff.

2) How many people are employed at the CEMRC?

Twenty-five NMSU employees, 7 LANL and 7 WTS (Washington TRU Solutions, the site contractor)

3) What kind of training/education is required for CEMRC employees? Do all employees interact with the public?

The normal Radworker II training for handling any radioactive materials, specific site training if they need to go to WIPP for sampling, the specific technical procedures for operating various instruments, general Hazardous Materials training, and the specific education required for their job, e.g.,

4) In your opinion, what methods are most successful in conveying information to the public (e.g., informational meetings, classes, reading material)? What methods have not been successful?

It was critical to survey the regional population to determine what is important to them in terms of health and the environment so that an appropriate monitoring program could be emplaced that would address their concerns. It was also essential to obtain baselines concerning aspects of human health, the environment, and citizen concerns which change with time.

The most important and public aspect of CEMRC operations is the *Lie Down and Be Counted* Program, in which citizens within a 100-mile radius of WIPP can simply come into CEMRC for a whole body count and have a captive scientist to talk to about any issue they care about. Analyses include collection of information on work and residence history, past and current radiation exposure, bioassays to measure the presence of radionuclides within body tissues (*in vivo*) or body fluids and excretions (*in vitro*), and calculation of dose associated with observed body burdens. Consultations with the citizen include interpretation of bioassay results with the citizen or worker being monitored immediately after counting which serves to allay many concerns and fears. This program is provided as an outreach service to the public in support of education about naturally occurring radiation and CEMRC's environmental studies, and to provide assessment of potential exposure to radioactive contaminants of concern. Prior to undergoing the radiation count, subjects view a videotape that explains the procedure, and further explanation is provided by internal dosimetry staff who are open to all questions on any subject.

What has failed are attempts to railroad particular ideas or changes in mission such as expanding WIPP's mission to include other wastes. It has been more successful to bring up possibilities and let the public discussion go forward on its own. Open and honest discussion is always best, it takes longer but will result in longer-term success.

5) Do you think establishing a similar center in Los Alamos would be beneficial? Why or why not?

It depends upon what is planned or desired for LANL. The long history has determined public perception and it would be hard to change it. Unless there was a major change in mission or LANL wanted to do something like take and store spent fuel or something that would be a dramatic change. Then yes, it would be good to have a similar program like CEMRC dedicated to the public and operated by a university like UNM.

Interview with Pete Maggiore, former NMED Secretary,

March 1, 2011

PM: Pete Maggiore

KR: How do you improve communication between NMED and the public? What would you do?

PM: I have a minimalist, non-prescriptive approach. The public noticing requirements for any of the regulations must be more robust. This is a fundamental problem across the board for environmental regulations. The public noticing requirements are not uniform and not robust enough.

Also, we need to limit the number of documents that require signatures. The fewer number of documents to sign the better. Having too many agreements becomes complex and by no intention of the drafters, requirements have a tendency to overlap. Then you have the problem of which one takes precedence?

That said, I do think NMED has to do a better job of reaching out to local communities to develop a non-prescriptive document/agreement. However, the vision must be consistent with expectations. NMED has to be very careful about their intent and expectations.

I also believe there should be Consensus versus Informed Consent. Let me explain. Public officials in this state are unsuccessful with public outreach/public participation issues because they don't establish relationships. Establishing relationships and trust are the most important things. You have to realize that not everyone has to agree, but you do have to listen and try and make a connection with people. It's a noble vision to get people to stipulate to a list of issues, but it may result in the process taking far longer than if you had simply had a conversation – especially if you're expectations are different from the people you're trying to convince.

KR: Can you provide an example of where relationships/connecting with people was a critical factor?

PM: A good example of this was the Triassic Park Permit. I pissed off a lot of people down there because I thought I knew who needed to be involved in the negotiations and who didn't. A company wanted to construct and operate a HUGE hazardous waste landfill in southern NM. It was at the triangle of El Paso, TX, Juarez, Mexico and Roswell, NM. A town not too far over the border in Mexico wanted to be involved in a special workshop I had established for informing local communities about the landfill. I told them no because I didn't think they were part of the community potentially affected by the landfill. Wow-what a mistake. People showed from this town with signs and banners, protesting the landfill. At the time- a disparate impact analysis hadn't been done for the siting of the landfill. How can I be objective about the siting of a landfill when I a disparate impact analysis hadn't been done and I didn't know who the affected communities were?

KR: What do you think NMED can do to improve relationships and/or build trust with the public?

PM: NMED staff (that includes most Bureau Chiefs and nearly all technical staff), don't have the skills to communicate with the public. There is no training for mediation/conflict management with the *public*. There is mediation/conflict management training for managers and employees, but not for NMED staff dealing with the public. NMED is a state agency. They are there to serve the public. How can they do their jobs effectively and completely without interacting with the public? This type of training should be mandatory.

NMED needs to support individuals who want to conduct public outreach. Send them to training, let them go out into communities and talk about environmental issues. Don't force people who don't want to do public outreach to do that kind of work. People can tell when you're being forced to do something you don't want to do. It's simply ineffective and you'll doom the outreach effort from the very beginning.

KR: What would you say is the fundamental problem? I think we've discussed many of the side-effects of poor communication, but what do you feel is the core issue?

PM: The fundamental problem is relationship-based. We can't impose our values on communities. NMED must take the time to understand the community they're trying to reach and what's important to *them*. It doesn't always work, but when it does, you have a better product and establish trust.

Attachment D

Draft Public Involvement Plan

It must be noted that this Public Involvement Plan (PIP) is intended to be a template for a future, mutually agreed upon PIP, between the New Mexico Environment Department (NMED) and the public. The public nor NMED³ has had an opportunity to comment on its content and format. However, many of the recommended requirements below are based on interviews conducted during the course of this research.

I. INTRODUCTION AND PURPOSE

The purpose of this plan is to seek input from communities affected by permitting activities at Los Alamos National Laboratory (LANL or the Laboratory). This Public Involvement Plan (PIP) is designed to keep communities and interested members of the public informed about permit-related activities and opportunities available for public participation in those activities.

II. OBJECTIVES

The PIP should describe how the NMED will accomplish the following elements:

1. Identify and establish an open working relationship with communities and interested members of the public;
2. Keep communities and interested members of the public informed of permit actions of interest (e.g., implementation of the Contingency Plan, Permit modification requests, Permit compliance issues);
3. Minimize disputes and resolve differences with communities and interested members of the public;
4. Provide a mechanism for the timely dissemination of information in response to individual requests; and
5. Provide a mechanism for communities and interested members of the public to provide feedback and input to the Permittees.

III. DESCRIPTION OF FACILITY

A. Background

Los Alamos National Laboratory (LANL or the Laboratory) is a multidisciplinary research facility owned by the U.S. Department of Energy (DOE) and managed by Los Alamos National Security, LLC. The Laboratory is located in north-central New Mexico approximately 60 mi northeast of Albuquerque and 20 mi northwest of Santa Fe. The Laboratory site covers 40 mi² of the Pajarito Plateau, which consists of a series of fingerlike mesas separated by deep canyons

containing perennial and intermittent streams running from west to east. Mesa tops range in elevation from approximately 6200-feet to 7800-feet above mean sea level (amsl). The federal law governing operation of the hazardous waste facilities at LANL is the Resource Conservation and Recovery Act (RCRA).

There are 24 storage and treatment units operating under the LANL Hazardous Waste Facility Permit issued by the New Mexico Environment Department (NMED) on November 30, 2010. These units store or treat hazardous waste at four technical areas around the Laboratory. There are five hazardous waste treatment units operating under interim status (i.e., they were in existence when new regulations went into effect and can remain operating under interim status until the NMED either approves of or denies a permit). There are approximately 2100 solid waste management units (SWMUs) and areas of concern (AOCs) undergoing cleanup or scheduled for cleanup under the March 1, 2005 Compliance Order on Consent (Consent Order).

B. Community Information

The “General Public” with respect to LANL, is made up several types of communities located adjacent to or in the immediate vicinity of LANL. The city of Española which is approximately 15 miles northeast of LANL and there are several other smaller communities in the vicinity of LANL, such as White Rock (~1 mile), Pojoaque, and Tesuque. There are 19 Indian Pueblos, including San Ildefonso Pueblo, which shares LANL’s southern border. There are also many NGOs that have been heavily involved in RCRA-related issues at LANL, such as, but not limited to Concerned Citizens for Nuclear Safety (CCNS), Southwest Research and Information Center (SRIC), Nuclear Watch New Mexico, Honor our Pueblo Existence (HOPE), Embudo Valley Environmental Monitoring Group (EVEMG), Tewa Women United, and Amigos Bravos. The “public” would also include any other interested member of the community.

IV. PUBLIC INVOLVEMENT OPPORTUNITIES

A. Public Meetings¹

Based on public comment, NMED will determine an informational public meeting schedule (e.g., quarterly, bi-annual) to inform the public of upcoming issues at the Laboratory. Thirty days prior to the scheduled public meeting, a representative from the NMED will propose an agenda to a small committee consisting of NGO leaders as well as a representative from LANL (see Section V. Contacts). The committee members must respond to NMED with any changes or suggestions for the meeting agenda within seven days. Following incorporation of comments from the committee, NMED must finalize the agenda and notify the public through the email notification list of the meeting time, location, and attach the agenda.

B. Newsletters, Flyers, Newspaper Ads¹

Currently, there is no uniform format for public notices issued by the NMED. Each notice is unique in format, size, content and location in the newspaper, which makes them difficult to find. Additionally, for RCRA requirements, NMED is only required to place the notice in the major newspaper that serves the affected community; in this case, the Santa Fe New Mexican, the Los Alamos Monitor, or the Albuquerque Journal. Many of the smaller communities rely on monthly or weekly newsletters rather than the major metropolitan periodicals. To reach these smaller communities, NMED should publish notices in smaller, local publications, such as the Jemez Thunder or the Rio Grande Sun.

C. Website

Because NMED's website is a tool for the public, it must be user friendly. Many members of the public have compared NMED's website to the Waste Isolation Pilot Plant (WIPP) website. WIPP's website includes an easy to find section on the homepage that allows members of the public to join email notification lists and access information related to WIPP's RCRA Permit. A similar design would benefit NMED's website. Based on input from the public (e.g., following a 30-60 day public comment period), the NMED should update their website to improve navigability.

Additionally, similar to the WIPP, the NMED must update their website to allow online registration for members of the public to join the facility mailing list (*see* Section IV.D).

D. Email Notification/ Mailing List¹

Consistent with Section 1.13 of the Hazardous Waste Facility Permit (11-30-10), the Laboratory must notify individuals by e-mail of submittals specified in the Permit. In the future, this Section could be modified to address email notification of submittals specified in the Consent Order.

A link must be provided on the NMED homepage (<http://www.nmenv.state.nm.us/hwb/lanlperm.html>) whereby members of the public may submit a request to be placed on the e-mail notification list.

E. Handbook of RCRA-Permitting Processes²

A handbook should be written by NMED, with input from the public, and describe the RCRA-permitting process as well as the public hearing process. The handbook should include a tutorial for public participation in the RCRA-permitting process. The tutorial should describe the process by which a facility, such as LANL, obtains a RCRA Permit and when in the process the

public has the opportunity to participate. The handbook should also include contact information for a designated person within NMED should anyone from the public have questions regarding the permitting process.

In addition to an explanation of the RCRA-permitting process, the handbook should include a description of the Public Hearing process and how a member of the public can participate in the proceeding. It should provide a description of the process from start to finish (e.g., from when a public hearing is requested to the Final Order issued by the Secretary of the NMED) and when in the process the public has the opportunity to participate. Additionally, if feasible, the handbook should include copies of all relevant documents necessary for participation in the Public Hearing process, such as Notices of Intent and written testimony. NMED should also provide copies of such documents on its website. In addition to the handbook, the NMED should conduct annual or bi-annual classes/information sessions that provide instruction on the information in the handbook and answer questions from the public. The meetings must be advertised on NMED's website and in local newspapers.

F. Public Participation Coordinator (NMED's)¹

NMED should identify a representative who will serve as the agency's Public Participation Coordinator (PPC); in this case, a member of the Hazardous Waste Bureau (HWB) staff. The PPC's contact information (e.g., name, email, phone number) must be available on the NMED website.

V. CONTACTS

The appropriate contacts for NMED (e.g., outreach coordinator, Hazardous Waste Bureau Chief) and the committee members identified in Section IV.A shall be included here. This Section must be updated as appropriate to reflect the most current contact information.

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1. Although this PIP is using public involvement in RCRA-permitting activities at LANL as a model, this recommendation could be utilized for all environmental permitting activities across NMED (e.g., Air Permits, Solid Waste, Groundwater, Surface Water) and corrective action under the Consent Order.
 2. Eventually, the handbook should include similar tutorials for permitting activities under other environmental regulations, such as the Clean Water Act and the Clean Air Act.
 3. For the purposes of this PIP, "NMED" refers to the Hazardous Waste Bureau because they are the Bureau responsible for implementing the RCRA program in New Mexico.

Attachment E

Acronym List:

AOC: Area of concern

CEMRC: Carlsbad Environmental Monitoring Research Center

CFR: Code of Federal Regulations

CME: Corrective Measures Evaluation

CWA: Clean Water Act

DOD: Department of Defense

DOE: U. S. Department of Energy

EPA: Environmental Protection Agency

HWB: Hazardous Waste Bureau

LANL: Los Alamos National Laboratory

NFA: No Further Action

NGO: non-governmental organization

NMED: New Mexico Environmental Department

PIP: Public Involvement Plan

RCRA: Resource Conservation and Recovery Act

SWMU: solid waste management unit

WIPP: Waste Isolation Pilot Plant