LANDER COUNTY EMERGENCIES SERVICES ASSESMENT

NECLEAR RESPONSE

YUCCA MOUNTAIN PROJECT

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INTRODUCTION

The purpose of this report is to determine the response capabilities, effectiveness and training levels of Lander County's emergency services in the event of a nuclear / radiological incident in involving shipments to the proposed Yucca Mountain repository.

This report will consist of the following information

1. Equipment evaluation;
2. Communication evaluation;
3. Training / certifications;
4. Documentation evaluation;
5. Uniforms / Personal Protective Equipment (PPE);
6. Regulations (SOP's and SOG's)
7. Grants availability
8. Budget projections and cost estimates
9. Impediments to implementation.

This report will show strengths, weakness, current levels of training as well as a needs assessment. It will contain a 1,3,5 year plan as well as implementation of programs and maintenance of emergency response programs.

LOCATION and STATUS of WASTE

Yucca Mountain, is located in Nye County, about 100 miles northwest of Las Vegas. It is the proposed site of a Department of Energy (DOE) repository for up to 77,000 metric tons of nuclear waste including commercial and defense spent fuel and high-level radioactive material. The project was a result of the 1982 Nuclear Waste Policy Act requiring the DOE to construct a permanent underground nuclear-waste storage facility.

The Yucca Mountain Nuclear Waste Repository is to be a deep geological repository storage facility for spent nuclear reactor fuel and other high level radioactive waste, until the project was defunded by the Obama administration in 2010. Since 2010, work review on the Yucca Mountain license application has been stalled. Initial reviews of the license application by NRC staff indicated that the license application was complete. A subsequent review, Safety Evaluation Report III, contains NRC's conclusions regarding the scientific and technological

merits of the Department of Energy's application to construct and operate the high level nuclear waste repository. The report found no scientific or technological reasons to disqualify Yucca Mountain as a nuclear waste repository.

Regardless of the recent political interruptions in the repository program, the Yucca Mountain Project remains the only legally established repository in the US. The Nuclear Waste Policy Act has not been modified or changed. Recently, several petitioners including the States of South Carolina and Washington asked the US Court of Appeals whether or not NRC could terminate Yucca Mountain licensing proceedings. In its recent ruling, the Appeals Court held their decision in abeyance until Congress provides greater clarification through the budget process this year. If no clear direction is established by Congress, the Court will compel NRC to continue with the Yucca Mountain licensing proceedings.

TRANSPORTATION and SAFETY

The Department of Transportation and Nuclear Regulatory Commission share primary responsibility for establishing standards for the safe transport of radioactive materials within the United States.

DOT standards cover packaging, transporting, and handling of radioactive materials, including labeling, shipping papers, placards, loading, and unloading. DOT standards also specify training needed for personnel who perform handling and transport of hazardous materials. The DOT, in cooperation with the Department of Homeland Security, sets standards for emergency preparedness for carriers. DOE emphasizes cooperation with states and tribes in developing its transportation system, because states and tribes have the primary responsibility for the health and welfare of their citizens. As required under DOE policy and the NWPA, state governors and tribal leaders, or their designees, are notified in advance of spent nuclear fuel and high-level radioactive waste shipments through their jurisdiction. Specific dates, times, and actual routes of shipments are safeguarded for security reasons. However, those with a need-to-know (such as state or tribal representatives, law enforcement, emergency response officials, and inspectors) are informed of shipments before they enter a state or tribal land. All shipments are closely coordinated with state, tribal, and federal law enforcement agencies for security purposes.

NRC establishes design and performance standards for packages that carry materials with higher levels of radioactivity. All shipments of spent nuclear fuel and high-level radioactive

waste to Yucca Mountain must use containers whose designs meet NRC certification requirements.

CASKS

DOE will use robust transportation packages called casks. Casks are typically made of stainless steel and metal shielding more than six inches thick to protect the contents and confine radiation in both routine transport operations and under severe accident conditions. All shipments to Yucca Mountain must be transported in casks certified by NRC. The NRC certification process requires that each transportation cask design must be analyzed or tested to meet the conditions of all of the following tests, in the given sequence:

•A drop from 30 feet onto a hard, unyielding surface that is equivalent to a high-speed crash into a bridge abutment

•A drop from 40 inches onto a shaft six inches in diameter

•A fully engulfing fire at 1,475 degrees Fahrenheit for 30 minutes

Immersion under three feet of water.

An undamaged version of the cask must also be able to survive immersion in the equivalent of 50 feet of water. Furthermore, casks designed for shipping spent nuclear fuel must be able to survive water pressure greater than 600 feet for 1 hour without collapse, buckling, or leaking.

DOE's National Laboratories have conducted a variety of cask tests simulating real-life conditions. Sandia National Laboratories in New Mexico performed the following tests:

- A flatbed truck loaded with a full-scale cask driven into a 700-ton concrete wall at 80 miles per hour
- A rail car loaded with a full-scale cask driven into a 700-ton concrete wall at 80 miles per hour
- A cask broad-sided by a 120-ton locomotive traveling 80 miles per hour
- A transportation cask dropped 2,000 feet onto soil as hard as concrete — traveling 235 miles per hour at impact

In all of the Sandia National Laboratories crash tests, the casks survived intact and would have safely protected their contents with no release of radiation.

Routing

DOT has established a process for selecting highway routes for radioactive materials. DOE will work with states through regional organizations, and with tribes through a government-to-

government relationship, to identify rail and highway suites of routes, including alternative highway preferred shipping routes. All states and tribes can — and some states already have — designated "preferred" highway routes. Nevada has selected not to designate alternative highway routes. This decision was made to maintain focus on the Las Vegas Valley where the majority of Nevada's population lives. Under the current routing scenario, the interstate system and the nearest state or federal highway system would function as the primary access route placing a large number of Yucca Mountain waste shipments in the Las Vegas Valley. However, this scenario is highly unlikely to occur as the State of Nevada has gone to extensive efforts to route low-level and transuranic waste shipment to and from the Nevada Test Site outside the Las Vegas Valley. It is very likely that a similar situation will occur for waste shipments to Yucca Mountain. Maintaining the possibility of waste shipments through the Las Vegas Valley helps to bolster opposition to the project.

Shipments through Lander County are difficult to predict. Although DOE envisioned a rail spur through Nevada, costs and logistical considerations may make the project difficult to implement.

Several possible transportation scenarios exist that would result in a substantial number of waste shipments moving through northern Lander County. Assuming that both rail and truck shipments would have points of entry east of Lander County, shipments from western reactor and storage sites could impact Lander County. Several thousand rail and truck shipment could move through the area enroute to Highway 93/6 which provides direct access to Yucca Mountain or a rail corridor which travels south to Yucca Mountain. Shipments would travel from west to east on Interstate 80 or the Union Pacific mainline. A less likely scenario would place a majority of waste shipments on Interstate 80 and then using US 395 or another State Highway south to Yucca Mountain. DOE also consider the potential to development a Mina Rail Corridor. This corridor was the best option available to DOE, but was opposed by the Walker River Tribe who controls rail access on an existing spur line through the reservation.

Emergency Preparedness

The federal government has its own experienced teams of emergency responders, and currently funds a number of emergency preparedness activities for state, tribal, and local responders. DOE has highly trained special response teams from eight regional offices available to assist state, tribal, and local safety officials. In an emergency, state, tribal, and local governments are responsible for the safety of their residents and responding to accidents in their jurisdictions.

In accordance with Section 180(c) of the NWPA, "The Secretary [of Energy] shall provide technical assistance and funds to States for training for public safety officials of appropriate units of local government and Indian Tribes through whose jurisdiction the Secretary plans to transport spent nuclear fuel or high-level radioactive waste ... . Training shall cover procedures required for safe routine transportation of these materials, as well as procedures for dealing with emergency response situations. The [Nuclear] Waste Fund shall be the source of funds for work carried out under this subsection. DOE will apply the experience derived from existing emergency preparedness programs within the DOE and other federal agencies. DOE will also support exercise programs to test and validate state, tribal, and local officials' transportation emergency response plans. In the event of an accident, state, tribal, and local emergency responders would have federal resources available, if requested, to help them with emergency response activities. In addition, carriers have response programs and plans in place to assist local officials with emergencies. Specialty contractors are maintained by carriers to assist with response and recovery efforts, and carrier insurance defrays the costs of a response by state and local officials, this is referred to as the "Price-Anderson Act". It must be noted that local government may still be responsible for some of the costs associated with "clean-up" of a nuclear incident.

DOE special-response teams from eight regional coordinating offices are available to assist with any transportation accident involving radioactive materials. These special-response teams assess the emergency situation, advise decision-makers on actions that could be taken, and provide expertise in assessment, area monitoring, air sampling, and exposure and contamination control.

Local responders will play a very limited role in the containment of a nuclear / radiological emergency. This is due in a large part to the level of training and equipment of local responders. The main role of these responders will be to isolate the area, deny entry, conduct evacuation, set-up evacuation shelters and perform basic first aid to NON-contaminated victims. Decontamination procedures will be very limited due to equipment availability and the ability to make a positive identification.

TRAINING AND EQUIPMENT COSTS

Training and equipment costs for local first responders can be substantial, particularly for volunteer departments in rural areas of the state. DOE Nevada operations (DOE-NVO) office regularly ships low-level radioactive wastes to the Nevada Test Site. DOE-NVO charges fees on waste delivered to the Nevada Test Site for storage. The fees are used to equip and train emergency responders along transportation routes in Nevada. The level of funding provided by

DOE-NVO far exceeds the amount of funding likely to be available under the 180(c) program. To date the program has distributed several million dollars to local responders.

As part of the 2007 report, four Lander County emergency response agencies completed the Transportation Emergency Preparedness Program (TEPP) survey. They included the Fire Department, Emergency Management, Sheriff's Office, and the Battle Mountain Hospital. Based upon the survey response the following findings were made.

Lander County is reasonably well prepared for emergency response situations for various hazardous materials. Most of the training, planning, communication, command structures and equipment are well maintained.

The specifics for radiological materials response are somewhat less encouraging. The local emergency response plan is very vague with regard to radioactive materials incidents. Local emergency responders have not had training with transportation incidents involving radiological materials or radioactive materials incidents or releases. There are no standard operating procedures for response to transportation incidents involving radiological materials. Lander County does not have the ability to establish incident scene command regarding operations in a potential hot zone.

Lander County does have radiological instrumentation available, but they have not received training on its use nor has the equipment been calibrated for some time. Currently, there is no program to routinely test and maintain monitoring equipment calibration and there is no program in place to maintain/demonstrate proficiency in equipment use. Proper application and limitation of contamination survey instruments is not well understood. The last training for radiological materials occurred approximately 10 years ago when foreign reactor shipments came through the area.

Local hospitals currently do not have the treatment/care capabilities for radiologically contaminated patients, and the hospital staff has not been trained to handle, decontaminate, and treat radiologically contaminated patients. The ability to handle contaminated patients in terms of risks to response personnel, importance of gross decontamination, and methods for preparing contaminated patients for transport to the hospital is limited. The hospital has limited ability to identify protective measures for responder safety, patient management, techniques for patient transfer, and proper procedures for returning personnel, equipment and vehicles to service. Contaminated patients cannot be isolated in the hospital. Remote gross decontamination would be required and most likely performed by local emergency medical and ambulance crews. The Battle Mountain Hospital does not have a radiological control protocol.

There are 8 full time paramedics assigned to Lander County EMS (Ambulance) with 24/7 coverage out of Battle Mountain. None of the ambulance crew members have had training for radiological incidents. Local ambulance crews are dispatched to accidents. Ambulance crews would need body substance isolation clothing. In some instances air ambulance services are used to transport victims to regional medical facilities in Reno or Lake Tahoe. This can happen at the scene of an accident or after stabilization in a local hospital. Given the role of air ambulances in emergency medical services, radiological response training may have to be provided to them as well.

In terms of radioactive material shipping packages, local emergency responders cannot identify typical packages used in the transport of radioactive material nor can they identify risks associated with various shipping packages including testing methods for Type A and B packages. The ability to assess package integrity is currently not available and methods for implementing radiological controls at the scene of a transportation incident involving radioactive materials is non-existent.

Local responders are not well trained in post incident activities either. Decontamination disposal and documentation methods are not well understood by local responders. Lander County responders need additional training in incident command for the recovery phase and public information tasks and procedures.

First responders on the scene of an accident in Lander County will most likely be local law enforcement or the Nevada Highway Patrol and not the volunteer fire department. This is a fairly typical situation for Lander County Sheriff's Department. One advantage to having the Sheriff's Department as an initial responder is that full-time personnel will be available in the event of an incident involving waste shipments. However, such involvement places a negative impact on the Department in that training and response capabilities are not directly related to their primary function as a law enforcement organization. Both Highway Patrol and Sheriff's Office would need training for Yucca Mountain shipments.

In conclusion, the results of the 2007 needs assessment were not surprising and largely remain in effect today. Most small rural communities with limited resources are not well equipped or trained to handle Yucca Mountain shipments. In Nevada as well as other states, transportation routes will likely pass through rural areas as opposed to urban centers where emergency response capabilities and emergency medical facilities are better equipped to handle waste shipments.

States and tribes have and will continue to receive federal support specifically for training in preparation for DOE nuclear materials shipments. DOE will provide technical and financial assistance to states and tribes for training public safety officials in procedures for safe, routine transportation and emergency response situations.

The following pages include training plan recommendations for Lander County. The outline of the plan is as follows, first a basic training plan which is followed by a 1, 3 and 5 year plan. These plans will bring emergency response departments into compliance with OSHA and State laws, as well as maintain their competence. It's important to remember this plan is a "work in progress" and can be modified as the needs of the county change. It should be review annually. If the Yucca Mountain project moves forward the plan may be modified to include additional training and equipment for high-level waste shipments. The additional training may be funded thru grants.

BASIC TRAINING PLAN

1. **FIRE**
    - **a.** *ENTRY*
        - **i.** EMT-B with CPR
        - **ii.** Blood borne pathogens
        - **iii.** HAZ MAT
            1. Operational with nuclear response
            2. DOT/ERG Training
        - **iv.** Entry Level Firefighter (ELF) or Firefighter I (NFPA)
        - **v.** Confined space awareness
        - **vi.** Swift water rescue
        - **vii.** High/low angle rescue
        - **viii.** ICS 100
        - **ix.** 2 in 2 out

    - **b.** *Driver /Operator*
        - **i.** All of the above PLUS:
        - **ii.** Emergency Vehicle Operations Course (EVOC)
        - **iii.** Driver Operator Course
        - **iv.** Proper NV License
        - **v.** ICS 200

    - **c.** *Company officer*
        - **i.** All of the above PLUS:
        - **ii.** Fire officer I
        - **iii.** ICS 300

    Maintain annual refresher for all above positions

1st YEAR PLAN

1) Have a clear chain of command in the county, broken down by department. Have clear leaders and their responsibilities.
2) Create/update SOP's and SOG's. Include nuclear / radiological response
3) Conduct a minimum of 8 hours of training per month:
   4 hour hands on and 4 hours classroom
   Tailgate safety – Daily
4) Have a system in place for accurate documentation as well as a safe location for storage.
5) Have minimum requirements for entry level positions with training plans for advancement.
6) Training for all employees on the DOT/ERG. Carry this guide in every county operated vehicle
7) Training on basic nuclear incident response
8) Basic nuclear incident response equipment
9) Explore the idea of forming of a fire district for Lander County
10) Enhance Volunteer, Fire/EMS/LE programs
    Cadet program
    Ride along program
11) Full time Fire / EMS employees
    Grants
    County funding
12) Training programs in conjunction with colleges/ state fire marshal / BLM
13) New fire/EMS facility, possibly a joint facility. Should include sleeping facilities as well as offices and training room.
14) Conduct daily safety tailgate safety sessions within all county departments.
    Tailgate safety sessions prior to and during county sponsored projects.
    Document each of these sessions with the following:
    Name of instructor
    Topic

Time / date

Printed and signed by attendees

15. Maintain a zero to low accident rate within the county.
    This should be department specific training.
16. Have a collection process in place for EMS
17. Have EMS sustainable.
18. Defensive driving class for all county employees.

3RD YEAR PLAN

1. Solid training plan in place for all departments within the county.
2. Accident rate at zero within the county
3. Formation of a fire district with the county
4. Agreements with cooperators in place
    a. BLM
    b. BIA
    c. USFS
5. New Fire/EMS facilities
6. Grant / County approval for fulltime Fire/EMS positions
    a. 3 (Fire) in Battle Mountain with solid volunteer backup
    b. 6 (EMS / EMT-P's) in Battle Mountain with solid volunteer backup
7. SOP's and SOG's in place and used
8. PPE in compliance and being used
9. Review of training records
    a. Shows a solid system in place
    b. Shows use by all departments within the county
10. Upgrade emergency response equipment continually

5th YEAR PLAN

1) Additional fulltime Fire/EMS positions
    a. 6 in Battle Mountain
    b. 3 in Austin/Kingston area
2) Solid training programs in place with annual competency testing for all departments.
3) Maintain a zero accident rate within the county.
4) Upgrade emergency response equipment continually.

BATTLE MOUNTAIN GENERAL HOSPITAL and AMBULANCE SERVICE

Battle Mountain General Hospital (BMGH) is small rural hospital with limited staff. It is located within the town limits of Battle Mountain, Nevada. The staff is trained in National Incident Management System (NIMS), a federally recognized system of incident management. The hospital is modern in most aspects of emergency medical care. There is a plan within the hospital structure in the event of nuclear incident which is several years old and should be updated and practiced annually. The hospital is equipped with a decontamination shower prior to entry into the emergency room (ER). Major injuries or gross contamination in the area of the State would be to stabilize and transport to Reno, Nevada or Salt Lake City, Utah where more specialized care can be provided.

Prior to July 2012, the ambulance service in Battle Mountain and Austin was in poor condition. There were licensing, certification and equipment issues as well as financial shortfalls. The internal unrest within the service was causing moral concerns.

In July of 2012, BMGH took over the ambulance service. The main focus was to get the ambulance service to a functioning level, both in the areas of pre-hospital care and being self-sustained financially. This approach for the ambulance service appears to be on a good track. Within the near future the ambulance service will be expanding to the next phase which would be the Austin area ambulance service.

The ambulance service currently has no training or plan in the area of nuclear incident response care of radiation exposure. The current administration needs to put together a plan for this type of incident. Once the plan has been completed, it should be implemented and proper personnel protective equipment (PPE) incorporated into standard ambulance gear. A training drill should be conducted annually to address Hazardous Materials incidents with target areas in radiological exposure.

DISPATCH

The current Lander County emergency operations center (Dispatch) is located in Battle Mountain, Nevada and is approximately 12 years old. It has been upgraded once since opening and is currently in the process of upgrading again. The center contains 2 stations and is staffed 24/7. There is a second satellite center in Austin, Nevada that is staffed 8 hours per day Monday thru Friday, with one full-time position. Dispatch is contained within the same facility as the jail and sheriff's administrative office building. The staff consists of 4 full-time dispatchers, one being a supervisor / dispatcher. Funding for three relief dispatchers is also part of the staff structure. Two of the 4 full-time dispatchers are Emergency Medical Dispatcher (EMD) certified. The remaining two are scheduled for the training in late fall 2012.

All dispatchers receive formal training upon hire through department staff. Dispatchers have mandated annual training as well as optional training that can be requested. All training records are contained within the Sheriff's office. The county has a 911 system and is considered a Phase 0 type. This type of system is very basic and is along the same lines as Caller ID. If a caller has a blocked number, the system will show as "blocked" or "private". The 911 system is in the process of being upgraded to a Phase 1 which will provide more call information, even in the event of a blocked number. Dispatch handles all emergency calls within Lander County. In calendar year 2011, dispatch generated a total of 15,877 calls for service. This includes all agencies within Lander County, local, state, and federal. Wildland fires that occur within the Bureau of Land Management (BLM) jurisdiction are forwarded to Winnemucca for dispatch.

In the event of a radiological incident, the dispatch center would become overwhelmed quickly. Additional personnel and dispatching consoles would need to be activated. Perhaps a mobile EOC or disaster type EOC. With the construction of the new administrative facility this may be something that could be incorporated into construction. Depending on the size of the incident, additional personnel would have to be requested from adjoining counties as well as state and federal resources. It would be imperative that a solid Incident Command System (ICS) with joint command be established. Local, state, federal as well as private sector resources must have clear direction. Dispatchers should be trained in basic ICS.

In the event of a radiological event, dispatch would follow the County's Emergency plan. The county's emergency plan will be addressed in a different chapter. Dispatch will be the main point of contact in the event of radiological incidents.

VOLUNTEER FIRE DEPARTMENTS

The Volunteer Fire Departments (VFD's) throughout Lander County are just that, volunteer. For the most part, men and women join a VFD to serve their community in time of need. Over the years, the training requirements for VFD's has increased tremendously and, in some states, the VFD's are held to the same standards as paid firefighters. The Lander County VFD's annual response volume is approximately 400 countywide with the majority of these responses located in the Battle Mountain area, most of these calls being medically related. It may be in the best interest of Lander County to *"explore"* a County Fire district. A district would bring all VFD's within the county together giving the county the ability to oversee and effectively manage the departments. This projected plan would include a full-time paid staff with volunteer back up. Initially staff could be funded through grants with county funding in the future. Additionally the possibility of a seasonally funded fire program may be an excellent option; the program would be similar to BLM or US Forest Service.

Training levels to command and control radiological incidents in Lander County are at a minimum. In the event of an incident the command level of the VFD's would be to isolate the area and deny entry, conduct evacuation and treat injuries accordingly. Currently the VFD's have limited personal protective equipment and the necessary monitoring equipment does not exist. Many of the challenges are the geographical location of Lander County, being over 200 miles from Reno, Nevada and 350 miles from Salt Lake City, Utah. Response times from a dedicated nuclear response team could be well over 8 hours.

Instructors would have to be brought into each department to conduct training. The cost for this type of instruction could be well into the thousands or even tens of thousands of dollars. The cost of equipment that is specific to nuclear type incidents is also into the tens of thousands of dollars. Upkeep of training and equipment alone would exceed the $75,000 dollar mark annually. If the Yucca Mountain project was to proceed, there would be federal grants available for training, equipment and upkeep. These grants would need to be thoroughly researched, well-written and submitted through the proper channels.

The departments have rosters that allow for large membership but have few active members. For each listed member on the roster, the County pays an insurance premium, whether or not the member is active. Rather than having a large, untrained, non-active department, a small, well trained force is much more effective and cost efficient. These rosters need to be reviewed, updated and maintained. There must be an accountability factor in place which is extremely difficult within a VFD. A volunteer coordinator may be one suggestion or a County position to oversee the VFD's. This position would be accountable for assuring all members are at the standard set forth by the department. Standards may include levels of training for different

ranks, attending monthly training and maintaining a minimum number of responses per month, quarter, or year.

With that being said, the county needs to have a compensation package in place for VFD members. Perhaps a dollar amount per call, training attended, certifications maintained, with percentage increase for higher levels of rank and percentage increase for years of service starting at 5 years. This compensation can be given out on a monthly, semi-annual, or annual basis. Have a spring appreciation BBQ and a Christmas appreciation dinner. Remember, these members are volunteering their valuable time for the benefit of the residents of the county. Even with minimal compensation or incentives, VFD members donate many hours and are providing a valuable service to county.

Elected company officers must be held accountable for all actions within the department. For example, all responding firefighters must be in full personal protective equipment (PPE). PPE is extremely expensive and is issued to every active member. This gear needs to be used and is there for the protection of the member as well as the county. VFD members are a physical presence and are representing their department so the company officers should hold all members to a high standard of conduct.

Training for all departments must be thoroughly documented and maintained in a personnel folder for all members as well as recorded in a computer data base. These training records can be accessible to each active member and all original documents should be kept by the member.

SHERIFF'S DEPARTEMENT

The Lander County Sherriff's department is dispatched through a central dispatch facility. This facility is referred to in a separate section of this report. Deputies are not trained in the area of nuclear incidents. In the event of an incident deputies would be acting in the capacity of evacuation of unaffected areas. The County Sheriff is the designated emergency manager for all disasters. All training is limited in the department. The Sheriff's department thru the Local Emergency Planning Committee (LEPC) has the responsibility of all Hazardous Materials incidents. Equipment issued to LEPC is in good order although maintenance is below average.

Equipment is sufficient to support a Hazardous Materials incident with the exception of radiological. The LEPC has several trailers to support an incident with in the county. A suggestion to pre-stage one in the north (Battle Mountain) and one in the south (Austin) would be for timely response to an incident. The two trailers are stocked with identical equipment.

If the Yucca Mountain facility were to move ahead additional financial support for training and equipment would have to be available.

SYNOPSIS

In the event of a nuclear / radiological incident Lander County is ill prepared. This due in large part to the costs associated with this type of incident, as well as these types of incidents are very rare. The equipment available to first responders is the lowest type of protection. Many existing plans are outdated by many years or are non-existent. Plans are not practiced or reviewed. If the yucca mountain project were to move ahead, Lander County would have a heavy training commitment. Tens of thousands of dollars would have to be committed to training and equipment.

As far as the day to day emergency response capabilities, Lander County is in the average range for these types of incidents. Equipment in the Battle Mountain area is in good condition and fairly new. Austin area VFD is in need of new equipment. The County should look at creating a VDF in the area between Battle Mountain and Austin. This area is very desolate with the exception of ranches.

The County should look at some type of policy or standard for personal protective equipment and requirements of when and where this equipment should be worn. The county should conduct a County-wide annual training drill to include radiological / Hazardous Materials incidents. The drill should be hands on, with several stations, to get maximum advantage of skills.

In 2007 a Transportation Emergency Preparedness Program (TEPP) survey was completed. Since the 2007 survey no changes have been implemented. The survey was conducted verbally by the author of this (2013) report. Department involved in the verbal survey were Battle Mt., Austin and Kingston VFD's, Battle Mountain general hospital, Lander County EMS, Road and Bridge, Lander County LEPC. With the current situation of non-funding of the Yucca Mountain project nuclear/radiological training with-in Lander County has come to a stop.

The County has funded a full time Safety Manager position. This position may have some effect on the implementation of nuclear / radiological incident training. The Safety Manager position is newly funded and will need to be put together from the ground up. Initially, for the first 2-4 years the position will be costly. Lander County has several areas of non-compliance with OSHA as well as State and local responsibilities. The Safety Manager position will begin to bring Lander County into compliance in these areas. This is a positive step forward for the County.

The 2012 costs associated with the Yucca Mountain project would increase by approximately 50% in 2012 costs. Several funding sources are available through grants and the Department of Energy (DOE). These costs would be prohibitive for Lander County without assistance from outside sources.

The 2007 repost and 2012 report are similar in many ways. The TEPP survey, rail and highway transportation are virtually the same. One of the major differences is the cost associated with the Yucca Mountain project. As stated earlier in this report there is a significant increase in the costs largely due to higher fuel costs, training costs and equipment requirements.

APPENDIX

ADDITIONAL INFORMATION

http://www.landercountynwop.com/

http://landercountynwop.com/Photos/pages/Yucca-mountain_jpg.htm

http://www.landercountynwop.com/historical.htm

http://landercountynwop.com/maps.htm

GRANTS

Department of Energy

http://science.doe.gov/grants/policy.asp

Federal Emergency Management Agency

http://www.fema.gov/grants

State of Nevada

http://serc.nv.gov/grants.htm

Special Thank You to the following:

Lander County Commissioners

Lander County Executive Manager

Lander County Employees

Battle Mountain Volunteer Fire Department

Austin VFD

Kingston VFD

Lander County Sheriff

Lander County EMS

Lander County Road and Bridge

Lander County Public works