INTEROFFICE MEMORANDUM

TO: GOVERNOR MEAD

FROM: TIMOTHY RYAN

SUBJECT: OCCUPATIONAL FATALITY RECOMMENDATIONS

DATE: 12/19/2011

CC:

Background:

In 2009, Governor Freudenthal put together the Workplace Safety Task Force consisting of members from the major industries in Wyoming as well as several State agencies. The Task Force was charged with developing a set of recommendations that would begin to address the high rate of occupational fatalities in Wyoming. Their programmatic recommendation was to hire an occupational epidemiologist and follow the successful workplace fatality reduction prototype developed in Alaska.

I was tasked with developing a set of recommendations that would allow for the implementation of the Alaskan model and address the specific issues identified in Wyoming. The primary components of the Alaska model are outlined below.

1) Establish effective and timely epidemiology surveillance systems, obtaining information through data-sharing with jurisdictional agencies and from direct investigation of incidents. Surveillance is based on available data to monitor changes in prevalence of risk factors.
2) Build working relationships between local National Institute of Occupational Safety and Health (NIOSH) personnel and other government agencies, workers, industries, and non-governmental organizations.
3) Prioritize prevention efforts by constructing a hierarchy of the full spectrum of injury events:
    - multiple and single fatalities,
    - severely disabling injuries,
    - injuries resulting in hospitalization,
    - less severe injuries including those resulting in lost work time, and
    - hazards.
4) Plan prevention efforts with a focus on the technical, geographic, environmental, political, and cultural features of local and regional injury problems, with programs designed specifically to fit those problems instead of using a "one-size fits all" approach.

The Nature of the Problem in Wyoming:

Over the last year I have analyzed 17 years of occupational fatality data (1992-2008), read through fatality case reports, and have spoken with hundreds of employees working for various sized companies in the major industries in Wyoming.

The common theme throughout is the lack of a "culture of safety" in Wyoming. Safety occurs as an afterthought. Greater than 85% of the fatality reports indicate that safety procedures were not followed. The following is a summation of what the employees described as their typical work environment:

- There is a breakdown in communication between the upper management, supervisors, and employees regarding safety.
- "Often the safety training that we receive is not enforced on the worksite."
- Employees are told to "get the job done" and safety protocol and rules are not enforced, resulting in injuries and fatalities.
- On any one job-site, there can be a wide range in the safety standards.

The Current State of Occupational Fatalities:

Based on the total number of fatalities, Wyoming averaged a fatality every ten days over the last ten years.

Fatal Work-Related Injuries, WY and US Rates				
Year	Number of Deaths	Number of Full Time Equivalents (FTE)	WY Occupational Fatality Rate/100,000 FTE (Rank)	United States Rate
2001	40	253,221.26	14.90 (2nd)	4.57
2002	33	250,096.04	12.00 (2nd)	4.30
2003	37	258,590.73	13.90 (1st)	4.24
2004	43	261,429.57	15.50 (1st)	4.33
2005	46	267,674.89	16.80 (1st)	4.22
2006	36	275,221.25	13.08 (2nd)	4.21
2007	48	277,379.53	17.10 (1st)	3.92
2008	33	281,930.50	12.40 (1st)	3.76
2009	19	265,986.11	7.14(4th)	3.50
2010	34	272,081.42	12.50*	3.50

*Indicates a preliminary estimate.
*2011 is on course to have at least as many as 2010.

Causes of occupational fatalities in Wyoming

- Overall profile
  - 1992-2009; 622 fatalities
    - 48% (299) transportation related
    - 19% (118) related to being hit/crushed by object
    - 8% (49) related to falls
      - 98% of falls did not use fall protection

- Oil/Gas profile
  - 2001-2008; 62 fatalities (20% of total occupational fatalities)
    - 96% of fatalities occurred when safety procedures were not followed.
    - 52% (32) occurred on the drill rig
      - 52% (16) related to being hit/crushed by object
    - 40% (25) transportation related
      - 72% (18) related to fatigue
      - 72% (18) not wearing seatbelt
    - 8% (5) related to distribution and off-site repair

- Who investigates fatalities
  - WY OSHA (Occupational Safety and Health Administration) -25%
  - WY State Troopers -40%
  - Sheriffs/local police -10%
  - Other/MSHA (Mining Safety and Health Administration) -5%
  - NTSB (National Transportation and Safety Board) -6%
  - Coroner -14%

  (All accidental deaths are eventually investigated by coroners.)

- Non-fatal Occupational Injuries - Included to provide a broader picture of safety in Wyoming.
  - 2001-2008, Injuries decreased from 5,600 to 4,000 per 100,000 full-time employees
    - Despite the decrease in total number of injuries, major injuries remain a problem
    - Hospitalizations
      - Approximately 700 per year
      - 244 per 100,000 employed persons
      - Overall number is increasing
    - Amputations
      - Increased from 10.1 to 14.7 per 100,000 employed persons
    - Burns
      - Remained the same over 8 year period at 9.3 per 100,000 workers

  - Costs
    - Workmen's compensation
      - 7/2010-6/2011- $166 million paid in benefits
      - Increased approximately $66 million over the last 10 years.
      - Not a direct cost to the State, but significantly impacts businesses in Wyoming.
    - Safety practices at work reflected at home
      - In 2010, $18 million spent (private & public insurance) on injuries that occurred while not at work.

- Brief Wyoming Legislative History
  - Previous efforts to address occupational fatalities in the Wyoming legislature
    - Duty of care –
      - attempt to shift some of the responsibility to the main company rather than sub-contractor if an injury or fatality occurred
      - Sponsored by: Joint Judiciary Interim Committee
      - Failed in 2010 Legislature

        - Attempt to increase WY OSHA fines for violations
            - Sponsored by Representative(s) Throne, Bagby, Barbuto, Blikre, Cannady, Cohee, Esquibel, K., Gingery, Hales, Landon, Patton and Shepperson and Senator(s) Burns, Meyer, Ross, and Sessions
            - Failed in 2010 Legislature
        - WY OSHA subsequently adopted 01/01/2011 new Federal fine structure
            - Increased penalty amounts
    - Several attempts have been made to pass stricter seatbelt laws, all have failed.

- Current availability of information related to fatalities - Census of Fatal Occupational Injuries (CFOI), US Department of Labor.
    - This dataset is currently the most comprehensive; however, it is 2 years old by the time the State can obtain it and needs further supplementation with State information.

Recommendations, Effects and Discussions:

Although the examples and discussions given in this report relate directly to the oil and gas industry, the recommendations apply to all industries in Wyoming. The following recommendations are based on the premise that the current levels of occupational fatalities in Wyoming are too high. Further, the recommendations recognize that the current efforts by State and Federal agencies, as well as a variety of organizations, are fragmented. The current situation does not have a single solution; rather it requires a concerted effort on all fronts. Therefore, below are four recommendations:

1. Organize and develop continuity of ongoing efforts.
2. Develop data monitoring system for the collection and timely analysis of occupational data.
3. Promote OSHA courtesy inspections.
4. Support efforts by industry to develop, monitor and enforce safety standards and practices.

The recommendations address how Wyoming can:

- Make better use of existing resources.
- Provide the means to analyze the effectiveness of safety initiatives.
- Facilitate communication among the organizations and agencies working on occupational safety.
- Reduce the number of occupational injuries and fatalities.

1. **With the goal of decreasing occupational injuries and fatalities we need to organize and develop continuity of ongoing efforts.** Continuity of effort is critical for changing the current situation in Wyoming. The following organizations are addressing safety issues in Wyoming:
    - Mining Safety and Health Administration (MSHA),
    - Wyoming Occupational Safety and Health Administration (WY OSHA),
    - Department of Transportation (DOT),
    - Department of Health (DOH),
    - Department of Workforce Services (DWFS) and
    - non-governmental organizations.

Effect: Sharing of information and coordination of efforts would facilitate the improvement of the current situation and open up opportunities to identify ways in which to streamline current State efforts.

1A. By Executive Order, or otherwise charge the Occupational Health & Safety Commission (OHSC) to fulfill its statutory authority by widening its current function to include "directing state agencies and their staffs to compile statistics, do research, do investigation and any other duties where practical, possible and not inconsistent with the purposes of this act." (W.S. §27-11-105)

Discussion: The commission is composed of 7 members comprised of:

- one from the general field of employees
- one from the general field of business or industry
- one medical doctor, and
- four from the public at large.

All members are appointed by the Governor and serve varying length terms. The commission's current function, which is narrower than its authority, is to render a final decision on contested cases regarding violations. The Commission also approves OSHA Federal rules and regulations for promulgation. For the Commission to expand its role it would need analytical and administrative support. According to director Evans, OSHA does not currently have the capacity to assist with the expanded role; however, in collaboration with the Department of Workforce Services, the State occupational epidemiologist could assist the commission with the expanded role.

1B. Charge the Occupational Health & Safety Commission with coalescing agencies and organizations that are working towards a safer Wyoming. Below are some of the agencies/organizations that could be included.

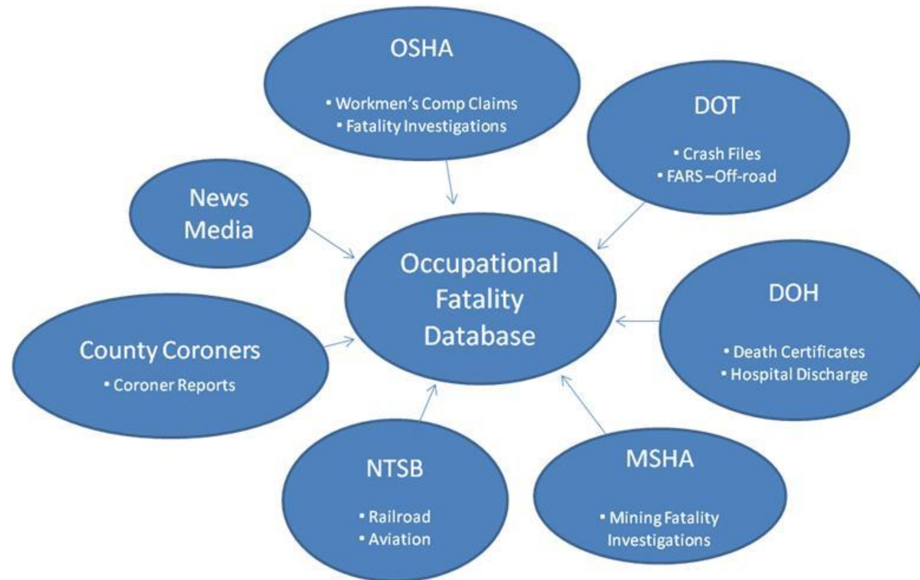
- Mining Safety and Health Administration (MSHA),
- Wyoming Occupational Safety and Health Administration (WY OSHA),
- Department of Transportation (DOT),
- Department of Health (DOH),
- Department of Workforce Services (DWFS)
- WOGISA/PAW/WMA
- Wyoming/Montana safety council
- Seatbelt coalition

Discussion: A number of agencies and organizations are working toward a safer Wyoming; however, the current efforts are disjointed. A concerted effort is needed to bring these agencies and organizations together quarterly, for the purpose of sharing successes, failures and to leverage resources.

2. **With the goal of decreasing occupational injuries and fatalities we need to develop a data monitoring system.** One of the main issues identified is the lack of a centralized database of

occupational fatalities and injuries. Currently there is a 2 year lag in the availability of occupational fatality data that is gathered by the US Department of Labor. Ongoing active epidemiological surveillance is a key component of any prevention strategy.

Effect: A centralized database, diagramed below, would allow for up-to-date analysis and would provide a means to evaluate the effectiveness of on-going strategies.



2A. Create a centralized electronic repository for occupational fatality information utilizing information from the following sources.

- Department of Transportation (DOT)
- Department of Health (DOH)
- Occupational Safety and Health Administration (OSHA)
- Mining Safety and Health Administration (MSHA)
- News media
- NTSB-Aviation primarily
- Coroners – efforts currently underway to develop system

Discussion: Task the Chief Information Office and the Department of Workforce Services with exploring the options to develop a centralized electronic repository. The two main objectives would include:

- the development of collection protocols and agreements and
- investigate the availability of appropriate systems.

Data collection would remain by-and-large the same, with the exception of WYDOT (would need a personal identifier). Below are four possible options for a centralized database.

- Alaska model (web based) is being developed by the NIOSH office in Alaska and should be completed in the next month. Cost for this is unknown at this point.
- Hire an outside contractor to build and maintain a database platform. The costs associated with this would be based on the scope of the database.

- Work with CIO to investigate in house construction. Preliminary discussions with CIO Office suggest cost would be minimal.
- Renegotiate the CFIO contractual agreement between the State of WY and the US Department of Labor. Renegotiating this contract would potentially eliminate the need to create an additional data base.

2B. Solicit recommendations from the County Coroners from those counties with certain industrial characteristics about how to realize mutual goals and opportunities for voluntary data collection. With respect to the County Coroners, two (Natrona and Carbon) are currently using CoronerME, a data platform to store data. Other counties could include Sublette, Campbell, Sweetwater, Laramie, Albany, Teton, and Fremont given their industrial characteristics.

Discussion: All accidental deaths are investigated by the County Coroners. Two of the twenty-three counties (Natrona and Carbon) are trying to standardize the collection and storage of fatality data. The company that has created the software CoronerME, Natrona and Carbon Counties currently using the software are planning to make a presentation to the other Counties at their annual meeting in November 2011 about the benefits of using this software. The software would cost below $1,400 for most Counties. A primary reason that Natrona and Carbon Counties are utilizing this software is the ease with which the information can be shared with requesting agencies Per WS §7-4-105 (d). In addition, the Coroners reports would provide relevant information contained in the toxicology report regarding drugs and alcohol as a factor in the fatality.

2C. On a semi-annual basis the OHSC will report to the Governor on the effectiveness of prevention programs; either currently underway and/or efforts initiated by agencies/organizations that are working on occupational safety.

Discussion: The State would provide the needed analysis to agencies and organizations that are engaged in safety prevention programs and activities. For example, the Wyoming Oil and Gas Industry Safety Alliance (WOGISA) (an organization of 600 members) is currently working on a number of initiatives (support front line leadership training, evaluating options for basic competency and trainings, and a viable option for vehicular safety.) As recommendations and best practices are developed and implemented, the State analysis would provide the means to evaluate their effectiveness.

3. **With the goal of decreasing occupational injuries and fatalities we need to promote OSHA courtesy inspections –** Currently, OSHA inspections occur annually in less than 2% of Wyoming establishments. The inspections that do occur are primarily based on known incidents, employee complaints and those companies with a high level of workmen's compensation claims.

Effect: Educating employers on relevant regulations and utilizing courtesy inspections as OSHA's primary interaction with employers will shift employers' perception of OSHA from combative to beneficial.

3A. Charge Workforce Services and WY OSHA to develop a plan which will reallocate resources and develop an outreach campaign to further promote courtesy inspections and challenge industry to take advantage of courtesy inspections. A goal should be established to conduct courtesy inspections within 30 days of the request by the employer. If the demand exceeds the current capacity of the inspectors, additional inspectors should be hired.

Discussion: OSHA is divided into two primary areas, enforcement and courtesy inspections. Enforcement is the unannounced inspection of a business. If violations are identified, citations with fines are issued.

The courtesy inspections are at the request of the employer with no citations being issued. Currently there is a 2-3 month delay in the availability of this service because of the number of inspectors available. In an attempt to increase the number of courtesy inspections requested OSHA utilizes the workmen's compensation data to identify companies with a high number of injuries and then sends the company a letter suggesting that a courtesy inspection may be of benefit to the company. However, only a small percentage of the companies contacted actually request a courtesy inspection. Courtesy inspections provide a great opportunity to educate companies on the relevant regulations and ways to keep their employees safe. Companies are more likely to listen to ways to improve safety during a courtesy inspection than during an enforcement inspection.

4. **With the goal of decreasing occupational injuries and fatalities we need to support efforts by industry to develop, monitor and enforce safety standards and practices.**

Effect: Proper training of all employees, particularly supervisors, will result in a reduction of injuries and fatalities.

Discussion: Each company is responsible for safety training for their own employees. Additional injury prevention training is offered by OSHA, MSHA and other organizations. The issue of training is complicated by the contractor/subcontractor relationship. Sub-contractors, hired by the major players are often not trained with the same vigor nor do they subscribe to the same safety standards as the larger companies do. In the last several months OSHA and WOGISA have begun a conversation about developing a set of minimum training standards for workers in the oil and gas industry. Fatality case reports and conversations with a number of employers suggest that a lack of enforcement of safety rules by supervisors is a major problem.

4A. Continue to support those industry-specific safety initiatives and alliances to develop, monitor and enforce safety standards and practices. Engage other industrial sector to help develop similar initiatives and alliances.

Discussion: WOGISA is the process of identifying and developing minimum safety standards with the goal of industry-wide adoption. Ideally, other industries would follow the lead of WOGISA and develop industry specific safety standards.

4B. Continue to work in collaboration with the organizations and agencies that currently provide training (i.e. McMurry Training Center & LCCC, etc.) to develop minimum standards.

Discussion: Focus should be on high risk industries (oil and gas, transportation, and construction) and the causes within those industries (transportation fatalities and hit/crushed). Emphasis should be placed on dealing with fatigue/seatbelts and safety zones within work areas. Companies will need to develop individual policies, however, guidance should be provided by the State and other organizations.