ALASKA STATE LEGISLATURE
HOUSE HEALTH AND SOCIAL SERVICES STANDING COMMITTEE
March 22, 2011
3:04 p.m.

MEMBERS PRESENT

Representative Wes Keller, Chair
Representative Alan Dick, Vice Chair
Representative Bob Herron
Representative Paul Seaton
Representative Beth Kerttula
Representative Bob Miller

MEMBERS ABSENT

Representative Charisse Millett

COMMITTEE CALENDAR

PRESENTATION: THE POTENTIAL THREAT TO ALASKANS FROM JAPAN'S RADIATION

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

JOE MCLAUGHLIN, MD, MPH, Chief and State Epidemiologist
Section of Epidemiology
Division of Public Health
Department of Health and Social Services (DHSS)
Anchorage, Alaska
POSITION STATEMENT: Conducted a presentation and answered questions on the potential threat to Alaskans from Japan's radiation.

KRISTIN RYAN, Director
Division of Environmental Health
Department of Environmental Conservation (DEC)
Anchorage, Alaska
POSITION STATEMENT: Testified and answered questions during the presentation of the potential threat to Alaskans from Japan's radiation.

DR. BERNARD JILLY, Director
Public Health Laboratories
Division of Public Health
Department of Health and Social Services
Anchorage, Alaska
POSITION STATEMENT: Testified and answered questions during the presentation of the potential threat to Alaskans from Japan's radiation.

CHRIS LABORDE, Emergency Program Manager
Division of Public Health
Department of Health and Social Services
Anchorage, Alaska
POSITION STATEMENT: Testified and answered questions during the presentation of the potential threat to Alaskans from Japan's radiation.

BRYAN FISHER, Operations Manager
Division of Homeland Security/Emergency Management
Department of Military & Veterans' Affairs (DMVA)
Ft. Richardson, Alaska
POSITION STATEMENT: Testified during the presentation of the potential threat to Alaskans from Japan's radiation.

ACTION NARRATIVE

3:04:53 PM

CHAIR WES KELLER called the House Health and Social Services Standing Committee meeting to order at 3:04 p.m. Representatives Keller, Miller, Dick, and Seaton were present at the call to order. Representatives Kerttula and Herron arrived as the meeting was in progress.

3:05:35 PM

CHAIR KELLER reflected on the nuclear crisis in Japan.

Presentation: The Potential Threat to Alaskans from Japan's Radiation

3:07:53 PM

CHAIR KELLER announced that the only order of business would be a presentation on the potential threat to Alaskans from Japan's radiation.

3:08:13 PM

JOE MCLAUGHLIN, MD, MPH, Chief and State Epidemiologist, Section of Epidemiology, Division of Public Health, Department of Health and Social Services (DHSS), presented a brief PowerPoint entitled "The Japanese Nuclear Crisis: What it Means for Alaska" [Included in members' packets] and directed attention to slide 1, "Implications for Alaska." He stated the three main points to remember: there is no immediate or anticipated threat for harmful levels of radiation to reach Alaska; Alaska's seafood is unlikely to be affected; this is an important reminder that all Alaskans should assemble a home emergency kit and a family response plan.

DR. MCLAUGHLIN moved on to slide 2, "Public Health Response to a Radiation Emergency," and said that some of the primary duties of the Division of Public Health were to inform the public and health care providers with a situational update and to supply the tools necessary to reduce the risk of radiation exposure. He spoke of the duty to protect the public from radiation exposure with shelter, evacuation recommendations, distribution of radiation medications, and restriction of consumption of contaminated food. He declared a responsibility to decrease the psychological effects of radiation exposure and to perform a long term follow up for exposed persons.

3:10:30 PM

DR. MCLAUGHLIN directed attention to slide 3, "DHSS Communication Response," and shared that DHSS had responded to media requests, and issued press releases, messages, and an Epidemiology Bulletin. He declared that the principal messages were: no anticipated threat to the health of Alaskans; Alaskans should not be taking potassium iodide; monitoring and communication was ongoing with local and state partners; and, all Alaskans should be prepared for emergencies.

3:11:39 PM

DR. MCLAUGHLIN, addressing slide 4, "What can Alaskans do to be prepared for an emergency?" stated that a home emergency supply kit, a vehicle emergency supply kit, a family response plan, and practice of the plan were all necessary.

3:12:01 PM

DR. MCLAUGHLIN directed attention to slide 5, "Alaska Radiation Monitoring" and declared that Alaska's monitoring stations continued to show normal background levels of radiation. He listed the five monitoring stations, Anchorage, Fairbanks, Juneau, Dutch Harbor, and Nome. He shared that the DHSS home page had more available data.

3:13:01 PM

DR. MCLAUGHLIN, referencing slide 6, "Food Supply," shared that the food supply was closely monitored with increased targeted sampling at the border. He noted that less than 4 percent of U.S. imported food came from Japan. He reported that current models indicated that U.S. fishing waters would remain safe.

3:13:46 PM

DR. MCLAUGHLIN analyzed slide 7, a table on Exposure (rem) with Notes and Effects, and pointed to the various exposure amounts that individuals experienced on a regular basis. He compared that the maximum radiation reported at the main gate of the Fukushima Daiichi power plant on March 15 was still less than exposure amounts for acute health effects. He detailed some of the effects of higher exposure.

3:15:48 PM

DR. MCLAUGHLIN summarized slide 8, "Availability of Radiation Medications," and stated that radiation medications were included in the Strategic National Stockpile, but that the Centers for Disease Control and Prevention (CDC) would only deploy these if there was a "credible threat." He stated that "no public health risks are expected from this disaster in the United States."

3:16:57 PM

DR. MCLAUGHLIN reviewed slide 9, "Summary," and reiterated that there was no anticipated threat of harmful radiation exposure to Alaskans at this time; Alaska's seafood was unlikely to be affected; and, all Alaskans should be prepared for disasters. He stated that more information was available on the DHSS website.

3:17:23 PM

REPRESENTATIVE MILLER asked for a conversion of millisieverts to rads or rems.

DR. MCLAUGHLIN replied that one sievert was equal to one hundred rem, which was also equal to one thousand millisieverts or one million microsieverts.

3:18:36 PM

REPRESENTATIVE MILLER, reflecting that radiation exposure on March 15 was 40 rem at the Fukushima Daiichi power plant and 0.00008 rem in Tokyo, asked about the wind direction that day.

3:18:57 PM

DR. MCLAUGHLIN replied that he did not know.

3:19:21 PM

REPRESENTATIVE MILLER asked, as the level of catastrophe was related to wind and altitude, what altitude was attained by the radiation in the Fukushima Daiichi power plant disaster.

3:19:30 PM

DR. MCLAUGHLIN stated that the Environmental Protection Agency (EPA) clarified the difference between the nuclear disasters in Japan and Chernobyl. He detailed that Chernobyl had included "a massive explosion and a fire that raged for 10 days." He explained that the heat pushed the radioactive material high into the jet stream. He stressed that this was not the case in Japan.

3:20:59 PM

REPRESENTATIVE SEATON, clarifying that the conversion from millisievert to rem only entailed moving a decimal point, asked if the radioactive measurement was for absolute exposure or for time duration.

3:21:49 PM

DR. MCLAUGHLIN explained that each of the exposure measurements on the graph differed.

REPRESENTATIVE SEATON asked how the exposure of 5-50 rem was measured.

DR. MCLAUGHLIN replied that this would be an acute exposure event, and would occur over a very short period of time.

3:23:20 PM

REPRESENTATIVE SEATON asked about the time of exposure at the main gate of the power plant.

DR. MCLAUGHLIN replied that the measurement was per hour.

3:23:40 PM

REPRESENTATIVE DICK asked if a flight to Europe and a chest x-ray had comparable exposure amounts.

3:24:11 PM

DR. MCLAUGHLIN said that the radiation from one flight was quite a bit less than a chest x-ray.

3:24:46 PM

REPRESENTATIVE MILLER asked about the potency and shelf life of the potassium iodide in the strategic stockpile.

3:24:58 PM

DR. MCLAUGHLIN replied that the shelf life was an average of seven years and its potency was for a daily dosage of 130 m/g.

REPRESENTATIVE MILLER questioned whether the optimal ingestion would be prior to exposure to radiation.

DR. MCLAUGHLIN replied that the optimal window for ingestion was between 2 hours prior and 4 hours after exposure. He stated that the protective efficacy diminished after 4 hours. He noted that potassium iodide protected the thyroid gland from exposure to radioactive iodine, whereas other medications prevented absorption of radiation.

3:26:51 PM

REPRESENTATIVE MILLER asked if cesium had been detected in the air near the Fukushima Daiichi power plant.

DR. MCLAUGHLIN agreed.

3:27:05 PM

REPRESENTATIVE HERRON asked about the danger to any U.S. food supplies outside the fishing waters.

3:27:57 PM

KRISTIN RYAN, Director, Division of Environmental Health, Department of Environmental Conservation (DEC), replied that DEC was working closely with the Food and Drug Administration (FDA) to monitor food from Japan. She stated that a random sampling program already existed at the ports of entry.

3:28:35 PM

REPRESENTATIVE HERRON asked if there was concern for the food supply closer to the reactor in Japan.

MS. RYAN replied that Japan was monitoring milk near the nuclear facilities, and advising people not to consume anything with elevated levels of radiation.

3:29:50 PM

REPRESENTATIVE KERTTULA asked if this would have a long term effect on marine mammals.

3:30:24 PM

DR. BERNARD JILLY, Director, Public Health Laboratories, Division of Public Health, Department of Health and Social Services, said that accumulation of radioactivity depended on the half life of the material. He said the half life of iodine was eight hours, whereas the half life of cesium was more than 30 years. He allowed that there was a theoretical possibility of "some build-up in some marine mammals." He pointed to the dilution factor of the ocean as a factor for keeping the probability very low.

3:32:06 PM

REPRESENTATIVE MILLER asked where the cesium was coming from.

DR. MCLAUGHLIN explained that fission occurred when radioactive uranium or plutonium was used in a nuclear power plant. This process caused the atom to split into a heavier and lighter molecule, iodine 131 and cesium.

3:33:34 PM

CHAIR KELLER asked where Alaska medication was stockpiled and what was the procedure for distribution.

3:33:57 PM

CHRIS LABORDE, Emergency Program Manager, Division of Public Health, Department of Health and Social Services, said that there was an Alaska strategic national stockpile plan to receive and distribute any medical countermeasures, which was in conjunction with CDC. She pointed out that upon any credible threat, Alaska would receive the stockpile of medications within 12 hours. The plan would allow the stockpile to be warehoused in Alaska, and then distributed to all the health care facilities in Alaska. She mentioned that each health care facility also had a distribution plan for its population base.

3:35:46 PM

MS. LABORDE, in response to Chair Keller, said that it was not known where the stockpile was kept, or how much was in the stockpile. She relayed that it was brought into Anchorage by a normal transport process, unless an emergency demanded support from the Coast Guard or the National Guard.

REPRESENTATIVE MILLER, noting that the Aleutian Islands could be in the wind pattern from Japan, commented on the difficulty for quick transport to a remote location.

3:36:56 PM

CHAIR KELLER asked for more information about the radiation monitoring equipment.

3:37:20 PM

DR. JILLY, in response to Chair Keller, confirmed that fixed monitors were in Juneau, Anchorage, and Fairbanks, and that portable devices were in Nome, Dutch Harbor, and a second device in Juneau. He mentioned that these units were on loan from the

Environmental Protection Agency (EPA) and were part of a program for radiological issues.

3:38:51 PM

REPRESENTATIVE MILLER asked about the distinction between the types of radiation monitoring, and if there were other types of radiation for concern.

3:39:11 PM

DR. JILLY, in response, established that there were three types of radiation: alpha, beta, and gamma. He said that alpha radiation was the nucleus of the atom, and, as it had little penetration capability, could be stopped with a sheet of paper. He noted that the only true concern would be for internal ingestion. He declared that beta radiation, free electrons ejected from the atom, had different energy levels which did not directly correlate into rem. He confirmed that gamma radiation was pure energy similar to light or x-ray energy. Gamma had a capacity for deep penetration. He explained that the monitoring devices measured beta and gamma radiation. He mentioned that the devices contained a filter which captured the radiation, and allowed for in depth analysis of alpha, beta, and gamma to determine the source of the radiation.

3:41:26 PM

REPRESENTATIVE MILLER asked for the worst case scenario, as he ascertained a response time of at least five days.

3:42:34 PM

DR. MCLAUGHLIN discussed a worst case scenario for a Chernobyl-type event in Japan. He pointed out a difference between the two power plants, as the Japanese power plant had six inch stainless steel protective casings and a layer of concrete around the reactor, which Chernobyl did not have. He reported that the time for a radiation plume to reach Alaska would depend on the altitude of that plume, and the wind strength and direction. He detailed that there would be an immediate request to the strategic stockpile, even before any monitoring data was received. He stated that there would be a plan for rapid distribution of the medications and for emergency shelter or evacuation. He stressed that this would all be initiated prior to any monitoring data from the five EPA stations. He reported that the data was received and tracked on a real time basis.

3:45:28 PM

MS. LABORDE added that work was coordinated with CDC.

3:46:18 PM

CHAIR KELLER asked for any projected effect on the nations close to Japan.

3:46:52 PM

BRYAN FISHER, Operations Manager, Division of Homeland Security/Emergency Management, Department of Military & Veterans' Affairs (DMVA), in response to Chair Keller, said that the prevailing winds were blowing toward the east and northeast and that there was no specific information on effects to other countries. He added that there were other monitoring sources outside Alaska, especially within Japan. He shared that EPA had stated that it would be "a couple of days before anything made its way to landfall in Alaska." He reflected that establishment of a unified command between DHSS, DMVA, and Department of Environmental Conservation (DEC) would be instituted if there was a threat to Alaska. He stated that the primary objectives would be to get the message out for sheltering and evacuation to the public and the communities in the direct path. He shared that this teleconference system for discussion and technical guidance had just been implemented during the tsunami threat.

3:49:24 PM

CHAIR KELLER reflected that this emergency had provided the opportunity for a drill to evaluate the systems.

3:50:01 PM

ADJOURNMENT

There being no further business before the committee, the House Health and Social Services Standing Committee meeting was adjourned at 3:50 p.m.