U. S. Environmental Protection Agency
Prepared by the Office of Public Affairs

Specialty Media Clips
Monday, February 18, 2013

Table of Contents
(BNA articles can be viewed online http://Intranet.epa.gov/desktop/news.htm

Thursday, August 5, 2010

AFRICAN AMERICAN 2
Texas Proposes New Rules For Shale Gas Drilling (*Black Enterprise Magazine*) 2
EPA Undertakes Overdue Review On Oil, Gas Rules (*Black Enterprise Magazine*) 3
Law Group Will Sue Over Michigan Oil Spill (*The Root*) 4
HISPANIC 4
Dispersant used in Gulf 'no more toxic' than oil alone (*Hispanic Business*) 4
Dispersant used in Gulf 'no more toxic' than oil alone (*Hispanic Business*) 6
NATIVE AMERICAN 9
Hopi Council approves carbon capture storage project (*Navajo-Hopi Observer*) 9
Coming together in the name of air quality (*Indian Country Today*) 11

AFRICAN AMERICAN

Texas Proposes New Rules For Shale Gas Drilling (*Black Enterprise Magazine*)

HOUSTON (AP) — Texas environmental regulators have formally proposed beefing up regulations on oil and gas drilling, in an attempt to reduce air pollution caused when companies use new technology to extract natural gas trapped in deep shales.

The Texas Commission on Environmental Quality formally submitted the proposal on Wednesday, and the rules will enter a one-month public comment phase on Aug. 13.

The new rules come after the Texas Commission on Environmental Quality was accused of having weak regulations that contributed to air pollution and high levels of cancer-causing toxins were found in Barnett Shale drilling sites in a tiny north Texas town.

The gases in Barnett, and other shales, had long been inaccessible, but a new method of extracting the fluid known as fracking — or hydraulic fracturing — has led to a new boom in the industry. Many of the shales are in populated areas, and the U.S. Environmental Protection Agency is now studying the drilling's impact on human health and water quality.

The rapid expansion of shale drilling, especially around urban areas, forced the agency to review its regulations, TCEQ chairman Bryan Shaw said in a statement.

"This is the latest step in our efforts to ensure safe air quality in areas where oil and gas production is ongoing," Shaw said.

But environmental groups say the rules don't go far enough, especially because they apply only to new permits.

"Existing gas wells are one of the largest sources of air pollution in Dallas-Fort Worth, about equal to that of all the cars and trucks in the region," Luke Metzger, director of Environment Texas, said. "Excluding them from coverage is yet another hand out to Governor Perry's contributors from the oil and gas industry and a blow to healthy air."

Anne Inman, a TCEQ official in the air permits department, said most of the proposed rules apply only to new equipment or changes that would increase emissions. However, all sites must provide the agency with identifying information by 2013 and meet limits for maintenance, start-ups and shutdowns by Jan. 2012.

The agency is also attempting to better monitor air pollution in areas with a large amount of shale drilling. The agency already has four operating monitors and the hourly results are posted on a TCEQ Website. It plans to install three additional monitors.

EPA Undertakes Overdue Review On Oil, Gas Rules (*Black Enterprise Magazine*)

DENVER (AP) — The Environmental Protection Agency is reviewing four air emission rules for oil and natural gas operations, albeit many years later than it should have done so.

The EPA is supposed to review the standards every eight years under the Clean Air Act, but some of the regulations in question haven't been updated since 1985, while others were last fully reviewed in 1999.

WildEarth Guardians and the San Juan Citizens Alliance noticed and sued the EPA to force a review.

"That's kind of a slam dunk. It's hard to win a case like that," said Bruce Moore, senior technical adviser with the EPA's Office of Air Quality, Planning and Standards.

The EPA reached a settlement in which it agreed to propose any changes by Jan. 31 and take final action by Nov. 30, 2011.

The agency is going a step further, though. It also will take a broad look at the oil and gas industry to identify and quantify sources of air pollutants, consider strategies for reducing them, and determine the environmental and economic effects of those strategies.

The EPA held public meetings in Arlington, Texas, on Monday and in Denver on Tuesday to get information from the public and industry representatives to help with its review.

Two regulations the EPA is reviewing cover new gas processing plants. One involves leak detection of volatile organic compounds, and the other involves sulfur dioxide emissions.

The EPA also is reviewing national emissions standards for hazardous air pollutants in oil and gas production, and in natural gas transmission and storage operations.

Regulators have lagged in updating rules, even as new strategies like horizontal drilling and hydraulic fracturing have boosted the amount of natural gas that is considered recoverable.

Elevated ozone levels in the winter in the West have been attributed to volatile organic compounds from the oil and gas industry, Moore said.

While the EPA has rules for some aspects of oil and gas operations, other areas are not covered by current regulations.

Kathleen Sgamma of Western Energy Alliance, a trade group, said at the EPA meeting Tuesday that onerous regulations would make it more difficult to produce energy domestically and lead to more importation. She noted other sources of air pollution and said regulators should focus on industries with higher emissions.

Environmental groups noted that industry has undertaken some voluntary measures to mitigate pollution but said those efforts were insufficient. They also said natural gas is cleaner than coal but that they want to ensure industry makes use of modern technology to reduce emissions.

Law Group Will Sue Over Michigan Oil Spill (*The Root*)

By The Buzz | Posted: August 5, 2010
The Great Lakes Environmental Law Center, a group of environmental lawyers based in Detroit, issued a 60-day notice of intent to file a citizen suit against Enbridge in connection with the oil spill into a tributary of the Kalamazoo River. The intent notice is required by the Clean Water Act. The group sent the notice to Enbridge, the state Department of Natural Resources and Environment and the federal Environmental Protection Agency. Financial penalties against the company could run into the millions of dollars. A standing ovation for standing up for residents and the environment.

HISPANIC

3 August 2010 Last updated at 22:05 ET

Dispersant used in Gulf 'no more toxic' than oil alone (*Hispanic Business*)

The Macondo well has been temporarily sealed with a cap for two weeks
The dispersant used after the Gulf of Mexico oil spill is no more toxic than oil alone, the US Environmental Protection Agency (EPA) has said.

The EPA study follows concerns raised by congressional investigators that dispersant may have been more widely used than the government ordered.

Meanwhile a new US government estimate suggests the well leaked 4.9m barrels of oil before being capped last month.

The estimate would make it the largest accidental oil spill in world history.

According to the new estimate prepared by the government's Flow Rate Technical Group, BP was able to collect roughly 800,000 barrels of oil from the well in total.

The well initially leaked about 62,000 barrels of oil per day, higher than any previous estimate of the flow. But as the well exhausted itself, the flow slowed to about 53,000 barrels per day.

The spill totalled 205.8 million gallons.

The flow ended on 15 July, when BP put a temporary cap on the well. BP hopes to begin its attempt to seal the well permanently with a "static kill" procedure on Tuesday.

If the new estimates are correct, the spill would be greater than the 1979 Ixtoc I leak in the Gulf of Mexico, which gushed 3.3 million barrels. Only the intentional release of an estimated eight million barrels of oil into the Gulf by Iraqi troops during the Gulf War in 1991 was greater.

US Oil Spill
Biggest ever, but how bad?
Timeline: BP oil spill
Controlling a robot claw
Oil dispersant 'not more toxic'
Environmental trade-offs

BP has been using dispersant to break up the spilled oil, with the substance acting in a similar way to washing-up liquid.

But amid concerns over dispersants' long-term environmental impact, the Obama administration in May issued an order limiting their use.

The study by the Environmental Protection Agency, released on Monday, showed the dispersant widely used in response to the oil spill in the Gulf, called Corexit 9500A, was "generally no more or less toxic than the other available alternatives".

"The results indicate that the dispersant-oil mixtures are generally no more toxic to test species than oil alone," Paul Anastas, the EPA's assistant administrator for research and development, told reporters.

Concerns have been raised over the potential long-term effects of dispersant on marine life
In a statement, EPA chief Lisa Jackson said: "We have said all along that the use of dispersant presents environmental trade-offs, which is why we took steps to ensure other response efforts were prioritised above dispersant use and to dramatically cut dispersant use."

The agency also said the use of dispersants had nearly halted since the well was capped on 15 July.

On Sunday, the Washington Post reported that the US Coast Guard had granted BP 74 requests to use dispersants over 54 days on the Gulf surface and underwater, in spite of an administration order to limit their use.

The paper found that the Coast Guard had granted every request to use the chemicals, although in some cases it had reduced the amount that could be deployed.

In a letter released on Saturday, Democratic Congressman Edward Markey, chairman of the House energy and environment sub-committee, wrote that instead of complying with the EPA's

instructions, "BP often carpet-bombed the ocean with these chemicals and the Coast Guard allowed them to do it".

Last week, BP reported a record $17bn (£11bn) loss, having set aside $32bn to cover the costs of the spill - the worst in US history.

'Bottom kill' crucial

The spill may soon come to a permanent end, with BP preparing to inject mud and possibly cement into its blown-out well on Tuesday to seal it.

Under the "static kill" procedure, the company will pump mud and cement into the well on Tuesday and Wednesday, if tests scheduled for Monday night yield positive results.

The static kill, also known as "bullheading", takes place in three stages.

First, a test determines if oil can be pushed back down the well into the reservoir
If that goes well, the static kill is begun by pumping in mud at low pressure. That may take all of Tuesday and possibly run into Wednesday
Then, engineers will have to decide whether to pump in cement at the top of the well or wait and pump in cement from the relief well into the bottom of the damaged well.
The relief well will reach the damaged well some time between 11 and 15 August.

The permanent "bottom kill" will take anywhere between a number of days and a few weeks.
The final casing has been cemented in place, which is the prelude to the last bit of drilling.

An earlier effort, in May, to pump mud into the well using much of the same equipment failed because the pressure of the spewing oil and gas was too great.

August 2010 Last updated at 22:05 ET

Dispersant used in Gulf 'no more toxic' than oil alone (*Hispanic Business*)

The Macondo well has been temporarily sealed with a cap for two weeks
The dispersant used after the Gulf of Mexico oil spill is no more toxic than oil alone, the US Environmental Protection Agency (EPA) has said.

The EPA study follows concerns raised by congressional investigators that dispersant may have been more widely used than the government ordered.

Meanwhile a new US government estimate suggests the well leaked 4.9m barrels of oil before being capped last month.

The estimate would make it the largest accidental oil spill in world history.

According to the new estimate prepared by the government's Flow Rate Technical Group, BP was able to collect roughly 800,000 barrels of oil from the well in total.

The well initially leaked about 62,000 barrels of oil per day, higher than any previous estimate of the flow. But as the well exhausted itself, the flow slowed to about 53,000 barrels per day.

The spill totalled 205.8 million gallons.

The flow ended on 15 July, when BP put a temporary cap on the well. BP hopes to begin its attempt to seal the well permanently with a "static kill" procedure on Tuesday.

If the new estimates are correct, the spill would be greater than the 1979 Ixtoc I leak in the Gulf of Mexico, which gushed 3.3 million barrels. Only the intentional release of an estimated eight million barrels of oil into the Gulf by Iraqi troops during the Gulf War in 1991 was greater.

US Oil Spill
Biggest ever, but how bad?
Timeline: BP oil spill
Controlling a robot claw
Oil dispersant 'not more toxic'
Environmental trade-offs

BP has been using dispersant to break up the spilled oil, with the substance acting in a similar way to washing-up liquid.

But amid concerns over dispersants' long-term environmental impact, the Obama administration in May issued an order limiting their use.

The study by the Environmental Protection Agency, released on Monday, showed the dispersant widely used in response to the oil spill in the Gulf, called Corexit 9500A, was "generally no more or less toxic than the other available alternatives".

"The results indicate that the dispersant-oil mixtures are generally no more toxic to test species than oil alone," Paul Anastas, the EPA's assistant administrator for research and development, told reporters.

Concerns have been raised over the potential long-term effects of dispersant on marine life
In a statement, EPA chief Lisa Jackson said: "We have said all along that the use of dispersant presents environmental trade-offs, which is why we took steps to ensure other response efforts were prioritised above dispersant use and to dramatically cut dispersant use."

The agency also said the use of dispersants had nearly halted since the well was capped on 15 July.

On Sunday, the Washington Post reported that the US Coast Guard had granted BP 74 requests to use dispersants over 54 days on the Gulf surface and underwater, in spite of an administration order to limit their use.

The paper found that the Coast Guard had granted every request to use the chemicals, although in some cases it had reduced the amount that could be deployed.

In a letter released on Saturday, Democratic Congressman Edward Markey, chairman of the House energy and environment sub-committee, wrote that instead of complying with the EPA's instructions, "BP often carpet-bombed the ocean with these chemicals and the Coast Guard allowed them to do it".

Last week, BP reported a record $17bn (£11bn) loss, having set aside $32bn to cover the costs of the spill - the worst in US history.

'Bottom kill' crucial

The spill may soon come to a permanent end, with BP preparing to inject mud and possibly cement into its blown-out well on Tuesday to seal it.

Under the "static kill" procedure, the company will pump mud and cement into the well on Tuesday and Wednesday, if tests scheduled for Monday night yield positive results.

The static kill, also known as "bullheading", takes place in three stages.

First, a test determines if oil can be pushed back down the well into the reservoir
If that goes well, the static kill is begun by pumping in mud at low pressure. That may take all of Tuesday and possibly run into Wednesday
Then, engineers will have to decide whether to pump in cement at the top of the well or wait and pump in cement from the relief well into the bottom of the damaged well.
The relief well will reach the damaged well some time between 11 and 15 August.

The permanent "bottom kill" will take anywhere between a number of days and a few weeks.
The final casing has been cemented in place, which is the prelude to the last bit of drilling.

An earlier effort, in May, to pump mud into the well using much of the same equipment failed because the pressure of the spewing oil and gas was too great.

NATIVE AMERICAN

7/27/2010 10:29:00 AM

Hopi Council approves carbon capture storage project (*Navajo-Hopi Observer*)

Rosanda Suetopka Thayer
The Observer
KYKOTSMOVI, Ariz. - In a surprise move, the Hopi Tribal Council approved a controversial project with an 8 to 4 vote, giving four western energy companies (WEC Consortium) and the Hopi Tribe the go-ahead to evaluate geologic characteristics of the Black Mesa Basin for potential commercial storage of carbon dioxide (CO2) in a new method known as carbon capture sequestration (CCS).

Nada Talayumptewa, chair of the Hopi Tribe's Energy Team and council representative from Kykotsmovi, placed the action item and resolution on the council's agenda.

The proposed project seeks to drill a series of exploration wells on Hopi land for the purpose of collecting and analyzing detailed geological, geophysical and water quality data. Wells will be drilled to a depth of approximately 9,000 feet to determine if the rock strata is hospitable enough to store toxic CO2 extracted from coal plant emissions underground on Hopi and near Navajo reservation communities.

This project builds from an ongoing Department of Energy (DOE) funded project known as the Arizona Utilities Northern Arizona Pilot Project located at the Cholla Power Plant near Joseph City. The project budget will cost approximately $5.02 million and work would be completed within 15 months of DOE approval.

The other participants include Salt River Project (SRP) as the lead applicant with the Hopi Tribe, Tri-State Generation and Transmission, Tucson Electric Power (TEP) and Peabody Coal Company.

SRP, TEP and Tri-State currently supply generation, transmission and distribution of electricity to communities through Arizona, Colorado, New Mexico, Wyoming and Nebraska. Peabody is one of the major coal producers in the United States.

Immediately adjacent to both Hopi and Navajo communities, the project has very little research available to assess long range impacts on the Black Mesa Basin, which contains billions of tons of high quality, low sulfur coal reserves as well as coal bed methane, oil and gas reserves. The basin is currently surrounded by six coal-fired energy plants which produce over 11,000 megawatts of power and emits 65 million tons of harmful CO2 annually.

Concerns about the approval of this controversial project have raised many questions from the Hopi people, who heard about the approval through tribal department heads.

One of the more immediate concerns was that Hopi tribal members were never given an opportunity to voice their concerns and question the council regarding such a new technology as CCS, since it is still considered experimental, and long term storage of CO2 is a relatively new concept. Scientists have stated that CO2 can be "captured" with one such experiment taking place at the Cholla Power Plant by Arizona Public Service, but long term outcomes are still being researched.

There are also questions about how long the CO2 will be stored. The short answer is: forever.

Another concern is water. Since CCS requires massive amounts of water because the capturing and compression requires much energy, the Consortium also states that they don't have the water right now, which would mean an increase in pumping Hopi and Navajo water from its current water rate. Proposed increases call for another 25 to 40 more water being pumped.

Safety is also a critical issue since scientists have stated that they cannot predict how long CO2 can be safely stored since it could potentially leak into other underground aquifers or into the air.

Hopi community members have also asked: Can the Hopi Tribe pull out of the project? The answer is yes, but not without consequences. SRP, which operates the Mohave Generating station, is the principal investigator and applicant for the $5 million dollar grant from the DOE. If the Hopi Tribe pulls out of the project, they could possibly be put into a serious liability situation for "misleading" DOE in accessing the money for this experiment.

Peabody has also been actively participating and supporting the CCS project because they want to keep mining Hopi and Navajo coal for a very long time.

Joelynn Roberson, a consultant to the Consortium, is also under fire from the Hopi community since part of her position description requires her to act as facilitator to the Hopi nation to "ensure permitting" and to engage in public outreach on tribal lands concerning the project, which to date has not occurred.

Two former Hopi Chairmen, Vernon Masayesva and Benjamin Nuvamsa, spoke to the Observer about their concerns.

Nuvamsa stated, "The Hopi Tribe is assuming a lot about this project. These are poisonous gases ... from the coal fired plants [that will be] deposited into wells 9,000 feet deep for more than a lifetime. Therein lies the problem. It's just another way to allow these plants to keep polluting but this time, they would be polluting our water, not the air."

"It's a pretty clever way ... for these companies to get around tough EPA air emissions control requirements like [Best Alternative Retrofit Technology] (BART). They are trying to divert our tribal attention away from the coal plants polluting the skies and a way to justify the continued existence of their plants," he added.

Masayesva stated, "This project approved by the Hopi Council, which will allow the Hopi and Navajo geologic strata and water reserves to store CO2 is highly experimental. Hopi and Navajo people have good reason to suspect that the sequestration model cannot accurately predict the migration of CO2 We have no idea and neither do scientists of the true picture of the extent of damages that can be done to the ground water in the Black Mesa Basin."

He added, "Bottom line, the question that this project and its supporters must answer to the Hopi and Navajo people is this: Did the Hopi Tribe actually want the CO2 sequestration on Hopi land, or are they using this sequestration project as a vehicle to collect mineral data? If the latter is true, then the Hopi Council has now acted in bad faith, and this could have serious consequences for our tribe because it would mean that SRP, Peabody and the other energy companies along with Hopi water consultant Joelynn Roberson could be accused of securing federal money for this project under false pretenses."

Nuvamsa concluded, "What everyone here on Hopi and Navajo should understand is that once the CO2 is injected into our reservation homeland ground, it will not be possible to extract those poisonous gases or stop them from permeating into our aquifers. Our aquifers will be forever poisoned. Future Hopi and Navajo generations will pay the price for a few measly dollars that these Hopi council members want. This is what I call environmental extortion."

The eight Hopi Council members who approved the project included: Nada Talayumptewa, Phillip Quochytewa, Norman Honanie, Danny Honanie, Everett Calnimptewa, Wayne Kuwanhoiyoma, Velma Kelyesva and Arvin Puhuyesva.

A public information meeting sponsored by the InterTribal COALition group to discuss this topic will be held at the Hotevilla Youth and Elderly Center at 10 a.m. on Friday, Aug. 6. A meal will be provided and all Hopi and Navajo tribal members are encouraged to come to share their opinions and concerns regarding this project.

Coming together in the name of air quality (*Indian Country Today*)

ISLETA PUEBLO, N.M. – “I wanted them to see, this is who we are and sk], please, help us before climate change takes away our way of life,” Rosalie Kalistook, Orutsararmiut, Department of Natural Resources Environmental Coordinator explained.

Kalistook presented “Climate Change in Rural Alaska,” a slide show and discussion exemplifying the catastrophic effects of climate change on tribal peoples – just one of many workshops offered during the 2010 National Tribal Forum on Air Quality held July 13 – 15.

In the arctic regions of the world, communities and lands are perhaps being the hardest hit as sea and river levels and temperatures rise and the permafrost melts. According to the International Panel on Climate Change 2007 working group II report, Alaska's average observed temperature increased ~7° F (2 to 3.5° C) from 1970 – 2004; which, along with a neighboring portion of Canada, is the most extreme change in the world.

“We are seeing the effects the most,” Kalistook said, “because we are at ground zero where all

the chemicals of the world come up."

Kalistook is currently working from Bethel, Alaska, to bring assistance to Alaskan tribes whose villages, such as Newtok in western Alaska, need to be relocated to higher grounds due to rising ocean and river waters, erosion or massive sink holes in the permafrost.

A lot to consider

Just one solution to the damages climate change and decreasing air quality are causing is the use of sustainable, renewable energy sources.

As part of the 2010 National Tribal Forum on Air Quality, Sandra Begay-Campbell, Diné, Sandia National Laboratory Technical Staff principal member, presented the state of renewable energy and energy efficiency technologies supported by the U.S. Department of Energy on tribal lands.

Between the years of 2002-2008, the DOE funded 93 tribal energy projects totaling $16.5 million with 34 taking the first steps, 51 in feasibility studies and eight in the development stages.

These projects span solar technology, hydropower, wind, biomass and geothermal energies.

Begay explained that the agency's mission is to provide technical advice so that tribal leaders are able to make the best decisions about bringing renewable energy to tribal lands and to provide education about sustainable energy.

"A lot of tribes are asking for strategic planning. One solution for climate change is not the only solution," she said. "There's a lot to be considered."

Begay-Campbell pointed out the fact that wind energy on tribal lands is providing the greatest returns to tribes highlighting the Cherokee Nation Enterprises' wind project in Oklahoma. This project will be a 100-megawatt wind farm to offset $8 million in energy costs. The project will be 100 percent tribally owned.

In San Diego County, Calif., the Campo Kumeyaay Nation is in the second phase of developing what will be the largest-scale wind farm on tribal lands. The Kumeyaay Wind farm produces enough power each year to provide energy for approximately 30,000 homes. According to the Kumeyaay, this saves approximately 110,000 tons a year in greenhouse gas emissions, compared with equivalent fossil fuel generation. It is helping San Diego Gas & Electric meet its target of supplying at least 20 percent of its customers' electricity from renewable sources by 2010.

Begay-Campbell said the funding of the projects is leading the tribes to become very savvy with their natural and fiscal resources.

"Part of what we're finding is that there are some financing issues. In order to receive returns in the form of tax credits, the tribes need to partner with for-profit entities. So, what we're seeing is some very creative financing," she said.

In February 2009, the Augustine Band of Cahuilla Indians of California cut the ribbon on a 1.1-megawatt solar electric system after receiving a DOE First Steps grant to develop an energy plan. This assisted the tribe in moving forward with the installation of this $7 million system that produces 1,900 megawatts annually from approximately 15,000 solar panel modules. This system partially powers the tribe's casino and residences with the remainder of the power being returned to the grid for clean energy use nearby.

The Tulalip Tribes of Washington now use an anaerobic digester to make energy from dairy waste. This diverts groundwater and salmon stream pollution from dairy operations, instead converting the manure into electricity. This project is a joint project between Quil Ceda Power, a subsidiary of the Tulalip Tribes; Qualco Energy, a nonprofit group that includes representatives from the Sno/Sky Agricultural Alliance, a farmers' cooperative; and Northwest Chinook Recovery, a nonprofit organization committed to preserving, restoring and enhancing salmon habitat in the Puget Sound region. The digester was first proposed to help consume waste from local dairy operations and to prevent runoff into local salmon streams.

The Citizen Potawatomi Nation of Oklahoma is also committed to using the earth in the form of geothermal ground source heat pumps to heat and cool their hotel/casino and member homes and now has a fully functioning geothermal system.

Another aspect of the DOE work is to reduce tribal energy costs by 30 percent.

With the Forest County Potawatomi Nation of Wisconsin, as well as with other gaming nations, this meant looking closely at casino expenditures and energy use.

“These facilities are typically in operation 24/7,” Begay-Campbell said.

The Potawatomi found that their parking garage used a large amount of energy and that by “re-lamping” the facility's fixtures with LED bulbs they were able to cut their costs by 30 percent.

“I think it's going to take knowledgeable leadership, timing and strategic planning to make a go of it,” she said. “Now, with the economy the way it is, it's really a struggle.”

Kalistook also explained that these changes directly correspond with the changes her grandfathers foretold during her childhood.

“They would say that the snow wouldn't come and the earth would get thinner. This is happening and I believe what they were referring to was the melting of the

permafrost,” she said. “Our houses here are built up on stilts and we used to get so much snow that a lot of houses would be covered with snow and you would only see chimney smoke. You don't see that anymore.”

Kalistook said that with climate change comes cultural change referring to the fact that her dried fish rack and that of her sister didn't reach capacity this year until mid-July. In normal years, they

would have been full nearly a month earlier.

“I believe that no matter where a community is, they will see the effects of climate change,” she said.

Also during the conference, Professor Margaret Hiza-Redsteer, Crow, USGS Flagstaff Science Center research scientist, presented her study of the location, moisture content, plant and animal bases, nutrient capacity, and movement over time of Navajo sand dunes.

The Southwest's constant drought for the past 15 years coupled with increasing temperatures has caused dramatic loss of moisture to the dune soil thereby displacing native plants and the entire ecosystem. This is causing Diné peoples to have to invest more heavily in groundwater sources, move sheep more frequently or even shift to raising cattle, which need hay rather than forage.

Climate Change Program Manager, Susan Wotkyns, explained that this information as well as regional changes on tribal lands across the country have been compiled at the ITEP Climate Change Web site. This EPA-funded project was developed as a resource for tribes as well as other individuals and presents detailed information about the impacts of climate change on tribes.

It also provides resources such as tools to track signs of climate change, funding opportunities to monitor air, water and soil quality, links to events, workshops, contacts and the current Tribal Climate Change Newsletter.

NTAA Executive Committee Chair Bill Thompson, Penobscot Nation Vice Chief and Department of Resources Air Quality Program manager in Maine said that tribes and the NTAA are currently in the process of reviving and rebuilding capacity and tribal air quality programs, referring directly to the Obama administration's marked enthusiasm in work with tribes.

Keynote speaker for the entire forum was Assistant Administrator for the EPA Office of Air and Radiation Gina McCarthy. During her address, McCarthy spoke of tribal program issues and relationships between EPA's OAR and tribal governments.

“Now we have someone who is actually listening to us,” Thompson said. “For the first time ever, one of the EPA's highest ranking officials is here. She said that now is the time for us to come to her with tribal concerns so that we can put together solutions that will work for all of us.”

Thompson explained his own enthusiasm to be part of the building process in monitoring air quality on tribal lands, as well as that of the other participants.

“The attendees are so engrossed and so involved. It's heartening.”

Sandra Begay-Campbell, Diné, Technical Staff principal member Sandia National Laboratory, who works with tribes to develop sustainable energy programs (see sidebar), also expressed excitement in the current administration.

“Now is the time for tribes to make a go of sustainable energy solutions with the Obama

administration being so supportive of tribes, climate change research and renewable energy. For me it's a very exciting time," she said.

The conference was sponsored by the Institute for Tribal Environmental Professionals (Northern Arizona University-Flagstaff, Nevada) and the National Tribal Environmental Council.

Approximately 160 tribal environmental professionals and Environmental Protection Agency employees from 49 states gathered to learn and share their experiences with the state of the environment on tribal lands. Only Hawaii was excluded from the event as it currently does not have any federally recognized tribes.

"We filled up within two weeks of the announcement of the event. The response was immediate," ITEP Program coordinator Lydia Sheer said. "This speaks to the urgency of the issues."

Christopher Lee, Diné, Institute for Tribal Environmental Professionals Tribal Air Monitoring Support co-director said the strides tribes are making in managing their own environmental monitoring is tremendous.

"The tribes are now the ultimate authority for air quality. There is still a challenge to staff programs from within, but the tribes are taking the lead in how they want their programs to run and the NTAA steering committee is comprised of all tribal members," he said.