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Docket: NRC-2010-0143 Notice of Opportunity to Request a Hearing for the License Application from International Isotopes Fluorine Products, Docket: NRC-2010-0143 Inc.

Comment On: NRC-2010-0143-0006

Notice of Availability of Draft Environmental Impact Statement for the Proposed International Isotopes Fluorine Extraction Process and Depleted Uranium Deconversion Plant in Lea County, NM

Document: NRC-2010-0143-DRAFT-0006 Comment on FR Doc # 2012-00548

1/13/2012 197 FR 2094

Submitter Information



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General Comment

Note that the State of Texas wanted an health survey filled out by citizens in Lea county nm because of a nuclear waste dump in Andrews county Texas.

But as I understand it the New Mexico environmental department will not install rad monitors in Eunice and Hobbs; New Mexico.

One Congressman has told me that it is NMED's responsibility to monitor the air in regards to nuclear facilities in Lea county.

I don't believe any nuclear facility should be allowed in Lea county NM with this kind of approach by NMED.

Here are 2 aquifer maps; one from T Boone Pickens Mesa Water site and the other from the Red River Authority site of Texas.

The 05 map didn't have a disclaimer when I downloaded it from the Texas site and is remarkably similar to the later one from Mesa Water.

No matter how the water supply is spun to make it work for nuclear projects; Lea county is running out of water and when it gets in short supply; prices will go up and the average citizen will suffer economically.

Attachments

SUNSI Review Complete Memplate = ADH-013

E-RIDS= ADH-03 Cell = A. Martigkos (ACM1)

https://fdms.erulemaking.net/fdms-web-agency/component/contentstreamer?objectId=0900006480f976f... 01/17/2012







THE OGALLALA AQUIFER THE OGALLALA AQUIFER

The Ogallala Aquifer is the largest aquifer in North America, extending beneath 174,000 square miles across eight states with more than three billion acre-feet of water.

Beneath the four-county area of Roberts, Hemphill, Lipscomb and Ochiltree, there are approximately 81 million acre-feet of high-quality, terrorist-resistant drought-proof water, with annual recharge estimated at 80,000 acre-feet. Only a very small percentage is used for irrigation because the topography of rolling hills,



mesas and canyons is unsuitable for farming. Of 2.5 million acres in these counties, only 4% (about 100,000 acres) is irrigated.

Most of this water can be described as "surplus" because it's not needed in the Panhandle, either for agriculture or municipal use.

It is also "stranded" because without production facilities and a delivery infrastructure to other parts of the state there is no market for it.

The only possible market for this water is selling it to areas of the state that

need it most, consistent with Texas legislative policy set with Senate Bill One.

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Mesa Water is one of the various businesses owned by Mr. Pickens. He is the chairman and CEO of <u>BP Capital</u>, which operates energy focused commodity and equity funds. He is also the largest shareholder in <u>Clean Energy</u>, the largest provider of vehicular natural gas (CNG and LNG) in North America with a broad customer base in the refuse, transit, shuttle, taxi, police, intrastate and interstate trucking, airport and municipal fleet markets.

and one from the rra from 05

http://www.rra.dst.txus/gw/Ogallala_1.cfm

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The Ogallala Aquifer



Image by Texas Tech University

The Ogallala aquifer is a huge underground reservoir created millions of years ago through geologic action. The underground water supply is west of the Mississippi River and east of the Rocky Mountains. It includes the following states: South Dakota, Nebraska, Colorado, Wyoming, Kansas, Oklahoma, Texas, and New Mexico. The reservoir covers a total area of 800 miles north to south and 400 miles east to west. This region is a part of the Great Plains that is referred to as the <u>High Plains</u>.

In order to assess the current problems facing the Ogallala aquifer it would be helpful to know a little about its history. The aquifer developed over millions of years through erosion of the Rocky Mountains depositing rock and sediment at the base of the mountain range. Stream beds at the base of the mountain range were filled and forced the rivers to take on new directions across the nearby countryside. The debris that was left behind by the streams formed the High Plains. This debris was porous and permeable to water. The new landscape formed a "trough" that holds water to depths of 500 feet.

The biggest reason for concern is the fact that the aquifer has been cut off from almost all of its natural recharging sources. The Rocky Mountains have not supplied the aquifer for over a thousand years. The climate of the High Plains today is classified as a semi-arid region receiving 15"-20" of rainfall a year. When it does rain the evaporation rate is very high due to the dry air and high winds. Many of the rivers including the Platte, Republican, <u>Canadian</u>, and Arkansas actually drain the aquifer because they have water tables below that of the aquifer. Even if a river does act as a source, it only does so when it is able to flow. Another reason that rain water is not effective is that caliche is found just under the soil surface in many areas. Caliche is a lime-like material with a very low porosity that prevents infiltration. <u>Playa lakes</u> are also found on the Ogallala aquifer. These lakes are simply depressions in the High Plains that collect water but do not contribute to infiltration greatly due to rapid evaporation rates. For these reasons the High Plains were a lifeless desert region until the early to mid 1900s.

The problem facing The Ogallala aquifer today is not knowing how long the water supply will last. The first recorded use of the aquifer for irrigation purposes was a hand dug well in 1911. Many of the first wells were dug primarily to meet the needs of towns that were forming on the High Plains. These wells were restricted to 50 feet or less. <u>Windmills</u> were the primary mechanism used in drawing water.



Through technological advances and the invention of the "horizontal centrifugal" pump, wells were being dug to depths of 200 feet or more. The newer pumps allowed a flow rate of 1000 gallons per minute (gpm) compared to only a few gpm generated by the windmills. Wells were being installed at a rate of approximately 80 per year in the 1950s. During this time Colorado became concerned about the future of the aquifer. The Colorado legislature passed the Colorado Water Management Act in 1965. The act established Designated Groundwater Basins, Groundwater Management Districts, and bases for controlling well drilling. Realizing that this act would put restrictions on the number of wells permitted, those farmers who had put off drilling wells went ahead with the installations before they could be denied. This surge caused 471 wells to be installed in 1967. Situations such as these caused a great deal of strain on the aquifer, and researchers today are trying to find ways to help and conserve the aquifer's water supply.

A method referred to as "irrigation scheduling" was devised as a way to make better use of the water supply. By monitoring soil moisture and natural rainfall along with other important weather conditions, farmers can apply pre-calculated amounts of water to their crops. The key is to make sure the plants have adequate water during critical times and short on water at less critical times during the growth cycle. Crops with lower water requirements have also been introduced. Even if this method is applied perfectly it would not eliminate the depletion of water from the aquifer.

Another method is to quit irrigating certain stretches of land. This has a greater impact on reducing the water removal rate, but it is unpopular with the farmers who have money invested. Governmental agencies do not have the authority to remove land from irrigation, but due to lower water tables the cost of irrigation is rising and at the same time causing land to be retired.

The truth of the matter is that if the High Plains are to continue to be of any agricultural importance new water sources must be found. Potential water supplies could be the collection and storage of natural rainfall before it runs off or evaporates, increasing rainfall through seeding clouds (still being researched), and most importantly new sources of water will have to come from outside the High Plains region.

Credit : http://www.cos.ncsu.cdu/bac/courses/bac472/perspectives/1996/arblanke.html

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