

From: **Melanie Deason** melaniedeason54@gmail.com
Subject: Email Comments to NRC by Melanie Deason of Roswell, NM
Date: May 6, 2018 at 1:21 PM
To: Holtec-CISFEIS@nrc.gov

SUNSI Review Complete
Template = ADM-013
E-RIDS=ADM-03
ADD= Anntoinette Walker-Smith, Jill
Caverly (JSC1)



RE: Docket ID NRC - 2018-0052. Holtec International's HI-STORE Consolidated Interim Storage Facility Project for Spent Nuclear Fuel In Lea County, NM.

I spoke at length with Miriam ____, a Program Director (?? Official title; blond woman, very helpful) with NRC during the Carlsbad, NM meeting Thursday nite, May 3, 2018. She had helped me roll a cart in/out for my '5th grade science fair presentation'.

POINT ONE: She reminded me that the Blue Ribbon Commission on American's Nuclear Future is NOT law! Connecting the obvious dots, then the following is ALSO TRUE:

- * Holtec does NOT need any partnership with the federal government, such as the Department of Energy, which was the original intent of Albuquerque meetings before the public and political officials, including NM's Governor Martinez - so effectively, it has all been a smokescreen, with John Heaton playing the role of WIZARD of OZ.
- * Holtec does NOT need any Tribal or citizen stakeholder involvement, in its partnership with ELEA (the two county alliance of Eddy and Lea Counties) in order for ELEA to sell their proposed 'white elephant' site.
- * Should NRC approve Holtec's proposal, ELEA would bail out, thus Holtec is flying SOLO - which becomes the worst form of violation of Environmental Justice, & especially disappointing should NRC collude with this knowledge.
- * Although Mr. John Heaton represented at Carlsbad's meeting in his comments: the Dept of Energy had been involved all along the way, he is misleading the public and therefore LYING, because there is NO PROOF that the Dept of Energy is still engaged in this Holtec Proposal for SE NM. Again: I suspect the NRC already knows that!
- * With NO Dept of Energy involvement, then the State of New Mexico will receive NO DIRECT Financial benefit as Gross Receipts Tax from HOLTEC.
- * This private venture of Holtec and ELEA will directly provide revenue to ONLY TWO COUNTIES, leaving the State of New Mexico OUT of any financial gain, although the state will legally have to assume ALL LIABILITY for the inevitable: something will go WRONG!
- * There has never been a greater conspiracy to deceive the public than Holtec's application to the NRC.

POINT TWO: Although the NM State Legislature passed TWO MEMORIALS in recent years, regarding Holtec and ELEA's proposal for HI-STORE, Memorials are NOT law!

- * Memorials are NOT law, nor do they carry the weight of law, so they cannot be used as a 'Pass GO' permission by the citizen or government to move forward.
- * A letter was recently sent this year to NRC, and signed by many many legislators who wrote and requested the NRC slow down the process of Holtec's application. Why? The full legislature needs time to re-evaluate Holtec's proposal in 2019 legislative session.
- * Although NRC responded that they were going forward anyway with the review process, the obvious has been forgotten or lost in the process: Memorials require economic impacts be determined by the Legislative Finance Committee and other legislative authorities, plus appropriate reviewing bodies/analysts, so that ALL potential impacts can be brought forward to the legislature and the public for due process/consideration. That has NOT been done! Once done, it will likely determine that Holtec's proposal is bad for NM!
- * State Senator Jeff Steinborn, who Heads a committed overseeing nuclear issues, has written a multi-page letter to the Governor, etc, requesting this suggested form of legislative analysis be done on Holtec's proposal. Also, I believe a copy was sent to the NRC. Without this legislative due process, it is a case of 'the tail wagging the dog', where Holtec is the tail, and the Government of NM is the Dog.
- * NRC's role should be to protect the citizenry, and allow appropriate due process FIRST, not LAST! For NRC to ignore this required review by NM State Government, would be criminal, in my opinion. This lack of respect for governmental review would be another example of environmental injustice to the people's of New Mexico.

POINT THREE: I spent a little time review the poster-boards at the pre-meeting session, and was highly disappointed with the lack of realistic engineering design and safety presented on Holtec's site. Since the NRC poster presenter, Miriam, standing by admitted It was my duty to express these concerns, I shall attempt to point out the obvious:

- * Lack of topographic maps for terrain, nor underground cross-sectional views of soils/water table/aquifers below, since Holtec's own Water Resources section of their Report claims water table fluctuates at 35 - 50 feet below the surface due to the prevalence of Playa Lakes hydrology in this area. It is INADVISABLE to put such EXTREME WEIGHTS SO CLOSE the the water table.
- * It 'appears' that each 'rectangle' on the POSTER BOARD represents a cement pad of over 1000 feet long and approx 600 feet wide (approx scale representation for each rectangle - though difficult to determine using their BLURRY printed scale for reference). That is over 3 football fields long and approx 2 football fields wide for ONE pad that is also 3 feet thick. Even a simple sidewalk has expansion joints and same with walls of buildings requiring appropriate foundational support to avoid cracking. Their drawing shows

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expansion joints, and some with walls of buildings requiring appropriate foundational support to avoid cracking. Their drawing shows no structural /engineering science, nor Soil's Science that would support holding that giant concrete pad, even without the load above! What they are proposing is paramount to a football stadium!

* Since this is SINKHOLE COUNTRY, each pad would be subject to movement, heaving up and sinking down, thus risk breaking not only the pad, but jostling/cracking the concrete towers bolted to that concrete. If SONOFRE is worried about earthquakes harming their precious casks, then please consider this Site's SINKHOLES are no better, for they'd likely be just dropping the load into groundwater/aquifer recharge centers below.

* The weight load proposed for EACH 18-ft Tall Vertical Cylinder is prohibited, let alone the packed density of canisters for EACH RECTANGLE (6 square-football fields).

* Overall, the 1000 PLUS ACRES of the proposed Holtec Site, are equivalent to ONE & ONE-HALF ACRES! (Do the math: 640 acres equals one square mile!). You don't put a the ASTRODOME on top of a sinkhole!

* Allowing approx 10 feet between each 'lid' so that equipment can get in/out for loading. What must be the weight of the equipment to balance and hold just ONE Canister? Heavy equipment like bulldozers and payloaders have commonly been lost to sinkholes in this area by the Oil transport companies. Pay attention and stop this nonsense! As was proven in the Wizzard of Oz, even he couldn't perform miracles as promised, it's obvious that Holtec's site is NO better!

* The density and weight load is INSANE for the Site. Nearby roads cannot even be repaired due to risk of Sink Hole collapse should proper compaction equipment be used before laying the asphalt. Soil science exists for a reason, and it is obvious it has been ignored at this proposed Holtec Site.

* The HIGHWAY 'Y' in Carlsbad, near the facility used for the Carlsbad meeting, has a sign posted and cautioning drivers that there is a "Sinkhole 1000 feet ahead". It is state law to post dangers. Unfortunately, that is grossly inadequate for the seriousness of that pending sinkhole collapse & \$10 million from state legislature recently to attempt a fix! Pay Attention: just because we can driver over that site today, doesn't mean it won't have collapsed by next morning!

POINT FOUR: I also reviewed the poster with the 'nail, bullet, sinking in water' etc. - and pointed out an **OBVIOUS FLAW** in your cute little picture: your canister is not waterproof! If it were, then there would be **NO BUBBLES**. I pointed out that "Bubbles mean air is escaping so water is going in!" Even an industry presenter standing by, had a hard time holding his 'chuckle' of agreement. Then NRC representatives' silly excuse of 'bubbles represent water' is playing the public for fools, and I politely told him so!

POINT FIVE: There is no excuse for using a building (Carlsbad meeting) with lighting so poor that there's more light down in Carlsbad Caverns. Hobbs had a lousy PA system. Roswell was so small we couldn't fit! (You were told by a former Mayor and State Legislator that it was grossly disrespectful to Roswell and its citizens because there were plenty of larger venues in the center of town!). No excuses of 'poor budget' can make up for 'poor thinking'. I spent my state career holding public meetings, so I know what I'm talking about.

NRC: It's your job to be professional, so please, start acting like it.

SUMMARY: In real estate, there is a term that makes the sale: Location, Location, Location! In nuclear science, there is another term: Dilution, Dilution, Dilution - AND it has become a dangerous excuse for being **IRRESPONSIBLE**.

Holtec's Site In SE New Mexico is the WRONG LOCATION. And the risk of losing these extremely loads to the groundwater below is TOO GREAT A PROBABILITY!

There is **NOT** enough water below to float the soils above nor their cargo, nor dilute this radioactive waste!

Why? Because **IF** the Ocean can't do it for **SANOFRE**, then our underground Playa Hydrology **CANNOT** be enough either! **POISONING OTHER STATES VIA OUR BELOW-GROUND SHARED AQUIFERS MEANS DEATH!**

DENY HOLTEC'S PROPOSAL! And anything attached to it!

Thank you for hearing my additional concerns,

I, Melanie Deason of Roswell, New Mexico, **DO NOT CONSENT.**

May 30, 2018

May Ma, Office of Administration
Mail Stop: TWFN-7-A60M
U.S. Nuclear Regulatory Commission
Washington, DC 20555-001

Re: Docket ID NRC-2018-0052 Holtec International's HI-STORE Consolidated Interim Storage Facility Project for Spent Nuclear Fuel in Lea County, New Mexico

Dear Sirs and Madams:

Thank you for allowing comments from the public regarding this matter of Holtec's application: Docket ID NRC-2018-0052, regarding Holtec International's Consolidated Interim Storage Facility (CISF) for spent nuclear fuel between Carlsbad and Hobbs, NM.

To make my point quickly: I DO NOT CONSENT TO APPROVAL OF ANY PART OF HOLTEC'S APPLICATION, including, but not limited to: transporting/storing nuclear reactor waste/spent fuel rods; building a small research nuclear reactor; associated nuclear materials/facility/potential reprocessing; nor anything associated with the Holtec application of nuclear reactor waste storage in New Mexico.

Southeastern New Mexico is geologically unsound for Holtec's proposal: to store up to 100,000 metric tons of nuclear waste (including spent rods from nuclear reactors across the country). It is both irresponsible and dangerous to the health, finances, and future health and welfare of the residents of the United States - especially New Mexico and Texas - plus Mexico.

It is imperative that NRC deny Holtec's application in its totality, and in doing so help protect the region's WATER, PEOPLE and LIVELIHOODS OF NM, TX and Mexico, plus any communities in the United States that high level nuclear waste might travel through to reach our region. **The 'Why' of it is summarized in a recent press release of April 12, 2018, the Roswell Daily Record in Roswell, NM, where I was quoted:**

Do you get a sinking feeling about Holtec International coming to New Mexico's Permian Basin?

Zhong Lu, Southern Methodist University's global expert in analysis of satellite radar imagery, says, "The ground movement we're seeing is not normal" across a 4000 square mile area of W. Texas. These hazards of "shifting and sinking ground represent a danger to residents, roads, railroads, levees, dams, and oil and gas pipelines, plus potential pollution of ground-water."

Coincidentally, between Carlsbad and Hobbs, NM, is 'ground zero': the site where Holtec International wants to bring AND store the nation's highest level of nuclear reactor waste - and also where the potentially biggest oil and gas play in America's history is happening, right now!

Yet Carlsbad, NM - only 35 miles away - is struggling with their own \$30 million dollar sinkhole problem: 450 feet deep and under a highway intersection in town.

Common sense, science and fiscal responsibility recognize the obvious: "Sinkhole Country is no place for Holtec to store America's most dangerous nuclear reactor waste!" I say, "Don't jeopardize New Mexico's oil and gas industry; and most important, Don't Waste New Mexico!"

May 30, 2018

Deason: NRC Letter pg 1

POINT 1: Ogallala Aquifer, is one of three aquifers in the Permian Basin, mentioned near and/or under Holtec's Site (in Lea county) between Carlsbad and Hobbs NM. Radioactive contamination of these valuable water resources would be irreversibly lethal and inhumanely irresponsible!

Wikipedia explains: One of the world's largest aquifers, the Ogallala Aquifer, underlies an area of approximately 174,000 sq mi (450,000 km²) in portions of eight states, of which New Mexico is one. (South Dakota, Nebraska, Wyoming, Colorado, Kansas, Oklahoma, New Mexico, Texas).

USDA's Ogallala Initiative by the NRCS states: The Underlying eight states in America's Great Plains, the Ogallala Aquifer provides water to nearly one-fifth of the wheat, corn, cotton and cattle produced in the United States, and is the main water supply for people throughout the High Plains. But this million-year-old, 174,000-square-mile reservoir is being depleted at an unsustainable rate.

THAT SAID:

A. I disagree with Holtec's report, Section 3, pages 89 - 91 that: "There are no sensitive or unique aquatic or riparian habitats or wetlands at their Site." Why? Holtec uses a federal jurisdictional wetland definition, and fails to mention in 1997, the NM Environment Department included Playa Lakes as wetlands. Therefore, Playa Lakes at Holtec's Site DO meet New Mexico's wetlands criteria, since "ONLY ONE of three defining wetland characteristics be met: wet soils, wet-loving plants, OR wet conditions."

(Reference the following 2 page attachment, for full text - as pages 11 & 12 of a New Mexico Environment Department pamphlet titled: An Historical Overview of Playas and Other Wetland/ Riparian Areas of "Nuevo Mexico"; also printed in the NM Journal of Science, V. 38, Nov 1998.)

B. I take exception to HOLTEC's misleading SURFACE WATER statements:

- * that there is NO "external drainage" within two playas on-site;
- * that losses are ONLY by "evaporation", including "four (Off-Site) ephemeral playas"; and
- * that "runoff does not DRAIN to the river "26 miles to the West."

Why? Holtec's report portrays Playa Lakes as self-contained holding ponds, like stock tanks, that catch and contain, but do not drain! In reality, Playa Lake Hydrology is highly unique: the collected water in playa lakes DRAINS DOWN to unseen water tables and aquifers below-ground - and is substantiated by Holtec's own report (next Point C). Therefore EXTERNAL DRAINAGE DOES EXIST!

C. I commend HOLTEC's report for stating: The Site's "near- surface water-table appears to be 35-50 feet deep... likely controlled by the water level in the playa lakes" and "highly saline" from historical industry abuse by Potash and Oil/Gas.

Unfortunately, HOLTEC ignores the obvious: They propose digging approximately 20 feet BELOW grade - more than half-way and dangerously NEAR their admitted SALTY Playa-controlled fluctuating water table. Pay attention: Past dumping of (salty) brine into Playas has likely reached The Rustler Aquifer and is already found in reaches of the Pecos River - both south of Holtec's site. (Hale, 1954).

Simple extrapolation supports the logic that radiation escaping HOLTEC's storage site would (not could, yes would) end up in NM and TX, and lethally contaminate the food chain feeding livestock and people!

D. Holtec's storage casks are designed for breathing air, not drowning in water from groundwater below or rain above. By design, they naturally release radiation. It's a given. Why? There is NOT enough shielding to contain the radioactive emissions.

Now, add any breach - in or out - with water, and there's the EXTRA guarantee of hydrogen gas explosions. How easily might that happen? Easily, since this region's geology is a given with ground subsidence and Karst instability. This is becoming more common in this Trans-Pecos Region of NM and West Texas, from a half century of Potash and Oil & Gas depletions AND correlating abuses by these industries.

Now, with fracking in SE NM and nearby West TX, the potential is great for ground subsidence and up-lifting, thus UNSEEN FLOODING below-ground or near the surface of Holtec's proposed storage site. Whether BELOW OR ABOVE, WATER CONTACT would cause hydrogen gas explosions (similar to radioactive releases that were the downfall of nuclear reactors in THREE COUNTRIES: Fukushima, Chernobyl and Three Mile Island).

Even without a nuclear reactor at Holtec's site, the storage of NUMEROUS (hundreds) spent fuel rods in each canister - with only three feet of base concrete - could not contain any force downward. Since a hydrogen initiated explosion is thus a given, it would cause radioactive releases upwards into the air - thus equally UNforgiveable!

E. Per Holtec's own report: "April to September thunderstorms provide 60 percent of the annual flow in the Pecos Basin."

BUT, Holtec appears to have forgotten New Mexico's 1938 Pecos River Compact with Texas, AND the more recent 2009 Settlement for sharing the Pecos River's irrigation water equally - as "beneficial use" of any "UNappropriated flood waters". (Caps added.)

TRUTH: The region's Playa Lakes hydrology ensures these important seasonal rains DO reach the Pecos River. And because HOLTEC's own report acknowledges impoundment of all surface water into playas, we have now come full circle:

Water DOES leave HOLTEC's site - impounded or not - due to Playa Basins' Unique Hydrology! therefore, Holtec's proposal ALSO VIOLATES the Pecos River Compact, and potentially the Rio Grande Compact. (Both discussed in the next section, Point 2).

Summary of this Point 1:

Holtec's proposed site and canister design violates two premises for siting: isolation from populated areas and away from water sources. The Playa Lakes Hydrology of the region, feeding both the Pecos River and many aquifers (including Rustler and Ogallala aquifers) creates the water flow relationships that will eventually reach populated areas.

Radiation CANNOT benefit the food chain: It causes IRREVERSIBLE harm to plants, animals & humans.

See the following 2 page attachment supporting Point 1 A ("sensitive or unique aquatic or riparian habitats or wetlands" at Holtec's site: 2 pages of a Wetlands Brochure found in "NM 2000, Wetlands Conservation Plan", and NM Journal of Science (Vol. 38, Nov 1998).

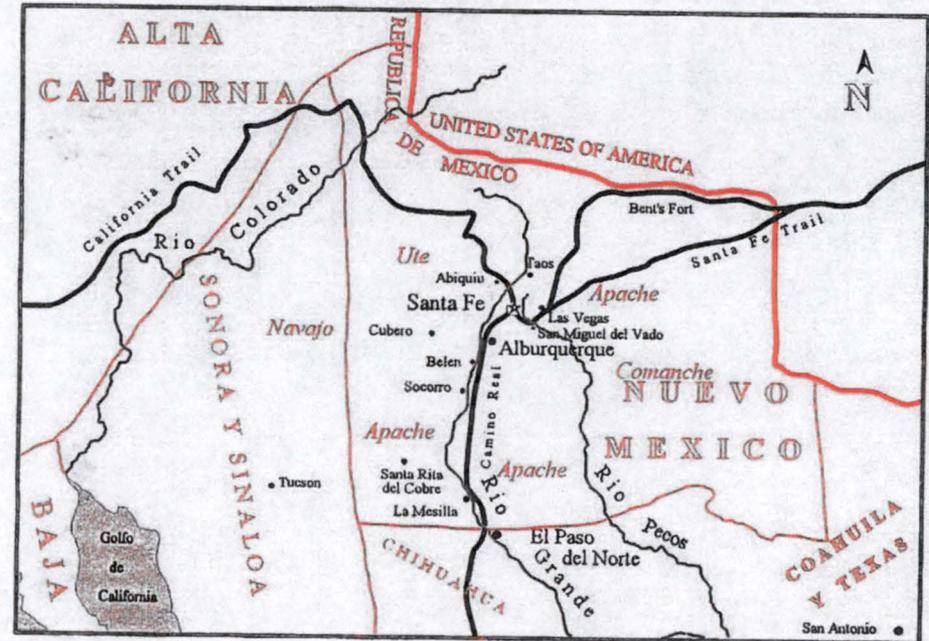
An Historical Overview of Playas and
Other Wetland/Riparian Areas of "Nuevo México"

Electronic copies may be found by visiting the
New Mexico Environment Department's Home Page at:

<http://www.nmenv.state.nm.us/swqb/wetlandsplan-2000.html>

or

Visit your local library, to read the
New Mexico JOURNAL OF SCIENCE
"Water Resources Issues In New Mexico"
Volume 38, November 1998



Deason-NRE Letter-Pg 4

Riparian Wetland

Today in the southwest, including New Mexico, the riverside *bosque* is easily identified as a "riparian wetland," although many other wetlands have this riparian (land/water) relationship. Riparian areas are associated with the shores of lakes (*lagunas*); the natural and man-made banks of streams and rivers (*rio*, *bosque*) and ditches (*acequias*); and other wetlands such as marshes (*ciénegas*), seeps and springs, and wet meadows. Since riparian zones (or riparian areas) tend to have characteristics of both the upland and aquatic ecosystem, they are transitions between: (1) the terrestrial or land ecosystem (uplands where there is seldom standing water); and (2) the aquatic or water ecosystem (where bodies of water should be common as free-flowing or standing water). Plants growing in a riparian zone may be completely under water during a portion of the growing season, yet they may also be exposed to drought stress during other times of the year (Svejcar, 1997). Similarly, wetlands are the transitional lands between terrestrial and deepwater habitats, where the water table is usually at or near the land surface, or the land is covered by shallow water. Furthermore, wetlands are lands where water saturation is the dominant factor determining the nature of soil development and associated plant and animal communities.

Wetlands

For a site to be considered a wetland**, one or more of the following three characteristics must occur: wet conditions (wetland hydrology), wet soils (hydric soils), and/or wet-loving plants (hydrophytic vegetation). Therefore, it is possible for a riparian zone to be both a wetland, and a transition area between an upland and a wetland (The Watercourse, 1995; and New Mexico Environment Department, 1997). (** Note: For Federal jurisdictional purposes, all three characteristics must be met.)

In summary, a wetland represents a relationship between land and water, which includes:

- rivers and streams (*ríos*) with their banks and riverside forests (*bosque*);
- lakes and ponds (*lagunas*) with their shores;
- wet meadows, marshes and bogs (*ciénegas*);
- seeps and springs (*ojos*); and
- *playa* lakes and prairie potholes.

(NM Energy and Minerals Department, 1996).

Fact and Fiction

Comanche Trade and the Santa Fe Trail

While the Spaniards were awed by the vastness of the plains and the abundance of the wildlife, they failed to find the objects of their quest - cities of gold. With the Comanche's invasion during the 1700s, any hopes to settle the *Llano Estacado* were lost. Nearby, in an area known today as central Texas, the Spanish abandoned their Texas frontier - settlements, ranches and missions - because of the ongoing attacks from Comanches. By contrast, in Spain's northern frontier (today's New Mexico), the Spanish succeeded in making an uneasy peace with these Indians. By the 1780s, a lively trade began that lasted nearly one hundred years. Spanish traders (known as Comancheros) annually trekked from northern New Mexico, across the presumed to be waterless *Llano Estacado*, to trade with the Comanches. In their journeys the Comancheros developed well-worn roads and utilized springs and small *playa* wetlands as water sources. They also traded blankets, guns, tobacco, and hardware for Comanche buffalo robes, meat, and slaves. In latter years, they would trade with the Comanches for cattle stolen from the early-day West Texas ranches (Murray, 1994).

↙
Reason - NRCA Letter
pg 5

POINT 2: New Mexico's TWO water compact requirements, are both federal law and international law. They require water delivery to both Texas and Mexico, specifically:

- * The 'Rio Grande Compact' (Colorado, New Mexico and Texas) applies to the mid-state Rio Grande for water delivery to both Mexico to Texas. Remember, the Rio Grande is boundary between Texas and Mexico; and
- * The 'Pecos River Compact' in SE NM, applies to water flowing toward TX and Mexico, and eventually joins the Rio Grande's compact water requirement.

THEREFORE: Any radioactive release to those Compact Waters, either by transportation along the Rio Grande Corridor (Albuquerque, NM to El Paso, TX) or storage releases at the proposed Holtec facility in Eddy/Lea counties of SE NM, would contaminate both compact waters irreversibly, thereby violating the Rio Grande Compact AND the Pecos River Compact.

A. New Mexico recently lost a US Supreme Court decision UNANIMOUSLY (9 to 0) on March 5, 2018, RE: the Tri-State Compact for NM's water delivery requirements to Texas and Mexico. Simply stated, NM and Colorado were cheating on water delivery:

Texas v. New Mexico and Colorado. <http://www.scotusblog.com/case-files/cases/texas-v-new-mexico-and-colorado/> "Holding: The United States may pursue its complaint in intervention asserting a claim that New Mexico has violated the Rio Grande Compact."

Water along the Rio Grande, in the central part of New Mexico, is appropriated under the 'Rio Grande Compact'. This recent Supreme Court decision requires New Mexico comply with its compact requirements, while also continuing to provide water to NM users.

B. Should the Pecos River be contaminated with radioactive water, caused by Holtec's proposed site in SE NM, it would be disastrous for NM and TX, and the several aquifers below Holtec's Site. The Pecos River, is partially fed by ground water from playas in this region. Two playas at/four near the Holtec Site, capture summer storm events. Under the 1938 Pecos River Compact, AND 2009 Settlement (another US Supreme Court case of NM cheating on water delivery), Texas is legally entitled to receive their equal (50%) share, or NM is in violation of this federal compact requirement. I would venture to say the US Supreme Court considers radioactive water a VIOLATION of beneficial use.

C. Per HOLTEC's report (pages 89-91): "April to September thunder-storms provide 60 percent of the annual flow in the Pecos Basin." However, they have omitted the 1938 Pecos River Compact with Texas, which requires NM share the river's irrigation water equally - for "beneficial use" of any "UNappropriated flood waters". (caps added)

TRUTH: The region's Playa Lakes hydrology ensures these important seasonal rains reach the Pecos River. Since HOLTEC's own report acknowledges impoundment of all surface water into playas, we have now come full circle (POINTS 1 A, B & C above): Water DOES leave HOLTEC's site - impounded or not, due to Playa Basin Unique Hydrology!

The agricultural industry nationwide depends upon growing food (both as plants and 'on the hoof') from water that is healthy. Contamination of water resources, in transport to or on-site, would not be in the best interests of Compact water requirements for agriculture - in New Mexico, Texas and neighboring Mexico. Plus, the Pecos River eventually empties into the Rio Grande as the TX/Mexico International Boundary.

Summary of this Point 2:

DO YOU REALLY WANT TO CHALLENGE THE US SUPREME COURT?

Has there ever been more agreement in history (9-0), among a usually 'split' court, than New Mexico's water compact requirements?

Approval of Holtec's application, would **SURELY GUARANTEE** contamination of:

- (a) Water that New Mexico is required to deliver to Texas and Mexico (per the Pecos River Compact; costing in excess of \$70 million through December 2010).
- (b) New Mexico's Oil & Gas Industry, which ranks #1 in tax revenue for the state, and providing 105,000 jobs. The SE NM region is quickly becoming the #1 producer for the entire United States, thus taking away our dependency upon Arab oil.
- (c) Food and water supplies for the dairy industry. The five county area of SE NM ranks #2 for state revenue AND provides a total of 23,000 dairy and dairy-related jobs.
- (d) Roswell, NM's leading dairy-related industry is Leprino Cheese, and also provides lactose fillers for the nation's pharmaceutical industry; and
- (e) The largest cheese manufacturer in the world, at Clovis, NM (near the Texas border) - because it's on the main railway route for transport to Holtec's proposed site.

Poisoning the Region's unique water resources, would create a domino-effect: potentially destroying the Oil & Gas industry and the Dairy Industry, plus related agricultural and pharmaceutical interests.

Radioactively contaminated milk would also poison the nation's children. Why? According to the Centers for Disease Control, radioactive isotopes carried in milk will eventually store in children's bones! Therefore radiation in milk is a lethal combination!

I would suggest contaminated pharmaceuticals would be no better for those dependent upon safe prescriptions.

Nobody deserves to be put in harms way! Especially people and children who have no clue that something invisible to the five senses may be contaminating their water, air, soils AND MILK, and slowly or quickly killing them!

Do NOT approve Holtec's application in any fashion, because to do so would be more than irresponsible. Some might call it murder!

Attachments:

* Dairy Facts and Statistics - for the Region of SE NM

* Publication, "The Pecos River Settlement - 2009" including Water Map!
(by JP White III - Commissioner, NM Interstate Stream Commission)

Dairy Facts and Statistics

(Statistics from National Agricultural Statistics Service, (NASS, February, 2018)
from Robert Hagevoort, PhD., Extension Dairy Specialist, NMSU.)

We all enjoy: bottled fresh milk, ice cream, cheeses of all types, yogurt, butter, plus whipped cream and half & half. Please: Keep any statements about cows and the dairy industry positive, as that would definitely not help the dairy industry nor the cause to stop Holtec from gaining 'NRC approval'.

DAIRY STATISTICS IN SOUTHEASTERN NM:

250,000 Adult Milk Cows + 250,000 Baby Calves Being Grown = Approx. 1/2 Million

In Chavez County there are 31 herds with approximately 79,000 milk cows

In Eddy County there are 3 herds with about 8,000 milk cows.

In Lea County there are 12 dairies with an estimated 33,000 milk cows.

Curry County has 26 dairy farms and approximately 82,000 milk cows.

Roosevelt County has 33 dairies and approximately 54,000 milk cows.

All together, there are over 100 dairies (105 exactly) across five counties, with over 250,000 milk cows in the southeastern part of New Mexico.

RAISING DAIRY COWS:

Most dairies have their own heifer raising facilities and this would mean that there would be almost an equal number of heifers from birth to two years.

So, an additional 250,000 head (approx.) of young stock/baby calves are being 'grown' in New Mexico. Minimally, some are sent out to areas like Oklahoma or Texas.

Water usage breaks down as follows:

**An average lactating cow will drink approximately 30 gallons of water on average per day.
A good dairy cow can make 10-20 gallons of fresh milk per day at the peak of her lactation.**

Somewhere between 15 -30 gallons of water per day per cow will be used by the dairy for washing, cleaning, sanitizing, and cooling of fresh milk before shipment.

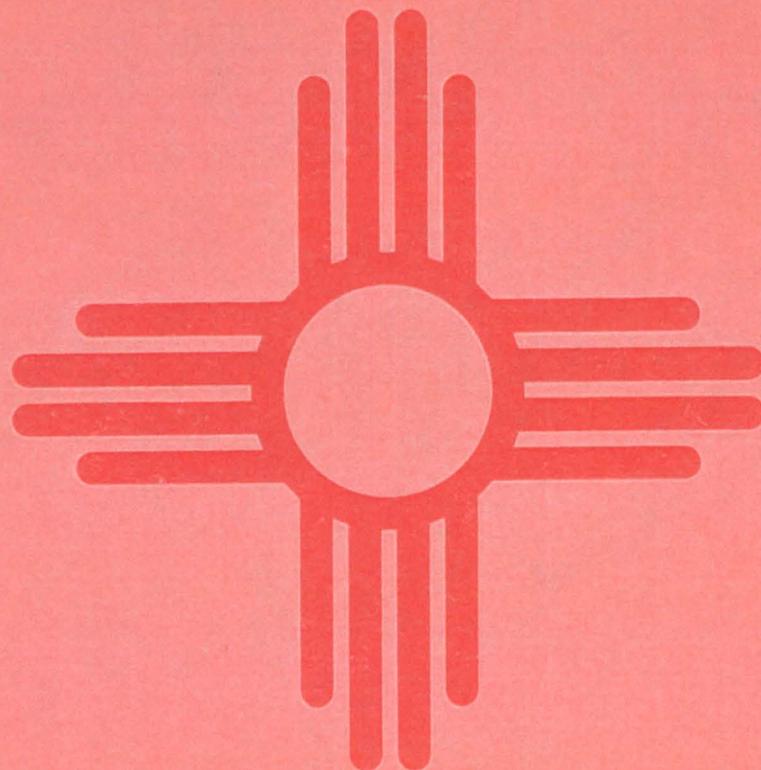
The vast majority of the 15-30 gallons per cow used for these extra purposes will be recycled and utilized for: irrigating crops under pivots and these crops will eventually be made into hays and corn or wheat silages for feeding the cows.

No responsible dairy wastes water or contaminates their water because good clean water is vital for producing healthy fresh milk.

Most dairy owners live near the dairies they operate and the dairy families often utilize the same dairy water sources for their own domestic use.

Publication: "The Pecos River Compact - 2009 Settlement"
by Phelps White III, Commissioner of NM Interstate Stream Commission.

(10 PAGES TOTAL = 8 PAGES + Enlarged Map + Cover)



THE PECOS RIVER SETTLEMENT - 2009

J. Phelps White III

Commissioner
New Mexico Interstate Stream Commission

Daason's NCE letter 9A

THE PECOS RIVER SETTLEMENT - 2009

J. Phelps White III

Commissioner
New Mexico Interstate Stream Commission

J. Phelps White III
May 4, 2013

Reason: NRE letter - 9B

ACKNOWLEDGEMENTS

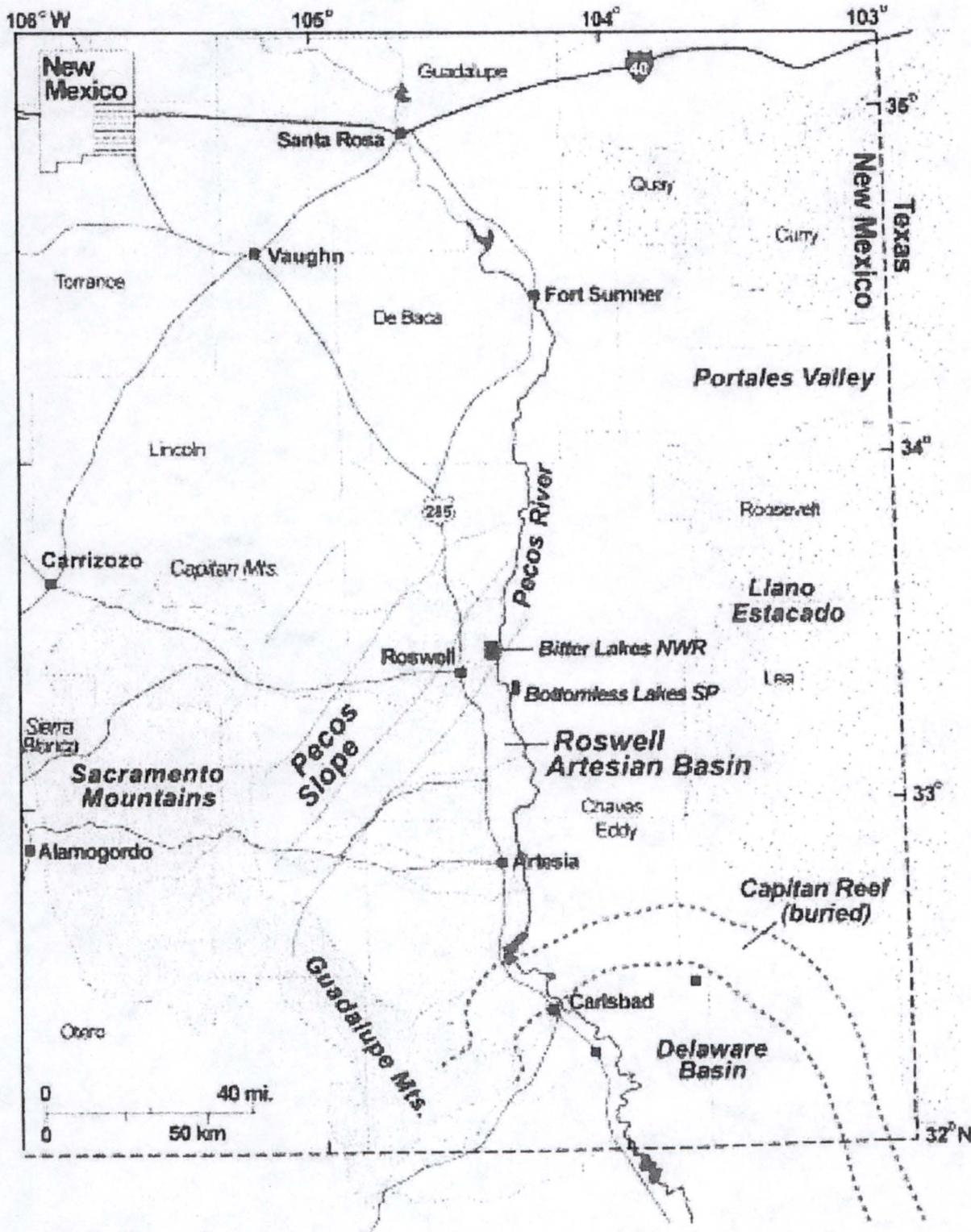
Great appreciation goes to Estevan Lopez, Director of the New Mexico Interstate Stream Commission who graciously edited and proof read this document for both grammatical and factual content.

It should go without saying that the friendship developed with fellow Commissioner James Wilcox of Carlsbad during the evolution of the Pecos River Settlement contributed immeasurably to the ultimate implementation of the Settlement Agreement. On numerous occasions, together or separately, we two commissioners worked on issues during the process which were of common interest to the success of the endeavor.

Roswell, New Mexico
December 2010

Deason RRC letter - 9c

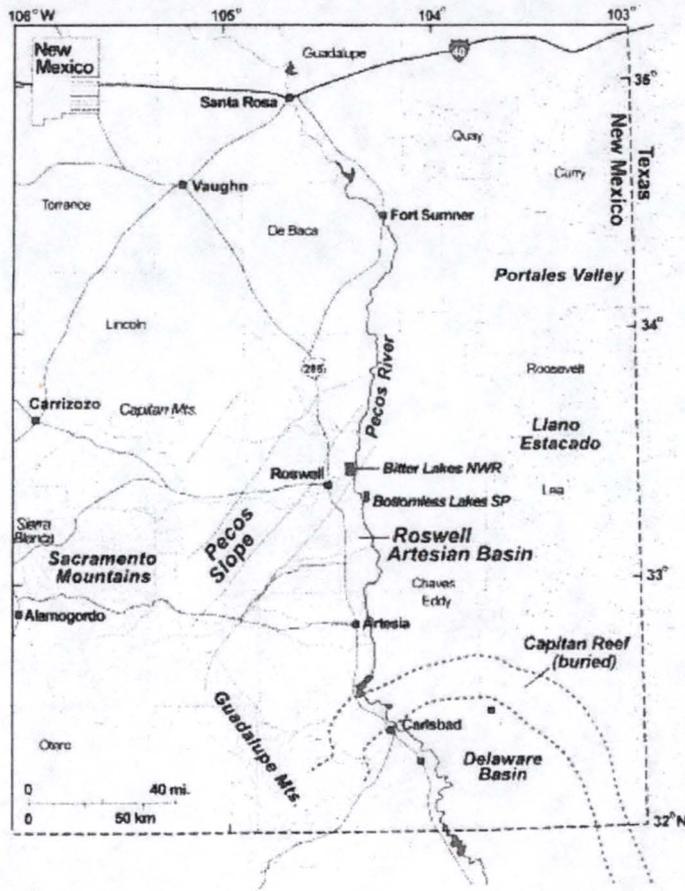
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The use of water in New Mexico is governed by customs and laws known as The Doctrine of Prior Appropriation, or simply "first in time, first in right". This age old system of water management came to the desert southwest with the early Spanish explorers and settlers. The Doctrine of Prior Appropriation in New Mexico not only recognizes water as a necessary human resource, but dictates that a right to use this public resource requires that any water used must be put to "beneficial use". Going further, beneficial use is neither defined nor prioritized. The Constitution of New Mexico, adopted not long after statehood in 1912, recognizes that the waters of New Mexico belong to the people of New Mexico. Statutes and common law customs governing the use of New Mexico's waters are administered by the State Engineer, who is appointed by the governor and confirmed by the state senate.

The early Spanish immigrants brought The Doctrine of Prior Appropriation with them. Spain, being a rather arid place, recognized the importance of water as a vital human resource which required public management. It is said that the longest running court of law in the modern world is in Valencia, Spain where disputes involving water are heard weekly. Going back further, those Spanish customs and laws can be traced to the Moors of north Africa, who occupied the Iberian Peninsula around the eighth century. The Moors too, recognized the importance of water management. Historians have even drawn a link to Justinian law of ancient Rome to our use of water. Coincidentally, the Spanish also brought with them our sheep, cattle, and horses, which too can be traced to the peoples of north Africa.

Several rivers and streams run through New Mexico into other states. The principle interstate streams in New Mexico are the Rio Grande, San Juan, Pecos, Canadian, Costilla, La Plata, Gila and Animas Rivers. With the exception of the Gila, with each of these rivers is an interstate compact, an agreement between the states governing the allocation of the river's waters to each member of the particular compact. On the Gila allocations are governed by an earlier Supreme Court decree dictating total allocations on the Colorado River system, of which the Gila is a tributary. In the case of the Pecos River, the Pecos River Compact is an agreement between New Mexico and Texas. The negotiations were



Reason: NREL letter 9E

interrupted by World War II. It took several years before a negotiated compact was agreed to. Finally, in 1948 an agreement was approved by the New Mexico Legislature and signed by the governor. The agreement was subsequently ratified by the United States Congress. Basically the waters of the river were divided on the basis of the 1947 condition of the river. The compact also included a restriction of "man's activities" on the river, and the requirement that flood waters in New Mexico shall be divided equally between the states. A very complex engineering formula was devised which would be the guiding criteria for the division of the Pecos waters at the state line.

The Pecos River Compact is governed by the Pecos River Commission, in which Texas and New Mexico have a commissioner appointed by the respective governor, and a federal commissioner appointed by the President. New Mexico's role in the Pecos River Compact comes under the purview of the New Mexico Interstate Stream Commission.

The Interstate Stream Commission is an associated agency with the Office of the State Engineer. Principle activities of the commission include overseeing the various compacts, statewide and regional water planning, and water conservation, all for the protection of New Mexico's water. The commission is composed of eight voting members appointed by the governor, plus the State Engineer who is also a voting member and statutory secretary of the commission. Its duties also include the management of two trust funds which derive their income from the income of state trust lands set up under the Ferguson Act many years earlier. The Ferguson Act designated certain trust lands to benefit specific beneficiaries within New Mexico, including schools and other institutions. The Irrigation Works Construction Fund is dedicated to water conservation throughout the state, and the Improvement of the Rio Grande Income fund is dedicated to insuring optimal flow and maintenance of the channel of the Rio Grande River.

In the lower reaches of the Pecos River in New Mexico both ground water and surface water come into play in ascertaining the total volume of water flowing down the river. Both sources are present in the Ft. Sumner and Roswell basins. In the Carlsbad area, surface water from the river is the primary source of water for the Carlsbad Irrigation District, although

the Carlsbad users may supplement shortages of river water with ground water pumped from a ground water aquifer in the Carlsbad area. The Carlsbad Irrigation District depends on water storage at several reservoirs on the river, principally dams and reservoirs near Santa Rosa, Ft. Sumner, and Brantley Dam, north of Carlsbad. An earlier reservoir, Lake Mc Millan became badly silted and later only serves as a settling reservoir for the very muddy water flowing down the river. Also, final distribution of water to Carlsbad flows through another reservoir known as Avalon before finally being distributed to the Carlsbad irrigators through a system of canals and ditches. The Carlsbad Irrigation District was adjudicated a volume of water necessary to irrigate 25,055 acres.

Although history will show that the original irrigators in the Roswell area diverted water from the Hondo and Pecos Rivers, the almost universal use of water in later years was in the pumping of water from the Roswell artesian basin. This very prolific artesian basin is charged from the hills and mountains west of Roswell. Discovery of this basin occurred in late nineteenth century and triggered a major development of the basin. To a very limited degree, the same pattern can be found in the Ft. Sumner area. Courts have ruled in later years that these surface and ground waters must be conjunctively managed in determining legal water rights; that the surface waters and the grounds waters are one in the same.

The Carlsbad Project, as it is referred to, was established in the late 1880's as one of the first, if not THE first project sponsored by the federal agency now known as the Bureau of Reclamation. Through the years the Carlsbad Irrigation District continuously maintained that Roswell's diversion of water, primarily from its artesian basin has resulted in Carlsbad being "shorted" their fair allocation of water. The Doctrine of Prior Appropriation then comes into play. Most of the water rights in the Roswell basin carry a priority date junior to the earliest uses of water in the Carlsbad area, now part of the Carlsbad Irrigation District. An argument might exist that diversions from the Pecos and its tributaries in the Roswell area predate the Carlsbad diversions, but the courts have held otherwise. The threat of a legal challenge of the Doctrine of Prior Appropriation against the Roswell users became a continuous bone of contention between the two areas. A very adversarial attitude existed for many years.

Don con: RPA letter 9 F

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from earlier NMAA Letters 96

The Pecos Valley Artesian Conservancy District was organized some years after the development of the Roswell artesian basin. It was organized as a public body, financed by ad valorem taxes on all real properties north of the Carlsbad Irrigation District in both Chaves and Eddy Counties and extending north of the Roswell area some twenty five miles. Its mission was to protect the waters of the basin, to monitor water use, and to represent the basin in legal matters regarding water rights and water uses, in particular in the threat looming of a priority enforcement by Carlsbad. Much of PVACD's activities involved an adjudication process to determine exactly who owns what water rights in the basin, how much water does the entitlement include, and what is the right's priority date. In addition, in later years PVACD developed a program of buying and retiring water rights, and in plugging wells no longer in use.

An event that eventually brought the two sides together came in the form of a law suit filed against New Mexico by Texas under the Pecos River Compact. Such an action is brought before the United States Supreme Court. Texas originally claimed that New Mexico had under-delivered a huge amount of water, perhaps some 1,000,000 acre feet over a period of several years. The delivery of that amount of water at one time was an impossibility for New Mexico, and even had it been possible it would have totally wrecked the economy of southeastern New Mexico, not to mention economic damage to the entire state.

Water destined to Texas is measured at Red Bluff Reservoir, just south of the Texas state line on the Pecos River. Before arriving at the state line, the water passes through a geologic phenomenon known as Malaga Bend. That stretch of the river is a virtual salt bed, and by the time it reaches Red Bluff it is very salty and hardly worth using for irrigation. Nevertheless, it is transported south from Red Bluff to farms south of the state line in the Pecos/Ft. Stockton region.

New Mexico's initial response to the suit was simply that New Mexico did not owe Texas any water, and New Mexico's defense was on that basis. The Supreme Court appointed a special master to oversee the progress of the suit, but after several years the dispute remained a stalemate. The special master finally declared the two states get to an agreement, or he would do it for them and that neither state would like it. After long

debate, the Supreme Court ruled that New Mexico owed Texas 340,100 acre feet, an amount that had accumulated over a 34 year period. This calculates to an average of about 10,000 acre feet per year. This too is an impossible volume of water to be delivered at one time. The court recognized this and the two states came to an agreement of a settlement of \$14,000,000, which would wipe the slate clean to that point in time. The PVACD at that time had some \$2,000,000 in cash on hand which it owed the New Mexico Interstate Commission for prior loans, loans which had been borrowed from the commission's Irrigation Works Construction Fund, and re-loaned to farmers at very favorable rates for various water conservation projects. That money was repaid to the commission, and the total obligation was paid by New Mexico from that fund.

Potential for continued shortfalls of water delivery to Texas remained after the initial settlement. New Mexico faced a very difficult dilemma over how to best avoid a repeated violation under the compact. In addition, the Carlsbad Irrigation District remained a threat to water users of the Roswell basin, including communities such as Roswell, Artesia, Dexter, and Hagerman. Various plans were studied, including the development of a large well field in the Roswell area using very brackish water to be delivered to the Pecos River. That plan was considered impractical due to the insertion of brackish water into the river, as well as the evaporation loss between the well field and the state line. The onerous threat of a priority water call remained. Such a call could be made by Carlsbad, Texas, or even the U. S. Supreme Court if New Mexico violated the Supreme Court decree.

The dilemma continued over a period of several years. It was determined that a shut down of less senior water rights than Carlsbad's might require the shutting down of rights in the Roswell basin with priority dates all the way back into the 1920's. Carlsbad and Roswell remained adversarial. Shutting down the junior water rights developed after the advent of the compact, was considered. There was strong sentiment in favor of this action by more senior users and legislators. After months of wrangling the director of the Interstate Stream Commission established an "ad hoc" committee of nearly all the stakeholders on the river including farmers, communities, counties, and the oil and gas community. Carlsbad users

from son: NRE letter - 9H

also came to the realization that they were also threatened by the severity of the Supreme Court decision.

In the meantime the Interstate Stream Commission commissioned a study to be done aimed at finding the most favorable and least damaging course of action that the state might consider. Three courses of action were looked at. The first was a blanket shut down of all water rights, on a priority basis, until enough water was passing the state line. This was the most onerous, and economists estimated that the economic loss to the valley would amount to some \$300 million the first year. The second course considered the shut down of post 1947 rights, those developed after the compact. This was deemed impractical also. Those rights were far from the river, and ceasing diversion of that water would probably not affect the river any time soon. It would simply mean putting those farmers out of business. The committee finally selected the third option as the best course, that of buying senior water rights, transferring them to a well field in the Seven Rivers region north of Carlsbad and adjacent to Brantley Reservoir. A goal of developing a capacity to augment the river by at least 15,750 acre feet per year was decided upon, which could be delivered to Texas if the need arose. In addition to assuring deliveries to Texas, this "consensus plan" requires additional irrigation water for Carlsbad. The "consensus plan" later evolved into a "Settlement Agreement" between PVACD, The Carlsbad Irrigation District, the New Mexico Interstate Stream Commission, and the federal Bureau of Reclamation.

Such a project would involve the expenditure of a large amount of money, and the people of the Roswell area, the people of the Carlsbad area, and the Interstate Stream went right to work in seeking legislation to accomplish this goal. The legislative delegations of both Chaves and Eddy Counties worked in unison in support of the project. Three legislators stand out as important players in leading the legislative battles that lay ahead; Representative Richard T. Knowles of Chaves County, Representative Joe Stell of Eddy County, and state senator T. Z Jennings of Roswell. There remained some philosophical differences of just how the goal could be accomplished. Principle among those different trains of thought are two. First, particularly among legislators from other regions of the state was that this was a regional issue and that funding should only

come from that region. Second was a practical one in which the Carlsbad Project, being a federal Bureau of Reclamation project, was not allowed to separate its water rights from the land on which it is used. Through intense argument and legislative negotiations, the first argument was put to rest, primarily through the argument that the Supreme Court ruled against New Mexico, not against Pecos River users. It was further argued that some sort of action could affect other regions of New Mexico some day in the future. The second argument was settled with the agreement by all sides that the state would buy water rights AND land, the water rights being stripped from the land in the Roswell basin, and the land remaining to be managed by the Interstate Stream Commission. In the case of Carlsbad, allocations of water to the purchased lands would be diverted to Texas, instead of to the land it historically served.

The consensus plan, and the ultimate Settlement Agreement called for the acquisition of 18,000 acres of land with appurtenant water rights; 11,000 from the Roswell basin, 6,000 from the Carlsbad area, and 1,000 from the Ft. Sumner area. The Settlement Agreement also provided that if preliminary amounts of 7,500 acres and 4,500 acres could be acquired from the Roswell basin and from the Carlsbad area respectively, then the Settlement Agreement could be implemented, provided enough water had been developed for delivery to Carlsbad and/or Texas under the agreement and under the decree.

The Interstate Stream Commission launched an intensive drive to begin acquiring the necessary land and water rights. In order to comply with state laws, the commission asked for "offers" from interested parties, those interested in a sale of their property, including the price which they might accept. Then came the decision by the Interstate Stream Commission, after seeking the best available valuation information, for a consistent basis for negotiating acquisitions from willing sellers. The process began. Considerations for acquisition included seniority of rights offered, proximity to the Pecos River, artesian status, and historical active use of the right. After almost four years, the minimum number of acres in both the Roswell basin, and the Carlsbad Irrigation District were acquired, and the four parties to the consensus plan agreed to implement the settlement agreement in the year 2009.

From com. NRC letter 9 I

During this time, a concurrent activity was the construction of the well field in the Seven Rivers area some fifteen miles north of Carlsbad. After long and intensive negotiations, an agreement was struck with Mr. Gil Moutrey who owns extensive farming interests at Seven Rivers. The plan included the drilling of several new wells throughout his property, along with an arrangement with him for the management of the well field, and the commingling of his and ISC's waters through an extensive pipeline system which ultimately would deliver water to Brantley Reservoir at two separate delivery points. Water quality, particularly the monitoring for chlorides, was an important element of the agreement, as was a continuing monitoring of any "draw down" threats that might be occurring in the various wells. Water rights acquired upstream in the Roswell basin were transferred to the new well field after going through the required procedures for water rights transfers and the changing of the place of use, and change of use, as prescribed by law and by the State Engineer.

In addition to the Seven Rivers well field, another smaller one was established in the Lake Arthur area north and east of Seven Rivers. That water, when needed will be delivered via a large pipeline directly to the Pecos River.

A third well field is also available for settlement augmentation purposes via a contractual arrangement with the Hagerman Irrigation Company at Rio Felix.

Under the consensus plan, and under the operations plan for the well fields, no water will be diverted from any well field unless it is needed for delivery to Carlsbad or to the state line.

Today the infrastructure is in place to insure delivery of water to the Carlsbad Irrigation District and to Texas under the Settlement Agreement, as the case may be, and as prescribed by the U. S. Supreme Court Decision in Texas vs. New Mexico. Total cost of the project has been in excess of \$70 million through December, 2010.

Reasons: NRE letter 95

POINT 3: Karst geology is Unstable, whether sinkholes, caves, air/water/oil/gas pockets.

Instability was problematic even before oil and gas fracking became a boom for this region of the Trans-Pecos/Permian Basin. Why? Karst geology is another name for 'Instability' as: ground subsidence, sinkhole collapse, groundwater contamination, unpredictable water supply, and underground caverns!

A. Although unstable Karst geology in southeastern New Mexico makes for pretty underground National Parks like the Carlsbad Caverns and Bottomless Lakes State Park, it also makes for underground pockets (think of Swiss cheese) - some with water, some with oil/gas, and some with air or gasses. When there is a depletion of solid substance in those pockets, instability increases exponentially! The ground moves up and down!

Risking more problems, such as contamination from radiological releases, should there be a collapse at any location in Holtec's proposed application, **OR ENROUTE BY RAIL OR TRUCK**, would be **GROSSLY IRRESPONSIBLE**. Stable soils are a criteria for repository siting, **YET** Karst geology is very well known as 'not' stable!

B. **DEFINING KARST:** This information was provided by the Karst Waters Institute and is science. It is not my invention, so please pay attention to the science. **DENY** Holtec!

<https://karstwaters.org/educational-resources/what-is-karst-and-why-is-it-important/>
Shows the USGS Groundwater Atlas map of the United States. **(Not attached)**

Although that map is not included in this letter, it visually supports the information/ definition provided below:

"Karst is a special type of landscape that is formed by the dissolution of soluble rocks, including limestone and dolomite. Karst regions contain aquifers that are capable of providing large supplies of water."

More than 25 percent of the world's population either lives on or obtains its water from karst aquifers. In the United States, 20 percent of the land surface is karst and 40 percent of the groundwater used for drinking comes from karst aquifers."

Natural features of the landscape such as caves and springs are typical of karst regions. Karst landscapes are often spectacularly scenic areas. Examples include the sinkhole plains and caves of central Kentucky, the large crystal-clear springs of Florida, and the complex, beautifully decorated caves of New Mexico. (Carlsbad Caverns)"

Common geological characteristics of karst regions that influence human use of its land and water resources include ground subsidence, sinkhole collapse, groundwater contamination, and unpredictable water supply."

Summary of this Point 3:

In light of the unstable nature of Karst geology, Southeastern NM is obviously the **WRONG** place to put the most dangerous radioactive material - spent nuclear reactor fuel/rods. Holtec must not be allowed to bring any high-level nuclear waste/spent fuel to New Mexico or anywhere else in the world with unstable geology. **HONOR THE SCIENCE!**

POINT 4: SMU Radar Studies show sinking and heaving in Permian Basin.
Recent studies by Southern Methodist University (SMU of Texas) show radar images across a large swath of the West Texas oil patch is heaving and sinking at alarming rates.

NOTE: Wink, TX almost touches the 'southeast corner' of New Mexico's Lea County, NM, and very near the site in Holtec's application to the NRC for storage of high level nuclear reactor waste. Eliminate state lines, and Holtec's site is in this SAME belt of instability.

<http://blog.smu.edu/research/2018/03/20/radar-images-show-large-swath-of-texas-oil-patch-is-heaving-and-sinking-at-alarming-rates/>

Citing their blog: "Analysis indicates decades of oil production activity have destabilized localities in an area of about 4,000 square miles populated by small towns, roadways and a vast network of oil and gas pipelines and storage tanks.

Two giant sinkholes near Wink, Texas, may just be the tip of the iceberg, according to a new study that found alarming rates of new ground movement extending far beyond the infamous sinkholes."

"That's the finding of a geophysical team from Southern Methodist University, Dallas that previously reported the rapid rate at which the sinkholes are expanding and new ones forming. Now the team has discovered that various locations in large portions of four Texas counties are also sinking and up-lifting.

Radar satellite images show significant movement of the ground across localities in a 4000-square-mile area — in one place as much as 40 inches over the past two-and-a-half years, say the geophysicists.

"The ground movement we're seeing is not normal. The ground doesn't typically do this without some cause," said geophysicist Zhong Lu, a professor in the Roy M. Huffington Department of Earth Sciences at SMU and a global expert in satellite radar imagery analysis.

"These hazards represent a danger to residents, roads, railroads, levees, dams, and oil and gas pipelines, as well as potential pollution of ground water," Lu said. "Proactive, continuous detailed monitoring from space is critical to secure the safety of people and property."

The scientists made the discovery with analysis of medium-resolution (15 feet to 65 feet) radar imagery taken between November 2014 and April 2017. The images cover portions of four oil-patch counties where there's heavy production of hydrocarbons from the oil-rich West Texas Permian Basin.

The imagery, coupled with oil-well production data from the Railroad Commission of Texas, suggests the area's unstable ground is associated with decades of oil activity and its effect on rocks below the surface of the earth."

Summary of this Point 4:

Even the Railroad Commission of Texas is concerned: much of the East coast's nuclear waste would come through Dallas/Ft.Worth area/rail system (Tower 55, Tarrant County) to reach NM. Coming from the West, via railroads going through Albuquerque, NM and El Paso, TX and then on to Carlsbad, NM! It's sinkhole country as these narratives and maps clearly demonstrate!

POINT 5: Holtec's proposed site is 35 miles from a 450 foot deep sinkhole (in the city of Carlsbad, NM) that may soon collapse (within three years). It's also under a highway junction that can collapse any day.

The problem is summarized by two paragraphs of an attached abbreviated article:

"Now authorities are scrambling to prevent another collapse that would be far more damaging. This cavern — 700 feet long, nearly 500 feet wide and 450 feet deep — isn't in the remote desert but on the edge of town, under a major highway and several businesses. New Mexico officials recently agreed to spend \$40 million to figure out how to stop that from happening.

"The latest engineering report said that the collapse is going to happen," said George Veni, director of the National Cave and Karst Research Institute, a geological sciences group based in Carlsbad. "Not if, but when. It could happen anytime, but 2021 is more likely."

A. Not 'if' but 'when' the sinkhole fails, two highways will be cutoff: Highway 180 to Carlsbad Caverns and El Paso, TX. The other is US 285 to Loving, NM, and toward Texas!

Millions of dollars (at least \$30 million from the 2018 NM State Legislature) has been approved - as tax payer dollars - to pay for 'hopeful' mitigation (by blowing sand into this sinkhole???) which lies 'under' the junction of two major highways!

B. The problem was created by the oil/gas industry when water was intentionally added to dissolve salt from this underground site, to create produced (salty) water for fracking. Once this Brine Well was emptied of its salty water, it creates a void - but the oil/gas company did not refill it, as required.

Coincidentally that oil/gas company later filed for bankruptcy, a common escape from responsibility, and one which Holtec could also exercise should the nuclear reactor waste/rods arrive or if there is an accident!

C. When you were a child, did you ever paint an Easter egg 'after' blowing out it's gooey liquid? Imagine putting the egg mixture back IN the 'shell' and not collapse the egg shell. Metaphorically, that's what is proposed with this multi-million dollar 'mitigation' effort. Seismic monitoring is conducted 24/7, with hopes of giving folks 8 hours of advance notice of collapse. NO ONE can guarantee success! Efforts to fix may advance failure!

D. Under that sinkhole, is a water supply for 80 percent of the agricultural users in the region. This one sinkhole, if it collapses, could literally destroy the livelihood/access/well-being of the region 'without' even adding a radiation accident to the equation!

Summary of this Point 5:

Since the oil and gas industry in New Mexico is already 'pushing the envelope' on Karst geology and water resources with their fracking methods, approval of Holtec's proposal would be a 'prescription for disaster' - by guaranteeing radiological releases to the environment from sinkholes and surface-level failure of Karst geology.

In light of the area's numerous sinkhole 'realities' and the obvious science coming forward in recent months, it is NOT just my opinion that Holtec's proposal has NOT been well researched. NRC's approval of Holtec's application in 'Sinkhole Country' would GUARANTEE disaster! Therefore, REJECT Holtec's application - in it's entirety!

POINT 6: At a citizen meeting recently - April 7, 2018 - Holtec's allies boasted 'nationalism' and 'moral religious duty' to protect the rest of the US from radiation exposure ('their' nuclear reactor waste) in 'their own' communities.

My spoken response, "Holtec acts like they are the Messiah, the Second Coming, to save the nation from nuclear reactor waste! But only if they put us (SE NM) on the cross!"

I am not alone in my protestations. Governmental agencies/heads (including State Land Commissioner Aubrey Dunn) are realistically concerned about our regional water lasting. The risks of a current and likely to last 50-year Oil and Gas boom, plus instability of Karst geology in the region, adds to New Mexico's worries.

Adding a new threat: of radiological releases from stored spent nuclear material (rods) is NOT acceptable in light of other valid dangers, with many already discussed. NM has many concerns of economic devastation in the region. Plus, WIPP's 2014 'kitty litter' incident was an expensive (\$2 billion estimated) and dangerous release - kindergarten to what Holtec proposes for us!

A. Attached in 'italics' is a brief of an article that supports these concerns.

In full is <http://www.latimes.com/nation/la-na-new-mexico-permian-basin-20180325-story.html>

NATION

LA TIMES

By KEITH SCHNEIDER

Here's why New Mexico's oil boom is raising a lot of questions about water

MAR 25, 2018 CARLSBAD, N.M.

"Southeastern New Mexico has long been a modest producer of oil, but the advent of fracking technology a decade ago turned it into hot property for drillers. Only Texas and North Dakota now extract more oil, and New Mexico is gaining.

Production grew 30% last year to 565,000 barrels a day, almost all of it from the state's portion of the Permian Basin surrounding Carlsbad. Billions of barrels more remain to be tapped in shale deposits 2 miles deep.

Producing massive quantities of one resource requires extreme care for another: water. The risk that fracking can contaminate water supplies and cause other harm has been well documented, from Wyoming to Pennsylvania. But experts say that nowhere is that risk greater than in south-east New Mexico.

"Conditions here are unique," said Ed Martin, assistant commissioner in the New Mexico State Land Office, which manages nearly 2 million acres of state land for energy production. "The volumes of water the industry uses are so prolific. The disposal problems are more pronounced. The potential for something to go wrong is higher."

Fracking involves injecting a torrent of chemicals, sand and millions of gallons of water into wells under ultra-high pressure to crack formations of fuel-saturated shale. The high pressures can damage well casings, causing ruptures that leak. And the process generates huge amounts of liquid waste that must be transported for disposal or recycling."

B. JAN 07, 2018

"Raising the danger in New Mexico is the area's distinctive geology. Underlying the region are thick beds of salt, which abut the porous limestone formations that hold much of the region's drinking water.

The geology is so uncommon that in 1923 the United States established an underground national park, Carlsbad Caverns, to make nearly 47,000 acres of magnificent limestone caves permanently available for bat habitat and human exploration.

Drilling through the limestone requires fresh water to prevent contamination of drinking water. But drilling through salt requires brine, because fresh water would dissolve the salt formations and would make wells structurally unstable.

With wells being drilled at a record pace — there are currently 26,000, with 600 new ones being added each year — the risk is continually increasing. Studies conducted by the federal Bureau of Land Management show that oil and toxic materials from a big spill or leak could move quickly and contaminate thousands of acres of underground aquifers that supply the region's drinking water.

"New Mexico's Permian Basin has a 50-year supply of oil," said Aubrey Dunn, the state land commissioner. "We need to be careful to make sure we have a 50-year supply of fresh water."

*The potential for significant damage is ever-present. The state Oil Conservation Division documented almost 800 surface spills or leaks last year in the two counties — Eddy and Lea — where most of the fracking occurs. About 10,000 barrels of oil and 75,000 barrels of production fluid were spilled. **(NOTE: Eddy & Lea are TWO counties directly affected by Holtec's site.)***

Ground-water contamination related to fracking is very rare everywhere, but when it occurs, the consequences can be dire. Cleanup is costly and generally only possible if caught quickly.

*The state's track record on managing the oil industry's use of water, though, doesn't inspire confidence. For decades, oil field services companies poured millions of gallons of freshwater into the ground to dissolve a thick salt layer and produce brine long used in drilling operations. In the process, they hollowed out massive caverns. A decade ago, two of those collapsed, forming a pair of giant desert craters 22 miles and 29 miles northeast of Carlsbad, the heart of the state's oil operations. **(NOTE: Plus, these two sinkholes are dangerously close to Holtec's proposal.)***

Now authorities are scrambling to prevent another collapse that would be far more damaging. This cavern — 700 feet long, nearly 500 feet wide and 450 feet deep — isn't in the remote desert but on the edge of town, under a major highway and several businesses. New Mexico officials recently agreed to spend \$40 million to figure out how to stop that from happening."

***"The latest engineering report said that the collapse is going to happen," said George Veni, director of the National Cave and Karst Research Institute, a geological sciences group based in Carlsbad. "Not if, but when. It could happen anytime, but 2021 is more likely."** (Bold emphasis added)*

Summary of this Point 6:

The timing for Carlsbad's sinkhole collapse coincides with Holtec's plans for receiving nuclear waste at their proposed surface repository in Lea County. This location is also the heart of the biggest 'oil play' in US history! AND NEAR THE TEXAS BORDER of WCS's proposal for storing Texas' nuclear waste. Considering data emerging from scientists of Southern Methodist University, both Holtec and WCS is a recipe for DISASTER:

A. Please reference the attached 3-page article from the NGI, Natural Gas Intelligence of March 26 2018: Permian's Shifting, Sinking Ground 'Not Normal,' Say SMU Researchers. www.naturalgasintel.com/articles/113821-permian-shifting-sinking-ground-not-normal-say-smu-researchers

The SMU article closes with:

"Their study is considered one of the first of its kind to identify small-scale deformation signals over a vast region, by drawing from big data sets spanning several years, and then adding supplementary information. The research was supported by the NASA Earth Surface and Interior Program, and the Shuler-Foscue Endowment at SMU."

B. THEIR MAP, GENERATED BY SMU, IS IN MY OPINION A PICTURE THAT SAYS A THOUSAND WORDS: "Distribution of Permian Basin Drilling Rigs as of 3/23/2018" shows a visual/aerial perspective the Permian Basin's oil rigs 'as the highest' near Holtec's site (Lea County) and Carlsbad, NM (Eddy County).

FURTHERMORE, THE ARTICLE STATES: "A large swath of the Permian Basin in West Texas is "heaving and sinking," likely the result of decades of oil and gas production, according to a geophysical team from Southern Methodist University (SMU) in Dallas."

Bottomline: Holtec's site in the Permian Basin - is the known zone of existing and guaranteed sinkhole collapse. Plus, it is only 35 miles away fro Carlsbad, NM's sinkhole - which is expected to collapse under a highway within the next few years (2021).

I spoke recently with a State Trooper from the Carlsbad area and he respectfully said, "We're just hoping it happens at 2 am when few to NO people are driving across it!" Sounds a bit like 911: We knew it would happen, but didn't know when!

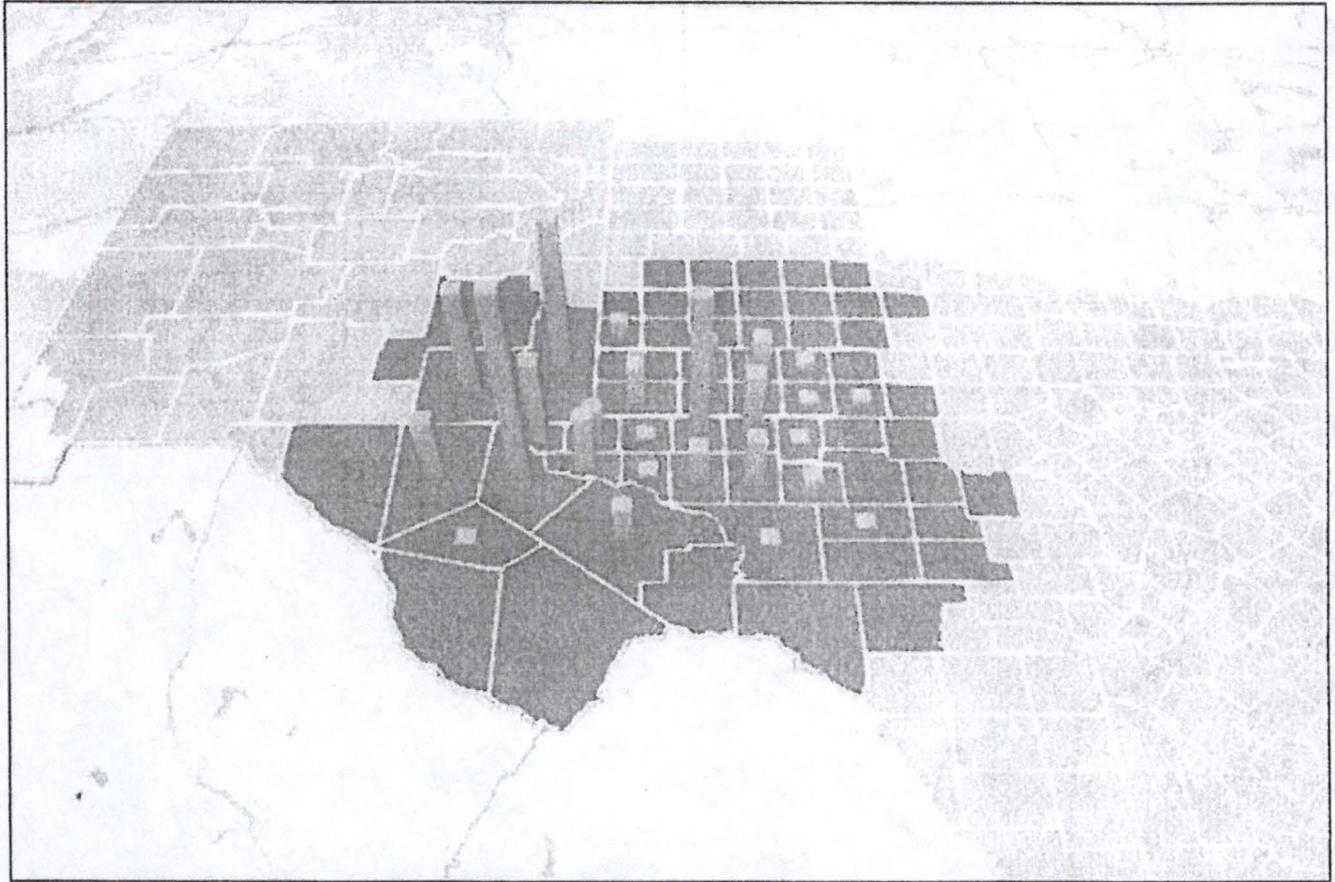
C. THAT SAID: THE DANGERS ARE TOO GREAT FOR TRANSPORTING BY RAIL OR BY TRUCK ANYWHERE THROUGH THE REGION OF ANY LEVEL OF NUCLEAR WASTE TO HOLTEC'S STORAGE IN LEA COUNTY, NM.

(NOTE: Is WIPP even safe? IF ONE IS PAYING ATTENTION to regional transportation corridors, I would surmise that's a gamble too!)

Attachment: 3 pages - Natural Gas Intelligence article of March 26, 2018, & includes map.

www.naturalgasintel.com/articles/113821-permians-shifting-sinking-ground-not-normal-say-smu-researchers

Distribution Of Permian Basin Drilling Rigs As Of 3/23/2018



Source: Baker Hughes, NGI's Shale Daily calculations

Permian's Shifting, Sinking Ground 'Not Normal,' Say SMU Researchers

Carolyn Davis
March 26, 2018

A large swath of the Permian Basin in West Texas is "heaving and sinking," likely the result of decades of oil and gas production, according to a geophysical team from Southern Methodist University (SMU) in Dallas.

Two sinkholes near Wink could be the beginning of many more in the lightly populated, ancient basin, researchers have determined. Based on radar satellite images, portions of four Texas counties -- Pecos, Reeves, Ward and Winkler -- also appear to be sinking and uplifting across a 4,000 square-mile area. The findings were published in the *Nature's Scientific Reports*.

"The ground movement we're seeing is not normal," said SMU geophysicist Zhong Lu, a global expert in satellite radar imagery analysis. "These hazards represent a danger to residents, roads, railroads, levees, dams,

and oil and gas pipelines, as well as potential pollution of groundwater.

“Proactive, continuous detailed monitoring from space is critical to secure the safety of people and property.”

The study area included the towns of Pecos, Monahans, Fort Stockton, Imperial, Wink and Kermit. One location indicated as much as 40 inches had moved in the past two-and-a-half years, researchers said.

Medium-resolution (15-65 feet) radar imagery was taken between November 2014 and April 2017, which led to the discovery of the shifting ground. The imagery was then compiled with oil well production data from the Railroad Commission of Texas.

“Our analysis looked at just this 4,000-square-mile area,” said study co-author Jin-Woo Kim, a research scientist in the SMU Department of Earth Sciences. “We’re fairly certain that when we look further, and we are, that we’ll find there’s ground movement even beyond that.”

“This region of Texas has been punctured like a pin cushion with oil wells and injection wells since the 1940s, and our findings associate that activity with ground movement.”

Of note is a potential sinkhole in the southeastern corner of New Mexico, where the Permian extends. A nearly decade-old abandoned brine well in Eddy County near Carlsbad may be a potential sinkhole.

The Permian consists of ancient marine rocks underlain by water-soluble rocks and multiple oil- and natural gas-rich formations. Many localized geohazards, such as ground subsidence and micro-earthquakes, may have gone unnoticed, SMU researchers said.

“Based on our observations and analyses, human activities of fluid (saltwater, carbon dioxide) injection for stimulation of hydrocarbon production, salt dissolution in abandoned oil facilities, and hydrocarbon extraction, each have negative impacts on the ground surface and infrastructures, including possible induced seismicity,” they reported.

“Proactive continuous and detailed monitoring of ground deformation from space over the currently operating and the previously operated oil/gas production facilities, as demonstrated by this research, is essential to securing the safety of humanity, preserving property, and sustaining the growth of the hydrocarbon production industry.”

The most significant subsidence was found about one-half-mile east of an existing sinkhole, Wink No. 2, where two subsidence bowls were discovered, “one of which has sunk more than 15.5 inches a year,” researchers said.

The two “Wink Sinks” are located between Wink and Kermit near the tapped out Hendrick oilfield. They gained national attention in 2016 after a study found they were at risk of collapsing into each other as they grew and the land sank.

“The rapid sinking is most likely caused by water leaking through abandoned wells into the Salado formation and dissolving salt layers, threatening possible ground collapse,” said researchers.

Radar also detected upheaval of about 2.1 inches at two wastewater injection wells 9.3 miles west of Wink and Kermit, which coincided with increases in injection volume.

“The injection wells extend about 4,921 feet to 5,577 feet deep into a sandstone formation,” researchers noted.

Near 11 carbon dioxide (CO₂) injection wells about seven miles southwest of Monahans, the radar analysis detected surface uplift of more than one inch from wells that are 2,460-2,657 feet deep.

“As with wastewater injection, CO₂ injection increased pore pressure in the rocks, so when stress was relieved it was followed by uplift of about one inch at the surface.”

An area 4.3 miles southwest of Imperial also was analyzed where there was reported to be "significant subsidence" from freshwater flowing through cracked well casings, corroded steel pipes and unplugged abandoned wells.

About 5.5 miles south of Pecos, radar analysis detected more than one inch of subsidence near new wells drilled via hydraulic fracturing and in production since early 2015.

"There have also been six small earthquakes recorded there in recent years, suggesting the deformation of the ground generated accumulated stress and caused existing faults to slip," said the study.

"We have seen a surge of seismic activity around Pecos in the last five to six years," said Kim. "Before 2012, earthquakes had not been recorded there. At the same time, our results clearly indicate that ground deformation near Pecos is occurring.

"Although earthquakes and surface subsidence could be coincidence, we cannot exclude the possibility that these earthquakes were induced by hydrocarbon production activities."

More seismic stations and continuous surface monitoring was recommended.

"This is necessary to learn the cause of recent increased seismic activity," Kim said. "Our efforts to continuously monitor West Texas with this advanced satellite technique can help sustain safe, ongoing oil production."

According to SMU, the study is considered one of the first of its kind to identify small-scale deformation signals over a vast region by drawing from big data sets spanning several years and then adding supplementary information. The research was supported by the NASA Earth Surface and Interior Program, and the Shuler-Foscue Endowment at SMU.



Managing Editor | Houston, TX

Carolyn Davis joined the editorial staff of Intelligence Press Inc. in Houston in May, 2000. Prior to that, she covered regulatory issues for environmental and occupational safety and health publications. She also has worked as a reporter for several daily newspapers in Texas, including the Waco Tribune-Herald, the Temple Daily Telegram and the Killeen Daily Herald. She attended Texas A&M University and received a Bachelor of Arts degree in journalism from the University of Houston.

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POINT 7:

Let's look at a **SOLUTION** through a different set of eyes - as a **FIRST RESPONDER** - when considering solutions to remedy the Nation's stockpile of nuclear waste which is already threatening numerous communities where stored. Unfortunately, most storage is haphazard, many people are sick, dying and/or fearing same. Likely Superfund Sites, if anybody cares!

A. I ask NRC to consider the Rules of First Responder Training given by the Railroads. It hasn't changed much since I attended, three-days in 1985 (Holloman AFB). At the time I worked for the NM Health and Environment Department, editing state regulations for setting up the State's 'original' Haz Mat program, which included nuclear accidents.

At that RR training, I met up with former colleagues of White Sands Missile Range, where I had worked previously (early 1980s as a civilian Radiological Safety Technician for the Army). We'd been trained at the 30-day US Army Chemical School (Ft. McClellan in Anniston, AL), on radiation safety issues, plus how to go in with protective gear and mop up radiological HAZ MAT scenes, which included air-pack training.

However, this Railroad's First Responder Training **EXACTLY THE OPPOSITE:**
Don't Go In! Don't Endanger Self or Others! DON'T! DON'T! And pay attention: DON'T!

B. Today's police, fire and nursing staff that I know are also First Responders. I have spoken with them, and the rules have **NOT** changed. They better than to get involved. Why? Because First Responders rules follow a universal mission: 'Don't endanger self or others'. They admit that they are **NOT** trained to handle the contamination issues, and that bringing those persons into hospitals would contaminate the hospital, staff and other patients - would dangerously threaten all and likely kill innocents.

IF NRC would follow similar strict rules, then this Holtec proposal would never have made it to the batting plate! Then and now, the Basics of First Responder Training are very simple:

1. Secure the site, which means stop access in/out.
2. Get upwind and Use Binoculars to read transportation placards.
3. Notify proper authorities of the incident, because **ONLY THEY SAFELY** can enter/exit.
4. Say back and **DO NOT** jeopardize self or others by going in to help the injured/dying!
(Your efforts to bring out someone who is contaminated by chemical, biological, or radiological spills could easily and immediately get you killed or endanger others!)
5. Spreading the problem is **NOT** allowed! (The injured and dying are expendable!)

C. **THAT SAID:** Consider communities already contaminated by or housing the nuclear waste problem - they are likely Superfund Sites. By First Responder rules, sadly, those communities are expendable. Remember the movie ET and the quarantine tents set up at the house? And the space-suit gear worn by medical staff? It's not that simple in real life!

INSTEAD, FOLLOW FIRST RESPONDER RULES: Use Holtec's technology; monitor containment at those sites; and determine Best Management Practices. Most Important: **DO IT IN PLACE!** Let those sites be **INTERIM** storage while doing the research and monitoring of canisters on-site, while determining appropriate geology nearby - if and when it can be moved, thus providing the **MINIMUM** of risk!

VS. HOLTEC'S PROPOSAL IS TO TAKE IT CROSS-COUNTRY, THUS MAXIMIZES RISK!

How many communities are ADEQUATELY trained for radiological HAZMAT intervention? ZIP! That's why the "35-mile perimeter rule" was modeled after the Ukraine. Chernobyl's 'Exclusion Zones' is used today for siting criteria, but their worker-city 35-miles out is for WORKERS, NOT FAMILIES! Is Carlsbad, NM OK at 35 miles from Holtec's proposal? NOT! FAMILIES LIVE THERE! Be responsible: Chernobyl no longer transports their mess under Holtec's science! It stays isolated where it happened! The US should do the same.

Remember: The goal is to keep the problem contained on-site and NOT spread it to the outside world! To transport the nation's nuclear waste off-site would spread a NUCLEAR nightmare! Plus, Holtec's proposed NM site is LOCATED AT the nation's largest OIL & GAS fields, and OVER critical water resources and aquifers depended upon by the nation's bread-basket!

Pay attention: Simple WIPP-packaging mistakes are costly and irreversible. Accidents with High Level Nuclear Waste would be the worst form of nuclear terrorism. As Pogo would say, "The enemy is us!" My opinion: Allowing Holtec to move that nuclear waste off-site is a gamble from which this country would never recover!

TWO Examples: Four years ago, WIPP's kitty litter accident was caused by LANL people trained to know better! The recent, April 2018, Idaho canister explosion of unknown Cold War-era (military generated waste), fortunately blew up inside their facility BEFORE leaving for WIPP. Sadly, most technicians are NOT properly trained-make matters worse! I don't want to imagine the deaths if it had exploded off site, en-route to NM!

(Note: I suspect phosphorous is in the Idaho soup-mix, since phosphorous was used commonly by the military - 1950s-1980s. My guess: dug up, brought to air, and repackaged WRONGLY, it exploded. My high school chemistry teacher taught that in the 1970s.)

Summary of this Point 7:

IS IT APPROPRIATE TO RE-PACKAGE FOR OFF-SITE DELIVERY? I SAY 'NOT' BECAUSE MOVING IT INCREASES RISK of spreading radiation to other communities, and transport personnel, while being moved. Realistically there is no way to clean it all up; therefore, the best option is contain the problem in IT'S OWN backyard - its own contamination zone! Minimize risks to others!

THINK FIRST RESPONDER RULES - DO NOT ENDANGER SELF OR OTHERS. Sadly, contaminated communities must be treated no differently than a radiological HAZ-MAT accident. The rules are designed to STOP the spread of contamination, so as to NOT endanger general populace. Do the best to clean it up IN PLACE! And HELP the populace in place! Relocate them as needed. Best Management Practices exist, so use them!

Keep problems at, or near, the decommissioned nuclear reactors, OR military facilities where waste is now stored. Armed security and nuclear permits already exist for long-term storage. Take advantage of the physical on-site factors that often provide 'Time, Distance and Shielding' benefits. Make these existing on-site storage sites safer because THEIR risks will always exist! THEIR risks should not become transport errors nor storage liabilities to others, whether NM or Nevada! Follow the Science, not Money!

IN CLOSING: States must take responsibility for THEIR nuclear waste problem AND BY DOING SO NOT ENDANGER SELF OR OTHERS!

IF HOLTEC'S TECHNOLOGY IS SO GREAT, THEN PROVE IT:

- * **FOLLOW FIRST RESPONDER RULES AND BEST MANAGEMENT PRACTICES;**
- * **TEST HOLTEC TECHNOLOGY AT THESE 'POTENTIAL INTERIM' SITES WHERE THE CONTAMINATION ALREADY EXISTS, INCLUDING GROUND-LEVEL STORAGE AND BEHIND THE CONCRETE BUNKERS OF DECOMMISSIONED REACTORS.;**
- * **MONITOR, STUDY AND IMPROVE THE TECHNOLOGY BEFORE BURIAL; AND**
- * **BURY OR STORE PERMANENTLY ONLY AT SITES WITH APPROPRIATE GEOLOGY.**
- * **OTHERWISE, SHIPPING ANYWHERE, ESPECIALLY ACROSS-COUNTRY is a DEATH NAIL to Humanity!**

I want to interject a personal story, as my final logic, for why I am opposed to causing unnecessary harm to others:

"When I worked at White Sands Missile Range, NM in the early 1980s, as a civilian Radiation Safety Technician, there was a shipment that came in early one morning. The truck driver had arrived before our 7:30 am start, which likely meant he'd likely been sleeping in his truck, since we were a good hour from any motel. He had driven a large Penske-sized truck (biggest for moving household goods), a couple-three days, from the NRC back East, with a radionuclide packaged in a one square-foot box: something small enough to mail, yet NOT safe to mail!

When we opened the back of the cargo hull - it was completely empty, except for that square-foot cardboard box. But the box was sitting completely forward in the hull, DIRECTLY BEHIND the driver's seat. My supervisor's immediate response, a loud whisper, was a four-letter word! The box had NOT been secured over the axels, where it would have been a dozen or so feet AWAY from the driver, NOR placed in a metal/lead/DU-type of shielded box (called a PIG in those days) to minimize radiation exposure to the driver! For all intents and purposes the driver might as well been driving with that box on the front seat with him!

My supervisor asked me to question the driver. Was he wearing a dosimeter or badge to measure his dose? The response was, "No." I remember the face of the young man, Hispanic in his mid-twenties, and thought to myself, 'He's like me, an EEO hire/minority working for the government.' (As a woman, I noticed these things, because we were a rarity!) I also sensed he didn't seem well, as his color was off, but I ignored the obvious by rationalizing he'd been sleeping in the cab waiting for us, and just woken up.

My supervisor and I checked the package with our radiation detectors; then gave it over the the receiving agency who signed for it. Back at our office, my supervisor and boss went behind closed doors. I heard lots of yelling between the two! Then a few days later, my supervisor showed me a letter that was going to the NRC, from our boss. It was simple with only one sentence, to the effect: "Please do a better job of packaging shipments."

Nothing was said about what was not correct, lack of monitoring of the driver for potentially lethal exposure (like two dosimeters I wore daily on the job), what should have been done better. It was obvious that it was NOT OUR JOB to tell the NRC how to do their job!

There were other letters to the NRC that I was privileged to see - making the same point of 'politely noticing' that something had NOT been packaged properly! Yet no accountability!

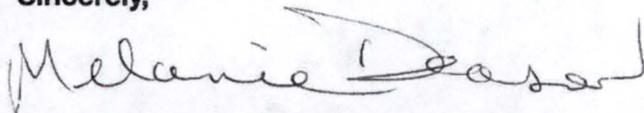
That was over 35 years ago, and the face of that young man still haunts me! In hindsight, I know I was witness to what likely caused an early and unexplained death - of a young man who deserved life!

Packaging problems are still occurring with low-level nuclear wastes. The public is clueless about radiation safety. Their focus is on catching germs from someone's cough or sneeze. High-level waste cannot be thrust upon an innocent and unknowing public. That is genocide!"

AS SAID BEFORE: I DO NOT CONSENT TO HOLTEC'S INTERNATIONAL'S APPLICATION for a Consolidated Interim Storage Facility (CISF) for spent nuclear fuel located between Carlsbad and Hobbs, NM; NOR any fabrications/derivations/alterations thereof.

Thank you for your consideration of my concerns and suggestions to abate the nation's nuclear waste problem.

Sincerely,

A handwritten signature in cursive script that reads "Melanie Deason". The signature is written in dark ink and is positioned above the typed name.

Melanie Deason of Roswell, NM 88202

Retiree of the State of New Mexico; 2002

**Former Planner/Grant Writer/Author of "NM 2000 - Wetlands Conservation Plan"; 1993-01
Former Editor of the HazMat/Nuclear Regulations for the State of New Mexico; mid-80s
Former Civilian & Radiological Safety Technician with the US Army, WSMR, NM; early-80s
New Mexico State University: BS 1976; & MA 1985 (Public Administration & Management)**