

BLACK
HILLS

REPORT

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UNION CARBIDE FACES CRIMINAL CHARGES

Union Carbide Corporation is facing criminal charges in South Dakota for violation of state law. The company had begun digging a 2,000 foot uranium exploration shaft in Craven Canyon before obtaining the necessary permits. Operations at the exploration site were halted by Union Carbide on August 2, as advised by the South Dakota Conservation Commission.

Before the operation had been stopped, American Mining Company (under contract to UC), had stripped topsoil from the area, constructed a small dam, and bulldozed a road onto the site. Blasting of rock at the adit entrance had already begun, and a series of 4 foot trenches had been dug.

The "exploration adit", as the mine shaft has been labelled, is a preliminary project of a larger operation planned for Craven Canyon by Union Carbide. Within a

few years, UCC plans to be operating seven open pit uranium mines, one underground mine, a heap leaching facility, and according to R.G. Beverly, Director of Environmental Control for the company and the UC spokesman at the Spearfish forum, possibly a small uranium processing plant.

Although Forest Service approval of the operating plan (which can be appealed until August 21) gives Union Carbide authority to operate on federal land, the company failed to obtain an exploration permit which is required by state law. Mr. Beverly claims that he was led by state officials to believe that having fulfilled Forest Service legal requirements, Union Carbide would be allowed by the state to proceed with their operations. Their "gentlemen's agreement" was foiled, however, when Black Hills Alliance Attorneys Andy Reid and

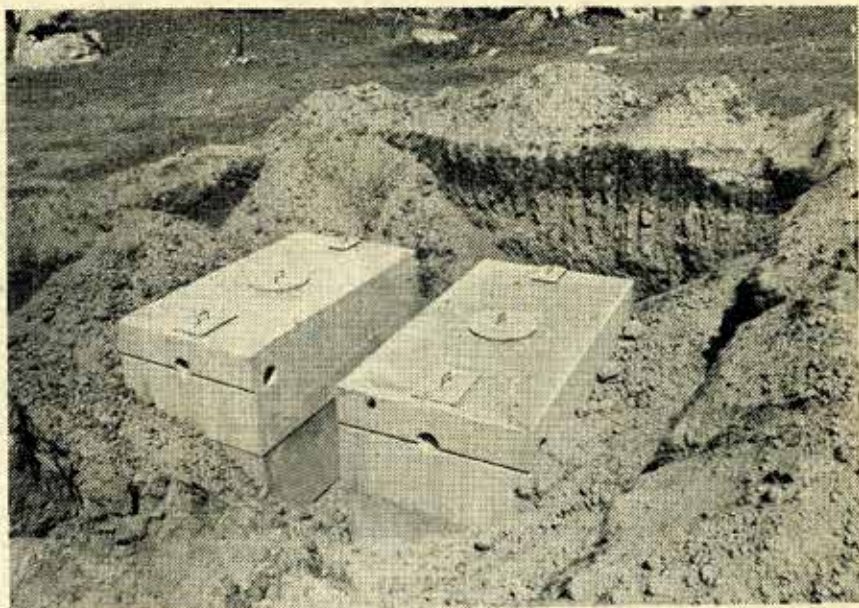
Phyllis Gerard reported to the State Conservation Commission that Union Carbide was operating in violation of state law.

Union Carbide had indicated intentions of applying to the Commission for a variance which would allow them to continue working without a permit until the permit was obtained. But it appears that the state statute does not give authority to the Commission to grant a variance, leaving Union Carbide with no option other than applying for the appropriate permit at the September 10 meeting of the Conservation Commission.

In the meantime, Attorney General Mark Meirhenry has stated that he intends to prosecute Union Carbide. The violation may carry a maximum penalty of \$1000 per day for each day illegal operations were carried out by the company.



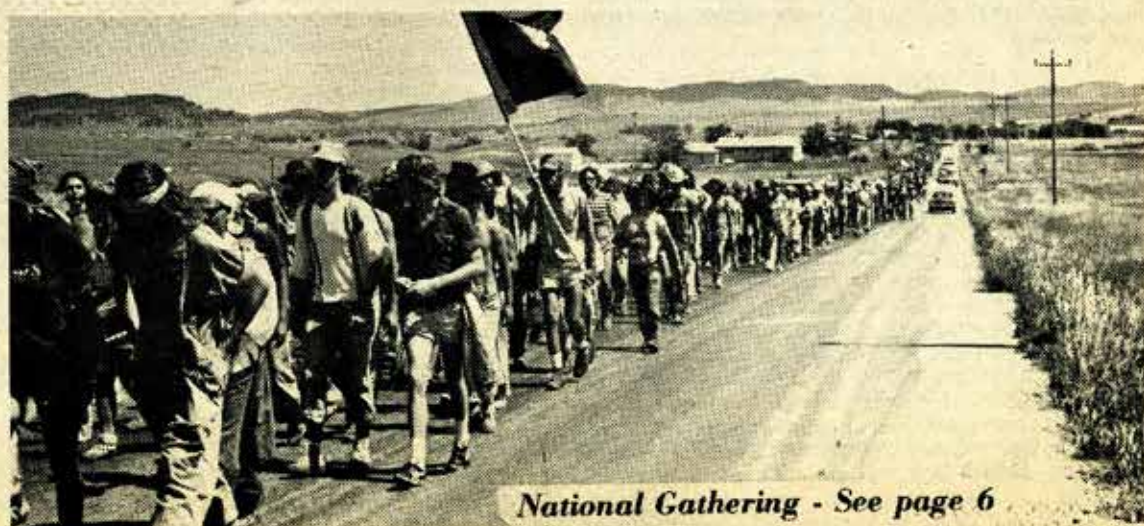
Numerous trenches have been dug by Union Carbide Corporation at it's mining site in Craven Canyon. The operation was begun without the necessary exploration permit.



In a pit at the end of the trenches, two large concrete caskets, of unknown contents have been placed. A small dam has been constructed, and an access road and stripping of top soil begun.

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National Gathering - See page 6

Tailings dam break: 100 million gallons

A break in the tailings dam at the United Nuclear-Homestake uranium mill near Grants, New Mexico on July 16, 1979, released approximately 100 million gallons of radioactive water into the Rio Puerco River. Although the river is dry most of the year, the banks were almost overflowing on July 16.

Officials in New Mexico have stated that 250 acres of land and 30 miles of the Rio are contaminated for an undetermined amount of time. Officials of the State Environmental Improvement Division (EID) have posted signs in English, Spanish, and Navajo warning local residents to keep themselves and their livestock away from the Rio. So far, only nine families have been supplied with water by the UN-H Company, but EID officials are concerned. "We've issued press releases on the water contamination, said an EID representative, but unfortunately cows don't read press releases."

The uranium mill tailings are considered wastes of uranium processing. Mill tailings have been abandoned by mining companies in some 23 sites of the western United States. Following some 25 years of uranium mining in Northwestern New Mexico, over 250 acres worth of tailings have been deposited in mesa-like formations near the uranium mills. According to the Nuclear Regulatory Commission, the tailings retain 85 percent of the original radioactivity of the uranium—enough radiation to increase the risk of cancer to people living in the immediate area by 100 percent (according to DOE figures). The 18 acre tailings pond is used for settling out particles from mill tailings. In the process of settling, the mill tailings are "fermented," in this case for many decades of operation. The contaminated water eventually flows into the Colorado River on its way to the ocean.

The radioactive spill, largest known in the history of the uranium industry, appears to have had minimal

impact on either the media or national uranium production. The accident may have consequences much more severe than the Three Mile Island accident in Pennsylvania this spring, but the predominantly Navajo and Chicano area is more sparsely populated than Harrisburg. About one half of US uranium is produced in this area, most of which comes from the huge deposits at Ambrosia Lake area. The United Nuclear-Homestake uranium mill is located in Grants, N.M. (selfnamed the "Uranium Capital of the World"), one of three uranium mills located in the vicinity of the town. The mill has been temporarily closed down as the 180 mill workers are busy cleaning up the spill. The United Nuclear-Homestake mine continues operations, with ore being stockpiled at the mouth of the mine. UN-H Vice president Tom Kilrov reported: We still don't know how long it will be before we reopen," adding, that it all depends on how the state accepts the company's technical explanation of the failure.

...Relocation...

Relocation is an ugly word, especially when it is because of energy resource exploitation. Some 6,000 Dine (Navajo) people are to be forcibly (if necessary) relocated from their native lands in Northeastern Arizona. The relocation is due to a government bill authorizing relocation from the Hopi-Navajo joint use area. Underlying the joint use area is a significant coal deposit, which Peabody Coal is currently mining. Much more mining is planned.

The Dine and Moqui (Hopi) people have stated that they demand a right to live on their legal and traditional homeland, and state that they will not move for the National Energy Policy and the energy companies. It could be you next year.

Gulf U. Mine = No Water San Mateo appeal

The people of San Mateo, NM have issued an emergency appeal to officials of New Mexico and Gulf Oil. Residents of the small town are concerned about the contamination of their local water supply due to mine shaft sinking in the Gulf Oil Mt. Taylor project. The mine, initiated a almost two years ago, is expected to be the deepest underground, and largest uranium mine in the country.

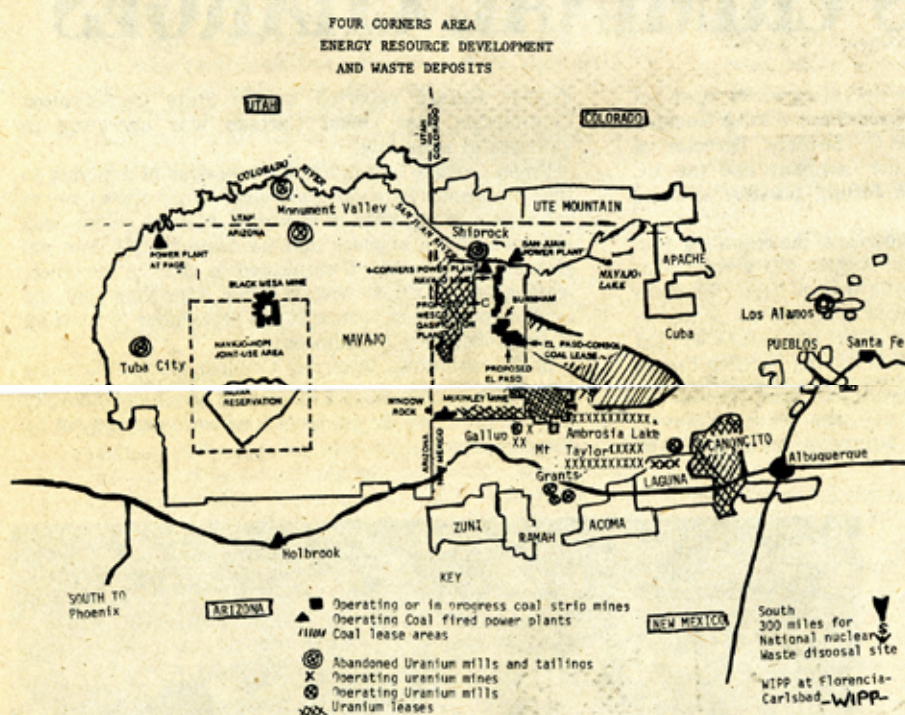
In late June, the water of San Mateo residents went bad, "a sort of mud-like consistency" said one representative of the group. Water is currently being "trucked in" by the National Guard, for agriculture, livestock and domestic use.

Mateo people have requested a meeting with the Governor, Lieutenant governor, representatives of the State Environmental Improvement Division and Gulf oil representatives, to "account for" and find some solutions to the problem caused by the company.

In a letter to NM governor Bruce King, residents stated, "For you to ignore our request will indicate your lack of sincerity and fairness and will clearly show citizens of New Mexico your exact stand regarding the nuclear industry."

People of San Mateo, part of a Chicano land grant, are also concerned about ventilation shafts from the 3,600 foot Mt. Taylor mine. The shafts release radon gas and other emissions into the town. Shafts are located several yards from the local school. The school is projected to close within a few months, due to lack of water and radon gas emissions. Uranium production has just been initiated in a part of the operation some 30 yards from one San Mateo home.

For information contact the San Mateo Legal Defense Fund: PO Box F 398, Grants, NM 87020. Phone (505) 287-3050.



THE BOOM IN NORTHWESTERN NEW MEXICO The Four Corners Area and Who is New in the Area			
OPERATING COAL STRIP MINES			COAL FIRED POWER PLANTS
Company	Acreage	Production	
Gulf Oil	11,157	203,712 tons annually	Four Corners Power Plant
Peabody Coal	24,858	6,897,578 tons annually	San Juan Power Plant
Peabody Coal	40,000	4,427,704 tons annually	Navajo Power Plant
General Electric	31,416	6,900,000 tons annually	Mojave Power Plant
			Cholla Power Plant
PROPOSED COAL PLANTS			
6 Coal Gasification plants proposed by Wesco, El Paso Natural Gas and Continental Oil Company.			
ABANDONED URANIUM MILLS			
5 abandoned uranium and vanadium mills located in the Four Corners region, most abandoned in the 1960's. Over 250 acres worth of uranium mill tailings are in the area.			
OPERATING URANIUM MINES			
Anaconda-ARCO: 3 mines			Reserve Oil and Minerals: 1 mine
Bokum Resources: 1 mine			Standard Oil of Ohio: 1 mine
Cobb Nuclear: 2 mines			United Nuclear-Homestake Partners: 5 mines
Gulf Oil: 2 mines			United Nuclear: 5 mines
Ranchers Exploration: 2 mines			Plus others: 1 mine
36 mines are in operation in total.			
OPERATING URANIUM MILLS:			
Company	Location	Capacity (tons ore-day)	(Source: "Energetic New Mexico - The Power State," Albuquerque Chamber of Commerce, 1977)
Anaconda-ARCO	Grants	3,000-6,000	
Kerr-McGee	Grants	7,000	
Sohio Reserve	Cebolleta	1,660	
United Nuclear-Homestake	Grants	3,500	
United Nuclear	Gallup	3,000	
PROPOSED URANIUM MINES (by 1985)			
26 projects are slated:			
Anaconda-ARCO - 1	Conoco - 3		Pioneer Nuclear - 1
Bokum - 1	Kerr-McGee - 4		United Nuclear - 1
Cobb - 2	Mobil-TVA - 1		United Nuclear-TVA - 3
	Noranda - 1		Union Carbide - 1
	Phillips Petroleum - 2		Others - 1
* Peabody Coal was formerly a subsidiary of Kennecott Copper Corporation, now owned by a holding company headed by Newmont Mining Corporation.			
** Wesco is a jointly held company. Its owners are Pacific Lighting Corporation and Texas Eastern Transmission.			
*** Bokum Resources is financed by Long Island Lighting Company			
**** Noranda Mining Company is from Canada.			

WATER...A QUESTION OF SURVIVAL

Just over 100 years ago, land in the Southwest was the site of orchards, gardens and wandering sheep herds. It's always been arid in the region, but if you work arid land with respect, the land provides well. Rainfall averages only seven inches a year, some water is contained in rivers, with most of it underground in aquifers. At the first American sight of the area west of the Mississippi, the federal government called it "the Great American Desert." They looked for surface water, namely rivers and lakes, and the Southwest has the least.

The people of the Southwest, first the indigenous, and later Anglos worked out extensive irrigation systems to water their crops, alternating planting and sheep grazing land to protect the earth from erosion. In this way there was food on all the tables, and enough water for everyone.

DEVELOPMENT COMES

A big step in developing the west, railroads were granted vast expanses of western land by the federal government. Throughout most of the western states, the railroads served the purpose of bringing people into an area, and leaving it with something, mostly resources. In the Southwest, the Santa Fe R.R. brought people and left with coal - the energy resource of the decade.

Coal production peaked in 1918, with 4 million tons produced in the state of New Mexico. A steady decline in production set in after that, largely attributed to the economic depression of the 1930's, and the change to diesel fuel for railroads. The loss of the steel market in Pueblo Colorado, also contributed to the "bust."

To most residents of the four corners area, the rise and fall of the coal industry was of little concern. Ranchers and farmers used little and did not need the massive amounts of steel sent to industrial centers in the east and west. The local people were concerned about the land,

and water...and what happened to their crops and livestock.

As American industry grew, more energy resources were needed. Mining began in many parts of the Colorado Plateau stretching from the Rocky Mountains and Black Hills to the Southwest. The railroads provided the method of transporting resources. In the Four-Corners area, coal used to lie on the ground. Oil was equally plentiful. The industry prospered as the Santa Fe railroad moved the products to market.

When coal production declined, oil production increased. The coal "bust" in the 1930's was a boost to the oil industry. As the NM Governors Report on "Managing the Boom" (1976) states, "the petroleum industry has grown to become the greatest single source of wealth in New Mexico... (and) the largest individual source of tax revenue in the state..."

In the 1950's mining for coal resumed, and uranium entered the picture. Uranium mining operations were begun at Shiprock, in 1952 by Kerr McGee. Coal production in 1954 was at a low of 123,000 tons annually, but with the introduction of large scale stripmining techniques by Kaiser Steel in 1955, production has since increased substantially. In 1973, New Mexico coal production was 10 million tons annually. By 1978, it was 12.5 million tons and 72 percent of this production came from Northwestern New Mexico on the Navajo reservation. Uranium has also become significant in the state. With the exception of 1973, when Wyoming led production, New Mexico has produced more uranium oxide than any other state.

THE SHIFT OR THE SHAFT?

There is a very simple rule in land and water use - that which is used for energy resource exploitation cannot be used for agriculture, ranching and people. This rule can

be demonstrated with oil exploitation, a phenomena common to Oklahoma and the Southwest. The New York Times (August 10, 1977) reported,

"Oil producers pump huge amounts of salt water along with crude oil out of their wells. In the past, the salt water was simply dumped into streams, retention pits and evaporation ponds from which it seeped into the ground water... Federal water experts have found widespread saltwater contamination in Oklahoma's third largest underground freshwater basin...making the freshwater zones unusable as a source of irrigation and drinking water for generations to come..."

In Oklahoma oil extraction has controlled much of the state's economy, in New Mexico, oil is the grandpapa of the energy resources. Land that is leased for oil and other minerals extraction is not usable for livestock. In the southwest, this has caused the overgrazing of some areas by the flourishing herds. The combination of energy resource exploitation and overgrazing has contributed to erosion of the fragile balance of the southwest. In the Navajo Nation, spanning the Four Corners area, by 1942, one fourth of the productive top soil on 45 percent of the land had been lost to erosion. (The Navajo-Kluckhohn)

In turn, arid land is considered "useful" if there are other resources to remove (other than grains and grasses). This has caused a shift from agriculture and ranching to wage jobs. While in 1940, some 58.4 percent of Navajo income was derived from agriculture and stock raising, by 1958, 9.9 percent of their income came from these sources. These same years marked a substantial increase in coal, uranium and oil production.

(cont. to page 3)



Photo by Tom Barry

Gulf Oil-Mt. Taylor Uranium mine project. Sacred mountain to indigenous people -

largest Gulf expenditure. The water at San Mateo is contaminated due to Gulf.

To the People of South Dakota
Energy development, or exploitation (depending on how you look at it) is a reality in many parts of North America - the Southwestern United States, the mineral belt runs to Saskatchewan, Canada. We believe that the people should know what is happening to other peoples living in resource-rich areas. There is no race, state or national boundary, in resource exploration. From experience and history we should learn.

The four corners today, the Black Hills tomorrow?

EXPERTS FROM THE NATIONAL ACADEMY OF SCIENCES REPORT, "Rehabilitation Potential of Western Coal lands", 1974

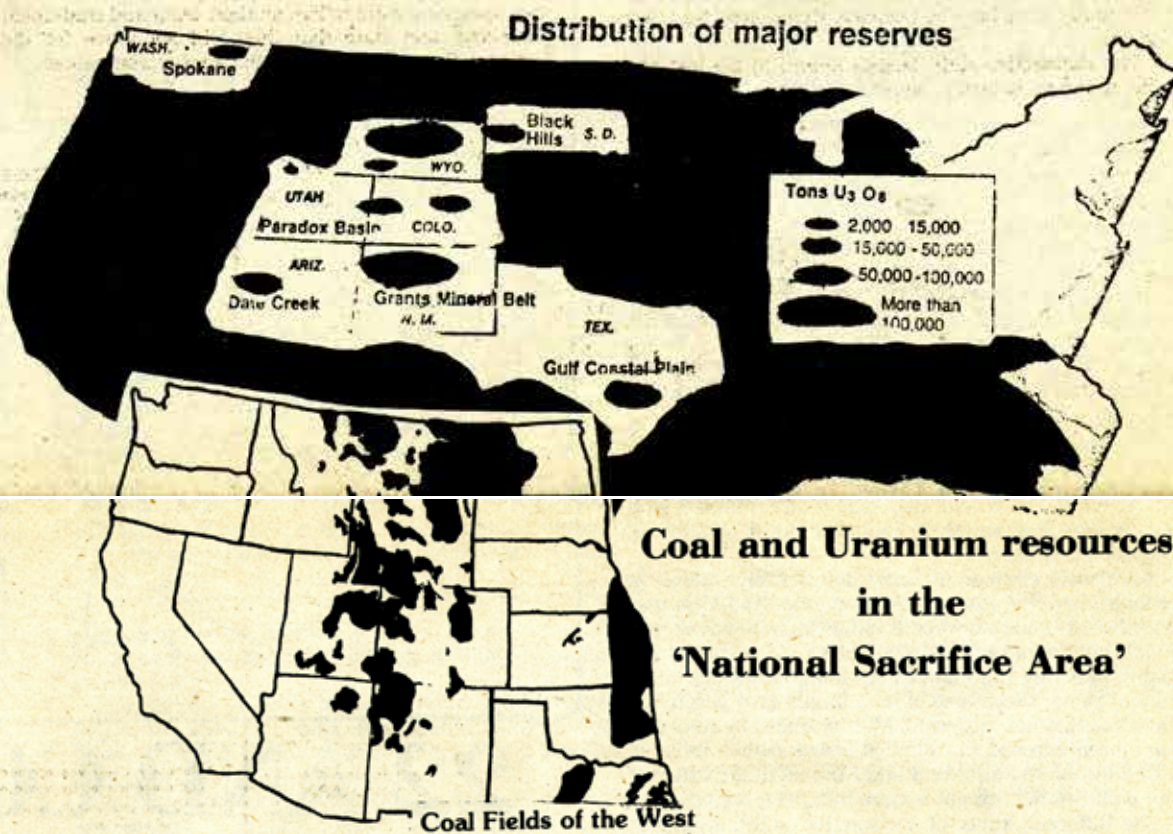
"The NAS defines 'Rehabilitation' as, 'Returning the land to a form in conformity with a prior land use plan including a stable ecological state that does not contribute substantially to environmental deterioration and is consistent with surrounding aesthetic values....'"

The NAS states, that "The potential for rehabilitating land in areas with less than ten inches of rainfall annually is 'nearly impossible', for '... the ecological process of vegetative succession or the orderly process of community change is extremely slow under such arid conditions. Rehabilitation of the drier sites may occur on a time scale that is unacceptable to society because it may take decades, or even centuries, for natural succession to reach stable conditions....'"

The National Academy of Sciences concludes that "...disturbing such areas for surface mining of coal amounts sacrificing such values (like nutrients for grazing) permanently for economic rewards." The NAS recommends that such areas either be spared the burden of mining, or that they be declared "national sacrifice areas" where reclamation will not even be attempted.

The NAS study concerned coal mining in the Northern Great Plains and the Southwest, however uranium is contained in and adjacent to coal formations, consequently the impact of coal and/or uranium mining would be significant and synergistic.

With assistance from David Weiss, in his Senior Thesis for Boards of Environmental Studies and Sociology, University of California- Santa Cruz, March 9, 1979.



Coal and Uranium resources in the 'National Sacrifice Area'

THE EXPANDING AMERICAN DESERT

(cont. from page 2)

UPDATE ON THE WASTING OF WATER

Coal reserves in the Southwest are located in the Morrison formation, also the location of the aquifers, or underground water tables. The coal deposits are strip-mined, meaning that the surface layer (called "overburden"), coal and aquifer are removed. In the process, the aquifer is "dewatered", however, having been removed in this fashion, is contaminated with coal, uranium, lead, arsenic and other minerals. Some of this water is used in a slurry pipeline. The slurry pipeline from Peabody Coal's Black Mesa mine constructed by the Bachtel Corporation, of ETSI, and- at full capacity can transport 660 tons of coal per hour over a distance of 275 miles. At the Mohave Generating station in Nevada, the 50-50 coal water solution is drained, and electricity is produced. In the process, the Four-Corners area loses water.

What water remains in the Four-Corners area, has been decreasing both in quantity and quality. In 1973, the Environmental Protection Agency sampled groundwater at Laguna Pueblo, site of the Anaconda-Arco uranium strip mine, and found widespread radiation contamination. In 1975, the EPA returned to the Grants Mineral Belt, the southeastern border of the Colorado Plateau, and found widespread ground water contamination attributed to uranium mining operations of United Nuclear-Homestake Partners., and Kerr McGee corporations. In 1977, T.E. Kelly of Geohydrology Associates Inc., of Albuquerque, determined that underground water in the Morrison formation was potable. "The only region of the formation which shows a dramatic variance is in the Ambrosia Lake region, an area where extensive mining has agitated the awuifier over the past 20 years. In that area, the water is non-potable, due to high concentrations of dissolved

minerals..." (Albuquerque Journal, July 11, 1978). All mining operations in the Ambrosia Lake area are for uranium.

LET THEM EAT YELLOWCAKE

"The thing about this energy development," said one New Mexico resident, "is that once the ball starts rolling, it's hard to stop the game." Oil extraction, coal and uranium mining, power plants, high voltage transmission lines now nuclear waste disposal are all a part of the Four Corners and New Mexico's economy. Much more energy development is predicted for the future, all of which requires water. New Mexico State Engineer, Steve Reynolds states that agriculture presently uses nine times more water than industry in the state, but studies estimate that energy companies can afford to pay six times what a farmer can for water. According to the Quay County Sun (Tucumcari, NM, July 13, 1978), "the Public Service Land Company has applied for 40,000 acre feet of water. If the state engineer rejects the application and the company purchases water from existing rights holders, the cost might be figured into the rate base of Public Service Company of New Mexico."

Many communities are feeling dry. The Albuquerque Journal, (July 11, 1978) reports: Phillips Petroleum, Conoco, Tennessee Valley Authority- United Nuclear-Homestake and Mobil Oil, as well as Pioneer Nuclear's- all have projects located within a 15 mile radius of Crownpoint, New Mexico. The small rural town is concerned as its water supply lies in the same geologic formation that the uranium companies will be mining, and draining of water. Currently, Crownpoint is the only community which gets its water from the formation, but people within a 20 mile radius travel to Crownpoint for their water supply. Bureau of Indian Affairs representative George Musser, explained the feelings of local residents, "What concerns us is that there is no

guarantee the companies will be required to repair any damage that they may do to our water supply." Estimates predict as much as 100,000 acre feet of water will be pumped out of mines in the Crownpoint area each year within the next decade. "It's bound to hurt us," Musser said.

A hundred mines due north of Crownpoint, the tradeoff between agriculture and energy is again, in the forefront. The Navajo Indian Irrigation Project is located in the same place selected for up to 6 coal gasification plants. Both forms of economic development are not possible with the water resources of the area. However, State Engineer Steve Reynolds suggests that energy development may win the water war. "New Mexico may experience a shift from agriculture to industrial water use because of the energy boom in the state," Reynolds said.

WHAT ABOUT THE FUTURE?

As industrialization increases, more arable land is turned into desert. As reported in the New York Times (August 28, 1977), "It is estimated that fertile land is being denuded and destroyed at a rate of 14 million acres a year. Already about 43 percent of the planet's land surface is desert or semi-desert. Unless desertification can be slowed, some scientists say, fully one third of today's arable land will be lost during the next 25 years, while the world's need for food will nearly double..."

As the National Academy of Sciences reports, "in the mining process, the topsoil is not separated from the bottom soil, and the latter, (which contains salts), "creates a condition in which the soil to be reclaimed is so highly saline that it is doubtful that it can be used at all..." There are choices to be made. If you live on the land with respect, the earth provides well.

Low-level radiation - It's Everywhere

The concept of low-level radiation is hard to grasp - first, because you can't sense it, and second, because it's everywhere. Radiation is a naturally occurring phenomenon to which everyone is exposed. The problem with radiation is that people began spreading additional radiation into the earth, water, and air when they began nuclear weapons development - and that addition has increased even more through the use of radiation in x-rays and energy production.

People absorb radiation through all parts of their body and in all sections of the nuclear fuel cycle. Uranium is not an active, dangerous element until it is exposed to air and begins to break down into a series of radioactive substances. We are exposed to radiation from uranium and other mine exploration - it gets into our water, blows into the air, and is spread on the earth when samples are brought from underground. Blasting and digging done for uranium mining raise clouds of radioactive dust that can be inhaled by miners or blown out of mine ventilators, spreading radon gas over the countryside. The radon breaks down quickly into other radioactive particles known as "radon daughters," which can also contaminate the air, water and earth.

After the uranium is mined, it is transported to a mill to be processed. Movement of radioactive materials particularly affects dock workers and truck drivers, but the general population is exposed whenever a "nuclear traffic accident" occurs and they occur regularly. The mill itself causes contamination of the local area in several ways. First, the building itself becomes radioactive. Second, workers are exposed to radiation. Third, mills emit radioactive gases; and, most important, the wastes from mills, tailings, are fine-grain particles that are blown and leached into the environment.

When the uranium has been milled into "yellowcake," it is again transported by air, rail, or truck to a nuclear reactor or weapons facility. Again, the buildings themselves become "hot", and workers are contaminated. Water used to cool reactors is also "hot", and the plants regularly emit gaseous effluents that spread over the nearby area.

When the uranium is used up, the wastes are moved to a disposal site. One of the biggest problems facing the nuclear industry and the public is the lack of a way to contain these wastes until they are no longer harmful. Leaks from storage facilities also spread radiation into the air, water, and earth.

So, there is radioactive leakage into the environment at every stage of the nuclear fuel cycle and many ways. Radioactive substances from the air can be inhaled or water, roads, etc. We can also come in direct contact with low- or high-level radiation by swimming in or drinking contaminated water.

But people are not the only living things taking in radioactivity. Because radiation is long-lived, it is also transferred to people when it builds up in foods we eat. Plants take on radiation-plants that we eat ourselves and plants eaten by the animals we later eat. Fish, cows, clams, game, sheep, and other animals give people the radiation they have ingested. Milk produced by cows that have been exposed to radiation shows higher levels of strontium-90 as samples are taken nearer to the source of the pollution. (2 percent radioactive milk, anyone?)

The different kinds of radioactive substances that occur as uranium breaks down concentrate in different parts of the body. The amount of time it takes these different substances to break down to half of their original radioactivity (their half-lives) vary from 12 hours for Potassium-42 to 24,000 years for Plutonium-239. So, Plutonium we allow into the environment now will be dangerous to our descendants' distant descendants - and their plant and animal surroundings.

Sources:

U.S. N.R.C., Regulatory Guide 4.2, Revision 2, Preparation of Environmental Reports for Nuclear Power Stations, 1976.

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- Lillias Jones

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IONIZING RADIATION

THYROID
Iodine -131
(gamma) 8 days

SKIN
Sulfur -35
(beta) 87 days

LIVER
Cobalt -60
(gamma) 5 years

OVARIES
Iodine -131
(gamma) 8 days
Cobalt -60
(gamma) 5 years
Krypton -85
(gamma) 10 years
Ruthenium -106
(gamma) 1 year
Zinc -65
(gamma) 245 days
Barium-140
(gamma) 13 days
Potassium -42
(gamma) 12 hours
Cesium -137
(gamma) 30 years
Plutonium -239
(alpha) 24,000 years

MUSCLE
Potassium -42
(gamma) 12 hours
Cesium -137
(gamma) 30 years

LUNGS
Radon -222
(alpha) 38 days
Uranium -233
(alpha) 162,000 years
Plutonium -239
(alpha) 24,000 years
Krypton -85
(gamma) 10 years
SPLEEN
Polonium -210
(alpha) 138 days

KIDNEYS
Ruthenium -106
(gamma) 1 year
Plutonium -239
(alpha) 24,000 years
BONE
Radium -226
(alpha) 1,620 years
Zinc -65
(gamma) 245 days
Strontium -90
(beta) 28 years
Yttrium -90
promethium -147
(beta) 2 years
Barium -140
(gamma) 13 days
Thorium -234
(beta) 24 days
Phosphorous -32
(beta) 14 days

IONIZING RADIATION AND ITS
CONCENTRATION IN THE BODY
(Including half-lives of
the radioisotopes)

Source: Toxicology Mechanisms

22 AND COUNTING...

All told, there are 22 abandoned mills in the eight western states where uranium ore was processed for nuclear power plants and nuclear weapons. Those 22 sites, which operated between 1940 and early 1970's, left behind about 25 million tons of largely unattended waste "tailings" in piles and ponds, according to a June 20, 1978 report from the General Accounting Office (GAO).

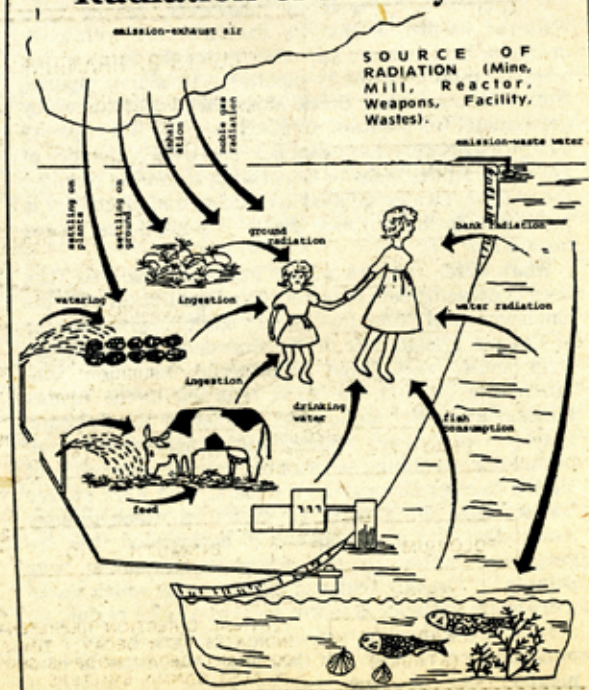
Those tailing piles plus the residue from 16 currently operating plants has produced a total of 140 million tons of uranium mill tailings accumulated at all US mill sites, according to Joseph M. Hendrie, chmn. of the Nuclear Regulatory Commission (NRC). The NRC estimates that as many as 109 mills will be necessary for US uranium needs by the year 2000.

In 1977, those 16 operating plants added 10.3 million tons of tailings to the national supply and the amount of waste generated can be expected to grow as the nation's reliance on nuclear power increases, according to an Energy Dept. spokesperson.

William D. Rowe, deputy assistant administrator for radiation programs at the Environmental Protection Agency (EPA) says that uranium tailings may constitute

one of the most severe radiation problems in the nation, both as to its individual exposure and the number of people exposed. About 85 percent of the radioactive material occurring naturally in the uranium remains after the tailings have been processed. The principal components and sources of the radioactivity are radium and thorium. Radium takes thousands of years to decay enough to lose its radioactivity, according to the GAO. As it decays it gives off two highly dangerous substances - gamma radiation and radon gas. Exposure to enough gamma radiation can cause cancer, says the GAO. Radon gas diffuses into surrounding air and as a result exposes people to radiation who may not be in the area.

Radiation & Life Cycle



I GOT THE DNA BLUES

"When a photon of high energy radiation enters the human body, one of four things is likely to happen:
1) it will pass through the body without hitting anything;
2) it hits some part of a cell in the body and causes damage but the cell is repaired;
3) it hits a cell of the body causing its destruction or damage - so it cannot reproduce itself;
4) the cell is damaged and survives to produce a group of disturbed cells that eventually is diagnosed as cancer.

Every normal living cell of the human body has a nucleus in which are 46 chromosomes... each of the chromosomes carries the genes which in combination correspond to millions of books instructing the cell what to do under a great variety of situations...When radiation enters the cell it is like a madman entering a library and destroying pages from thousands of books in this cell library..."

Dr. Karl Morgan, Professor of Health Physics, Georgia Institute of Technology

THE INFLUENCE OF UNION CARBIDE...

BACKBONE OF THE NUCLEAR INDUSTRY

Incorporated in New York in 1917, a precedent was established for Union Carbide's growth plans with the acquisition of stocks in four other corporations and their subsidiaries. Today the American based multinational has subsidiary operations in 36 other countries and in Puerto Rico. Its sales alone in 1978 were more than \$7 billion, qualifying it as one of the 25 largest individual corporations in the United States. Although the company's beginnings were more than auspicious, its phenomenal growth over the past 60 years could never have been anticipated by its original founders.

Union Carbide was at first based in operations of carbon production and air products, it soon diversified into chemicals and metals production. In 1927, the company acquired lands near Rifle, Colorado, "beginning an adventure in mining," states a 1978 Engineering and Mining Journal article, "that today covers portions of Wyoming, Utah and Colorado." Yet, Union Carbide's international mining history predates 1927, for in 1923 it became involved in Rhodesia with the purchase of a chrome mining operation there.

Today Union Carbide owns two chrome mines and one chrome alloy smelter in Rhodesia. In violation of an International Law passed by the United Nations calling for an economic boycott against Rhodesia's repressive regime, Union Carbide continues its operations, strengthening the economy and promoting the apartheid policies of the white minority government. Year after year, stockholder resolutions presented to UC's board of directors and management call for withdrawal of operations in South Africa, but the resolutions are either overruled by voting or largely ignored.

This policy is not surprising. A breakdown of stockholder voting rights reveals that the top 25 shareholders vote 22 percent of the entire stock and those 25 principal stockholders are nearly all banks and investment companies. The top two, Morgan Guaranty Trust Company and Manufacturers Hanover Trust, have directors who also sit on the board of Union Carbide. (Voting Rights in Major Corporations, Commission on Gov't Affairs - US Senate, 1977). Union Carbide is indebted to these two corporations and their affiliates to the tune of approximately \$30 million. It would appear it is in the best interests of these stockholders to vote for Union Carbide and the company's policies, since all benefit economically. (Union Carbide Proxy Statement, 1979)

UC's 15-member board includes directors who sit not only on the boards of Morgan Guaranty and Manufacturers Hanover, but on over 50 major corporations, over 20 of which are major financial institutions. Katherine Wriston, UC's only woman director, is married to Walter B. Wriston, a director of various corporations, not the least among them being General Electric and the Rand Corp. Another director, Ian Sinclair, is on 25 corporate boards. (Standard & Poors Directory, 1978).

In addition to its enormous economic influence, US Board members have political connections as well. Russell Train is a former administrator of the Environmental Protection Agency, (now a member of the Tri Lateral Commission), Roberto de Jesus Toro is the Pres. of Puerto Rico's largest bank and Jerome Holland is the former US ambassador to Sweden. This vast array of financial, political and social connections UC's board represents enhances and influences the company's operations worldwide.

Union Carbide's three major lines of business are chemicals and plastics, accounting for approximately 42 percent of sales; gases, metals and carbons, accounting for 35 percent of sales; and consumer products (including well-known Glad Bags, Prestone Antifreeze, Simoniz waxes and polishes, Eveready Batteries, and Amchem agricultural products - herbicides), which account for 22 percent of sales. Net income in 1978 for these divisions combined was \$394 million. The metals and carbon division alone accounted for 18 percent of sales and 24

The Crucial Link: Enrichment

The company runs two out of three uranium enrichment facilities currently operating in the world (one plant may soon be in operation in South Africa). These plants take "yellowcake" uranium ore and turn it into uranium oxide. This is a necessary step in the nuclear fuel cycle. All three plants operating in the United States are under contract from the Department of Energy - two are contracted to Union Carbide, and the third is contracted to Goodyear Tire. Union Carbide funds, however, supported construction of the Portsmouth plant now operated by Goodyear. The Union Carbide facilities are located at Oak Ridge, Tennessee and at Paducah, Kentucky. Although these three plants are undergoing a \$1.5 billion dollar improvement program, their production capacity will not be enough to meet enrichment demands.

The Department of Energy has estimated that the company's Paducah facility uses 30 percent of Kentucky's electricity, the Oakridge site consumes about one-half of all electricity consumed by industry in Tennessee.

These plants have been operating since the second world war - the site was selected because of discounted electricity rates of Tennessee Valley Authority and the reorientation of the Oakridge operations into a field office where "beneficial applications of atomic energy" could be developed after its wartime mission had been accomplished. Outcroppings of the Oakridge operations sprang up in Kentucky, Ohio, California and Puerto Rico. The operation is still "classified" - each year contracting uranium oxide to nuclear power plants and facilities in 20 states and 8 foreign countries.

A breakdown of the principal program activities at Oakridge Nat'l Labs shows that 26 percent of operations concentrate on Nuclear energy development and 13 percent is devoted to biomedical and environmental research. 1 percent of operations is applied to solar and geothermal R&D combined.

In 1977, the toll paid by utilities for fuel services was \$423 million, up from \$332 million in 1976. This rate for

required to pay taxes or other charges on the facilities. SOURCES: "Nuclear Power - The Unviable Option", John Berger, 1974. "The ERDA Facilities", ERDA, August 1977.

percent of pre-tax income, giving it the largest return produced by any division of the corporation. (UC Annual Report 1978).

This success in UC's Metals division is attributable largely to extensive mining operations in Western states of the US. The company is engaged in either processing, mining or exploration for uranium ore bodies.

UC's operations in Colorado include a uranium processing mill at Rifle, another mill at Uravan and 25 uranium mines in Colorado and the eastern part of Utah. In Texas, 300,000 lbs per year of uranium (nearly 8 tons of uranium ore is required to produce 1 lb of uranium) are mined from UC's in-situ leaching operation in Duval County. US has a mill at Gas Hills, Wyoming and another proposed at Red Desert in Sweetwater County. The company expects to produce 1 millions lbs of uranium oxide at Gas Hills this year.

In New Mexico, Union Carbide is drilling and mining northeast of Albuquerque in the Hagan Basin. They have leased 36 square miles on tract of land near the Southeast

corner of the San Felipe Indian reservation and have drilled over 200 exploration holes in the area (State Engineers office records). Should UC find uranium which is "economic to mine" on San Felipe, a mining and milling complex is almost sure to result with effects on the water supply the same as a sign reads outside the company's Uravan, Co. complex, "River Water Not Drinkable."

In South Dakota, UC has illegally begun uranium exploration in Craven Canyon, Custer National Forest. The company initiated exploration without state approval. The company plans to "audit" the sight, and possibly begin mining with the heap leaching process, near Robinson Flats - north of Edgemont.

Union Carbide received funds from the Department of Energy to do uranium exploration of one-fourth of the Pine Ridge reservation. However, the Tribal Council refused to authorize any permits. The company has also received DOE funds, which it transferred to RE-SPEC Corporation, who has discussed nuclear waste disposal near Phillip, S.D.

UC states that it is "devoted to production and research in atomic and nuclear energy areas." (Annual Report 1978). Testimony to this devotion are the Oak Ridge National Laboratories and Y-12 Plants in Tennessee and the Oak Ridge Gaseous Diffusion plant in Paducah, KY, both of which Union Carbide operates for the Federal government. (See box).

Also related to UC's Metals operations, is the fact that the company has closed down several mining operations in the country leaving behind radioactive mill tailings piles. When the Maybelle, Colorado facility was closed UC left 2,600,000 tons of highly toxic tailings. Estimated clean-up cost is from \$250,000 to \$4.5 million. UC also owns the currently inactive New Rifle and Old Rifle Sites and the two Slick Rock operations also in Colorado. 3,437,000 tons of radioactive tailings with estimated clean-up costs from \$224,000-20 million are involved at the two Rifle sites. Overall, approximately 6 million tons of tailings have been abandoned in Colorado. There is also an inactive mine at Green River, Utah. It has 123,000 tons of radioactive tailings with estimates of clean-up between \$700,000-926,000. (Congressional Quarterly).

Since 1976, Union Carbide has been trying to "clean up its act". The nature of its operations, based in chemicals and plastics, has meant environmental pollution since its inception in 1917. After years of environmental violations in West Virginia, to the point where the government took action, Union Carbide was humiliated enough (Fortune,

the public's benefit.

But while Union Carbide has actively engaged itself in placating the public, its involvement in nearly every phase of the nuclear fuel cycle is growing. Uranium mining and milling, the front end of the nuclear fuel cycle will soon effect South Dakotans, if we allow it to happen.

COMPANY POSITION ON THE ISSUES

MEETING FUTURE FUEL REQUIREMENTS FOR GENERATING ELECTRICITY:

"Nuclear energy and coal are essentially the only ways the country will be able to meet its growing electricity needs over the next 25 years"

IMPROVING LIVING STANDARDS IN SOUTH AFRICA:

"We know that our presence in South Africa is a force for constructive change. We may not have changed the minds of the government, but we have certainly improved the lives of our employees ... If we left, they are likely to be far worse off than in our employ."

CONTRIBUTING TO WORKABLE, REASONABLE REGULATION:

"We must restore public trust in business..."

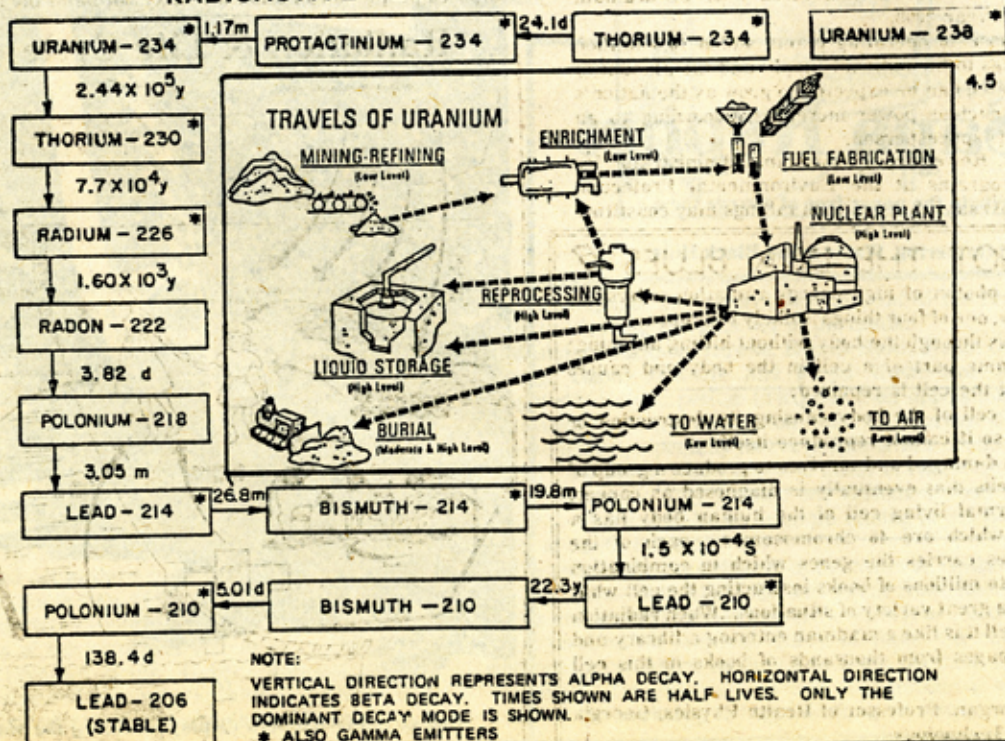
(Union Carbide Annual Report, 1978)

From Walter Wriston, Chairman of the Board of Directors of Citicorp, on the Board of General Electric, and husband of Katherine Wriston, a director of Union Carbide.

"...Concerning planning and implementation of the National Energy Policy..." to grant the President and a panel of four or five wise people the absolute authority to suspend all restrictions in order to permit the construction of five to ten huge energy projects." By limiting the number of projects, we would limit damage to the environment. We have to be prepared to say, 'The steam shovel starts tomorrow morning, and the snail darter will go the way of all flesh, but the lights won't go out...No growth is another way of saying dying..."

(Time Magazine, August 13, 1979)

RADIOACTIVE DECAY CHAIN OF URANIUM 238



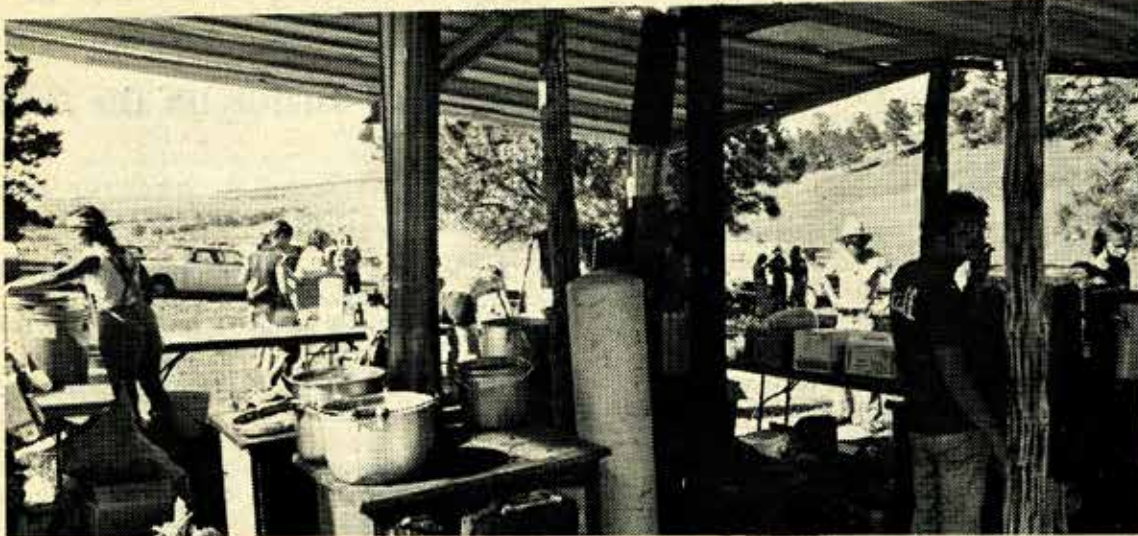
A NATIONAL GATHERING OF THE PEOPLE



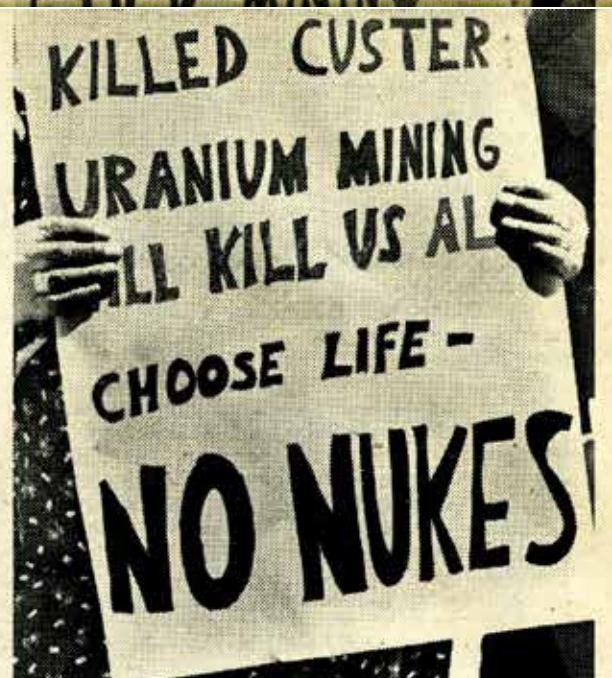
The walk as it proceeded along Hwy 79 towards Piedmont.



Leonard Rifus, cartoonist for the BHA



The kitchen which fed 2000 hungry mouths during the Gathering Weekend.



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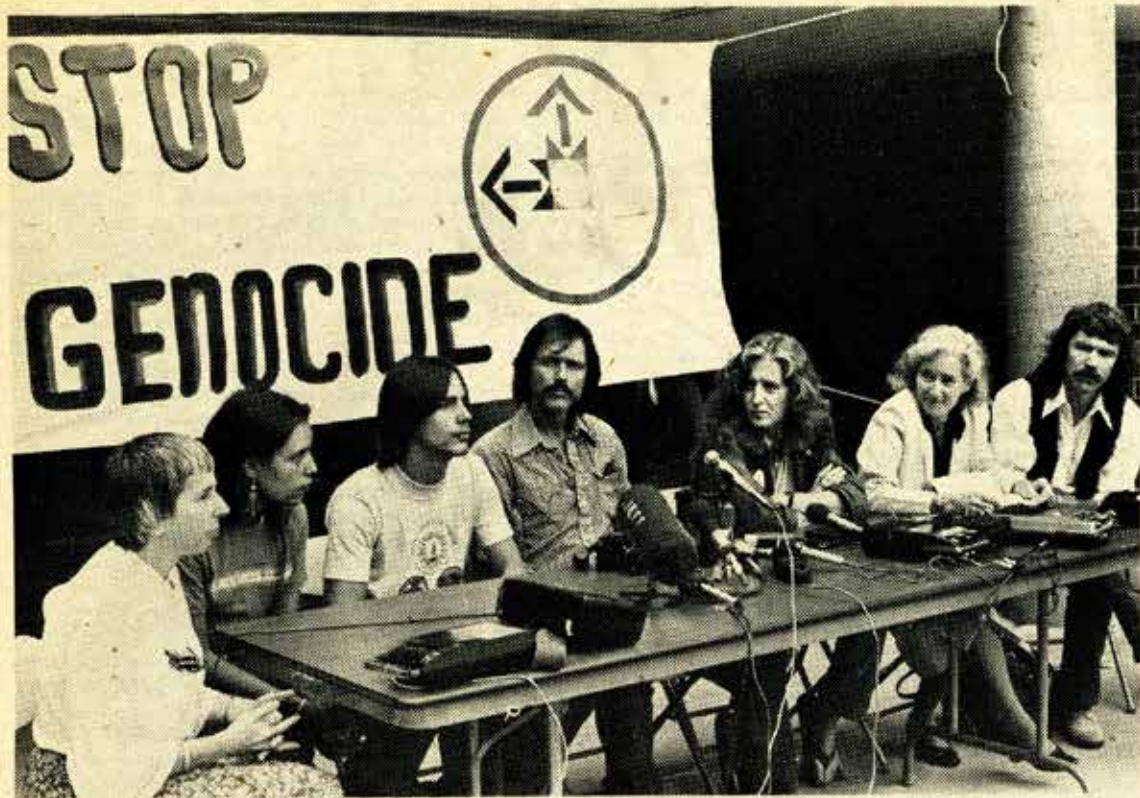
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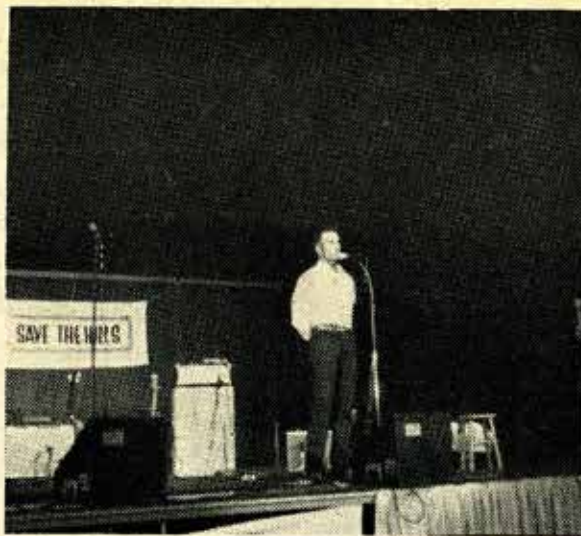
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Rapid City, S.D. 57709
605-342-5127



One of many banners displayed during the walk.



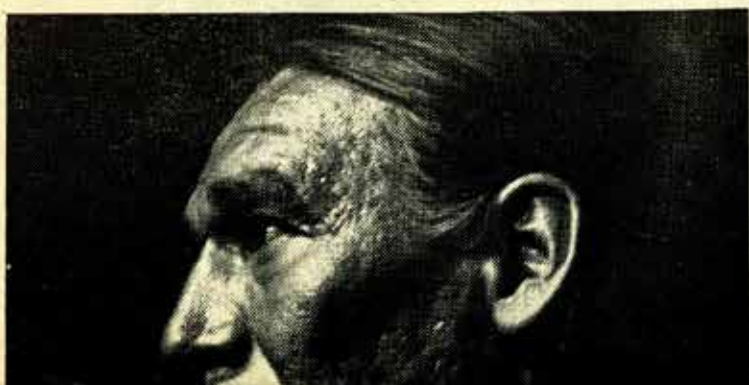
Preceding the Symposium on Friday, a press conference was held with the musicians and some of the featured speakers. From left to right: Sister Rosalie Bertell, Winona LaDuke, Jackson Browne, Jesse Colin Young, Bonnie Raitt, Judith Johnsrud & Danny O'Keefe



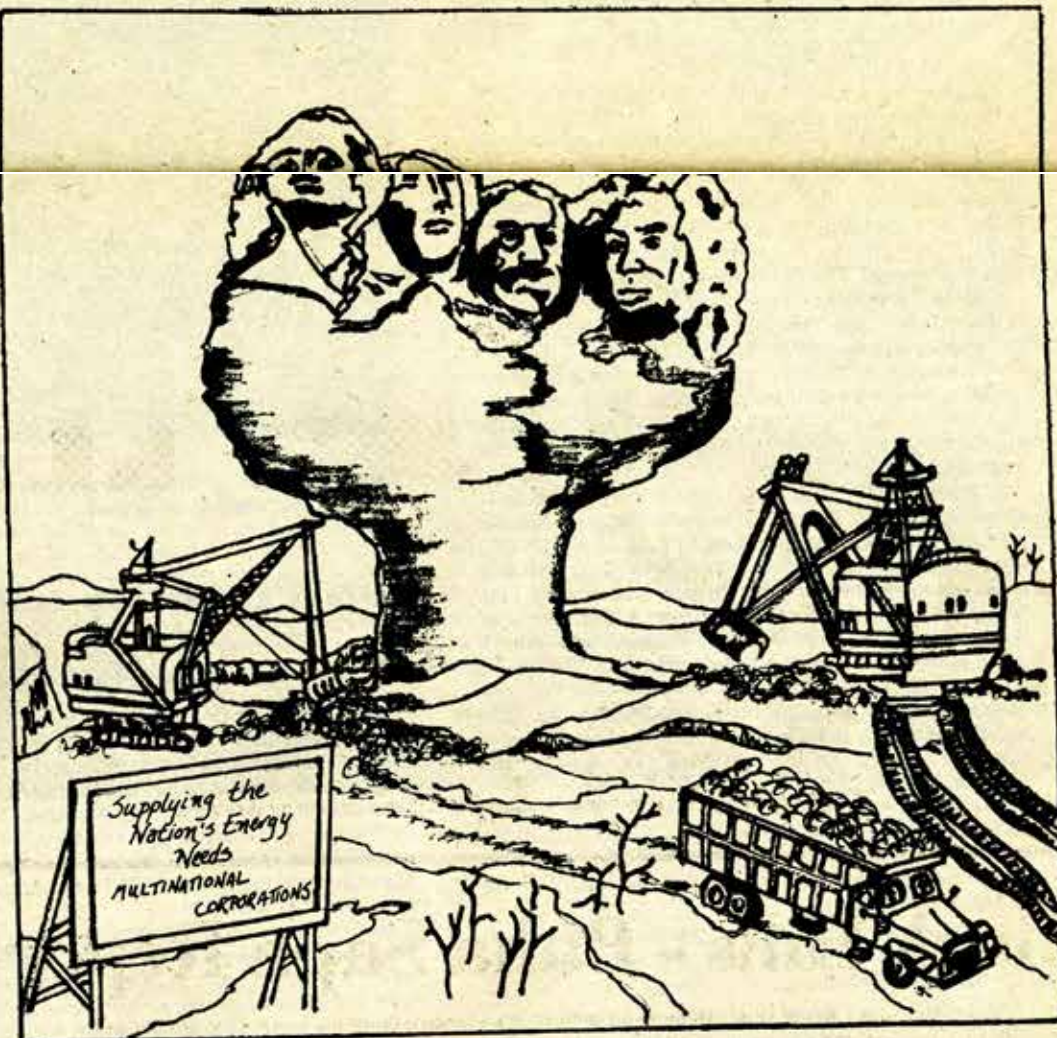
Marvin Kammerer, 3rd Generation Rancher in the BH Area, spoke Friday nite at the Symposium.



Young Anishnabe (Chippewa) Boy.



Floyd Westerman - Lakota Musician.



Excitement filled the air July 6-8 as thousands of people gathered in the Black Hills to protest uranium mining and vocalize about the future.

A "Save the Hills Symposium" on July 6 drew over 7,000 people to hear speakers such as Dr. Judith Johnsrud and Sr. Rosalie Bertell expound on the extreme dangers of a radioactive environment and the need to continue and increase pressure on local, state, and national government, as well as organize and educate private citizens.

Political speakers, such as John Trudell, and Bill Means lashed out at the American Government and corporate state. These men, as well as many others, contend that red and white people are not enemies - rather they are subjects of the corporate system.

Third generation South Dakota rancher Marvin Kammerer spoke of the aesthetic value of the Black Hills and the spiritual significance to Indian People. Kam-

merer compares the mineral development of the Black Hills to "tearing the guts out of Jerusalem."

Musicians Jackson Browne, Bonnie Raitt, Jessie Colin Young, Danny O'Keefe and Floyd Westerman participated in the symposium to express their opposition to centralized energy production and to oppression of human beings, especially native people of this continent.

The 4,000 people who walked 15 miles in blistering hot temperatures on July 7 made one statement loud and clear - There shall be no uranium mining in the Black Hills of South Dakota.

The people who participated in the National Gathering of the People - both local folks and people from dozens of states and several foreign countries - are now focusing on organizing for survival. Many of these individuals gathered in workshop on July 8 to begin planning for a "Gathering for Survival" in 1980. Commitments were made at the workshop to begin working on nearly every

aspect of the coming event; from an ecologically designed village and alternatives in health, education, communication, etc.; to forums for traditional governments, treaty councils, and a Review Commission on the Energy Developing Corporations.

The 1980 Gathering is designed as an integrated approach towards survival without dependency on the corporations which seeks to dominate and control the lives of all people. The Gathering will be coordinated with other 1980 events, such as the march on Washington, to insure an orderly and continual focus on the threats posed by the energy corporations.

Organizations and individuals interested in sponsoring or working on the Survival Gathering are encouraged to contact the Black Hills Alliance, who will host the 1980 event. Direct all correspondence to "Survival", Black Hills Alliance, P.O. Box 2508, Rapid City, SD 57709, or call 605-342-5127.

Do we - or will we - have any rights?

It is easy to limit our knowledge and action to local conditions - there is plenty going on in all of our "backyards." But legislation currently pending in the United States Congress, which could affect everyone's local conditions, also needs our attention. Several bills now in Congress, if passed, would curtail Constitutionally guaranteed liberties and would set dangerous precedents for further restrictive legislation.

Perhaps court decisions could lessen the effects of some of this legislation, but the cost would be high for all of us - judges' salaries, prison costs, and years of delay while the bills remained in effect. And the results of court cases are always highly uncertain. Considering the conservativeness of the present Supreme Court, there would be no guarantee that court battles would restore lost freedoms. It is better to act now to prevent the passage of these bills - and to continue to act as future legislation threatens Constitutional and human rights. Some of the bills currently under consideration are explored below.

S. 535: Introduced by Sen. H. Schmitt (N. Mex.). Now in the Senate Commerce Committee's Subcommittee on Science, Technology and Space. Hearings were held on July 18-20. Currently, state and local governments can pass laws that ban the transportation of nuclear materials through their area. S. 535 would block local control over nuclear waste transportation, giving the Federal government sole control over the routes wastes would travel. This would mean that local people would lose the right to say that they did not want to be exposed to wastes in transit, and would negate local laws that currently ban transportation of wastes.

S. Bill no. as yet unannounced: Proposed by President Carter. Sen. Kennedy announced on July 31 that he would introduce the bill after Labor Day, when recess is over. The legislation is an Intelligence Agency Charter and was initiated because of FHI abuses during the last 15 years. Kennedy may make some changes in the Carter proposal, but the bill is not likely to live up to its purpose of correcting FHI behavior. Rather, Carter's bill legitimizes much of that behavior, and "frees" the Bureau from having to respond to Freedom of Information Act requests. The proposal, if passed, would allow Federal Intelligence agencies:

Infiltrate an organization; procure personal tax, phone, bank, insurance, and other records; use location detectors; do photographic surveillance; search your trash - all without a warrant.

Violate the confidentiality of the doctor-patient and attorney-client relationships.

Have informants commit violent crimes without any penalty being imposed.

And there is no provision for oversight of intelligence agency activities by some other agency. Evidence gathered using the above methods would be admitted in court. Now, many of these methods lead to the prosecution being unable to use the evidence in court.

S. 695-H. 2659: Sponsored by Rep. P. Rodino (N.J.) and G. Danielson (Calif.) and Sen. Kennedy (Mass.). Now in the Senate Subcommittee on the Constitution. The bill would immunize Federal agents from being sued for violating people's constitutional rights. The government as a whole could still be sued by groups of people, but the legislation would remove an important safeguard on the actions of individual agents.

S. 226-H. 23; S. 109: The first of these bills was sponsored by Rep. C. Bennett (Fla.) and Sen. R. Morgan (N.C.). The second was sponsored by Sens. H. Byrd (Va.) and S. Nunn (Ga.). Both bills seek to reinstitute registration requirements for the selective service. Both bills were in the Senate Committee on Armed Services' Subcommittee on Manpower and Personnel until June 19, when S. 109 was put on the Senate calendar. The vote is still pending. The military has been pressing for reinstitution of conscriptive service since 1976, when the draft was discontinued, and it appears likely that some form of selective service will be voted in during this Congressional session.

S. 1437-H. 6869: Introduced by Sen. Kennedy (Mass.) and the late Sen. J. McClellan (Ark.). Currently in the House Committee on the Judiciary, having been passed by the Senate. Also known as "Criminal Code Bill" or "Grandson of S-1."

Several ways you could go to jail for organizing opposition to a nuclear facility near your community if S. 1437 becomes law.

Let us say that a group of citizens is opposed to construction of a Federal nuclear facility near their homes. That happens often today, and there is a lot of First Amendment activity in that area.

1. These people meet to plan a demonstration at the building site. Even if no demonstration ever takes place, that meeting could subject those who attended it to prosecution or investigation, at least by the FBI, under the broadened conspiracy law of S. 1437. They could be accused of planning to commit the new crime of obstructing a government function by physical interference.

2. Even if the people at the meeting never intended specifically to obstruct access to the building site, they could still be prosecuted for conspiracy, because the new conspiracy law abolishes the traditional requirement that a conspirator must intend to commit the underlying offense.

3. Any speaker at the meeting who urged the audience to obstruct the building site could also be prosecuted for the new crime of solicitation, even if the demonstration never occurred, or if it took place but no obstruction occurred.

The crime of solicitation is a crime of urging others to commit a crime, even if no specific act is taken by the others toward the commission of that crime.

4. Let us further assume that the demonstration does take place. Under these circumstances, a person who gave a friend a ride to the demonstration in his or her car, but left right away, could be prosecuted under the expanded aiding and abetting provisions of S. 1437, if it could be shown that the person had had a conversation with his or her friend about the demonstration and was aware that it might obstruct the site. The person driving would not have any intent to aid or abet in the commission of the obstruction, as is required by current law.

5. The demonstrators themselves could be prosecuted for a number of new crimes, in addition to obstruction of a government function. For example, if they were told by a military official to leave the area and did not do so, they could be charged with the new crime of violating a public safety order.

6. Finally, to carry the hypothetical situation one step further, if a journalist covering the demonstration was to interview a demonstrator, he or she could be prosecuted for the new crime of hindering law enforcement if he or she later refused to cooperate with the police by giving them the information gained. The journalist would be accused of concealing the identity of a demonstration leader.

In each instance, the crime is called "new." The crimes are built on existing law, but the existing law would be expanded to allow for these crimes if S. 1437 was passed.

S. 114: Introduced by Sens. D. DeConcini (Ariz.), Thurmond (S.C.) and S. Hayakawa (Calif.) which would reinstate the death penalty.

S. 1566: Passed by the Senate 95 to 1. This bill is in the House Judiciary Committee, and is one of the bills that would put aspects of S. 1437 in effect even if the legislation fails. S. 1566 would substantially relax the standard for allowing wiretaps - from "probable cause to reasonable suspicion."

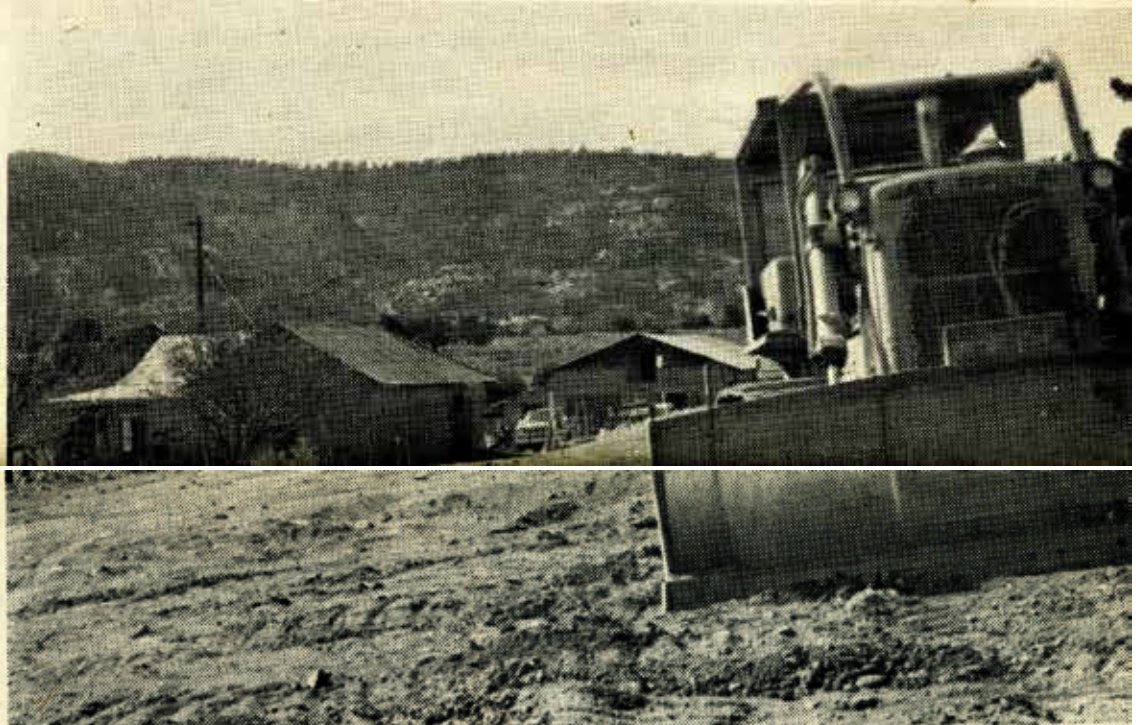
S. 826: Carter's Energy Bill. Currently in the Senate Committee on Energy and Natural Resources awaiting comment by the Department of Interior. Section 616 of this legislation would allow the Department of Energy to use Armed Forces personnel to protect its functions.

WHAT YOU CAN DO

If there is no organization fighting the passage of these bills in your area, further information can be obtained from National Committee Against Repressive Legislation, 1250 Wilshire Blvd., Suite 501, Los Angeles, Calif. 90017 (213-481-2435). Phone calls to legislators or to find out the status of a bill can be made to 202-224-3121.

Letter writing campaigns, lobbying, and public education can influence the legislative process. Senators can be written at Senate Office Building, Washington, D.C. 20510. Representatives can be written at House Office Building, Washington, D.C. 20515. Particular efforts should be made to influence legislators who serve on one of the committees that will make decisions on the bill and to reach legislators from your state.

-Lilias C. Jones



Marquez N. Mex. - where Bokum Resources Uranium Project has stopped at nothing. What rights do the people have?

Photo by Tom B.

Conversations with the Governor...

"The Department of Environmental Protection still exists in S.D.," stated Governor Janklow. "I just divided it up; waste disposal and Air Quality is in the Health Department, and Water Quality and Environmental Protection is combined with the Department of Water and Natural Resources. No one was fired, only the management board for the DEP was abolished, in fact it was actually expanded!"

Concern was expressed earlier this year after the Governor made these changes. It was felt the DEP would be left with little power to protect the Black Hills Region from half-hazard uranium development, considering it was now combined with the same department responsible for promoting the development of our natural resources.

The Governor has stated numerous times since the reorganization that the DEP will be a strong force in monitoring these activities.

"The changes were made specifically for that reason. I assure you, the decisions concerning uranium development will be monitored more closely through this reorganization. Not only will it be monitored by the DEP, but departments of Agriculture, Public Safety, Health and the State Planning Bureau will also play important roles in enforcement of rules and regulations set up to protect the environment and the people."

The Governor's air of confidence with the reorganization is hopeful for the people of S.D. concerned with uranium development. Channels of public participation through public hearings, written comments and letters of concern to the respective departments will aid in ensuring the protection of our land, water and quality of life in the Black Hills.

Janeen Walker

Land rights at Chama

Several hundred people gathered in Chama, Colorado for the National Land Rights Conference, July 19-22. The conference, sponsored by the Land Rights Council, Chama, was attended by Chicano, Native American and Anglo people of the southwest who are working together to protect the land.

The Land Rights Council was formed by people in the Chama area to regain rights guaranteed by treaty to the government to the Indigenous and Chicano people. The land has been set aside for the peoples' use in land grants and reservation land. The land had been mainly used for grazing, hunting, fishing and as a source of water. In 1960, a wealthy businessman, Jack Taylor purchased the last remaining 77,300 acres of this land and since this time the people have not been allowed the area. Taylor now has fences and armed guards, which prevents the people of San Luis Valley from entering what is legally their land.

During the conference and the Five mile protest where the participants discussed the friction between the Chicano and Indian peoples. Much of this friction has been caused over water rights, something desperately needed by all the people, but something which is being bought up and used by the mining and industrial development corporations.

The people also discussed environmental and social destruction of the southwestern United States as a result of energy resource exploitation, and made plans to prevent further destruction. The Black Hills Alliance was asked to participate in the Conference because many of the same companies who are operating in the Southwest are now moving their operations to the Black Hills area.

This conference provided evidence of the sincerity of people working to regain control of their lives and land upon which those lives depend.

Mark Fredrickson

Kerr McGee moves into Lawrence County...Howdy, Neighbor!

The Spearfish Chapter of the Black Hills Alliance has been working together since the early part of May 1979. The first attempt to bring people together on the uranium issue was made in conjunction with the Student Association of Black Hills State College. An information forum was held at the college campus in Spearfish, and was attended by well over one hundred people. Once established, the Spearfish Chapter began holding weekly meetings, circulating petitions, distributing literature, and researching Lawrence County's present status within the uranium plans for South Dakota.

On June 12, it was discovered that the Kerr McGee Corporation had filed a claim with the intent to explore for uranium within a fifteen mile radius of Spearfish. The public notice of this claim had been published in the Deadwood newspaper in compliance with the Administrative Procedures Act, but it failed to notify the citizens of the Spearfish area who are much closer to the location designated for exploration. Several new members of the Spearfish Chapter met the evening before Kerr McGee's hearing with the State Conservation Commission. At this time, it was decided to charter an airplane and attend the hearing scheduled in Pierre.

Lawrence County's State Representative, Kay Jorgenson, was delegated the group's official spokesperson. At the hearing, she attempted to explain the position of the group. She stated the group's main concerns dealt with the water question and the need for a more informative public hearing that should be held in the Spearfish community. Representative Jorgenson also presented the Commission with a petition of 177 signatures and 14 telegrams supporting the suggestion of a postponement of the Commission's decision until a new public hearing could be held in Spearfish.

The Kerr-McGee lease

1. That the said lessor for and in consideration of the sum of ten dollars cash in hand paid, the receipt and adequacy of which is hereby acknowledged and of...the said lessee, its successors and assigns and hereinafter described lands including all necessary rights, with the exclusive right and privilege to explore for, develop, mine, (by open pit, underground, strip mining, solution mining or any other method) extract, mill, store, remove and market therefrom all minerals, metals, ores and materials of whatsoever nature or kind, (hereinafter called leased substances), except for only oil and gas, and of using so much of the surface of said land as may be necessary, useful or convenient for the full enjoyment of all rights herein granted...
2. This lease shall remain in force and effect for a primary term of twenty years from the effective date hereof and as long thereafter as the Leased substances are being mined, processed or marketed from said premises on a continuous basis...Lessee is hereby granted the exclusive right to use structures, facilities, equipment, roadways, haulage ways... (herein called production facilities) installed on the Leased premises...
4. Lessor hereby reserves as royalty sums equal to the following:
 - A. For all uranium bearing ores which are mined, saved, and removed from the leased premises, by lessee royalty reserved to the lessor shall be eight percent of the mine value of such ores in raw crude form...
11. Lessee shall have the right at any time during or within six months after the termination or expiration of the lease to remove all property, tailings, fixtures, or structures erected or placed by the lessee on or in the leased premises, and to the extent that any thereof shall not be removed therefrom within said six month period, the then surface owner shall become the sole owner thereof....

WHAT THIS MEANS:

The Hermosa Couple who signed this lease with Kerr McGee for 207 acres of their land may be surprised at some of the consequences for short and long term use of their land. On the 207 acres, Kerr McGee can do anything, contingent upon approval only of regulatory agencies, and the corporate planning board coal mining, if there are coal reserves (which contain uranium) mines, mills, and tailings piles.

For the period of operations, the company can construct as many facilities as necessary for the project, and if not all facilities (and tailings piles) are removed six months after operations close down, the surface owner becomes the sole owner of the abandoned facilities. Mr. and Ms. Hermosa leasers, do you remember that Kerr McGee left 71 acres worth of mill tailings at a uranium mill site in Shiprock, New Mexico?

The Commission attempted to establish the purpose of the group's visit. It was decided that the group did not want to formally petition to intervene in a contested case of issuing the Kerr McGee permit, but rather to obtain information and ask the Commission for a delay in their decision until after the proposed public hearing in Spearfish.

After much discussion, the Commission decided that Kerr McGee had complied with the procedural requirements and it was the citizen's responsibility to read the legal notices published for their benefit.

Mary Weiland and Betty Juneck testified on behalf of the Spearfish Chapter of the Black Hills Alliance. They each expressed their concern that the exploration for uranium was only the first step in the nuclear cycle and that this was a consideration the Conservation Commission should weigh heavily when making their decision. Several of the commissioners proceeded to interrogate the ladies for very specific technical information, which they were unable to provide, being without the aid of experts in the particular areas. Documents that had been published by the Black Hills Alliance Rapid City office were submitted to the Commission and were immediately dismissed on the grounds of "hearsay evidence".

Black Hills Alliance's lawyer, Andy Reid, attempted to establish the legality of the administrative procedure for exploratory permit issuance. He reviewed each step Kerr McGee had to comply with and noted that the public hearings held in Pierre did not serve the best interests of the affected public. The State inspector, Hugh Miller, testified he had inspected the designated exploration area and the required report was on file at an undetermined location, but not in the possession of the Conservation Commission at this hearing. The Commission chairman, Wilbert Blumhardt, ruled that Mr. Hiller's word was enough for the Commission and they did not need the report in hand to make their decision. It has been since learned that Mr. Hiller's report was not filed with the Commission until June 25, eleven days after this hearing had taken place.

Lawrence County Commissioner, Jerry Apa, testified that the County Commissioners would like to see 1) legal notices printed in all three of Lawrence County's legal newspapers, not just one; 2) formal notification to the County Commissioners of a company's intent to explore, not just to the Register of Deeds and; 3) an amendment to

Lawrence County's planning and zoning ordinances that would require mining companies to obtain a permit from the County Planning and Zoning Administrator, furnishing the County Commissioners with more detailed information on the exact locations of the proposed holes. The Conservation Commission suggested the group hire a person to be trained by the Conservation Commission and let that person monitor the exploration activities of the mining companies, in Lawrence County.

Lawrence County Planning and Zoning Administrator, Steve Peters, stated it was the duty of the Conservation Commission to solicit as much public input as possible. A public meeting, such as the one proposed for this question, would serve the purpose of educating the public while alleviating misconceptions about the nature of uranium development. Representative Jorgenson echoed his thoughts, stating it would be good to "strike while the striking is good" and that they would then be doing their jobs "to the very limits of our abilities."

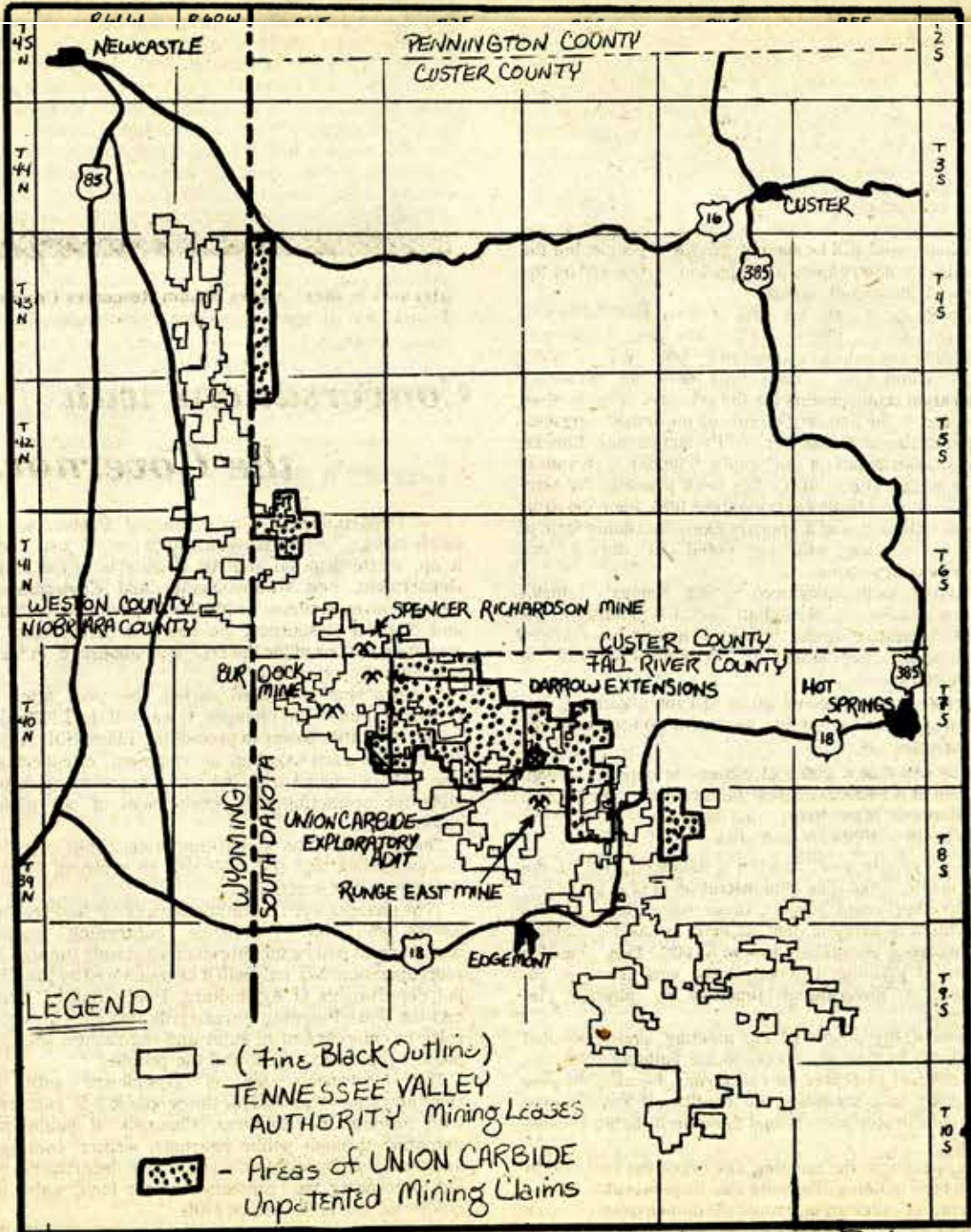
Larry Dolen, a representative of Kerr McGee, stated that the Black Hills Alliance "may be just a little unfair" to Kerr McGee by not inviting a company representative to attend a film showing held earlier that month in Spearfish. He urged the Commissioners to approve permit and then let the objecting citizens file an injunction to halt the drilling. He stated the company had complied with the state regulations. Mr. Dolen assured the Commission that there is very little possibility of radiation being released from drilling. "There is a lot more radiation released in the act of making love, and that's true," quipped Mr. Dolen.

Commissioner Spartz attempted to pass a substitute motion that would postpone the decision and provide time for a public hearing to be held in Spearfish, the Commission's decision to be made after the hearing. This motion failed by one vote. Kerr McGee was granted their permit by a one vote margin. The Spearfish Chapter of the Black Hills Alliance has since been watching for any further developments. Since Kerr McGee applied for a permit to drill seven holes and posted a \$20,000.00 bond, (or enough for up to eighty holes), there is some anticipation as to the real intent of Kerr McGee's uranium exploration in Lawrence County.

Source: June 14, 1979 transcript of the St. Conservation Commission Meeting.

Leslie Moody

URANIUM IN THE SOUTHERN HILLS



MONEY TO BURN

In a couple years, it may be hard for a South Dakota rancher to get a loan for his or her ranch. Why? People in government and industry now propose investments in large-scale, centralized energy systems. Amory Lovins, a Federal advisor, states that these investments would consume three-fourths of all private investment capital in the United States. ("Jobs and Energy," 1976) This money could be going into ranches, communities, and alternative energy development - but it is being budgeted for what is known as "Capital intensive" development.

The nuclear fuel cycle is a good example of capital intensive development, because each stage of the cycle demands the investment of large sums of money. And the amount of the investment keeps going up.

At the "front end" of the nuclear fuel cycle - uranium exploration, mining, and milling - the costs begin to build up. According to the Society of Mining Engineers (October, 1978), exploration activities in 1977 consumed some \$258 million - up 51 percent from 1976. In 1978, an estimated \$288 million was used, up an additional 15 percent over 1977. Construction of uranium mines and mills used another big chunk, \$492 million in 1977 - up 93 percent from 1976 - and an additional \$634 million in 1978.

Machinery, parts and labor are all expensive. For example, one uranium mine, Gulf Oil's Mount Taylor Project in New Mexico, cost the company \$140 million. The Mount Taylor Project is the most expensive undertaking in Gulf's history. Some of the money came from the company's treasury. A lot of it came from banks, which are the major investors in energy companies. The costs of any mining - whether uranium, coal, or taconite - are high. When all this mining is added together on the scale of the National Energy Policy, it means "mucho dinero" - a lot of money.

But mining is not the only part of the nuclear fuel cycle that is capital intensive. The President of Exxon Nuclear Corporation estimates that \$100 billion will be spent on the non-power plant portions of the nuclear fuel cycle by the year 2000; and that at least half a trillion dollars will be needed to build the 500 power plants he would like to see by that year.

What is happening is that the companies are investing

number of people employed. The Society of Mining Engineers estimates that stripmines produce more per manshift than underground mines - 11.5 tons compared to 3.7 tons. And one dragline mining machine produces more than a work crew. The machine costs almost a million dollars, but it also presents less problems than human workers. Machines do not demand higher wages, complain about safety and health, or go on strike. They also have no need for things like schools, hospitals, and other social services.

So capital intensive development means fewer jobs and higher productivity, and the trend in the energy industry has been toward capital intensive development and away from labor intensive development. Al Jenkins summed up the situation when he said:

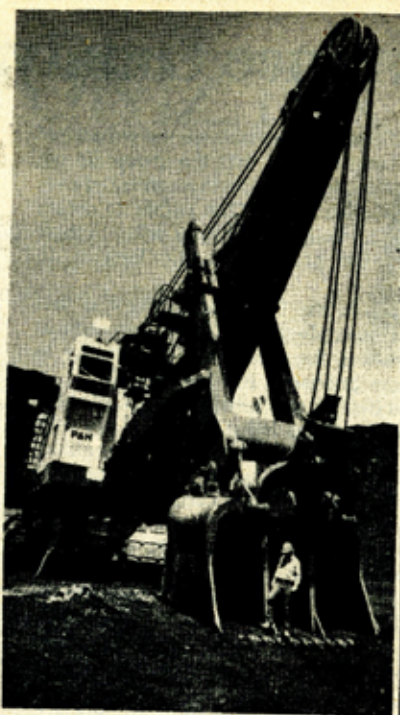
"As any worker knows, automation replaces people. The introduction of energy-consuming machines sets many capable hands idle. 'Productivity' goes up, much to the delight of owners and management. Yet as more energy is directed into productive industry through centralized systems, the unemployment lines grow longer."

A few people will make money, and they will make it quickly in the energy and mining industry. They will also consume large amounts of energy that could be used for labor intensive projects that would benefit more people. The last comprehensive study on energy use by industry was done by the Ford Foundation in 1968. That study showed that six types of companies consumed 68 percent of all energy used in industry while employing 25 percent of all industrial workers, or 7 percent of the nation's total work force. Those six industries were primary metals, chemicals, food, paper, stone-clay-glass products, and the petroleum and coal industry. Later statistics showed that, between 1950 and 1971, these industries increased their work force by 2.5 percent and their energy consumption by 105 percent.

While mechanization in the energy industry is profitable for that industry, it consumes the capital that banks could loan to small investors and discourages labor intensive projects, such as ranching and tourism. Senator George McGovern summed up the energy-unemployment situation neatly and provided a humane view of the future:

"I think the energy question is extremely important, but I think the unemployment - problem - is so critical and so painful that if we can relate these two issues together in a way that developing the best possible energy policy would also create the maximum number of good jobs, this is really what we are about..."

Perhaps a better way to say it would have been "This is really what we should be about."



Huge shovel for strip mining in Wyoming
Bitter environmental battles are brewing.
Time Magazine

Government and industry

Uranium public forum

S.D. Governor William Janklow and fellow state employees, mining and environmental representatives, and over 300 interested individuals participated in a public forum on uranium development in the Black Hills at the Spearfish Holiday Inn on August 8.

After a short presentation by each of the nine panel members, Gov. Janklow, as moderator, directed questions to the panel for the remainder of the 5 hour forum. The questions were submitted from the audience on note cards, as no verbal dialogue between the audience and panel was permitted.

Considerable time was spent in debating the effects of radiation. John Sanderford of the Black Hills Energy Coalition and Janeen Walker of the Black Hills Alliance spoke of government and private research concluding that radiation results in cancers and genetic damage.

disputed by industry representatives who claimed radiation to be nearly harmless.

Wally McGregor of Rexcon, Inc., said his mother is living proof that radiation is not really dangerous. The woman was fond of collecting mineral samples, and McGregor frequently sent her uranium specimens which she still displays in her living room. McGregor said his mother is now 84 years old and has a cardiovascular system any 50 year old would be proud of.

Following a question about the future liability of a corporation engaged in uranium development, Larry Werts of Kerr McGee said "I believe we are liable for anything that happens, and you cannot void that with time." Werts spent a considerable length of time elaborating on the responsibility and importance of a corporation being involved in the affairs of a community where they are operating. But as if debating himself, Werts then said "We have a mine in Gillette, but our people live in Newcastle. There is a reason for that". Mr.

Werts did not state that reason.

R.G. Beverly of Union Carbide said "We are concerned about the opposition which has developed uranium mining in South Dakota." Just weeks following the Black Hills Alliance rally and introduction of the Black Hills Energy Coalition Petition Drive, Union Carbide sent company representatives clear from the state to insure that South Dakotans receive the facts. I week Union Carbide was shut down for violating state law.

Governor Janklow has stated repeatedly that he "unalterably opposed" to nuclear waste disposal in South Dakota. "No state should be a dumping ground another states waste", he said. When asked by Sanderford to justify allowing uranium mining in the state but refusing the end waste product from the nuclear

Janklow feels the state is under staffed and financially incapable of protecting the citizens from hazardous development. He said legislation will be introduced next session which would raise the fee for exploration permits (presently \$25) to a level which would allow an inspector to be hired for each company drilling exploration holes.

When the meeting was halted at midnight, the Governor still had a stack of nearly 50 unanswered questions. While some people felt reassured by the dialogue, others were unhappy and frustrated.

"I'm afraid that until there's a commitment to keep uranium mining out of South Dakota, that I can't be satisfied by these assurances," lamented Sanderford. "I really can't believe...that Wolf Canyon and Craven Canyon will ever be the same again." "There are going to be costs. And in my opinion, the costs are not going to be worth it."

Carter's energy plan

Solution or pollution?

The problem is as grave as any America has faced since World War II - a national security issue of such scope and complexity that it is transforming the economy, threatening to destroy political boundaries, and undermining traditional lifestyles - THE ENERGY CRISIS!

Along with decontrol of domestic oil, natural gas, and gasoline - and strengthening ties to Canada and Mexico - the emphasis of Carter's energy policy focuses on the use of western fossil fuels.

Carter feels that the Dept. of Energy and Environmental Protection Agency must compromise safeguards to allow for extensive use of abundant fossil supplies.

We have huge domestic quantities of coal - enough to last more than 600 years at current consumption rates. The bad news is that health, safety, and environmental threats posed by mining and burning coal are severe. Its emissions cause respiratory ailments, contain carcinogens, and release more carbon dioxide into the atmosphere than any other fossil fuel, raising the possibility of a "greenhouse effect" - a warming of the atmosphere that could cause catastrophic climatic changes.

The federal government believes the most efficient method of transporting coal to be by slurry pipeline. The Energy Transportation Systems, Inc. (ETSI) pipeline (for which an Environmental Impact Statement is underway) has caused landowners, municipalities, and

environmentalists to worry about water shortages resulting from removal of billions of gallons of underground water.

The centerpiece of the new energy program may be the production of synthetic fuels from coal and oil shale. Carter has suggested construction of dozens of coal gasification plants in the East, and a federal agency to spend \$46 billion by 1995 to produce 2 million barrels of synthetic fuels per day.

Air pollution notwithstanding, the most severe impact from a dependence on fossil fuels will likely be on water quantity and quality. Coal fired power plants, coal slurry pipelines, and coal gasification plants all require tremendous volumes of water.

Only a small token interest has been directed at the unlimited source of energy from the sun and wind. Until the production of energy is taken from the control of the oil conglomerates by the consumers themselves, the federal government will likely remain unwilling to focus significant money of attention on renewable resources.

Energy Research and Development Administration
Budget, 1978.

Conservation	\$244 million
Fossil Fuels (coal, shale, etc.)	\$519 million
Solar	\$250 million
Fission (fuel cycle, enrichment)	\$1 billion, 715 million
Nuclear Weapons	\$1 billion, 913 million

Introduction to an alternative lifestyle

Growth and progress have become bywords of America during the past half century. "Growth" has taken on an economic perspective for most families — larger homes, the late model autos, new trail bikes.

"Progress" is an ever-increasing percentage of the population enjoying a higher standard of living. That standard is defined only in dollars and cents.

The current economic situation, as well as the ever present energy problems, have inspired many people to begin questioning the real meaning of growth and progress.

The realization that monetary gain does not necessarily reflect proportionate gain in the quality of life is rapidly becoming a part of the American consciousness. A high consumption rate of goods and services require a high use of energy. Acquiring and producing this energy is having an unquestionably dramatic impact on the basic for survival — air, earth and water.

Man must breathe the air, eat food from the earth, and drink its water to survive. Therefore, as we strive to raise our standard of living, we also jeopardize our existence as a species.

Standard of living is a poor excuse for endangering the survival of mankind. Within our immediate reach are the technologies which can lead us into a comfortable and prosperous lifestyle.

Readily available is the knowledge necessary to utilize the safe and abundant forms of energy which have minimal impacts on the quality of the environment. Quality of life, rather than corporate profits, must become the standard for choosing energy sources of the future.

As of today, the majority of our society is dependent on the large corporation and the government to provide them with the basic necessities. Food is grown in the supermarket. Clothing and shelter are mass produced. Fuel for heating and cooking comes from far away powerplants and refineries. Nearly all of these goods must be shipped long distances to reach the consumer, which creates a total dependency on gasoline and the corporate giants.

We have a choice. We can use our own intelligence and ingenuity to seek alternatives to the centralization of the corporate state. Food can be grown at home. Goods and services can be traded with neighbors. Building construction, auto maintenance, health care, etc., are not skills which must be reserved strictly for specialists, — they simply take learning and perseverance. We can minimize our needs and energy consumption.

The break from corporate control is not out of reach. It is a matter of choosing to care for ourselves and our neighbors, rather than allowing the corporations to exploit our needs to maximize their profits.



The white tenant lives adjoining the colored tenant. Their houses are almost equally destitute of comforts. Their living is confined to bare necessities. They are equally burdened with heavy taxes. They pay the same high rent for gullied and impoverished land.

They pay the same enormous prices for farm supplies Now the Peoples' Party says to these two men, "You are kept apart that you may be separately fleeced of your earnings. You are made to hate each other because upon that hatred is rested the keystone of the arch of financial despotism that enslaves you both."

You are deceived and blinded that you may not see how this race antagonism perpetuates a monetary system which beggars both...

The Farmers Alliance 1888.

Provided by Harvey Wasserman



ANNOUNCEMENTS

McGovern sets energy meeting

Senator George McGovern has recently scheduled the Western South Dakota Energy Development Symposium for August 22, 1979. The Symposium will be held at 1:30 p.m. at Gill's Sun Inn in Rapid City.

According to Senator McGovern, there will be a panel to focus on the development of oil and gas in South Dakota. There will be a separate panel to examine the uranium and taconite mining and milling issue. The panels will be composed of state and federal officials, representatives from various energy industries as well as concerned local citizen and environmental groups.

The purpose of the meeting will be to "achieve some consensus on ways to balance South Dakota's ongoing need for economic development with our need to preserve our water supplies and the environment."

Alternative energy users sought

The South Dakota Public Utilities Commission (PUC) is seeking information from alternative energy users and advocates of South Dakota. The Commission would like to contact persons using domestic solar hot water systems, solar space heating, wind generating units, geothermal energy, or nearly any other type of appropriate technology.

The PUC is compiling information on solar users to use as communication and educational tools which would stimulate interest in solar applications. The commission then directs other interested individuals to contact the existing solar users in the state for advice.

After attending a solar energy symposium in North Dakota, PUC researcher Gwen Steingraber was inspired by the simplicity of constructing a solar collector, such as the one she helped build from scratch. The PUC is focusing their attention on the homemade variety of solar collectors rather than the commercially available units. Steingraber says the PUC is "really actively encouraging people that they can do it themselves — TODAY. It's really cheap and easy."

The commission has not received many replies yet to its request for solar users, and expects the extent of solar application in South Dakota is small. Steingraber says that most people have the false assumption that solar energy is a thing of the future, or that solar units must be commercially purchased at unrealistic prices.

The PUC is also interested in cooperating with electric utilities to compile detailed information about electrical consumption. This information would help the PUC and other agencies in assisting people in efforts to lower their utility bills.

"Do-it-yourself" solar users should send their name, address, and phone number to Commissioner Ken Stofferham, PUC, State Capitol, Pierre, SD 57501.

Coalition launches campaign

The Black Hills Energy Coalition (BHEC), has launched a campaign to collect 13,000 signatures by Feb. 1980 in order to put an initiative on the 1980 ballot that would give South Dakotans the right to vote on decisions directly related to uranium development in the state.

If enough signatures are collected, and the citizens of S.D. vote it in; it would enable the voting public to decide on such issues such as uranium mine and mill sitings, health, & safety, and water regulations, and whether or not South Dakotans would allow nuclear power plant or waste disposal sites within the state.

The initiative was drawn by Reed Richards, Deadwood atty. and John Sanderford, BHEC Chairman.

Over 140 people were in attendance at the kick-off meeting held in Rapid City in July. Information was relayed concerning impending nuclear development and rules for circulating the petition. All signatures must be legible, circulators of the petition were encouraged to make a type-written explanation of illegible names and addresses so that they won't be disregarded. Petition circulators and signers must be registered voters of S.D.; only the person to whom the petition was assigned to is to circulate it; individuals are to write their street address instead of a post office box so the persons checking voter registration can find them through respective wards within the counties of the state.

Sanderford is confident about getting enough signatures. The BHEC is planning more strategizing meetings in both the West and East River areas in order to stimulate interest and encourage more people to circulate the petition.

South Dakota is one of the first and few states which allow a citizens' initiative to become a law, he feels it is an excellent channel for South Dakotans to vote on their future on state and nuclear - fuel developments.

Federal and Indian lands may not be effected by this petition, so more involvement with the Lakota and Federal government is needed.

Gov. Bill Janklow recognizes the petition as a very effective measure to bring the general public into a decision - making body that will play a very important role in the decisions made on nuclear development.

Individuals interested in circulating, signing, or setting up petition meeting should contact the BHEC, Box 8092, Rapid City, SD, 57709; or call John Sanderford at 348-1822.

It's not just our future, but our children's' also...

Nat'l nuclear waste dumps

On September 28th, 29th and 30th, 1979, a national gathering of people will take place physically and spiritually demonstrate opposition to the first permanent nuclear waste dump in the U.S. The gathering will take place at Florencia (Loving), New Mexico - 12 miles from the proposed site known as WIPP - Waste Isolation Pilot Project.

The gathering is being coordinated by the Florencia Land Rights Coordinating Committee, a Chicano organization, working with Native American and Anglo organizations in the area.

The Department of Energy proposes to bring over 2,000 acres (underground) of nuclear wastes over a 20 year period into the area, located near Carlsbad Caverns, New Mexico. The people are concerned about the toxicity of wastes - some of which last up to 250,000 years, and the effect of nuclear waste dumping on life forms, water and potash reserves located in the area. The area of southeastern New Mexico contains significant potash reserves for fertilizer.

People are asked to support resistance to becoming a nuclear waste disposal site, the waste transportation will effect us all!

For more information contact: Florencia Land Rights Coordinating Committee, PO Box 1326, Florencia (Loving), NM 88256, or American Indian Environmental Council, PO Box 7082, Albuquerque, NM 87194.

To facilitate the important information exchange, we encourage groups and individuals to utilize the services available through the Black Hills Alliance. The BHA can provide literature, speakers, films, and technical information upon request.

Please inform the Black Hills Alliance of organizing efforts in opposition to destructive mining, as well as events in which the BHA might participate aimed at protecting the land and the people.

The Black Hills - Paha Sapa report welcomes manuscripts, photos, and other materials for publication. We can take no responsibility for unsolicited materials.

We encourage all publications to contact the BH - PS Report to establish a newsletter exchange. A limited number of bulk copies of the Report are available for distribution.

Craven Canyon

Getting the shaft

Steep rocky ridges and near vertical cliffs dominate Craven Canyon, where Union Carbide is excavating a 2,000 foot uranium shaft. Numerous small, spring-fed pools can be found along the streambed of the intermittent creek. It was here on the fringes of the Black Hills where indigenous people sought shelter from the frigid winters of the Great Plains. Still today, petroglyphs, cliff writings, and artifacts can be found throughout the area.

Craven Canyon is now under jurisdiction of the U.S. Forest Service, to whom Union Carbide submitted an operating plan earlier in the year for its exploration adit. Of three possible options - 1) approval of the operating plan, 2) approval of the plan with modifications, and 3) requirement and preparation of and Environmental Statement - the Forest Service chose to approve the operating plan pending specific modifications.

The Forest Service indicated in its Environmental Assessment Report (E.A.R.) that "there will be no significant effects upon the quality of the human environment," and therefore no Environmental Statement would be needed. In fact, according to the E.A.R., the requirement of an Environmental Statement was not heavily considered.

The exploration is being undertaken to determine if the mineral deposit warrants further development. Union Carbide has already conducted extensive core drilling exploration and is now driving the adit for three primary reasons: (1) to obtain a bulk ore sample for metallurgical testing, (2) to determine the exact location of the ore body, and (3) to determine the best mining method. The adit, which will be 400 feet below the surface, may also be used for additional core drilling. Although nearly 18,000 cubic yards of broken material is to be removed from the shaft, the Forest Service determined that surface impacts would be minimal. The primary concern of the Forest Service is not sub-surface activity, but rather that there are no irreversible commitments or loss of surface resources from a proposed activity on National Forest land.

Of the 18,000 cubic yards of material removed from the shaft, 2,790 cubic yards of ore will be transported by covered truck to a Union Carbide facility at Gas Hills, Wyoming - a distance of nearly 250 miles - where the ore will be analyzed.

Approximately 2,500 cubic yards of mineral is to be stockpiled in an abandoned uranium pit within a short distance of the adit site. The uranium ore will be removed in 3-4 years for processing into yellowcake. It was stated in the hydrology comments of E.A.R. that there is a potential hazard of polluting groundwater with leachate from the low-grade ore. Although research geologist Teruo Yamamoto, from the Forest Service Experiment Station in Rapid City, recommended that the stockpile be covered with a minimum of 8 feet of overburden to reduce radon gas emissions, the Forest Service suggested that the ore be either treated with a dust inhibitor or covered with 6 to 10 inches of top soil.

The remainder of the material removed from the uranium shaft will be radioactive spoils material, which is to be stockpiled on the 5 acre project site, and covered with 2 feet of soil.

Although the uranium shaft is classified as exploration, concerned citizens criticized the operation, claiming that it is actually a mining operation. Since several thousand cubic yards of ore are to be stockpiled specifically for future processing, these critics consider the "exploration adit" label a disguise for a mining operation.

The adit is located in the Chilson member of the Lakota formation, a low producing aquifer, but Union Carbide anticipates encountering less than 5 gallons of water per minute. Any excess water will be pumped to a tank and used for dust control.

However, according to the Environmental Assessment Report, analysis of a nearby well indicates that any groundwater encountered in the adit could be in excess of the allowable radionuclides count for surface use in South Dakota. In event that significant quantities of radioactively contaminated groundwater is encountered, Union Carbide plans to impound the water in evaporation ponds. The Operating Plan, however, contains no provisions for construction of such a facility.

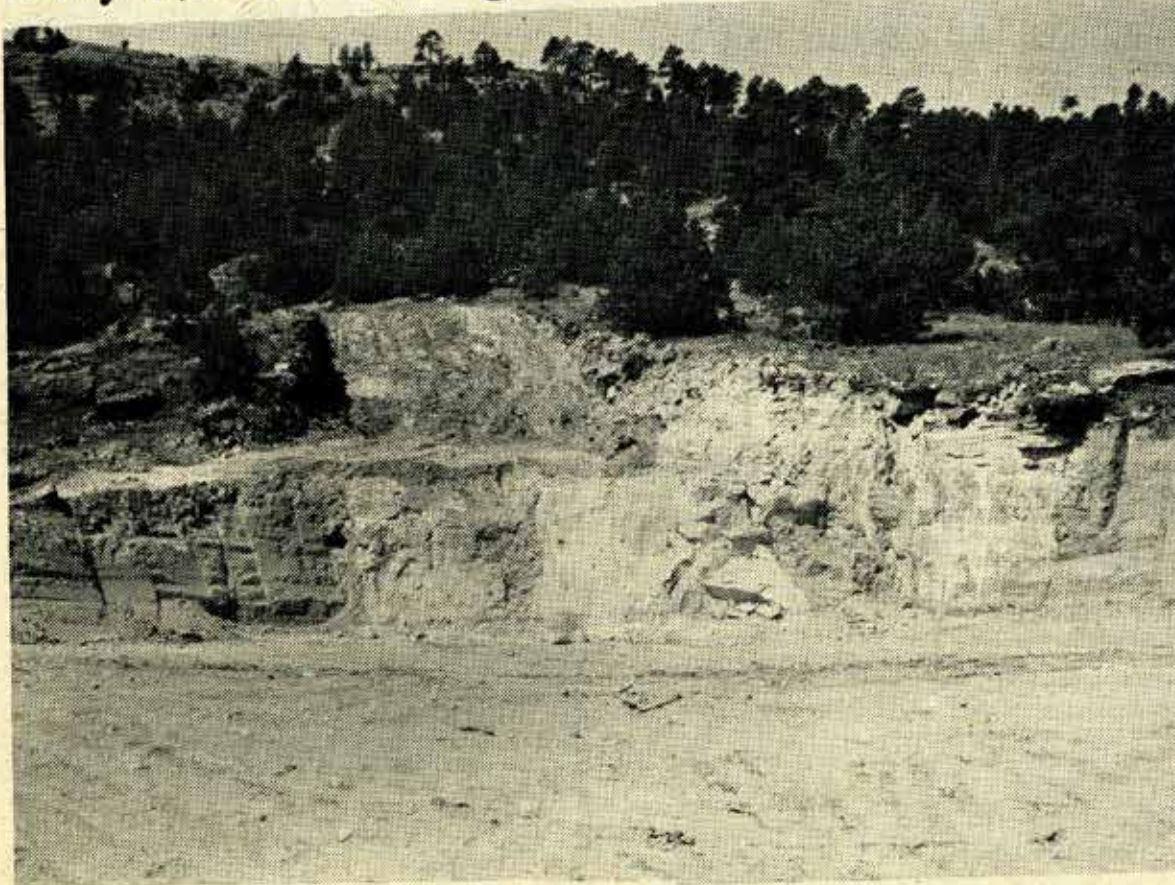
Up to 20,000 gallons of water may be required daily to control dust and pollution created by as many as 6 dozen vehicles using the road daily. Although the company has stated no specific sources of water at this time, they plan to purchase municipal water from Edgemont if necessary.

The relative solitude of Craven Canyon is perhaps the primary reason why it is the most important wildlife area on National Forest land south of Pass Creek. The presence of water and variety of vegetation make the canyon significant habitat for mule deer, wild turkey, bobcat, and a minimum of 27 non-game birds species such as golden eagle, prairie falcon, raptors, and many others.

Along with protection of wildlife species and air quality standards, a specific requirement of the Forest Service E.A.R. is to maintain public access to Forest Service land in Craven Canyon. The access road however, crosses private land which has never been acquired for public easement. Union Carbide, in agreement with the landowner, has agreed to provide a key to the gate which will be locked; with keys provided only to Union Carbide, the Forest Service, fire fighting personnel, and the landowner.

The Forest Service suggests that since the road has been open to the public for many years, it can be argued that a prescriptive right exists for public use of the road. Although the Forest Service also recommends that the road be acquired for public easement, they have no legal authority to interfere in the agreement between Union Carbide and the landowner. In the meantime, it appears that Union Carbide can essentially deny public access to the Canyon.

Only 1,900 feet to go...



....before Union Carbide reaches the end of the 2,000 foot uranium "exploration adit" in the southern Black Hills. Blasting of the shaft in Craven

Canyon was shut down by the Conservation Commission on August 2 for violating state law.

TO THE PEOPLE OF SOUTH DAKOTA,

Consider carefully as the issue of URANIUM to mine or not to mine, is decided in your state. Look and learn from the errors made in other states, and be aware of broken promises made to your neighbor states.

Many of you local folks seem ready to go for the dangling bait: large sums of cash for miner rights and land sales, high wages and quick industrial development. But always remember South Dakotans, that if you buy uranium mining you MUST buy the rest of the package: a 35 year boom-bust economy (35 years by corporate admission, as the water necessary to continue the work effort will be gone after that), and steady influx of out-of-state workers, not only for directly related industries, but also to power the new restaurants, supermarkets, school hospitals, etc. that MUST exist and expand to meet increased demands of the People. After these developers pull up stakes who pays for the bust? You people, and your families that remain to call S.D. home, that's who!

If you go uranium-nuclear development, you must accept that SOMEONE must dispose of the store radioactive waste by-products. These exist as soon as uranium is tapped by exploration. Whether you will store nuclear waste within the boundaries of your state is irrelevant, with currents sooner or later carry tailings where they are not expected. The point is someone must store it; is any area, New Mexico, Colorado, Nevada, Wyoming, Montana, Washington, or New Jersey fit for disposal? We shudder to think of storing it here, but can we be so casual as to send poison from this state to another's home? Consider carefully South Dakotans.

Already one company has shown its true colors: Union Carbide, without regard to the little protective legislation that does exist in S.D., began road-grading and shaft-sinking without the permit required by law. Now that nerve! To say nothing of lacking respect! How ready will you be to listen and buy their promise of 'clean safe energy' and 'reclamation'? How does one reclaim a child born with a genetic defect? How does one replace the water, clean air, lifestyle and economy? Rest assured, your agribusiness and tourism will be quite a different state of affairs when these multinationals

Look closely at the track record in New Mexico, in Colorado or Wyoming of the corporate power hungry developers. In spite of nuclear power plant shut-downs all over America, President Carter is calling for all out super development of uranium and synfuel. Remember that a company must pull that ore from somewhere-ore that caused Three-Mile Island and radar missiles is now to be pulled from the Black Hills area.

Look over at your neighbor Wyoming. In the five years I have called Wyoming home, the state has swelled into a boom town with all the accompanying impacts. Prices for groceries are a third higher than here in S.D., housing outrageous, crime is on the increase and 'hot spots' (highly radioactive areas) are showing up. As one editor put it "For years we've been saying get ready or get steamrolled. Well now we can see the steamroller." People in Wyoming are starting to get worried and nervous about dealing with that steamroller and the aftermath left in its ravenous wake.

Keep in mind that in order for the People to have purchased uranium in Wyoming the state government had to be co-operative, and the media had to have minimized the dangers involved, especially as in the case of a uranium transport accident in the early 70's. Folks in Wyoming who rode along on the uranium wave are swiftly being overwhelmed by the anticipated and unprepared-for obstacles, problems and hazards. Sure, these slick-talking developers will say they'll never make "Oops! We used radioactive tailings as part hospital and school foundations and an increase in congenital defects has been noticed again. But can you really believe everything they say? Can you believe ANYTHING they say?

Be cautious and consider all the FACTS, not just words that will soothe you or promises that will fatten your purses. Watch your state government to insure that the role of public servant is carried out. Beware of manipulation, and all the wheeling and dealing that goes on quickly and quietly in someone's back rooms. Think of your children and grandchildren. If you choose uranium, they are left to deal with and care for lethal, cancer-causing waste long after you are gone. Consider carefully... what you choose becomes their birthright.

Colleen Raga