

Citizens battle to reduce Hydrogen Sulfide emissions Dakota County, Nebraska 1989 - 2008

Editor's Note: This history of Dakota County's battle to force a Fortune 100 company to comply with environmental laws was taken from the archives of the Dakota County Star newspaper and compiled by The Akron Hometown reporter Julie Ann Madden.

- 1989: IBP Inc. builds one of world's largest tanneries at Dakota City, Neb.

- 1994: Local citizens form CITIZENS Promoting Environmental Stewardship to enact ambient air quality standards in Nebraska and to force IBP Inc. to reduce hydrogen sulfide pollution at their Dakota City facility.

"The main thing the CITIZENS group is looking for is we just want clean air and water quality back to our area," said David Krogh, CITIZENS spokesperson in 1995 when they appealed to Dakota County Commissioners, Dakota City Council and South Sioux City Council for financial assistance to obtain air quality monitoring equipment. Local city officials and the Dakota County Sheriff's Department would be trained to operate the equipment.

- Nov. 16, 1994: Public hearing drew about 500 people to the junior high auditorium and placed a hold on the renewal of a wastewater discharge permit from the Nebraska Department of Environmental Quality.

- Dec. 1, 1994 at a Dakota City Council meeting: It was reported "IBP started intensive monitoring and are checking the ammonia and hydrogen sulfide levels. They're monitoring 16 locations, four times a day but so far have found nothing significant in their sampling," said Dakota City Mayor Ron Brunton. However, Iowa Beef had detected some hydrogen sulfide at the observations. Out of 182 tests, 62 have shown 1 part per million and one time they had 2 parts per million...Dakota City has an ordinance limit of 5 parts per million of hydrogen sulfide, the State of Nebraska doesn't have any standards."

California has a 0.03 parts per million standard averaged over one hour. It's based on the estimate that beyond that level, 83 percent of the people can detect the odor and 40 percent experience annoyance, according to Rod Krogh, Co-founder of CITIZENS.

City Attorney Wayne Boyd said the state had to do something first...Dakota City's not financially able to do sophisticated testing and hire experts.

- March 2, 1995: IBP announces 3-step plan to reduce effects of hydrogen sulfide at the company's Dakota City wastewater treatment plant, which is one-half mile east of IBP Headquarters (in Dakota City) and discharges into the Missouri River...Residents say that not only is the odor unpleasant but the chemical itself permeates homes and businesses and does physical damage to certain surfaces. They fear it could be harmful to humans as well.

IBP expert Dr. Dudley Burton of College of Environmental Studies at Baylor University in Waco, Texas, reported "Odor problem is multi-faceted in part because the existing groundwater in this area already has a high content of natural sulfides. The industrial processes at IBP adds to that content...you're not likely to reduce the production of sulfide so you must find some way to treat it...Another difficulty is that the odor is not the same all day every day. The wind changes, the treatment process changes, and different people experience different levels of the odor.

The three-step plan to begin in May 1995 includes sewage clarifiers will be covered and the air in them chemically scrubbed to remove hydrogen sulfide; the sludge plant ventilation system will also be chemically scrubbed; and a shelter belt of seedless cottonwood trees will be planted around the plant.

- June 1, 1995: NDEQ made a decision on IBP's wastewater discharge permit; no details listed. Citizens say IBP meatpacking and tannery operations discharge hydrogen sulfide, ammonia, and nitrate nitrogen into the air and ground water. This causes not only an unpleasant smell but physical symptoms such as eye irritation, coughing and property damage to copper plumbing pipes, light fixtures, wiring joints and steel garage doors.

W. Clark Smith, supervisor in the Permits and Compliance Section of the Water Quality Division: parts of the permit will be more stringent while others will be less so.

"Our regulations charge us with keeping the environment clean, and that's what we're targeting," Smith explained. "If there's something that we can make less restrictive without adversely impacting the environment, we'll do so. In the end, the criteria is that the permit must meet water quality standards."

- June 8, 1995: Only 8 - 10 states have ambient air quality standards. NDEQ starts testing hydrogen sulfide levels in ambient air at CITIZENS co-founder Linda Modlin's home in Dakota City. The data is sent directly to NDEQ via phone lines.

Information on IBP's new wastewater discharge permit includes giving company two years to come into compliance, requiring they monitor its sulfide dispersion and set ammonia limitations, and much more. Since the NDEQ required stationary hydrogen sulfide testing equipment, CITIZENS didn't purchase pistol-type air monitors.

- June 30, 1995: IBP challenges NPDES (wastewater treat-

ment) permit. IBP claims that ammonia, fecal coliform and pH levels required by permit are too restrictive. It is noted IBP treats wastes on-site. NDEQ Director Randy Wood temporarily stayed the permit.

- July 20, 1995: IBP said it would take nine months to build additional treatment systems and cost \$5 million. IBP has 3,000 to 5,000 employees, and said current situation posed no threat to public health or safety.

"They weren't meeting the limitations before and now there are even fewer standards," said Modlin.

- Aug. 26, 1995: NDEQ began air monitoring. The National Institute of Occupational Safety and Health (NIOSH) has a human odor threshold standard of 10 parts per million for 10 minutes and the Occupational Safety and Health Administration (OSHA) has 15 parts per million for 15 minutes for indoor testing. However, in Dakota County testing is done outdoors.

Prior to Labor Day weekend, the highest level recorded in Dakota County was 0.102 parts per million.

When people can detect an odor of rotten eggs, this is the beginning of the hydrogen sulfide nuisance level, said NDEQ field data specialist Linda McCrory. "OSHA standards are health based and have said that there shouldn't be any readings over 50 parts per million. OSHA also warns that with a reading of 300 parts per million, there is immediate danger to life and health.

People were to call the sheriff's department to report odors.

- March 20, 1997: (Nebraska Bill LB655 would severely limit the amount of hydrogen sulfide business and industry could permit to escape into the air from feedlots, oil fields, meatpacking facilities and tanneries among others. Senator Chris Beutler of Lincoln in the Legislature's Natural Resources Committee stated, "I don't intend to push this bill this year."

- April 3, 1997: IBP spokesperson Gary Mickelson: "IBP's Dakota City treatment system has an excellence compliance record of 99 percent or better over the past six years and that IBP would continue to examine evolving science and technology in determining if it can be used in its operation to obtain a beneficial impact on water and air quality. Unfortunately, considered improvements have been delayed because the process of finalizing the new NPDES permit has taken far longer than expected."

- April 3, 1997: Governor Nelson's Chief of Staff Tim Becker: "Governor Ben Nelson has instructed Randy Wood to follow the regulatory process. He has asked Randy to issue a permit or deny a permit and the governor does believe that the regulatory process needs to be observed and upheld."

- April 10, 1997: Agency for Toxic Substance & Disease Registry (ATSDR) of Atlanta, Ga., looking at air indoors visits Dakota County to begin an "exposure investigation." The ATSDR set up six monitors in Dakota City and South Sioux City.

- May 15, 1997: Gov. Ben Nelson met with Linda Modlin and her husband, Ken, at their home in Dakota City. Also present were CITIZENS members, Dakota County Commissioners, South Sioux City councilors. Residents James Carter and Wendy Modlin told of loved ones who suffer from asthma caused by breathing the toxic gas. CITIZENS Co-founder Linda Modlin told of the disruption the smell causes when it permeates her house and lingers for days. Environmental Chemist Donna Rhee noted the tax values on Dakota City properties had been reduced by the assessor because of a drop in property values.

When creating a statewide standard, it's a challenge to balance the interests of everyone," Nelson said. "We don't want to put feedlots out of business. We don't want to put people out of work. But we don't want children suffering, either. The focus has turned to health concerns and that has to be the basis of the standard. But there's a lot at stake in other parts of the state as well...we have to balance economic interests with health concerns."

- Oct. 28, 1999: NDEQ sends letter to IBP giving them five days to say whether they will voluntarily work with NDEQ to reduce the Total Reduced Sulfur issue.

- Nov. 4, 1999: IBP and NDEQ agreed to develop a comprehensive plan to resolve air quality issues at the Dakota City plant.

- "We are very optimistic this cooperative agreement will bring closure to some long-running issues at Dakota City and allow us to begin construction next spring," said Gene Leman, IBP President of Fresh Meats. "This will be a fully regulated and permitted process that will provide the necessary balance between environmental compliance and our desire to expand our operations. More importantly, it will significantly reduce hydrogen sulfide emissions."

- Nov. 11, 1999: Nebraska Senators Curt Bromm of Wahoo and Pat Engel of South Sioux City are questioning state's policy of allowing Nebraska corporations to violate environmental laws and regulations while receiving business tax incentives. They cosponsored LB148, an interim study by Revenue and Natural Resources Committee. In Dakota City alone, \$21.5 million in personal property valuations was exempted under LB775 agreements for tax year 1998.
- Dec. 9, 1999: The TRS standard was signed into law

in January 1999. NDEQ never made any effort in north-east Nebraska to enforce it, said Linda Modlin. "That was totally unacceptable, especially after losing nine-plus years of our life to this toxic gas."

CITIZENS filed petition with Nebraska Environmental Quality Council to change wording of TRS air quality regulations. It allowed violators "reasonable opportunity" to comply prior to NDEQ enforcement. Until Oct. 19, 1999 when NDEQ sent letter to IBP it had never enforced the law.

"The NDEQ's inability to specifically pinpoint the IBP-Dakota City facility after collecting nearly four years of hydrogen sulfide monitoring data redefines ineptitude and borders on malfeasance," said Rod Krogh. "The department should not expect commendation from our CITIZENS group for finally discharging their duty to protect the public health and welfare."

The ATSDR conducted a federal health study in Dakota County over the next year to evaluate long-term effects of chronic exposure to hydrogen sulfide and its effects on the adult central and peripheral nervous system.

- Dec. 16, 1999: According to Steve Inserra, epidemiologist, studies have found that exposure to high levels of hydrogen sulfide can result in adverse effects to the respiratory and neurological systems.

- Jan. 12, 2000: Justice Department on behalf of the EPA filed lawsuit against IBP Inc. alleging that the meatpacker violated numerous environmental laws (Clean Water Act and Clean Air Act) at its facility. Civil penalties from these charges could be imposed by the court for up to \$25,000 for each day of violation prior to Jan. 31, 1997, and \$27,500 for each day after...any fines that are the result of the suit will go to the General Treasury and in part to the State of Nebraska."

- May 4, 2000: IBP agreed to add more air quality monitors. Last month IBP won state approval to construct three new covered lagoons and other significant improvements to be completed by November. (There were no news articles in 2000 reporting that improvements were completed.)

- May 25, 2000: IBP signed agreement with US EPA to file application with NDEQ to verify its using the best available technology to control hydrogen sulfide emissions...installation of high density, polyethylene coverings over three newly constructed lagoons...the company will also install a system that will burn gas produced by the covered lagoons...federal government has enforcement authority over the Dakota City improvement project...company will install equipment to reduce sulfur in water used by the plant...also agreed to use portable air monitors to evaluate the effectiveness of the improvements after completion of the lagoon projects...it has 19 stationary monitors and has a month to install nine more.

- Oct. 19, 2000: IBP announced third quarter net earnings totaled \$83.9 million. Year-to-date earnings were \$203 million.

- Nov. 4, 2000: Linda Modlin, age 53, passed away. In 1998, she had received the Women of Excellence Award for her efforts for her community. She was currently serving her second term as Dakota City councilor.

- Jan. 4, 2001: Tyson Foods Inc. announced buying of IBP Inc.

Editor's Note: Not all issues of the South Sioux City archives were available for this research. It should be also noted that during this time period IBP Inc. moved their headquarters from Dakota County to Union County, S.D., and purchased several other facilities.