

## Chapter 8

# Environment

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***“Much of the progress in public health protection has resulted from improvements in basic hygiene, food production and handling, and water treatment.”<sup>690</sup>***

Minnesota Department of Health  
Minnesota Public Health Goals  
1995

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Protecting the public from exposure to environmental health hazards is a fundamental role of public health, and sanitation was one of the biggest concerns of the newly formed Minnesota Health Department in 1872. It was of such importance that “learned in sanitary science” was the one requirement for members of the original Board of Health, as written in Minnesota Statute 144.01. One of the first divisions of the department, environmental sanitation, was formed in 1906.<sup>691</sup> At this time outbreaks of water-borne illnesses, such as typhoid fever, were common. The department promoted education and regulation, which resulted in a marked reduction of all water-borne illnesses.

By 1949, the domain of the environmental health division had expanded to include protection from food-borne disease, radiological agents and chemical substances. The division was called the environmental sanitation section at this time, and the units included municipal water supply, water pollution control, general sanitation, industrial health, and hotel and resort inspection.

While the focus remained on water and sanitation, in 1949 the board was being called on with increasing frequency to advise the public on the safety of new materials and products. For example, in 1949 the public wondered whether aluminum was safe. Herbert Bosch, M.P.H., head of the environmental sanitation section, assured the public that aluminum was safe and there was no evidence it caused cancer, as was rumored. He felt the dangers of aluminum, like the dangers of tin cans, were part of the “folklore of public health” sometimes used by business people to encourage customers to purchase their products.<sup>692</sup>

Another new product in 1949 was parathion, an insecticide supposedly six to seven times as effective as DDT. As in other cases, it wasn’t always clear which state agency or which part of the Department of Health should be addressing a new product or new

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<sup>690</sup> MDH, “Minnesota Public Health Goals,” March 1995, p. 123.

<sup>691</sup> MDH, “New Dimensions for Minnesota: State Board of Health Planning Guide for 1963-1973,” June 1962, p. 91.

<sup>692</sup> MDH, *Minnesota’s Health*, Vol. III, No. 12, December 1949, pp. 3-4.

area. This is pointed out when parathion was discussed at the board meeting on July 14, 1949:

Dr. Theodore Sweetser: "What about food poisoning? What becomes of insecticides when they are used? Isn't there some danger of food contamination?" How about DDT?"

Herbert Bosch: "If there is some question on these insecticides, there is on DDT too."

Sweetser: "Is that our responsibility?"

Bosch: "The primary responsibility lies with the Food and Drug Act and with the Department of Agriculture. . . . There is going to be a borderline case someday, and I don't know whether the State law would exclude the State Board of Health from that."

Dr. Thomas Magath, Board President: "I don't think it would, but I don't think we can get in to that until it happens."<sup>693</sup>

In the 1960s, environmental issues began receiving greater attention nationwide. The environmental movement, combined with urbanization, suburban growth, industrial expansion, atomic energy, new technologies and a growing population, led to increased activities of the department's environmental health division.<sup>694</sup> One of the new activities was regulation of coin-operated drycleaners. New to the public in the 1960s, 25 existed in the state in 1961, and the department was authorized to develop regulations.<sup>695</sup> While new areas such as this were emerging, the main focus in the early 1960s remained on water and sanitation.

In 1963 the Board of Health assessed environmental health in Minnesota and recommended areas needing expansion. The areas selected were sewage disposal, industrial waste, and water pollution, particularly in the metropolitan areas; ground water contamination and the provision of municipal water supplies; plus effective food and lodging control programs for protecting those who use the services.<sup>696</sup>

Legislation passed in 1969 emphasized the department's growing role in radiation and occupational health. The department was assigned responsibility for monitoring sources of ionizing radiation and the handling of storage, transportation, use and disposal of radioactive isotopes and fissionable materials.<sup>697</sup> Additional legislation granted the department authority for investigating and controlling occupational diseases through the provision of a technical advisory medical, engineering and laboratory service.<sup>698</sup> By the 1980s, the environmental health division consisted of six sections: hotels; resorts and restaurants; occupational health; public water supply; radiation control; health risk assessment; and analytical services.

In 1995, all divisions at the department identified goals to protect, maintain and improve the health of Minnesotans. Those selected by the environmental health division were in

<sup>693</sup> BOH, *Minutes*, July 14, 1949.

<sup>694</sup> MDH, "New Dimensions for Minnesota: State Board of Health Planning Guide for 1963-1973," June 1962, p. 16.

<sup>695</sup> BOH, *Minutes*, July 11, 1961, MHS, p. 313.

<sup>696</sup> MDH, "New Dimensions for Minnesota: State Board of Health Planning Guide for 1963-1973," June 1962, p. 16.

<sup>697</sup> Minnesota State Statutes, Section 144.12.

<sup>698</sup> Minnesota State Statutes, Section 144.34.

these areas: public and private water wells, municipal water supplies, lead, radon, sanitation at food and beverage establishments, exposure to radiation through x-rays, and work-related injury and illness such as that caused by asbestos exposure.<sup>699</sup> While new areas were becoming part of the domain of environmental health, the emphasis remained, in the late 1990s as in earlier years, on ensuring safe water supplies and appropriate sewage disposal.

### **Water Supply and Sewage Disposal**

The first municipal water supply in Minnesota had been constructed in 1868. The board introduced water supply standards in 1937. In 1947, in keeping with the board's emphasis on education and cooperation, a safety rating scale, devised by O. E. Brownell, C.E, chief of the municipal water supply program, was introduced. Interestingly, Mr. Brownell's hometown of Ely was the first municipality in the state to install a complete water treatment system – in 1903.<sup>700</sup>

A score of 100 on the rating system indicated maximum safety, 90 or above a high degree of safety, 85 to 90 reasonable, and less than 85 was poor to hazardous. A total of 338 factors were considered in determining the rating. The water rating system proved very useful and was adapted by three other states. Unfortunately, many water supply operators who ultimately had responsibility for the safety of the system were not adequately trained in the 1940s. To address this problem, the department began offering courses for water supply operators.

The emphasis on education and prevention in maintaining safe water supplies has been evident in the department's approach to flooding in the state. One of the worst floods, from a public health standpoint, occurred in 1950 when the Red River overflowed. The height of the flood hit Crookston at 11:00 p.m. on April 22. As with all flood crises, a public health engineer and a health educator from the department traveled to the area to distribute instructions for disinfecting private well supplies and to confer with local officials about municipal water supplies. The flood covered thousands of acres, and many water supplies were unfit for human use. Water samples were taken at pumping stations and sent to the department laboratory for analysis. Some indicated that pollution had entered their water supply system. Other areas that were flooded severely were the Mississippi at Aitken, the Rum River at Cambridge, the Redeye River at Sebeka, the Root River at Preston and Peterson and the St. Louis River at Floodwood.<sup>701</sup>

The floods of 1951 did not seriously endanger community water supplies, except in North Mankato, Redwood Falls and Marshall. In North Mankato, which was completely abandoned by the population, the water supply was put out of commission. In Redwood Falls, the water treatment plant was flooded. At Marshall, the reservoir was surrounded

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<sup>699</sup> MDH, "Minnesota Public Health Goals," March 1995, pp. 121-134, pp. 153-162.

<sup>700</sup> MDH, *Minnesota's Health*, Vol. 10, No. 2, February 1956, pp. 2-3.

<sup>701</sup> MDH, *Minnesota's Health*, Vol. IV, No. 9, September 1950, pp. 1-3.

by floodwaters. O. E. Brownell used the opportunity to advocate preventive public health:

The Health Department's real aid to communities likely to be flooded is basically preventive. When Water supply sources are flooded, there is nothing that can be done to insure the safety of the water until the flood recedes and the clean-up job is undertaken. If, however, the wells and water treatment plants are situated on high ground completely above the flood level, the maximum protection of the supply has been assured, and one of the major efforts of the department over many years has been to develop water supplies on high ground out of reach of floodwaters. During the flood, district public health engineers were constantly examining the water, advising when a water source should not be used and advising residents on boiling water and chlorinating wells.<sup>703</sup>

***"But perhaps the greatest single source of satisfaction must be the vindication of some of our efforts in improving the safety of public water supplies as was brought out by the unprecedented floods of 1965. Although most of the streams of the State were in flood stage to a greater extent than ever before and dozens of communities were under water no one public supply was totally out of service and apparently no one became sick from drinking from these supplies. If this flooding had occurred in 1920 we would have had thousands of cases of typhoid fever and other water-borne diseases."***<sup>702</sup>

Frank Woodward at his retirement in 1968

Much improvement in municipal drinking water supplies throughout the state had been made during the 1940s. In 1947, the department's district offices, which inspected water supplies in communities, had found that only one-third of water supplies inspected were acceptable.<sup>704</sup> Two years later, in 1949, they found 70 percent acceptable.<sup>705</sup>

One of the challenges in improving the water supplies was persuading some communities that there was a danger. One community resistant to improvements was Waverly. Waverly's water supply system had been installed in 1907 and took water from the lake. Every sample collected in the last 15 years had been positive, indicating it was unsafe for the town's 450 citizens. Others were also at risk, as the town was on the main highway, with travelers stopping and eating at restaurants that used the town's water. No obvious health problems had been reported, however.<sup>706</sup> The situation was discussed at the July 10, 1952, board meeting:

Frank Woodward: "I have indicated 'Waverly,' and immediately following is a letter to Dr. Chesley for the purposes of the Board relating to the situation which you will recall I brought up some months ago. Waverly being one of the places in the State which absolutely refuses to provide a safe water supply for its people, and we had originally planned to call the village officials in to meet with the Board or a committee of the Board to explain why they took the attitude they did regarding the water supply. After a one-way correspondence with them during the winter, we decided it was useless to attempt to get them to come in because they would ignore any invitation to come in. So we visited them and got some bit of assurance that they would take some action. The purpose at that time in doing it was to establish a policy with regard

<sup>702</sup> MDH, *Minnesota's Health*, Vol. 22, No. 7, August-September 1968, p. 3.

<sup>703</sup> MDH, *Minnesota's Health*, Vol. V, No. 5, May 1951, p. 2.

<sup>704</sup> MDH, *Minnesota's Health*, Vol. VII, No. 7, July-August 1953, p. 7.

<sup>705</sup> *Ibid.*

<sup>706</sup> BOH, *Minutes*, July 10, 1952.

to licensing the eating and drinking establishments in the village. We held up the licenses for 1952 until we got some kind of assurance and then the licenses were issued provisionally with each license being told that his license was provisional and it depended on what the village was going to do about its water supply. We gave them six months in which to do something. They finally, for the first time in years, replied to a letter saying that they weren't going to do anything in the village, and that is the basis on which we began to take the action necessary to require the provision of safe water supplies for the various establishments."<sup>707</sup>

Dr. Theodore Sweetser: "...if they want an epidemic in their own family, that is all right, but they have no right to have a licensed place give them an epidemic. I think that is where our police power should come in and I think we should make it stick. In these days people travel a good deal. I might stop there and eat lunch on my way someplace west of here."<sup>708</sup>

The board discussed options for dealing with this problem.

Dr. Ruth Boynton: "I think education of the people would be the better approach."

Frank Woodward: "This thing should have been handled a long, long time ago because it has not changed. We have been issuing licenses. The meeting I had out there with the mayor and some councilmen got rather unpleasant. He said, 'If you think you are going to force us into this thing by holding up these licenses you have another think coming.' I told him we were using that as a lever. We don't propose to have the public exposed to the type of water supply they had. I think within the next few months we will explore the possibility of education out there. They tell us that every letter that comes from here is published in the paper, so that rules out the possibility of putting in some scare headline in the paper. They know all about it."<sup>709</sup>

The possibility of involving various community groups was discussed.

Dr. Sweetser: "I would like to make a motion that we support our Director in everything he has done and encourage him to apply all the pressure that may be necessary to bring this to a head and carry it through to conclusion without further delay. Since 1907 this has been going on?"

Dr. Frederick Behmler: "It's about time we called a halt."<sup>710</sup>

The housing boom of the 1950s and the rapidly growing suburban areas were contributing to waste disposal and water supply problems in the state. Private wells and septic tanks were being used when there was no community sewerage system. Private wells were often contaminated, and a private sewage system was more likely to pollute.

*Minnesota's Health*, the department's newsletter, reported on the conditions of the water supply system in some parts of the state as late as 1959:

... a homeowner invited about 30 guests to his home. Every one of the guests came down with an intestinal disorder. Investigation revealed that a contractor had developed the household water supply by drilling a well about 80 feet deep in limestone. He also installed the cesspool in the limestone 'because seepage would flow away so fast.'

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<sup>707</sup> BOH, *Minutes*, July 10, 1952.

<sup>708</sup> *Ibid.*

<sup>709</sup> *Ibid.*

<sup>710</sup> *Ibid.*

In one county outside the Twin City area every member of a family became ill and complained of diarrhea. They did not respond to medication or treatment so the family doctor suggested water sampling. The first sample showed extreme contamination, and investigation showed seepage in the back yard and on basement walls." The well was disinfected, and a new sample taken. Fluorescent dye was put in the toilet stool. Within 15 minutes, the dye was visible in the backyard, along one entire wall of the basement, and on the floor where children played. It was found in the kitchen tap water. The sanitarian estimated that of each gallon of water taken from the well, one gallon was sewage.<sup>711</sup>

The disposal of household sewage in the 1950s was becoming more complicated with garbage disposals, dishwashers, and synthetic detergents. New industries with new types of waste, the use of insecticides and herbicides, and the waste materials from radioactive isotopes in medical diagnosis and therapy, all created new challenges. By the 1960s the two major sources of water pollution were domestic sewage from communities and industrial wastes.

To eliminate problems caused by wastewater, many communities began constructing sewage treatment plants, and industries began installing waste treatment works to reduce or prevent pollution.<sup>712</sup> In 1955, 85 percent of the people in Minnesota lived in communities that had sewage treatment plants. Two hundred fifty-five sewage treatment plants served 275 municipalities and an estimated population of 1,653,860. A total of 245 industrial waste control plants existed, and 79 had been completed in the last two years.<sup>713</sup> The building of sewage treatment plants accelerated in July 1956 when aid for construction became available through the Water Pollution Control Act, PL 660.<sup>714</sup>

As of July 1, 1963, there were 410 municipalities in Minnesota without sewer systems. Two, Coon Rapids and Minnetonka, had populations over 10,000. Nine had populations over 3,000: Blaine, Deephaven, Eden Prairie, Little Canada, Mound, Moundsview, Orono, Plymouth and Shorewood.<sup>715</sup>

In 1963, armed with new legislation giving it the power to bring legal action, the state took a tough stand with communities that were still polluting the water. On August 5, 1963, the Water Pollution Control commissioner notified 39 communities without sewage treatment and disposal facilities and 59 communities with inadequate facilities that they must proceed immediately to rectify the situation. They were given 60 days to submit information on their plan of action.

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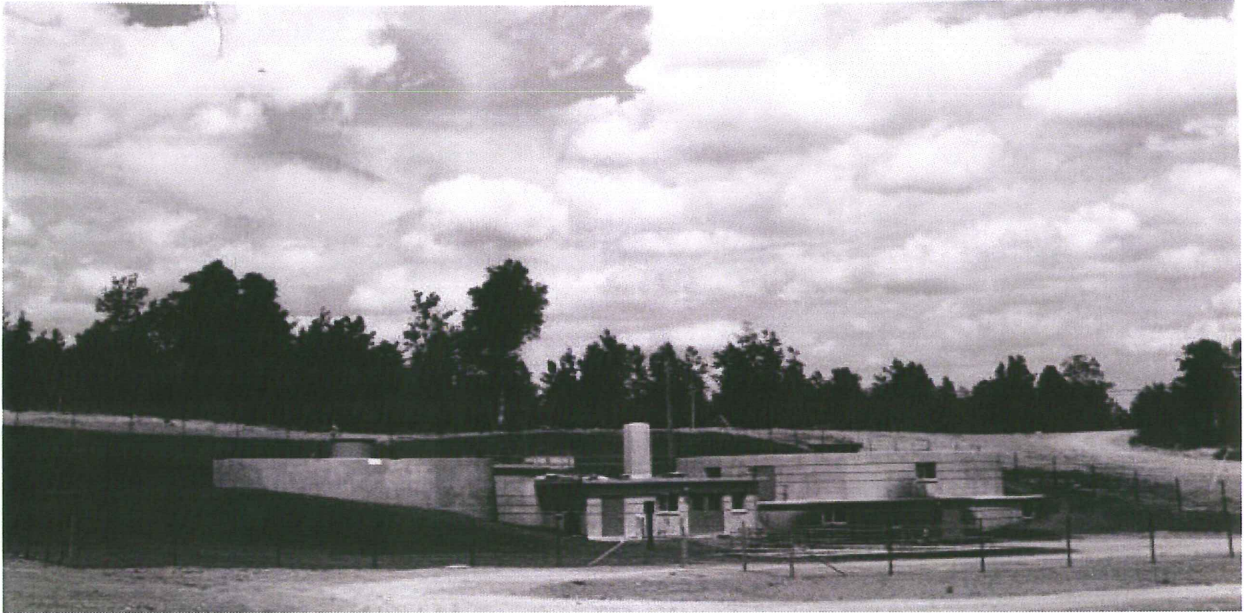
<sup>711</sup> MDH, *Minnesota's Health*, Vol. 13, No. 10, December 1959, p. 3.

<sup>712</sup> MDH, *Minnesota's Health*, Vol. 8, No. 7, July-August 1954, p. 5.

<sup>713</sup> MDH, *Minnesota's Health*, Vol. 9, No. 4, April 1955, p. 3.

<sup>714</sup> MDH, *Minnesota's Health*, Vol. 17, No. 3, March 1963, pp. 1-4.

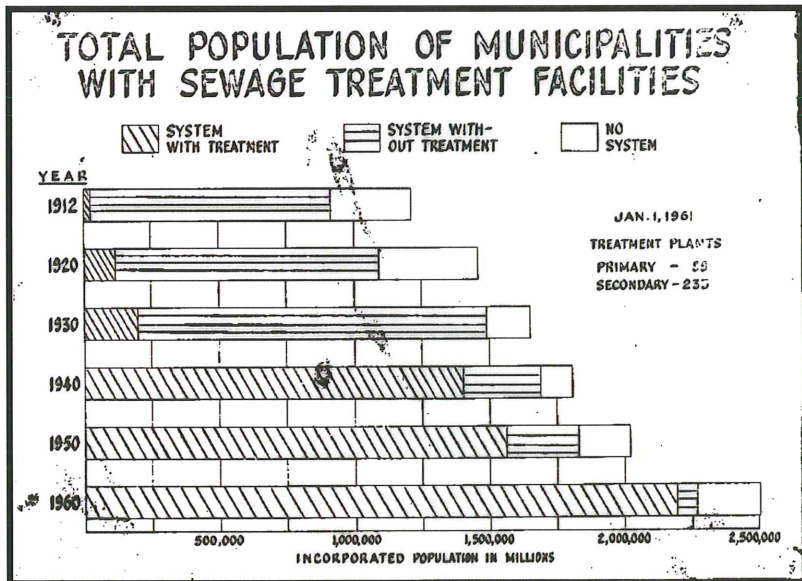
<sup>715</sup> MDH, *Minnesota's Health*, Vol. 17, No. 9, October 1963, p. 3.



Treatment Plant at Sandstone

In 1963 the board set measurable objectives for the water and sewage system in Minnesota. By 1970, all public water supplies were to be acceptable; all communities with sewer systems were to have adequate sewage treatment facilities.<sup>716</sup> This goal covered municipal water supplies but not private wells.

The department did not survey private wells at this time, unless requested by a local health officer or physician or in an emergency situation, such as a flood. In 1968 the department began testing water samples from private wells. The presence of coliform organisms, nitrate or surface active agents indicated the well was contaminated.



With the introduction of biodegradable detergent in 1965, fewer reports of surface active agents were found but they still were present.<sup>717</sup> To help ensure safe drinking water for the public, Minnesota adopted a mandatory plumbing code in 1970. The first plumbing code was advisory. It had been adopted in 1937 with amendments in 1939, 1947 and 1951.<sup>718</sup>

<sup>716</sup> MDH, "New Dimensions for Minnesota: State Board of Health Planning Guide for 1963-73," June 1962, pp.16-17.

<sup>717</sup> MDH, *Minnesota's Health*, Vol. 24, No. 1, January 1970, pp. 2-3.

<sup>718</sup> MDH, *Minnesota's Health*, Vol. 24, No. 3, March 1970, p. 2.

### Municipal Populations in Minnesota with Treatment of Sewage

	January 1, 1956	January 1, 1966	Change
Municipal Population in Minnesota	2,092,525	2,731,737	+30%
Population Served by Municipal Sewers with Treatment	1,722,311	2,529,893	+32%
Population Served by Municipal Sewers without Treatment	189,167	22,237	-88%
Population not served by Municipal Sewers	181,047	179,607	-0.8%

### Sanitary Sewer Districts/Serviceing the Suburbs

Disposal systems for suburban areas had become the biggest problem in sanitation in the 1950s. A 1959 survey of suburban communities in Minnesota indicated slightly more than 50 percent of the suburban wells showed contamination.<sup>719</sup> Tests on water samples taken from Coon Rapids found that much of the drinking water contained detergents and elevated nitrates.<sup>720</sup>

As more suburbs began establishing their own water and sewage systems, Dr. Robert Barr, secretary and executive officer of the board, realized some intervention was necessary to ensure safe systems. Since neither water nor sewage follow political divisions, it was difficult to base boundaries by those set by municipalities. Dr. Barr advocated the creation and expansion of sanitary districts, including all communities. In 1959 he felt the board needed to take on a strong leadership role, as the chance would soon be lost.<sup>721</sup>

On October 18, 1960, the board went on record as favoring a metropolitan approach to the sewage problem.<sup>722</sup> The department strongly advocated the establishment of sanitary districts that would provide an area-wide program to solve waste and water problems. The department envisioned that a district would include townships, villages and cities. The department also advocated that the local government be given the basic authority to control the installation of water supplies and sewage systems in each residential area.<sup>723</sup>

<sup>719</sup> BOH, *Minutes*, January 12, 1960, MHS, p. 12.

<sup>720</sup> BOH, *Minutes*, May 26, 1959, MHS, p. 120.

<sup>721</sup> BOH, *Minutes*, November 10, 1959, MHS, pp. 250-251.

<sup>722</sup> MDH, *Minnesota's Health*, Vol. 11, No. 7, August-September 1957, pp. 1-6.

<sup>723</sup> MDH, *Minnesota's Health*, Vol. 11, No. 2, February 1957, p. 2.



The board worked with the Water Pollution Control Commission, which had been created through the State Water Pollution Control Act in 1945. The commission was given the principal authority for dealing with water pollution, including the building of disposal plants, while the Board of Health retained authority over water and sewage disposal matters that affected the public's health. The commission coordinated water pollution control efforts among all relevant agencies, including Conservation, Agriculture, Dairy and Food, Livestock Sanitary Board, and Health. The secretary and executive officer of the Board of Health served as the commission's secretary.<sup>724</sup>

### **Water Pollution and Sewage Disposal – A Political Issue**

Water pollution and sewage disposal became hot issues in the state in the 1960s. The board drew criticism, such as that expressed in the following letter, written June 8, 1962, in response to an editorial published in the St. Paul Pioneer Press:

The St. Paul Pioneer Press of June 7, 1962, carried an editorial entitled "Minnesota Moves to 'Clean up' Mississippi." It has something to say about cleaning up the pollution in the Mississippi River. You and your people have been warned about this pollution for a long time. This is no doubt the time to get some publicity, and this is the way to get into the picture.

Dr. Barr, you and your Department have been very lax about sewage pollution in the State of Minnesota. Anybody who can advocate lagoons and the dumping of domestic sewage and industrial waste into open lagoons should not cry about the pollution of the Mississippi River. Seepage from these open lagoons contaminate the groundwater, the odors are terrible and even poisons birds and other wildlife. If it has not been for the fight carried on by the Minnesota Emergency Conservation Committee, you would have carried out one of the worst things ever perpetrated.

We have had enough people like you working for this State and there is only one thing that will cure it and that is that you give up your job and go elsewhere. I have no patience with people like you, who were willing to sit by in the fight we were carrying on, because you were afraid to speak the truth.<sup>725</sup>

The state's efforts to intervene in communities' water disposal systems were not always appreciated. Communities did not always want to hear that their water was unsafe. At his retirement in 1968, Frank Woodward reflected on one community that resisted strongly, Waverly, the home of then Vice President Hubert Humphrey. Woodward described the challenge:

For 45 years the Department had tried without success to get the village to abandon its polluted and untreated lake water source and construct a well supply. We had to get a little tough by preparing to revoke the restaurant licenses unless safe sources of water were obtained. Village officials capitulated and installed a safe well supply. The village is happy with the turn of events, and I am sure that its number one citizen would approve of the action.<sup>726</sup>

Other communities resisted attempts by the board to encourage joint efforts with neighboring communities or any monitoring of systems. In 1963, the North Suburban

<sup>724</sup> MDH, *Minnesota's Health*, Vol. 11, No. 7, August-September 1957, pp. 1-6.

<sup>725</sup> BOH, *Minutes*, attachment: Exhibit VII, July 19, 1962.

<sup>726</sup> MDH, *Minnesota's Health*, Vol. 22, No. 7, August-September 1968, p. 2., Vol. IV, No. 9, September 1950, pp. 1

Sanitary Sewer District presented a summons to the staff of the Board of Health and the Water Pollution Control Commission challenging the right of these two agencies to approve or disapprove the development of disposal systems and dumping of waste into the pool from which Minneapolis draws its water supply. The issue was taken to the courts.<sup>727</sup> The courts ruled that the North Suburban Sanitary District must observe the rules and regulations of the Water Pollution Control Commission.<sup>728</sup>

Dr. Robert Barr felt that the public criticism received regarding water pollution was due to the lack of knowledge of what the state had accomplished and what it was doing to control water pollution. He believed the state must do a better job of health education and information in this controversial field.<sup>729</sup>

As secretary of the board, Dr. Barr often signed letters jointly with the Water Pollution Control Commission. Because of this relationship, the Health Department was sometimes criticized for actions of the commission and accused of "running the commission." In response, a bill,<sup>730</sup> commonly referred to as the Rosenmeier Bill, greatly extended the authority of the Water Pollution Control Commission, transferring duties related to water pollution from the board to the commission. It also called for the creation of a health commissioner, appointed by the governor.<sup>731</sup> Mr. Frank Woodward, director of environmental sanitation<sup>732</sup> from 1950 to 1968, did not support this bill. He thought it lacked a long-range master plan, which was essential from a public health standpoint.<sup>733</sup>

The 1964 bill did not pass, but state Sen. Gordon Rosenmeier continued to advocate for the changes it proposed. He blamed dissatisfaction with the state's water pollution control program on the fact both the Water Pollution Control Commission and the Board of Health were in the hands of appointed boards rather than commissioners.<sup>734</sup> He did not support the existing relationship of the two agencies and felt the Water Pollution Control Commission should be independent of the Health Department. He said: "The major problem with the present Minnesota Water Pollution Control Commission is its dependency on State Health Department staff. With the Health Department, pollution control is a sideline at best."<sup>735</sup>

O. E. Brownell, responsible for many of the improvements in water supply and waste disposal in the state, wasn't working at the department when most of his efforts were coming to fruition. After 35 years with the department, heading the municipal water supply program during much of that time, he retired in 1955. At the time of his

<sup>727</sup> BOH, *Minutes*, January 22, 1963, MHS, p. 2.

<sup>728</sup> BOH, *Minutes*, April 9, 1963, MHS, pp. 129-130.

<sup>729</sup> BOH, *Minutes*, May 20, 1963, MHS, p. 382.

<sup>730</sup> "A Bill for an Act, Relating to the Organization and Administration of the State Government in Respect of the Department of Health, the State Board of Health, and the Water Pollution Control Commission; Amending Minnesota Statutes 1961, Sections 144.02, 144.03, 144.04, 115.02, and 144.38, Subdivision 2."

<sup>731</sup> BOH, *Minutes*, May 18, 1964, MHS, pp. 329 and 337.

<sup>732</sup> The environmental sanitation division was renamed the environmental health division in 1964.

<sup>733</sup> BOH, *Minutes*, April 9, 1963, MHS, pp. 129-130.

<sup>734</sup> *Minneapolis Tribune*, "State Water Pollution Control Criticized," October 4, 1964.

<sup>735</sup> *St. Paul Pioneer Press*, "Pollution Unit's Reliance on Health Agency Hit," March 21, 1965.

retirement his co-workers honored him with a party. Called a "Cornerstone Removing Ceremony," the menu featured "water tank roasted squab," "O.E. rsd'oeuvres," "fresh caught salmon-ella," and "hash Brownell potatoes."<sup>736</sup>

Frank Woodward, also responsible for the many of the improvements, reflected on his retirement in 1968:

We realized that the sewage being discharged into the ground was becoming a part of the drinking water obtained from the relatively shallow wells. We brought this to the attention of the municipalities involved. We surveyed areas representing many thousands of individual wells and found that nearly half of the wells were affected by the recirculation of sewage. We don't know how many people previously using such wells in the built-up areas are now furnished water from safe central or municipal sources, but the figure must be close to 300,000.<sup>737</sup>



**Frank Woodward**

Director of Environmental  
Sanitation/Environmental Health  
1950 to 1968

### **Food and Lodging**

Established in 1905, the hotel and resort inspection division is one of the longest-standing units of the department. In 1949, the division inspected and licensed hotels, lodgings, boarding houses, restaurants and cafes, tourist rooms, and cabin camps annually. The inspectors looked for faulty equipment, improper housekeeping and other infractions that created health risks. The biggest problem was food handling. If a problem was found, the owner received a notice requiring compliance with the law. The owner had a certain period of time to correct the defect. If it wasn't corrected, a second order was sent. If no correction was made, the license was revoked. In 1949, the division played an important role in the state's tourist business. Nine field inspectors inspected some 2,600 resorts during the summer.<sup>738</sup>

The environmental health division crosses over into the areas of other state agencies, and several times in its history has had to work with other agencies to determine the appropriate role of each. In its report, released in 1950, the Governor's Commission on Efficiency in Government addressed interagency issues between the Health and Agriculture departments. It cited certain inspection functions done by both Health and Agriculture as "perhaps the most glaring example of duplicated and overlapping inspection activities in the state service."<sup>739</sup>

<sup>736</sup> MDH, *Minnesota's Health*, Vol. 10, No. 2, February 1956, pp. 2-3.

<sup>737</sup> MDH, *Minnesota's Health*, 22, No. 7, August-September 1968, p. 3.

<sup>738</sup> MDH, *Minnesota's Health*, Vol. III, No. 7, July 1949, pp. 1-2.

<sup>739</sup> BOH, *Minutes*, January 9, 1953.

The commission did not, however, support placing most inspection functions in the Health Department. It recommended:

Responsibility for the inspection of lodging places, food and food service and all other sanitary inspections should be placed in the Department of Agriculture, and any such functions now performed by the State Department of Health should be transferred to the Department of Agriculture. The Boat Inspection function now performed by the Department of Health should be transferred to the Department of Conservation and be the responsibility of that Department's game wardens.<sup>740</sup>

A newspaper article quoted Myron W. Clark, commissioner of agriculture, as supporting the commission's recommendation: "The Agriculture Department has a statewide inspection organization which can take over all sanitary inspections."<sup>741</sup>

Some challenges regarding agency roles in food safety were already occurring because of recent legislation. As a result of legislation passed in 1948, there was some confusion as to whether the Health Department or the Department of Agriculture was responsible for inspecting food at the State Fair. At a board meeting on November 14, 1950, Mr. Frank Woodward described the difficulties:



There was a lot of conflict at the State Fair this year. We assumed that we were to make inspections of eating places at the Fair and found that the Department of Agriculture was everywhere with more people than we had and their recommendations were quite different than ours.<sup>742</sup>

Progress in the working relationship between the two agencies in this area was made in 1951. The Health Department and the Department of Agriculture coordinated inspections of food and drink concessions at the State Fair. They agreed on standards acceptable to both departments. They designated a meeting place where inspectors got together at the beginning of each day.<sup>743</sup>

Despite the recommendation of the Commission on Efficiency in Government, the Department of Health has retained responsibility for environmental health inspections in a variety of areas. These include:

- Camps: Regulations had been established to monitor logging camps in 1937. At this time a large number of men were housed in barracks and eating in mess halls. After World War II, the logging industry started to abandon these camps in favor of "shacker" camps. Many of them had less than five men, so the department's Regulation 250 no longer applied. Representatives of Local 12-29, International Woodworkers of America-C.I.O., the U.S. Forestry Service and

<sup>740</sup> BOH, *Minutes*, January 9, 1953.

<sup>741</sup> *Minneapolis Tribune*, "Official Backs Single Agency for Inspecting," January 17, 1953.

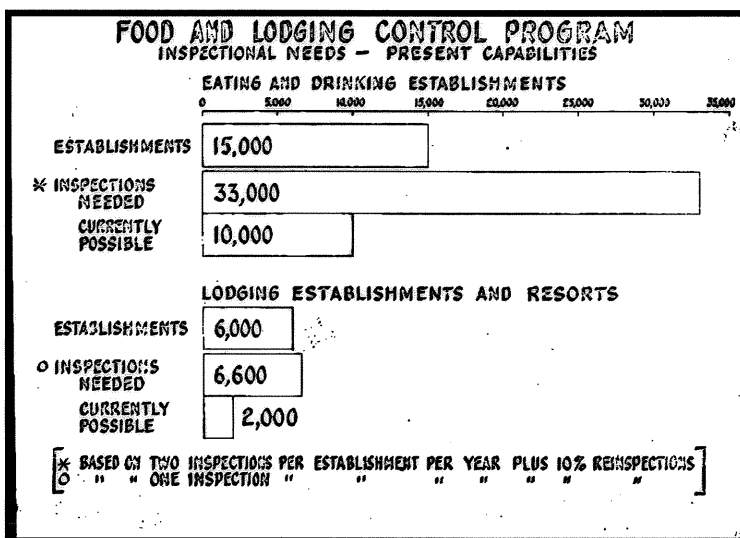
<sup>742</sup> BOH, *Minutes*, November 14, 1950, MHS, pp. 472-475.

<sup>743</sup> BOH, *Minutes*, October 16, 1951.

other members of the logging industry supported the adoption of regulations that would cover these "shacker" camps.<sup>744</sup>

- Swimming Pools: In 1949 a total of 140 swimming pools in the state were inspected by the municipal water supply division, under the direction of O. E. Brownell. Brownell's division approved plans for the pools. Regulations also included adequate toileting, dressing and shower facilities. One problem was athlete's foot, and swimmers were encouraged to wash and dry their feet thoroughly or wear wooden sandals.<sup>745</sup>

- Mobile Homes: A large increase in mobile home parks in the 1970s created new demands on the environmental health division. The hotels, resorts and restaurants section was in charge of conducting a site survey, primarily to check on sewage disposal problems, flooding and drainage and general hazards. They reviewed plans and specifications



for parks, checking the size of lots, spacing, and the plans for water and sewage disposal. The department made inspections at the end of construction.<sup>746</sup>

In 1961, a special effort was made to win support for an expanded program in food service and lodging control. Charles Schneider, from the hotels, resorts and restaurants section, presented a crash program in the techniques of food handling in 12 communities in February and March. The department backed legislation seeking additional resources to conduct more classes for food handlers.<sup>747</sup>

Legislation passed in 1963 expanded the existing food and lodging sanitation law and emphasized education, improved technical service and clearly defined enforcement authority. The law created a graduated fee schedule for licensing. The flat annual fee of \$3.50 from each food and lodging establishment was abolished, starting January 1, 1964. Additional appropriations added five district sanitarians.<sup>748</sup>

<sup>744</sup> BOH, *Minutes*, January 13, 1959, MHS, p. 23.

<sup>745</sup> MDH, *Minnesota's Health*, Vol. III, No. 7, July 1949, p. 3.

<sup>746</sup> MDH, *Minnesota's Health*, Vol. 24, No. 6, June-July 1970, p. 3.

<sup>747</sup> BOH, *Minutes*, April 9, 1962, MHS, pp. 113-114.

<sup>748</sup> MDH, *Minnesota's Health*, Vol. 17, No. 5, May 1963, p. 1.

### Milk Inspection – Interagency Activities

Many of the areas within environmental health have overlapped with areas outside of public health. This has necessitated working with other agencies. In 1983, the environmental health division identified other state agencies that worked most closely with each section:

Analytical Laboratory: Pollution Control Agency, Department of Transportation

Occupational Health: Department of Labor and Industry

Public Water Supply: Pollution Control Agency, Departments of Natural Resources and Agriculture

Health Risk Assessment: Pollution Control Agency, Environmental Quality Board, Departments of Agriculture and Education,

Radiation Control: Department of Transportation, Pollution Control Agency

Hotels, Resorts and Restaurants: Departments of Administration, Agriculture, and Public Welfare<sup>749</sup>

It often has been unclear where the lines of responsibility begin and end. An example of this is the relationship between the Department of Health and the Department of Agriculture in determining roles and responsibilities related to milk-related illnesses and milk inspection. Prior to 1949, the responsibility for milk inspection had been transferred from the Department of Health to the Department of Agriculture. This created problems, as some states would only accept milk that had been certified grade A by the Health Department. Wanting to regain responsibility for milk inspections, Board President Thomas Magath saw the trade difficulties created for the dairy industry as an opportunity to challenge the existing legislation giving responsibility for milk inspection to the Department of Agriculture: "Yes, I think we could do a little missionary work to show the inefficiency of the law and the necessity for reconsideration of correcting. I wish we could get some of these letters out to the public."<sup>750</sup>

The Rochester Dairy Cooperative was one of the businesses hurt by the legislative change. They lost \$100,000 in sales, as they were unable to sell in other states as a result. They offered to pay part of the cost of a milk sanitarian who would work for the Health Department and certify their milk for sale. The board wasn't sure it should accept this offer, and the Department of Agriculture didn't seem to support the idea. President Thomas Magath, from Rochester, thought it would be okay as long as:

"...we stipulate very specifically that the State Board of Health recommends the acceptance of this gift provided we receive in writing the complete and unqualified approval of the Department of Agriculture. Throw it right square in their lap."<sup>751</sup>

<sup>749</sup> MDH, "The Minnesota Department of Health in 1983: Activities, Programs & Purposes," 1983, p. 10.

<sup>750</sup> BOH, *Minutes*, May 5, 1949.

<sup>751</sup> *Ibid.*

On June 22, 1949, R. A. Trovatten, head of the Department of Agriculture, wrote a letter to the U.S. Surgeon General in support of the Health Department's plan to hire and supervise a milk sanitarian. This was done in response to a request from the Board of Health.<sup>752</sup>

The board then negotiated with the U.S. Public Health Service, which assigned a person to the department to establish a program for the continuous supervision of the sanitary quality of milk produced by the Rochester Dairy Cooperative.<sup>753</sup> A milk sanitarian, under technical and administrative control of the department, was employed. The Rochester Dairy Cooperative paid salary and travel expenses.

An advisory board was established to counsel and advise Mr. Herbert Bosch on the establishment of the milk control program. Four representatives from the Department of Agriculture and two from the School of Public Health were invited to serve on the board. An invitation was sent to selected committee members in July 1949. Shortly after, Dr. Chesley received a response from Commissioner Trovatten of the Department of Agriculture, Dairy and Food. The Department of Agriculture did not want to participate. Mr. Trovatten wrote:

Inasmuch as this will become more or less of a study of how to eliminate trade barriers between states, where such barriers are based on health and sanitation standards, and in as much as this involves health departments of other states, it would seem to me that the Department of Agriculture, Dairy and Food should not become involved in such a controversy.

For several years our National Association of Commissioners, Secretaries and Directors of Agriculture has had under discussion this particular question. For the last ten years I have been a member of the Council of State Governments. This Council has made an exhaustive study of this problem and among other things they have found instances where the state agency in charge of food sanitation in one state will condemn products which have been approved by the state agency having charge of food sanitation in the state where the produce was manufactured or processed. This has been true regardless of whether both states have been using the U.S. Public Health Code as a standard of measurement.

States importing dairy products are buying up milk cows and feed in the surplus producing states and arbitrarily fixing prices on their products and at the same time shutting off surplus producing states through arbitrary and discriminating sanitary standards and through milk control laws.

The losses sustained by surplus producing states on milk alone is tremendous, as is shown by the following statistics<sup>754</sup> relating to the average price received by farmers for milk sold at wholesale per hundred weight, according to the U.S. Department of Agriculture, Bureau of Agricultural Economics;

How this question can best be solved, whether it should be done by court procedure or whether it should be done by national legislation is a question that has been up several times for discussion in our national meetings. Because of the many factors involved and the complexity of the problem, it must of necessity require a very exhaustive study and it will be impossible for us to devote enough time and energy from this Department to participate in such a program.

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<sup>752</sup> BOH, *Minutes*, July 14, 1949.

<sup>753</sup> *Ibid.*

<sup>754</sup> Average prices were: Minnesota (\$4.25), Wisconsin (\$4.43), Texas (\$6.40), Florida (\$7.20) and Louisiana (\$6.80).

It would seem to us that it is largely a matter of impartial enforcement of the U.S. Public Health Code at the state level. From the foregoing table of prices received by farmers for milk sold at wholesale, you can readily see the losses sustained by such states as Wisconsin and Minnesota. An impartial enforcement of the U.S. Public Health Code by such states as Texas, Louisiana and probably other states should be used as a measure of the quality of production rather than to be used as a state barrier. This would in our opinion alleviate considerably the situation of the dairy farmers in surplus producing states.

I feel, therefore, that merely setting up a state agency to try to counteract an evil that has been going on throughout the nation for many years past will not produce the desired results, but that much encouragement should be given to a more exhaustive study by the Council of State Governments as well as by the Congress of the United States.<sup>755</sup>

Board member Dr. Theodore Sweetser commented on the difficulties of sharing responsibilities between two or more agencies:

About 25 years ago I had considerable to do with the Boy Scout movement and one of the slogans was that fixed responsibility gets results. You have a program here that has been carried on during a long period of time. Then you get another program in here and if they don't work together in closer cooperation you are going to get friction and problems that will confuse the situation and the public considerably. If they don't go at it the same way, people are going to be confused."<sup>756</sup>

The sanitarian was hired and continued working without incident. In 1950, the board agreed to hire another full-time sanitarian who would work in the central office and be used by Buffalo, Delano and St. Michael. He would spot check with the Department of Agriculture on the work of the Minneapolis Health Department and would report to the U.S. Public Health Service on the quality of that supervision.<sup>757</sup>

Board members were surprised by a show of support from the Department of Agriculture, as indicated at the February 14, 1950, board meeting:

Dr. Ruth Boynton: "I think I'm confused. I am not quite clear as to our relationship with the Department of Agriculture. Do they concur that this is necessary and essential?"

Mr. Frank Woodward: "They do because there are some states which don't. . ."

Herbert Bosch: "They concur because of the Rochester situation."

Woodward: "They have seen from the Rochester situation that we can get along very well. We are requesting this other man."<sup>758</sup>

The Department of Agriculture began accompanying the Health Department on health surveys. At the April 1950 board meeting, however, it was announced that they might stop, as they were finding themselves too busy. Mr. Woodward, assistant chief of environmental sanitation, described the situation:

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<sup>755</sup> BOH, *Minutes*, July 14, 1949.

<sup>756</sup> Ibid.

<sup>757</sup> BOH, *Minutes*, February 14, 1950, MHS, pp.20-21.

<sup>758</sup> Ibid., p. 21.



Supervision is apparently a new word to the Department of Agriculture. They didn't realize what it meant. They are taking on the supervision of some of the milk sheds and a great deal more work and they are finding out they can't spread themselves all over this field.<sup>759</sup>

Dr. Ruth Boynton saw the situation as a possible opportunity to regain full responsibility for milk inspections. She wondered:

Do you think there is enough public opinion being built up for the State Department of Health to get back full control if an attempt is made to change the legislation?<sup>760</sup>

It did not appear so, as Mr. Woodward replied that the Rochester Dairy Cooperative did not get the outcome it expected:

The Rochester program which we started last fall folded up this winter largely because the Rochester Dairy Cooperative was trying to cover too large an area in its program, taking in three whole milk sheds. The Advisory Committee suggested that they take a smaller area. This winter they found that they weren't able to sell milk just by having a program going on without any results. So they had to terminate the program whereby they were paying into the State treasury funds for a milk sanitarian. Fortunately we had a place to put Mr. Dalton in the central office. What Rochester plans to do now is to arrange with the Rochester City Health Department to supervise a portion of the outlying shed, eventually bringing it up to the quality for Rochester. They will have to bring it up to the treasury. It is a question of how much they will be able to put in. About 100 farms at present time. Not enough to be gained by that to employ and pay the salary of a full-time man. Some arrangement with Dr Wilson will be made on this matter. We hope they will be able to work it out. We would be glad to have local health departments take charge of the milk sanitation locally.<sup>761</sup>

A national conference on interstate milk shipments, held in June 1953, recommended that receiving states should accept ratings made only by certified rating officials of either the U.S. Public Health Service or the state health department or department having sole jurisdiction of milk sanitation, providing the survey officials are certified by the Public Health Service.<sup>762</sup>

On December 3, 1957, Gov. Orville Freeman sent a letter to Dr. Barr rescinding the order of Gov. Luther W. Youngdahl to create a milk sanitarian position in the Board of Health.<sup>763</sup> The department accepted its limits related to the control of milk supply as limited to investigation and control of milk-borne communicable disease; advisory services to local milk control programs and activities delegated by the U.S. Public Health Service related to interstate quarantine regulations.<sup>764</sup>

The board thanked the advisory committee for its service and discharged the committee. The position formerly held by the milk sanitarian was filled with a sanitarian to work in the area of children's camps, lumber camps and labor camps, an area that was not covered adequately.<sup>765</sup>

<sup>759</sup> BOH, *Minutes*, April 25, 1950, MHS, pp. 115-116.

<sup>760</sup> *Ibid.*, p. 116.

<sup>761</sup> *Ibid.*, p. 117.

<sup>762</sup> BOH, *Minutes*, January 7, 1958, MHS, pp. 77-78.

<sup>763</sup> *Ibid.*, pp. 79-80.

<sup>764</sup> Letter from Dr. Robert Barr to Gov. Orville Freeman, December 12, 1957.

<sup>765</sup> BOH, *Minutes*, January 7, 1958, MHS, p. 19.

In 1962, a National Milk Sanitation Act, authorizing the Public Health Service the right to establish standards, operate surveillance of state programs and certify milk as meeting standards, was proposed. This act would make milk free for shipment from one part of the country to another, and it would make the bootlegging of milk much more difficult. The board approved the proposed legislation stating that “. . .the Board of Health is opposed in principle to using health as a trade barrier as such in the movement of milk and for that reason are in favor of the proposed legislation.”<sup>766</sup>

### Industrial Health

The first Minnesota occupational health program was established following federal legislation passed in 1939. Funds were designated for state industrial health programs, and the department used them to conduct studies, provide consultation, evaluate hazardous materials and assist in establishing medical services and adult hygiene programs. Rather than inspecting plants and identifying occupational hazards, the department provided education and medical supervision.<sup>767</sup>

The board felt the value of this program was not apparent to outsiders. At a board meeting in 1954, members discussed the need for additional funding and the benefit of activities:

Herbert Bosch: “I think one of the least publicized and yet one of the most important things done was down at St. Mary’s on packaging some of the new organic insecticides. Mr. Michaelson worked very quietly with both the labor and management groups. They introduced practices which reduced very significantly the hazards from handling those substances.”

Miller: “I think you could get support from a number of industries. When they have a case of silicosis in Red Wing Pottery they get terrific heat. There is a terrific compensation angle to it.”

Woodward: “Obviously industry was suspicious of anything that would bring conditions out for the scrutiny of the court. Management was still a little bit suspicious and labor was very suspicious. But over the years we found that it meant what it said. We have had industry ask us to come in and help with what was bothering them, knowing that it wouldn’t be heard.”<sup>768</sup>

The work involved cooperation with more than 6,000 industrial plants in the 1950s. Frank Woodward, director of the environmental sanitation division, noted the approach taken by the department: “Because of the number and geographical distribution of the state’s industrial plants, it is impossible to provide individual service to each. An industry-wide approach provides benefits of value to all plants.”<sup>769</sup>

Between June 30, 1948, and June 30, 1958, a total of 4,886 occupational disease cases were filed under the workmen’s compensation act. Sixty of these resulted in

<sup>766</sup> BOH, *Minutes*, April 9, 1962, MHS, p. 110.

<sup>767</sup> MDH, *Minnesota’s Health*, Vol. 13, No. 4, April 1959, pp. 2-3.

<sup>768</sup> BOH, *Minutes*, May 11, 1954.

<sup>769</sup> MDH, *Minnesota’s Health*, Vol. 13, No. 4, April 1959, pp. 2-3.

death.<sup>770</sup> In 1990 an estimated 400 work-related injuries occurred each day, but complete and valid data to measure the incidence and severity of illness and injury in the work place was not available. The department concentrated much of its efforts on developing and testing a surveillance system in order to better identify needs in this area.<sup>771</sup>

Throughout the period from 1949 to 1999, more concern grew over the potential dangers to the public from the products of industry. Some examples include:

- In 1959, Minnesota joined a national concern when it was discovered that the weed killer aminotriazole was taken up by the cranberry plant and was present in the cranberries when they were harvested. As this chemical is a carcinogen, there was considerable publicity throughout the country. The U.S. Department of Health, Education and Welfare recommended that no one buy or use cranberries unless they had been proved to be free of aminotriazole.<sup>772</sup>
- In 1959, Dr. Dean Fleming, director of the disease prevention division, expressed special concern over the nitrates in the water that was used for making formulas for infants. He felt it could contribute to methemoglobinemia, a condition that deprives the blood of its ability to carry oxygen to the lungs. If untreated, babies would turn blue and could die.<sup>773</sup> Nitrate poisoning in infants had been reported earlier. In 1947, 1948 and 1949, 146 cases of nitrate poisoning in infants had been reported in the state. Two deaths occurred the latter part of 1950. Most cases were from southern Minnesota.<sup>774</sup>
- On June 21, 1961, a 50-gallon drum of DDT emulsion concentrate fell from a farmer's truck in Red Lake Falls, broke open, and the material ran into the sewers. It was raining at the time, and an estimated 50 gallons of concentrate were in the sewer within one hour. The Crookston health officer phoned Mr. Kirkpatrick of the environmental sanitation division at 11 p.m. The Department of Conservation expected all insect life in the river to be killed, as their food would be eliminated. The Health Department asked the people of East Grand Forks and Grand Forks to report any different taste and odors in the drinking water supplies, as their water comes from the river. No reports of any problems were reported.<sup>775</sup>
- In 1960, a study by Dr. Evelyn Hartman, director of the maternal and child health bureau; Dr. Wilford E. Park, chief of occupational health service; and H. Godfrey Nelson, public health chemist at the Minneapolis Health Department, found that chipping paint may be a lead hazard to children. The study was published in the

<sup>770</sup> MDH, *Minnesota's Health*, Vol. 13, No. 4, April 1959, p. 1.

<sup>771</sup> MDH, "Minnesota Public Health Goals," March 1995, p. 155.

<sup>772</sup> BOH, *Minutes*, November 10, 1959, MHS, p. 255.

<sup>773</sup> BOH, *Minutes*, May 26, 1959, MHS, p. 120.

<sup>774</sup> MDH, *Minnesota's Health*, Vol. IV, No. 11, November 1950, pp. 2-3.

<sup>775</sup> BOH, *Minutes*, July 11, 1961, MHS, p. 319.

July 1960 issue of "Public Health Reports" and was based on a study of children attending a well-child clinic between August 1958 and October 1959.<sup>776</sup>

- Lead was the identified culprit when, in 1963, 12-15 head of cattle in Dakota County died. Investigations by the Department of Agriculture and the University School of Veterinary Medicine found that a sufficient level of lead deposited on vegetation could cause lead intoxication. Lead was found in silage hay and topsoil. It wasn't found in plants, indicating there was no uptake of lead by the plant.<sup>777</sup>

In 1957 the Health Department established a central program to provide information about toxic agents as an aid to physicians in treating poison victims. The Minnesota Poison Information Center operated through 10 poison information centers established in the Twin Cities and seven in regional hospital centers in Duluth, Mankato, Fergus Falls, Worthington, St. Cloud, Virginia, and Rochester.<sup>778</sup> Information given out through these centers included identification of the product's ingredients, an estimate of toxicity and any past experience with similar cases. Twenty-four-hour a day service was available.

The Poison Information Center was under the direction of Dr. A. B. Rosenfield, director of the special services division. Dr. Warren Lawson, then chief of the environmental health section, was director of the center and spent half his time running it. To assist, an advisory committee, including representatives of several health disciplines as well as laypersons, was formed.<sup>779</sup> Advisory committee members included Dr. Harold Brunn, Minnesota Medical Association; Dr. Frank Ubel, Ramsey County Medical Society; Boris Levich, St. Paul Department of Public Safety; Dr. W. E. Parks, Minneapolis Division of Public Health; Dr. Donald Roach, Minnesota Academy of General Practitioners; Glenn Prickett, Minnesota Safety Council; Henry Moen, Minnesota State Pharmaceutical Association; Dr. James Fox, Minnesota Academy of Occupational Medicine and



**Dave Gray, Research Scientist**

**The pulse polarograph, an instrument designed by David Gray made it possible to more accurately detect 80 toxic elements in the water, air, blood and urine. It was 100 times more sensitive than the conventional polarograph.**

<sup>776</sup> MDH, *Minnesota's Health*, Vol. 14, No. 7, August-September 1960, p. 4.

<sup>777</sup> BOH, *Minutes*, January 22, 1963, MHS, pp. 31-32.

<sup>778</sup> BOH, *Minutes*, January 13, 1959, MHS, p. 13.

<sup>779</sup> BOH, *Minutes*, July 30, 1957, MHS, p. 125.

Surgery; George Michaelson, Minnesota Hospital Association; Dr. Tague Chisholm, Minnesota Academy of Medicine; Mrs. Richard Angevina, Minnesota Congress of Parents and Teachers, Inc.; Dr. Raymond Bieter, head of the pharmacology department at the University of Minnesota School of Medicine; and Dr. Harold Wright, pharmacology professor at the University of Minnesota.<sup>780</sup>

### Outcomes of New Technologies: Air Pollution and Radiation

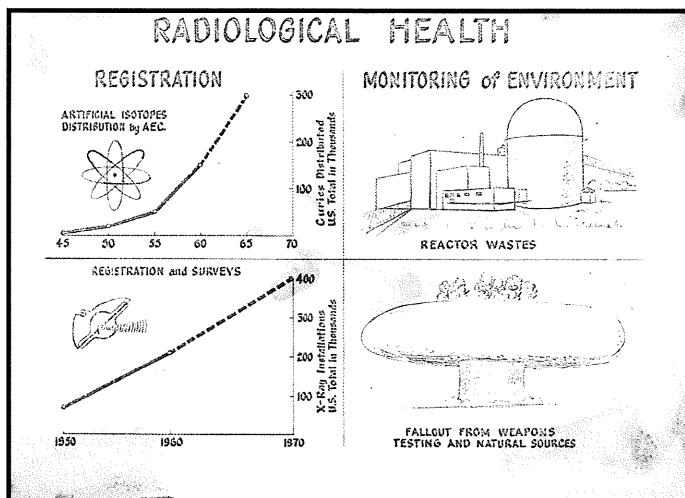
By 1949, the department was conducting surveillance for air pollution in the state. Continuous samplings taken from the roof of the Health Department building on the University campus in the 1950s found that peak concentrations of air pollution occurred in the winter months due to the increased use of fuel for heating. Weekend levels were lower than during the week, because of reduced industrial activity. Periods of low wind velocity, typically just before midnight and near sunrise, increased pollution.<sup>781</sup> In 1957, state legislation authorized the department to make regulations on air pollution in order to protect the public's health. No funds were allocated, however, and this limited the amount of work that could be done.<sup>782</sup>

A 1960 survey conducted by the department, with assistance from the U.S. Public Health Service, found that no serious air pollution problems existed in the 61 state counties surveyed. One out of three communities with populations larger than 1,000, however, reported receiving complaints about the air quality. Most of these problems in out-state Minnesota stemmed from agriculture-related industries.

In 1967 the department's role in air pollution was diminished. The Legislature created the Minnesota Pollution Control Agency, and the responsibility for water pollution, air pollution and solid waste control was placed in the new state agency.<sup>783</sup>

Radiation was another new concern of the population in the 1950s and 1960s. The public wondered about possible exposure and possible effects from a number of different

sources. One area of concern in the late 1960s was the radiation levels from color TVs. E. R. Wykes, chief of the radiation control section, reported that only large screen television receivers are potential sources of radiation in harmful amounts.<sup>784</sup>



<sup>780</sup> MDH, *Minnesota's Health*, Vol. 11, No.10, December 1957, pp. 1 and 4.

<sup>781</sup> MDH, *Minnesota's Health*, Vol. 15, No. 2, February 1961, p. 4.

<sup>782</sup> *Ibid.*, pp. 3-4.

<sup>783</sup> MDH, *Minnesota's Health*, Vol. 22, No. 7, August-September 1968, p. 2.

<sup>784</sup> MDH, *Minnesota's Health*, Vol. 22, No. 5, May 1968, p. 2.

*(Note: The department's history with radiation and nuclear power is also covered in Chapter 4.)*

### **Environmental Health People**

Throughout the years a large number of people have contributed to the improvement of environmental health in Minnesota. A few of those include:

Herbert Bosch, M.P.H., was director of environmental health (then called environmental sanitation) in 1949. He began working for the department in 1936 and left in 1950 to become the first chief of the environmental sanitation section of the World Health Organization. He became a member of the Board of Health in 1952.

Frank L. Woodward, B.E., was head of general sanitation in 1949. He became director of environmental health in 1950 and served to 1968.

Frederick Heisel, B.S.C.E., M.P.H., joined the department in 1939. He became assistant director of environmental health in 1967 and was director of environmental health from 1968 to 1976.

Roger DeRoos, Ph.D., was head of the environmental health division from 1979 to 1983.

Ray Thron was director of environmental health from 1983 to 1992.

Patricia Bloomgren became director of public health in 1992 and has continued through 1999.

O.E. Bronwell, C.E. was chief of the municipal water supply program. He began work at the department in 1920, retiring in 1955.

Harold Whittaker joined the department in 1907.<sup>785</sup> When the division was formed in 1914, he became the first director. He continued as director until 1946 when he retired and became a consultant to the World Health Organization from 1951 to 1961. In 1962 he began a history of environmental sanitation in Minnesota and continued working on it until his death May 1, 1967. He received the first Harvey G. Rogers Award in 1964 in recognition of his efforts to promote public health through the preservation of quality water resources in the state. He was also a champion of safe milk for children.

Myhren Peterson joined the department in 1936 and became supervisor of district sanitation in 1957.

George Raschka joined the department in 1940 and later became associate chief of the radiation and occupational health section.

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<sup>785</sup> MDH, *Minnesota's Health*, May 1967.

Harold S. Adams was head of the division of hotel and resort inspection in 1949.

Charles B. Schneider, M.P.H., joined the department in 1958. He became chief of the hotels, resorts and restaurants section in 1966, replacing Robert Hunt, who resigned.

Russell Frazier joined the department in 1942. He became the head of the combined sanitation and industrial health laboratories in 1951.

Elmer Huset joined the department in 1947. He was appointed chief of the municipal water supply section in 1956.

Paul Johnson, chief of the water supply and general engineering section, joined the department in 1950.

Lyle Smith, M.S., joined the department in 1941. He was chief of the water pollution control section from its beginning in 1961.

Harvey G. Rogers was head of the water pollution section for many years. An annual award for preserving Minnesota's water resources is given in his name.

### **Harvey G. Rogers Memorial Award**

The Harvey G. Rogers Memorial Award was established in 1963. The award, in his memory, was presented by the MPHA to honor those persons who best exemplify the spirit of dedication and years of distinguished service toward promotion of public health through preservation of the quality of water resources of the State of Minnesota. The award, given annually, has been received by the following:

1964 – Harold Whittaker	1977 – No award given	1990 –
1965 – Chester S. Wilson	1978 – Elmer Huset	1991 – Janet Green
1966 – Malcolm Hargraves	1979 – George Schoepfer	1992 –
1967 – Lyle Smith	1980 – No award given	1993 –
1968 – Theodore Olson	1981 – No award given	1994 – Robert Mood
1969 – Gerald Briggs	1982 – Richard Bond	1995 – Bonnie Holz
1970 – Thomas Warner	1983 – David Peterson	1996 – Frank Steffenson
1971 – William Poblete	1984 –	1997 – Gary Englund
1972 – Paul Johnson	1985 – No award given	1998 – Dale Schroeder
1973 – Russell Frazier	1986 – Judge Miles Lord	1999 –
1974 – John Moyle	1987 – Richard Gray, Sr.	2000 –
1975 – Winston Larson	1988 – Stuart Hanson, M.D.	2001 -
1976 – No award given	1989 – Conrad Straub	

The importance of environmental health was noted in a 1999 article in the Star Tribune when achievements of the last century were highlighted:

“Clearly, medical science has achieved phenomenal successes.

But the No. 1 reason why people are living longer and healthier lives?

Better sanitation, say medical historians and epidemiologists. Contaminated water and dirty living conditions were (and still are in many places) the breeding grounds of disease.<sup>786</sup>

***“Without basic hygiene, the basic ideas of cleaning up the streets and sanitation and sewage removal, . . . none of the other advances would have been meaningful.”<sup>787</sup>***

Dr. John Graner  
Associate Professor of Medicine & Medical Historian at Mayo Clinic

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<sup>786</sup> *Minneapolis Star Tribune*, “Living Longer, Living Healthier,” May 16, 1999, pp. A10 & A11.

<sup>787</sup> *Ibid.*