Chapter 33
Tepee burners and pulp mills

Depending upon the source, and there are many with opinions on this subject, the origin of the name "Missoula" came from Indian words describing the river that ran through the valley, or even the bull trout that spawned near its confluence with the Big Blackfoot River, or the likelihood of being ambushed in what later became known as Hellgate Canyon, or something to do with the smoky atmosphere. Some residents of the Missoula Valley in the 1980s swore the name came from an Indian word for "bad air" – the Indians wouldn't camp where the city of Missoula now sits because smoke from their tepees hung low over the valley. Weather inversions in the mountain valleys of western Montana are well known and have an indisputable scientific explanation. Smoke from residents' wood-burning stoves, open burning and timber mills compounded the problem, which persists to this day.

By the late 1950s, major public discontent surfaced in the Missoula Valley over air pollution problems. A symbol of that discontent were the large metal tepee burners used by timber plants to dispose of their waste wood. There had been complaints about tepee burners prior to the late 1950s, but public opinion was changing and becoming more outspoken. [1] On March 20, 1962, an editorial in the Missoulian called for rational and scientific solutions to the Missoula Valley's air pollution problems. "It would be easy to harass the industry from which over half our population derives its livelihood," the editorial said. "What's needed is not harassment, but standards upon which the management of firms could rely before investing additional sums of money toward solutions." The editorial called for the creation of a citizens group by the Missoula County Commissioners to study the pollution problem. The group should represent the public, industry and scientific experts, the editorial said. [2] Through the spring of 1964, the Missoulian published a series of articles on air pollution problems in the valley and on efforts to pass air pollution control legislation. The articles described air inversions in the Missoula Valley that trapped air pollution from homes and cars along with emissions from the numerous timber industry plants – especially the Hoerner-Waldorf pulp mill west of town. [3]

GASP takes on polluters

By the late 1960s and early 1970s, citizen activist groups around the U.S. organized to stop air pollution. Many of these groups used the acronym GASP, but it had different meanings across the country. In Pittsburgh, where a GASP group formed in 1969 and remained active decades later, the acronym stood for Group Against Smog and

Pollution. A GASP group in Birmingham, Ala., was still active in 2014, where it was petitioning to stop air pollution by a coke processing plant under the name Greater Birmingham Alliance to Stop Pollution. [4] In spring 1968, a grassroots environmental group called Gals Against Smog and Pollution (GASP) was formed by a group of women in Missoula to do something about air pollution in the Missoula Valley. The group, which called for implementing provisions of the federal 1967 Clean Air Act, was active through 1970, using petition drives, advertisements, rallies, marches, speeches and appearances before state regulatory agencies. The Missoula-based group led the fight for stricter air and water pollution standards in Montana, but their first and foremost target was the Hoerner-Waldorf plant, a large kraft paper pulp operation west of Missoula. The Missoula GASP organization was a study and action group, which researched pollution and industry issues, conducted interviews and maintained a library. GASP committees looked into kraft pulp and paper processing, tepee burners and lumber mills, vehicle exhaust, open burning, backyard incinerators, clean air legislation, meteorology and topography. [5]

But GASP was also an action group that participated in marches and protests. On Feb. 29, 1968, about 100 women and men gathered at the entrance gate to the Hoerner-Waldorf plant in their first protest. Their signs read, “Bad Sky Country,” “Our Air Stinks,” “How High is the Big Sky?” and “Oh, Say Can You See?” Hoerner-Waldorf officials provided the protesters with coffee and doughnuts. Missoula cardiologist Dr. Harold Braun recalled for a reporter how physicians were recruited to Missoula on “bad air months” of October through February in the early 1960s. GASP had some media opposition. “Picketing won’t help air pollution control,” a Missoulian editorial headline read. “We hope it rains,” the editorial commented. “Gals Are Stupid People,” a letter to the editor relabeled the group. The Feb. 29 protest also drew attention from national media – reporters from the New York Times and Life Magazine were there. By the day of their next march in 1969, GASP had much of Missoula behind them, and National Geographic published photos of their demonstration. In the meantime, a group of University of Montana professors led by botany professor Clancy Gordon encouraged the Environmental Defense Fund to file a lawsuit asking that the pulp mill be prohibited “from depriving citizens of the Missoula ecosystem of their natural right to air unsullied by dangerous and unpleasant pollutants.” The injunction was never granted, but publicity from the lawsuit and organized activism by GASP members eventually led to modernization efforts at the pulp mill. [6] The Missoula group ultimately was successful in swaying public opinion despite Hoerner-Waldorf’s public relations efforts. “Our movement is heavily dependent on Hoerner Waldorf,” Nancy Fritz, the group’s first co-chairperson, said in an interview. [7]

The group's influence in Helena was leveraged by the presence of the large state university in Missoula, with its scientists, legal experts and public speakers, but residents in other parts of the state had their own pollution problems and found a model for how to organize in Missoula. In March 1970, air pollution activists in the Flathead County began to organize a local chapter of Gals Against Smog and Pollution to be affiliated with the GASP organization in Missoula. Among the early members of the Flathead chapter were Lorraine Muth, Loren Kreck and the wife of Glacier View District Ranger Henry Hays. [8] On April 28, members of the Missoula Chapter were guests of the Flathead chapter in Columbia Falls. Accompanying the Missoula contingent was Jim Blair, a photographer for National Geographic magazine. Chapter members said there was "no point in taking a position that is not within reason," and they acknowledged feeling that sometimes they were "still not socially acceptable." [9] On May 13, Bob Muth wrote to Gordon saying he would join Kreck and three women from GASP at an upcoming meeting about air pollution by the Anaconda Aluminum Co. smelter in Columbia Falls. [10] On June 9, members of the Flathead Chapter spent a day at the AAC smelter where they heard some admission of damage caused by fluoride emissions but left "confident there would be no more damage to trees." [11] Members of the Flathead Chapter also attended a Montana Board of Health hearing on July 10, where an air pollution variance request for the new rod mill at the AAC plant was scheduled to be reviewed. [12] A dozen members of the Flathead Chapter also attended a Montana Board of Health meeting in Helena on June 24, 1972, to hear arguments regarding new air pollution control regulations for the AAC plant. [13]

The first Montana industry to be regulated under the state's 1967 Clean Air Act was the timber industry. Waste bark and wood typically was burned in hog boilers and tepee burners that emitted ash, dust and particulates that filled the air in communities adjacent to mills. A March 6, 1953, photo in the Hungry Horse News showed a new 40-foot high tepee burner at the Rocky Mountain Timber Co. mill in Columbia Falls. An existing burner at the mill measured 50 feet high. [14] The local timber industry had significantly increased after World War II. The Plum Creek plant grew from 24 employees in 1946 to 200 in 1960. [15] After a lull during the Great Depression and World War II, the lumber business in Columbia Falls was making a resurgence by December 1954 because of new access roads in the forests and larger trucks to haul logs to the mills. All four lumber mills in Columbia Falls had completed major expansion projects since 1952. [16]

Lumber mills in Columbia Falls turned out a record 85 million to 90 million board-feet of lumber in 1954, representing 225,000 man-days of employment and payrolls of $3.5 million for the year, including operations in the forests. Over half the lumber shipped from the Flathead Valley was milled in Columbia Falls, while new lumber mills were

starting up in the nearby communities of Martin City and Coram. [17] In June 1967, the Plum Creek lumber mill and plywood plant had 365 employees, the F.H. Stoltze Land & Lumber Co. mill had 105, the Superior Buildings mill had 65 to 70, and the Rocky Mountain mill had more than 50. [18] By August 1969, the Flathead County lumber industry employed about 1,000 workers, including plywood, lumber and forest operations. [19] The Louisiana-Pacific lumber mill in Columbia Falls shut down on Oct. 4, 1974, leaving three timber plants in operation. There had been curtailments at some lumber mills, but Plum Creek started up a new $10.5 million fiberboard plant in Columbia Falls that year. [20]

The local heralded conservationist

An important figure in the effort to control air pollution in the Flathead Valley was Loren Kreck. The son of Dr. Edwin Kreck, a dentist, Loren L. Kreck was born in Hollywood, Calif., on Aug. 29, 1920. He grew up in Los Angeles, where he had an interest in hot rods and ice skating. He attended the University of Southern California and was offered a job as an artist at Walt Disney Studios but decided to work for Douglas Aircraft building airplanes. Kreck joined the Marines in 1944 and became a pilot, flying Corsairs off the USS Bennington aircraft carrier in the war against Japan. He attended squadron reunions in later years. Kreck attended dental school after the war and married his wife Mary Fea in 1950. [21] Kreck later said he decided to leave the southern California area on a Fourth of July when the solitude of a camping trip was disturbed by unexpected crowds and fireworks. [22] It was while growing up in Los Angeles that Kreck first took notice of environmental degradation. He remembered how he could see the ocean before World War II, but afterwards things were different. After reading about the Flathead Valley of Montana in the Ford Times, he decided to move there. [23] Kreck made the most of his new surroundings. Known to crawl into a mountain lion's den and to smuggle moose poop in a friend's pack, Kreck was widely celebrated as a backcountry adventurer and a community philanthropist. Once in the wilderness, Kreck said, you find a world "unendingly beautiful." He added, "It's sort of a spiritual experience every time I get out into it. The trees, the sky, the snow, the mountains. You could never get tired of it." [24]

In July 1951, Kreck joined another local dentist and opened a practice in Columbia Falls. Kreck explained that he came to the area to enjoy the fishing, hunting and snow skiing. He pointed out that on July 15, he had the unexpected pleasure of being able to ski at Logan Pass in Glacier National Park under summertime conditions. [25] He and his wife bought a home in Columbia Falls overlooking the Flathead River with a view of the north end of the Swan Range. "When we came to the Flathead in 1951, I came to play," Kreck recalled in a 2000 interview. "I hadn't thought much about conservation." [26] When the

Hungry Horse Dam was under construction, Kreck was the only dentist in Columbia Falls and found himself often working from 8 a.m. to 10 p.m. He opened up an orthodontic practice in Kalispell in 1957 and for many years was the only orthodontist in the valley. [27] He was active in local civic organizations, including the newly chartered Columbia Falls Lions Club, where he served as second vice-president in January 1953. [28] He and Mary adopted two sons and hosted four foreign exchange students over the years. He was also a sculptor, painter and model race car maker. [29]

When Kreck moved from the smog and air pollution of Los Angeles to the sparsely populated Flathead in 1951, Columbia Falls had only 1,000 residents and Hungry Horse was a tiny village. In the next four years, the area's industrial economy grew with the new Hungry Horse Dam and the Anaconda Aluminum Co. plant. [30] Kreck soon became active in conservation and environmental causes. His position first changed after he witnessed how excessive logging impacted his favorite elk hunting grounds and after a pulp mill was proposed for construction downstream from his home on the Flathead River. "After a few things like that, you become sensitized that there is a need for action," he said. Kreck promoted passage of the Wilderness Act, the Wild and Scenic Rivers Act and other legislation, lobbied for creation of the Great Bear Wilderness and the Jewel Basin Hiking Area, and promoted federal protection for the three forks of the Flathead River. [31] On March 31, 1970, a group of activists met in the Columbia Falls High School to start a Flathead County chapter of the Montana Wilderness Association. Kreck was elected temporary chairman. [32] Kreck was passionate about protecting wilderness and is known as one of the most ardent conservationists in Montana history. Over his long life, he went on wilderness hikes and canoe trips all over the world. [33]

Kreck had an early first-hand experience with the hazards of fluoride emissions from the Columbia Falls aluminum plant in the late 1960s when he and his son Mike were hunting above the smelter on Teakettle Mountain. While field dressing a mule deer that Mike had shot, Loren noticed that the deer's teeth were black and chalky, which Loren suspected was due to fluoride poisoning. [34] Kreck also noticed that the cherries in his backyard began drying out before reaching maturity, and he saw other trees dying in Columbia Falls. "When you come from California, it's so nice here," he recalled in a 1982 interview. "You hate to see it start to go downhill." Kreck had read about similar effects near an aluminum plant in Canada, so he asked for advice from Clancy Gordon, who was knowledgeable about fluoride. The investigation developed into a class action air pollution lawsuit against the AAC plant. "From a business standpoint, it wasn't a very smart idea," Kreck said. "I'm sure I lost many patients because of it." Many of the plant's employees believed they would lose their jobs because of the lawsuit, and others found themselves joined to a class action suit they did not support. "I'll probably never live long enough to live it down," he said. "I don't regret it. It was ugly, but somebody had to

do it." [35] Kreck became a pariah in his own community, with bumper stickers reading "To Heck With Kreck" seen regularly around town. [36]

Kreck's initial protests to the Anaconda Company went unanswered. In September 1970, he and Mary, both active members of the Sierra Club, filed a class action suit against the AAC plant in an attempt to stop the air pollution. The Krecks were in the minority. Much of the local economy depended on the AAC plant for direct or indirect income. The plant employed 924 workers averaging $29.80 per day, good wages at the time for the area, and most workers resented the lawsuit. In May 1971, Kreck expressed dissatisfaction with the 2,500 pounds per day of fluoride emissions by the plant or the prospect of limiting that amount to 864 pounds per day, as mandated by the state, saying, "Who gives them the right to put one pound of fluoride into the air?" [37]

Kreck was assisted in his class-action lawsuit by attorneys Dale McGarvey and Frank Morrison. "Scientifically, the proof was there," McGarvey said in a 2000 interview. "Hitting them with a class-action lawsuit was like hitting them with a green 2-by-4. It got their attention." Local residents, however, saw an attack on the smelter as an attack on the town itself. "They weren't fighting the plant," Kreck's longtime friend Dave Downey said in a 2000 interview. "They were fighting the pollution." McGarvey blamed the Anaconda Company for spreading misinformation to the plant's 960 workers. "There was a hell of a furor," McGarvey said. "Dr. Kreck took some brick-bats over that suit, and so did our firm." But the evidence was strong, and the Anaconda Company had to deal with the emissions problem. Ironically, according to Ben Long's 2000 story in Montana Living, the lawsuit helped the AAC plant because it pushed the company to installing new pollution control equipment that lowered fluoride emissions. "As a result of Dr. Kreck's efforts, we got a lot of garbage out of the air," McGarvey said. [38]

Kreck had moved to Columbia Falls to escape the Los Angeles smog but soon discovered a "more poisonous smog – fluoride gas emissions" from the smelter that were killing trees and wildlife and affecting Glacier Park. "Suddenly you realize there's no running away," Kreck told the New York Times in 1971. "Sometimes you have to stand up and fight." The fight against the aluminum company cost Kreck many of his friends, and the lawyers Kreck hired reportedly were forced to board up their windows against bricks. But according to Steve Thompson, a friend and fellow conservationist, "I never heard a cross word or incrimination of any kind from him." Thompson said Kreck understood that protecting the environment was good for the economy. "And if you look at the economy of the Flathead Valley today, I think it's clear he'd been proven right." Bob Brown, a former Montana senator and secretary of state who worked as the aluminum plant's spokesman and unsuccessfully ran for governor, gave Kreck credit in 1999 for getting the smelter's air pollution addressed. "It's very conceivable that the (Columbia

Falls Aluminum Co.) plant wouldn't have been worth the risk if the fluoride problem wasn't fixed," he said. "Although it was pretty controversial at the time, cleaning up the emissions might be the reason" that the plant remained open for several decades more, Brown said. [39]

The idea that Kreck's class action lawsuit made the difference became a popular claim by environmentalists decades later, but the historical evidence tells a different story. The significance of Kreck's role in how the Anaconda Aluminum Co. dealt with its fluoride emissions problem must be weighed against the importance of new fluoride pollution control technology and how it penciled out for ARCO to pay for all that equipment. The failure of Kreck's class action lawsuit to draw popular support or to prevail in court should also be compared to the dozens of successful lawsuits filed by property owners in the Columbia Falls area, and especially the federal lawsuit filed in 1978 on behalf of the Flathead National Forest and Glacier National Park. ARCO's acquisition of the Anaconda Company was held up by the Securities and Exchange Commission until the federal lawsuit was settled in 1980, but by then new air pollution equipment had significantly lowered fluoride emissions, and the plant was in compliance with the state. In addition, two lesser-known individuals had a major influence on the outcome of the air pollution case – Clancy Gordon and Clinton Carlson, both scientists who were directly involved in the case. In addition to gathering scientific data, Gordon was a public speaker who helped shift public opinion about pollution. Carlson's Ph.D. dissertation used aerial photography and statistical analysis to establish the value of damaged timber on Forest Service lands.

The Krecks' $21.5 million air pollution lawsuit was dismissed in 1973 and he moved on to other issues and interests. [40] In January 1976, Kreck and Dr. Robert Windauer traveled to Haiti to do charitable work at a dental clinic. Kreck was the president of the Montana Orthodontic Society. Windauer's son Bernard later worked as an engineer at the aluminum plant. [41] Kreck retired from his 31-year-old dentistry practice in August 1982. Summing up his global point of view, he said, "Everybody will be an environmentalist in the end." [42] By 1992, Kreck was an active roller-blade hockey player and still making long canoe trips in the Alaskan wilderness. He was active in promoting protection for the Jewel Basin Hiking Area on the Swan Range above the Flathead Valley. "Progress is coming whether you like it or not," he explained in a 1992 interview. "But you can make it on your terms and decide what you're going to let them take… This really is the 'Last Best Place,' and if we don't take the responsibility on ourselves, we're going to see the open spaces close and the quality way of life disappear." [43] By February 2007, Kreck was still playing ice hockey on Whitefish Lake at 86 years old. He had played in his first big hockey tournament when he was 68. He also downhill and cross-country skied, hiked,

climbed mountains and paddled down rivers. Kreck had recently traveled for weeks down rivers in Utah and the Northwest Territories. [44]

In fall 2007, Kreck agreed to donate about 400 feet of his waterfront property along the Flathead River to a group trying to improve Columbia Falls by building a river trail. “This is Montana,” Kreck said. “Everyone should have access to the river.” Over the years, Kreck had allowed tall trees and brush to grow around his home, blocking his view of the nearby mountains, but providing habitat for wildlife. “People want a scenic corridor,” he said. “They want to maintain their rivers and lakes.” Times had changed over the past half decade, he said. Columbia Falls once billed itself as the “Industrial Hub of the Flathead,” with timber mills and the aluminum plant, but the community was changing from a blue-collar community to one favoring younger recreational-oriented people, he said. The town of 3,800 people was about 18 miles from Glacier Park and about the same from the ski area at Big Mountain. “For a while there, it was embarrassing, actually, to say you were from Columbia Falls,” Kreck said. “Everything was downtrodden, and Whitefish had that cachet for activity.” [45] Kreck died at age 89 of natural causes on March 26, 2010, at his home in Columbia Falls. [46]

The pulp mill proposal

Environmental supporters in Columbia Falls were tested in the 1960s by the Big Sky Development Corp.’s plans to build a pulp mill on the Flathead River, about two miles from downtown Columbia Falls not far from the Montana Veterans Home. A new watchdog group, the Flathead Pollution Council, was organized in February 1963 to protect the county’s air and water. Kreck was the chairman, Jack Kehoe was head of the industrial section, Bert Cramer was head of recreational pollution, and H.W.C. Newberry was head of the municipal section. The council was concerned about utilizing the region’s timber resources while reducing waste and preserving other economic values. Kreck told the Hungry Horse News that the council was looking at feasibility studies being conducted by the Big Sky Development Corp. to see if timber resources could be used more profitably. [47] By late April, petitions in opposition to the pulp mill were being circulated around the valley by L.L. Feirstein, claiming the plant would pollute air and water. “While Big Sky Development Corporation has given vague and glowing assurances that there will be no pollution, we respectfully point out that such assurances are characteristic of the pulp industry as at Missoula,” the petition said. The petitions were addressed to the Flathead County Commissioners and asked that the commissioners consider legal remedies should a pulp mill be built and then be found to pollute air or water. [48]

Opponents to the pulp mill found mixed support. During their April 1963 meeting, the Northern Rocky Mountain Sportsmen’s Association adopted a resolution stipulating they

would not object to the proposed pulp mill so long as there was "absolute control of air and water pollution" by the plant. The club sent their resolution to the Montana Fish and Game Department and the Montana Board of Health. [49] On May 17, the Hungry Horse News put Feirstein's petition on the front page. "We object to such construction on the grounds that wood pulp reduction plants have invariably so polluted the atmosphere and waters in their vicinity as to cause a serious reduction in the values of residential and other properties within a wide radius of such plants," the petition said. [50] In November, the Columbia Falls City-County Planning Board endorsed without reservation the economic aspects of a pulp mill built on the Flathead River. According to the Big Sky Development Corp.'s proposal, the plant would process 110 tons of wood fiber per day. The planning board did have one reservation – they wanted the U.S. Public Health Service to study whether the proposed pulp mill would create air and water pollution. Big Sky had been approved for a $2.3 million loan from the U.S. Department of Commerce's Area Redevelopment Administration, and the planning board felt that the federal government should study the possibility of pollution. [51]

Hungry Horse News publisher Mel Ruder, a member of the city-county planning board, commented on the board's action in a Nov. 15, 1963 editorial. Ruder pointed out that the board's decision to ask for a federal agency to review Big Sky's plan did not show a lack of confidence in the capabilities of the Montana Board of Health. Rather it showed a recognition that the state board was insufficiently funded to adequately study the problem of pollution and lacked legal authority to take action. The planning board had also discussed the prevailing southwesterly winds that could bring odors and more hazardous forms of air pollution into Columbia Falls – the situation which existed with the pulp mill near Missoula. [52] The planning board met again in mid-December 1964 to discuss the impact of the proposed pulp mill. The local board agreed to request help from the Montana State Planning Board in contacting the Public Health Service for assistance in maintaining the city's air quality. The local board had previously requested help from the health service through Sens. Mike Mansfield and Lee Metcalf and Rep. Arnold Olsen. [53]

The Flathead Chapter of the Society of American Foresters endorsed a resolution on the proposed pulp mill on Jan. 22, 1965. "The need of industrial development in the valley is recognized by us, but we have been unable to determine from information we now have, whether or not this plant would produce adverse effects," the resolution said in part. A consultant for the Big Sky Development Corp. told the foresters group how the plant would utilize wood waste that would otherwise be burned by timber mills. Kreck and David Downey spoke in opposition to the plant. Kreck quoted from an article by the president of a major paper company which stated that the paper industry was unable to provide effective pollution control because of costs. Downey presented graphs showing

that a seven mile per hour wind was needed to clear air from the Flathead Valley during an inversion, and such winds occurred during less than one-third of the days in a year. [54] In spring 1965, the Commerce Department's Area Redevelopment Administration dropped its designation of Flathead County as a depressed area. The area had been designated as depressed since 1961 because unemployment exceeded 6%. The agency had provided low-interest federal loans and grants for a sewer system in Bigfork and a water system in Columbia Falls. Termination of the designation, however, was not expected to change agency loans arranged ahead of time by the Big Sky Development Corp. [55] As of 1965, the company was still looking at the feasibility of building a $4.1 million ground wood fiber plant that would utilize chips from sawmills in the Flathead. [56] But the plant was never built.

Statewide air pollution studies

As Montana inched its way closer to establishing air pollution regulations with its 1967 Clean Air Act, the Montana Board of Health conducted an air pollution study in the Flathead Valley at Creston, Kalispell and Columbia Falls from June 1963 through June 1964. The study focused on suspended particulates and the presence of polycyclic aromatic hydrocarbons, potential cancer-causing agents that included benzo(a)pyrene, fluoranthene and coronene. Polycyclic aromatic hydrocarbons were found in higher concentrations in Columbia Falls when compared to Kalispell, and higher in Kalispell than in Creston. [57] The Board of Health continued collecting air samples in Flathead County in July 1963. "It would appear, from the samples we have collected already, that the Flathead Valley does have an air pollution problem – sometimes more severe than others – but in general that the level might not be considered a serious one," Benjamin Wake, a state air pollution health officer, reported to the Board of Health in February 1964. Wake pointed out that a definition for "serious" was not easy to formulate. The state maintained high-volume air sampling stations at the high school in Columbia Falls and in Kalispell and Creston. The methodology used at the stations was identical to methods used by the National Air Sampling Network operated by the U.S. Public Health Service. The state also worked in cooperation with the U.S. Weather Service's bureau at the Flathead County Airport, which provided information on wind speeds and inversions. The Flathead County stations sampled for total particulate, lead and fluoride in particulates, water-soluble sulfates and polycyclic aromatic hydrocarbons. The data from the stations would be used to develop standards for future pollution control efforts. [58]

The air sampling station on the roof of the Columbia Falls High School used a vacuum to suck in 57 cubic feet of air per minute through fiberglass filters. After 24 hours, the white filter was blackened by particulates. [59] Roy Anders maintained and operated the

air quality monitoring equipment in Columbia Falls in February 1964. Anders worked as a janitor for School District 6 for about 34 years before retiring as the district's maintenance supervisor in 1976. [60] Wake explained the results of the sampling stations to the Hungry Horse News in March 1964. The Flathead Valley had more "tar fraction" pollution related to open burning than Anaconda, Billings, Great Falls and Helena, but considerably less than Libby and Missoula. Missoula topped Los Angeles for the period June through November 1963. For total particulates during the period from June through November 1963, Columbia Falls had dirtier air than Anaconda, Billings, Great Falls and Helena, but considerably cleaner air than Missoula. A major factor affecting air pollution in the Flathead Valley was that wind velocity year-round averaged only 5.3 miles per hour, one of the slowest in the nation, and occasional wind inversions prevented polluted air from leaving the valley. Responsibility for this level of air pollution could be attributed to trash burning, slash burning in the forests, stubble burning, and mill and industrial operations. The newspaper called for local planning boards, city councils, discussion groups and legislators to find a solution. [61]

In November 1964, the Montana Board of Health's Division of Disease Control completed a 22-page report on air pollution in the Flathead Valley. The report warned about the "strong potential for the development of a serious air pollution situation." The report added, "The problem is not yet great, but air pollution to a significant degree does exist and to the extent that corrective measures are indicated… Air pollution will become worse unless positive measures are taken to deal with the problem while it is yet manageable." The largest contributors to the valley's air quality problem were smoke from lumber mills, slash burning on private, state and federal lands, trash burning, emissions from vehicles, and air pollution from the Anaconda Aluminum Co. smelter, the report said. Information for the study was gathered between June 1963 and June 1964 from sampling stations with high-powered vacuum machines located at Columbia Falls High School, Flathead High School in Kalispell, and the Montana Experimental Station in Creston. The report noted that the Flathead Valley had comparatively little wind, and inversions occasionally took place that kept smoke in the lower elevations within the valley. Tepee burners at lumber mills were described as "relatively inefficient." The report warned about the levels of benzo(a)pyrene, a carcinogen found in cigarette smoke that was a product of incomplete combustion of fuels and waste. The levels of this pollutant in the valley's air were similar to those determined in earlier studies of Libby and Missoula. [62]

On Dec. 10, 1964, Robert Sykes, a Kalispell attorney and former president of the Montana Wildlife Federation, spoke to the Columbia Falls Lions Club about air pollution legislation that was headed to the state legislature. According to Sykes, the proposed legislation would strengthen existing Montana air pollution laws. He called for including

a member of a wildlife organization on the state pollution control council, which only allowed members from industry or state offices. Sykes also noted that existing law did not offer preventive control and the proposed $40,000 budget was inadequate to safeguard the entire state against air pollution. He described a new air pollution control law in California that depended on county revenues for money, but which only included political office holders on its council and no representatives from industry. Progress in air pollution control in Montana could be achieved by offering tax incentives to industries that installed pollution control equipment, Sykes suggested. [63]

Sykes went on to preside over a landmark group of law cases involving fluoride pollution by the AAC smelter as a Flathead County District Court Judge during the 1970s. The cases included 26 individual lawsuits and the Krecks' class action lawsuit that initially had 3,000 potential plaintiffs. The class action lawsuit was the first large environmental lawsuit in Montana history and involved complex issues that took the case to the Montana Supreme Court. Sykes reflected on the case in December 1982 as he prepared to step down from the bench. "Many civil cases are more interesting than criminal cases," he said. "The more complex they are, the better. They're educational. You learn a lot of things from the experts who testify – and from the knowledge of well-prepared attorneys." After World War II, Sykes received a law degree from the University of Montana and went into law practice in Kalispell. He stayed in Kalispell practicing law for 20 years before becoming a judge. While an attorney, Sykes was president of the Montana Wildlife Federation and a member of the Montana Bureau of Land Management's advisory board, and he was active in numerous outdoor recreation causes. Sykes said he gave up most of those kinds of activities after he became a judge due to lack of free time. Sykes had a reputation, perhaps unjustifiably, for being easy on criminals, but he also had a sense of humor. When an unknown prankster dumped a truckload of black dirt at his residence door on April Fool's Day, he called it "a dirty trick." [64]

On April 9, 1965, the Missoula and Flathead chapters of the Society of American Foresters met in Polson to discuss air pollution in Montana. R.H. Ty Robinson, a member of the Governor's Statewide Committee on Air Pollution and a past president of the Montana Chamber of Commerce, spoke about the committee's findings and recommendations. Sen. Edward T. Dussault, the majority leader in the Montana Senate, spoke about new state legislation to control air pollution. [65] Robinson argued that air pollution legislation should be effective but not overly restrictive of industry, and that further study was needed of all types of air pollution, pollution control measures and meteorological conditions. Dussault had sponsored a bill that would have created stronger pollution control in Missoula Valley. Effective pollution control laws were

needed right away, he said, particularly something to replace the current "public nuisance type" legislation, which was not effective. [66]

The Hungry Horse News took a position on air pollution problems in the mountain valleys of western Montana in a Nov. 5, 1965, editorial. "A point of conversation for Montanans is the smog and smell in Missoula," the editorial began. An argument was made that the weather patterns in part of the Flathead Valley and efforts by industry kept the valley generally clear of air pollution. "Prevailing winds in the upper Flathead Valley are from the southwest," the editorial said. "For example they seldom blow from Anaconda Aluminum Co. toward Columbia Falls and settled portions of this valley. The original AAC investment included $11 million for pollution control. Also worthy of note is that Plum Creek Lumber's new plywood plant passed State Board of Health requirements and was complimented by Mike Behrens, county sanitarium." Despite the weather and efforts by industry to control pollution, there was evidence of air pollution in the upper valley. "Too often Columbia Falls residents see big black plumes of smoke from mills and find cars peppered in the morning with partly burned sawdust," the editorial said. "Obviously this represents faulty combustion, and it is a reason for some local housewives doing their washing on Saturday." [67]

Not much had changed in Columbia Falls five months later. A photograph in the newspaper taken April 19, 1966, showed two smokestacks emitting black smoke over the Plum Creek timber mill in Columbia Falls while children played in the foreground at the local grade school. The caption read, "Columbia Falls is a payroll town that likes job-producing industries, and also would like to keep clean mountain air. There is increasing comment that lumber mills should achieve better combustion." [68] Meanwhile, progress in Helena was being reported. In October 1966, Sykes addressed members of the Flathead National Forest's Advisory Council about air pollution control legislation under consideration by the Montana Legislature. Sykes said the proposals sought to encourage installation of pollution control equipment by industry through the use of tax cuts. It was impossible to not tax new installations under state law, Sykes said, but the new equipment could be taxed at a lower rate, such as 7%. Furthermore, recent reapportionment measures had given counties with larger populations more representation in the legislature. The result was that air pollution was being given more attention. [69]

On March 2, 1967, the Montana Legislature passed a Clean Air Act. The governor signed it into law the next day. [70] The impact of the new legislation was a hot topic among civic groups in the Flathead Valley. During the April 22 and 23 meeting of the Montana Wildlife Federation at the AAC Employees Club in Columbia Falls, a talk on "Air Pollution Control" was given by Sen. Gene Mahoney, a Thompson Falls attorney and majority

leader in the Montana Senate. [71] On June 2, Mel Ruder reported on a hearing at the Montana Board of Health, where 50 witnesses testified about the Clean Air Act and federal guidelines governing air pollution. His editorial warned that the board might take an unreasonable stance, and he complimented the operation of the AAC plant in Columbia Falls. "The Flathead is aware that fluorides that accompany aluminum production can be dangerous," he said. "There is also awareness that when the Anaconda Aluminum Co. plant was erected in 1953-55, $11 million was spent in air pollution controls. The Flathead River was in no way affected. AAC has exercised good judgment. Furthermore the AAC plant is located to take best advantage of prevailing southwesterly winds in contrast to the pulp plant near Missoula. There is also realization these industries are principal job providers." [72] Ruder reiterated his points on Nov. 10, one week ahead of another Board of Health hearing on proposed air pollution regulations. "The whole nation is becoming much more aware of the dangers of air and stream pollution," he said. "Industrial plants that make serious efforts to control pollution deserve commendation. Those that wait for the law to act, need prodding." [73]

Regulating the timber mills

With passage of a Clean Air Act, the state began to move ahead on pollution control – particularly for the timber industry. Benjamin Wake traveled to the Flathead on Feb. 16, 1968, to meet with management at the AAC plant and local lumber mills, including Plum Creek. "We expect to learn of any progress that has been made by the industry in trying to solve its own problems," Wake said. Of immediate concern was smoke from tepee burners and hog fuel boilers at the lumber mills, he said. A tentative schedule for development of suitable air pollution control equipment was 2 ½ years for tepee burners and 1 ½ years for hog fuel boilers, he said. [74] In March 1968, the Northern Rocky Mountain Sportsmen met at the AAC Employees Club and went on record in support of the state's new air pollution legislation. There was general agreement at the meeting that an industrial community like Columbia Falls should have a practical approach to air pollution control. [75] By September, smoke abatement equipment was being installed at the Plum Creek mill in Columbia Falls to improve emissions from boilers at the plant. A chipper was being installed to handle wood waste normally sent to the tepee burners. The chipped wood would be sent to the Hoerner-Waldorf paper plant in Missoula. [76]

On Oct. 25, 1968, the Hungry Horse News published a letter to the editor from University of Montana history professor Harry Fritz urging the public to support legislation establishing regulations for the control of air pollution. The Montana Board of Health and the Montana Air Pollution Control Advisory Council were meeting to determine effective air pollution control standards and, according to Fritz, "Already the domineering industries of the state have weakened the proposed standards and are

now marshalling their forces in an effort to reduce them even further." Fritz explained that a large delegation of concerned citizens from Missoula would appear before the board and council on Oct. 25 to testify to the need for stronger regulations. "The right of every citizen to breathe clean air is one which has not been much discussed, but it is one which every American must be guaranteed," he said. "The regulation of industry in the past has proven beneficial not only to the public but to industry itself. Surely, on this great moral issue the Montana public will not only support but will demand legislation for the purpose of providing a clean and healthy environment for ourselves and for our children." [77] The focus of the Oct. 25 meeting was air pollution by the timber industry because the aluminum industry had a nine-month extension to come up with its own proposed standards. [78]

The Montana Board of Health adopted air pollution standards for timber and other industries – but not smelters – on Nov. 23, 1968. Spokesmen for the timber mills in Columbia Falls said the new standards would be difficult to meet. Owners of tepee burners were given only 18 months to comply. All modifications to tepee burners were subject to review by the Board of Health. [79] A growing sentiment of gloom and criticism among industry representatives was evident by early December 1968. Some declared that "the area can have either industry or clean air, but not both," the Hungry Horse News reported. All new industries were required to comply with the standards immediately, while existing plants were given 18 months to install new equipment. Industry spokesmen in Columbia Falls claimed that no effective substitute existed for tepee burners, and one lumber man said, "We'd cover the valley with a foot of sawdust if we couldn't burn it." [80] The top news story in the Hungry Horse News for 1968 was completion of Potlines 4 and 5 at the AAC smelter. The number three story was air pollution control efforts by Plum Creek, F.H. Stoltze Land & Lumber Co. and AAC. The aluminum plant had announced new pollution control objectives on Aug. 16, 1968. [81] As it turned out over the next decade, the timber mills had a much easier time meeting the state's air quality standards compared to the aluminum smelter.

Wake traveled to Kalispell on April 3, 1969, to give a public talk to the Society of American Foresters about air pollution – particularly by timber mills. Wake announced plans to install a dozen more air-monitoring stations in the Flathead Valley, with two or three in or near Columbia Falls. He also planned to begin sampling for fluoride emissions from the AAC smelter with "an evaluation on vegetation as well as animals." [82] The Hungry Horse News recognized societal changes in a July 11, 1969, editorial that warned about a growing public awareness of air and water pollution problems nationwide. This included awareness of fluoride emissions from the AAC plant and smoke from local lumber mills. The newspaper encouraged industry to inform the public on what steps it was taking to control pollution and warned, "The public in 1970 and 1971 will be less

tolerant to smoke as experienced in 1969. This is a nationwide reaction." [83] Wake reported to the Montana Board of Health and the Montana Air Pollution Control Advisory Council on Sept. 19 that of the 81 tepee burners in Montana, only 11 had installed combustion equipment enabling them to comply with the state's new regulations. The deadline for air pollution compliance by lumber mills in Montana under the state's Clean Air Act was May 23, 1970. A lumber mill in Creston, southwest of Columbia Falls, had done a good job with its tepee burner, Wake said, but the Rocky Mountain Lumber Co.'s tepee burner in Columbia Falls was not working properly. Wake expressed disappointment in air pollution control progress by lumber mills and the shortage of state inspectors. [84]

Wake returned to the Flathead on Oct. 14, 1969, to speak to 36 industrial, business and professional men at a meeting of the Columbia Falls Chamber of Commerce. "Columbia Falls has Montana's dirtiest air," Wake told them flatly. "You don't like to hear it, but that doesn't change anything. It's true." One of the factors affecting air pollution in Montana's mountain valleys was weather inversions that trapped air pollution but, Wake pointed out, the state's 1967 Clean Air Act was not passed "for maintaining the status quo." He described the types of changes needed at the four lumber mills in Columbia Falls. Very few tepee burners complied with new regulations that would go into effect in seven months. If the timber mills didn't comply, Wake warned, it would be necessary for the state to seek injunctions. That should not be necessary, he added, since technology existed to upgrade tepee burners. As for fluoride emissions at the Anaconda Aluminum Co. plant, the situation was "1,000 times more difficult than at Garrison, which we are on top of," Wake said. In addition to fluoride emissions, the AAC plant was responsible for emitting harmful coal tar pitch, Wake noted. [85]

The following week was declared Cleaner Air Week across the U.S. by the National Tuberculosis and Respiratory Disease Association. For Flathead Valley residents, the declaration coincided with the announcement that their valley had passed over Missoula as having the most polluted air in the state. According to the Hungry Horse News, Columbia Falls had replaced Garrison as "Montana's target community." Fluoride emissions from the AAC smelter had made the town the subject of statewide media stories as the Montana Board of Health dealt with establishing standards. Meanwhile, timber mills in the Flathead Valley were making efforts to be in compliance by May 23, 1970. The Hungry Horse News recognized that fluoride emissions were part of the nature of the aluminum industry and called on the AAC plant to be more effective in informing the public on air pollution control efforts. The newspaper put the blame on the use of Soderberg-design aluminum reduction pots and anticipated a multi-million dollar effort to upgrade the plant to new pots. [86]

Flathead residents had become quite vocal by this time, either in support of industry and jobs or in support of clean air. In an Oct. 24, 1969, letter to the Hungry Horse News, Gene F. Sentz criticized air quality in the Flathead. He wrote about watching children play at the Columbia Falls elementary school and thinking about all the smoke from the nearby Plum Creek lumber mill that the children were breathing. Each child "may be inhaling the equivalent of one or two Lucky Strikes during their daily recess periods," Sentz wrote. He also quoted from the Aug. 15, 1969, National Wildlife Federation newsletter that said, "Air pollution officials privately estimate that industry is spending $35 million per year to fight air pollution control regulations and enforcement. This compares to the $750,000 spent each year by all state and federal agencies fighting to make the air fit to breathe." [87]

Clifford Clark, a retired fireman from Miles City, became the new air pollution reporting officer for the Flathead Valley on Nov. 15, 1969. Clark was appointed by the Flathead County Board of Health, which enforced the state's air pollution laws. Most of Clark's job entailed watching for smoke from open fires. [88] Meanwhile, new pollution control equipment was installed and successfully tested on Jan. 5, 1970, at Plum Creek's lumber mill in Pablo, in Lake County south of Flathead Lake. Three more installations were scheduled at Plum Creek's plant in Columbia Falls. [89] Civic groups continued to find ways to educate the public about the new regulations. On Feb. 9, 1970, the Columbia Falls Jaycees sponsored a public meeting at the high school on air pollution. During the meeting, Alan K. Fisher, vice president of manufacturing for the Plum Creek Lumber Co., presented a report on his company's air pollution program. "We will meet the May 23 deadline," he said. "Mills have changed for the good. There's no argument but we have control problems." [90] A ban on open burning went into effect on May 1, 1970, as part of Montana's effort to curb air pollution. After one week had passed, Jack Dodd, the state's air pollution observer for the Flathead Valley, complimented the cooperation of valley residents and businesses. "The Flathead showed well," he said. Some residents, however, continued to complain about smoke from garbage burning at the Columbia Falls dump. [91]

Fitful progress in air pollution control was reported in the media. In a May 15, 1970, editorial, the Hungry Horse News argued that Montana's air and water pollution control laws were stricter than those in Wyoming and Utah, with the result that Montana industries incurred higher costs of doing business. A solution would be federal regulation. [92] Then in a Dec. 18, 1970 editorial, the Hungry Horse News reported cleaner air in the Flathead Valley and a reduction in fluoride emissions at the AAC smelter. Air pollution improvements in 1970 included a ban on backyard trash burning, which involved about a third of all homes, and a ban on tepee burners at lumber mills. On the other hand, slash burning went out of control in the nearby Flathead National Forest in

late September, the newspaper noted, covering the still air of the Flathead Valley with a blanket of smoke. [93] Clancy Gordon summed up the process one year later when, speaking at a wood products seminar in Missoula on Dec. 10, 1971, he described the long and often hostile fight between environmentalists and industry over air pollution problems in the Missoula Valley. Gordon pointed to the amount of distrust the public now held toward the timber industry. "If industry would have gotten together and said, 'There's an air pollution problem, and it's up to us to clean it up,' there wouldn't have been any problems," he said. "But they didn't and the people got angry… Essentially you screwed yourselves, you left the job to the women from GASP and long-haired, bearded professors." [94]

Paving the streets

With the timber mills cleaned up, one more major source of air pollution remained in Columbia Falls other than the aluminum plant – dust from unpaved streets. In May 1957, the city sought revenue tools to pay for paving Columbia Falls' streets. With parking meters no longer viable, the Columbia Falls City Council began considering a "horse and buggy era" head tax of $3 for every male resident between 18 and 45 years old. The Hungry Horse News described street surfacing as "the major problem" facing the city council. [95] Roy Lindsey, mayor of Columbia Falls from 1959 through 1961, pointed out that the city's limited budget forced the city to rely on volunteers to maintain the city's parks and repair the city's streets. [96] The Hungry Horse News reported on the situation in a May 28, 1971, editorial that claimed dust from streets was the biggest source of air pollution in Columbia Falls – not the emissions from the AAC smelter or local timber mills. Local industry was credited with making marked progress in reducing emissions, while repairs were being made to the city's streets. The state was paying for repairing Nucleus Avenue, the main street in downtown Columbia Falls, and temporary relief from street dust was available by hot oiling and special improvement districts, the newspaper noted. [97] The streets of Columbia Falls were like a Wild West town right up into the 1980s, Columbia Falls Street Superintendent Gary Stempin recalled in 2003. A "pall of dust" hung over Columbia Falls in the 1970s that was visible all the way across the valley in Kalispell, mostly resulting from unpaved streets. [98]

A poll in 1960 indicated that the average Columbia Falls resident wanted a job, good schools, churches, lower taxes, good outdoor recreational opportunities such as hunting and fishing, good weather, and city improvements such as paved streets and more parks. [99] In November 1962, the Columbia Falls City Council requested federal grant money under the Accelerated Public Works Program to pay for 58% of improvements to the city's streets and water system. The cost for surfacing about 60% of the city's streets and providing concrete curbs would run about $1.55 million. [100] Two years later, on Jan.

31, 1964, an editorial in the Hungry Horse News called for street surfacing and construction of curbs. [101] Three months later, as construction of a new potline continued at the aluminum plant, the Hungry Horse News warned about population growth in the city and called for repairing and building the infrastructure needed for the new residents. The next major problem facing the city was the need for a modern sewer system, and since most of the city's streets were still unpaved, now was the time to put in sewers, before they got paved, the editorial noted. [102]

Columbia Falls was not alone in generating dust pollution with unpaved streets, and with a Clean Air Act to enforce, the state took notice. On Dec. 1, 1971, the Montana Department of Health issued an "Implementation Plan for Control of Air Pollution in Montana." The 159-page document, which was edited by Benjamin Wake, by then director of the state's air pollution control agency, declared the Kalispell-Columbia Falls area a "hot spot" for particulates, primarily dust from streets. Two of the state's monitoring stations were located at the Columbia Falls Junior High School and the Dehlbom residence next to the AAC plant. The suspended particulate loading at the Dehlbom residence just barely met Montana standards, and the excess particulate was "assumed to be emitted by the nearby aluminum plant." Air quality in Columbia Falls was impacted by numerous sources of contaminants, including dusty streets, transportation, slash burning and wildfires, tepee burners and wood fuel boilers. New regulations for some of these sources were expected to result in a substantial reduction in air pollution, the report said. [103]

Flathead County was identified as a "nonattainment" area by the U.S. Environmental Protection Agency in 1977, which cited the amount of particulates in the air in Columbia Falls. In December 1982, the EPA announced it was considering enforcing sanctions against counties across the U.S. that did not meet the 1977 Clean Air Act standards. Sanctions would include withdrawal of highway funding and a ban on new industry. The high particulate levels in the county were found to result from unpaved streets, and the paving of Nucleus Avenue in 1981 apparently helped alleviate the problem. A spokesman for the Montana Air Quality Bureau acknowledged this explanation but said air quality data for two years would be needed to confirm the findings. [104] The Montana Air Quality Bureau named Flathead County in December 1982 as one of 472 counties in the U.S. not in compliance with the 1977 Clean Air Act. The county faced losing federal highway funding or being restricted from adding new factories to its local economy, but it was not clear whether the EPA intended to crack down on all those counties. The Columbia Falls area was the only part of Flathead County that fell below federal air standards, and the pollution was limited to particulates. [105] Flathead County was removed from the EPA's nonattainment list by February 1983. [106]

In September 1983, with weather inversions returning to the Flathead Valley, Bob Raisch, a supervisor at the Montana Air Quality Bureau, warned Hungry Horse News readers that wintertime was the worst time of the year for air pollution in Columbia Falls, Whitefish and Kalispell. Raisch noted that air pollution from wintertime inversions was worse in the Missoula Valley because air pollution in the Flathead Valley was more localized and concentrated in one of the three cities. Over the years, wintertime air pollution levels in Columbia Falls and Kalispell had violated both state and federal air pollution standards for particulates, he said, but during the winter of 1982-1983, air quality in the Flathead Valley was the best it had been in several years, falling below the average particulate level of 75 micrograms per cubic meter. In 1982, Columbia Falls averaged 66 micrograms of particulates per cubic meter, Whitefish averaged 49 and Kalispell averaged 73. Raisch attributed the cleaner air to the statewide economic recession and the reduced industrial activity in the Flathead Valley, along with better average weather conditions, but he predicted that increased use of wood stoves would lead the valley in the same direction as the Missoula Valley and more air pollution. [107]

Nonattainment status

The EPA upgraded its 1977 clean air standards for particulates in 1987, changing the focus from particles 50 microns in diameter to particles 10 microns in diameter, which was established as PM-10 standards. The city of Columbia Falls, which had cleaned up its air since the 1960s by controlling emissions from local timber mills, was found in violation of the annual average standard for PM-10 in 1986 and in violation of the 24-hour limit for PM-10 in 1987. The Montana Department of Environmental Quality investigated the matter and found the city to be in nonattainment on Nov. 6, 1991. A six-square-mile nonattainment area was defined that included all three of Plum Creek's manufacturing plants but not the Columbia Falls Aluminum Co. smelter outside of town. [108]

The same day, the city of Kalispell was found to be in nonattainment, and two years later so was the city of Whitefish. The cause of the nonattainment status was road dust. Before 1987, about two-thirds of Columbia Falls' streets were unpaved. With nonattainment status, the city obtained about $500,000 in federal grants to pave streets, purchase street sweepers and start using de-icer equipment instead of gravel on roads in wintertime. In 1997 and 1998, CFAC was fined a total of $255,980 by the EPA for air pollution violations, and $30,000 of that money was diverted to Columbia Falls to pay for a street sweeper. Bob Habeck at the Montana DEQ said in December 2002 that ambient air quality in Columbia Falls had been well within the PM-10 standards for 10 years running. The fact that the city was still in nonattainment had more to do with a

bureaucratic sticking point – the city was doing the monitoring and street cleaning it should have done in the first place, and wintertime air inversions were a fact of life. [109]

The EPA met with Columbia Falls officials to discuss the city's air quality in February 1988. The EPA ranked Columbia Falls and Kalispell among the 70 cities in the U.S. with the worst air quality, earning Columbia Falls a Class 1 ranking and requiring the city to develop and implement a solution to the problem. The EPA recently had changed its monitoring methodology from measuring total suspended particulates to only measuring particles smaller than 10 microns, which were believed to cause more health problems. The city had violated EPA standards in October and November 1987. City officials complained on Feb. 29, 1988, that the EPA's measuring methods were inadequate. City Councilor Robert Waltmire wanted to know why all the top polluted cities were located in the western U.S. and not in the more industrialized eastern U.S. "They dump this (air quality violation) on us and claim that we're dirtier than the rest of the continental U.S. Are they out of their cotton-picking minds?" he asked. Waltmire pointed out that the city's budget was already limited. [110]

Mayor Colleen Allison pointed out that the city had no choice in the matter, but she wanted to wait until the Montana Air Quality Bureau had completed its study of the city's air before drafting a plan to deal with the problem. Don Ryan, a member of the city's air quality committee who worked at the aluminum plant, agreed with Allison and, like Waltmire, wanted to know where the money was going to come from. Once the results were back from the Air Quality Bureau, then the city had two months to draft a plan acceptable to the EPA. Possible solutions included restricting residential wood burning stoves, washing wintertime road gravel or switching to salt, and to begin an improved street-sweeping program. "Sometimes the dust is only controllable by paving the streets and curbs, and that could cost millions," Allison pointed out. "Our congressional delegation knows we are not happy with these mandates in these particular economic times." The EPA had three alternatives if the city did not comply: 1) withhold federal grant money to the state of Montana; 2) call a halt to all industrial building permits in Columbia Falls until the rules were met; or 3) create and enact its own plan and bill the city afterwards. [111]

Connie Riley responded to news about the city's air quality violations in a letter to the editor on March 16, 1988. Riley disagreed with city officials who believed the EPA was being too hard on the city and argued that air pollution did exist in the city. "Last summer towards evening when I was playing ball with my young son, I could actually see fine particles falling out of the air to the ground," she said. "My car is covered with fine and larger sawdust particles when left outside rather than in the garage day or night… When jogging in the morning or evening, even on a clear day, the wood-burning

smoke from stoves is enough to gag you! Now, are you trying to tell me Columbia Falls doesn't have an air pollution problem? This isn't even mentioning the dirt/gravel and dirty paved streets in town! Please, let's try to do something about our air and not become another Missoula!" [112]

Jan Gilman, an air quality specialist with the Montana Department of Health and Environmental Science, reported in April 1991 that results from testing of air samples from Columbia Falls were expected by the end of the month. The samples were collected 1 1/2 years earlier, but the EPA was unable to fund the tests so the state was forced to find another contractor. The air in Columbia Falls had exceeded federal standards twice in 1987, and the EPA had put the city on its nonattainment list. The latest round of air sampling was expected to explain the EPA's action. Suspected pollutants included road dust, industrial pollution, dust from nearby farmland and smoke from fires in surrounding forest lands. Columbia Falls had already tried to deal with road dust by using washed sand in winter, paving more streets and implementing a stricter street-cleaning program, and Gilman believed that might be enough. The federal 1990 Clean Air Act required that the city, or the air quality control district that included the city, have a clean-up plan in effect by Nov. 15, 1991. [113]

In late June 1991, Plum Creek officials announced that new pollution control equipment for the company's plywood plant in Columbia Falls would be operating by August. The Montana Department of Health and Environmental Sciences had cited Plum Creek for air violations connected with its plywood plant in July 1988. While particulate levels in Columbia Falls had exceeded federal standards twice in 1987, Plum Creek emissions were only considered one contributing factor, according to Harry Keltz at MDHES. Road dust was considered the major air pollutant in the city's air. [114] In August, the Montana Air Quality Bureau notified the city of Columbia Falls that it intended to keep a close eye on the city's air quality for three more years even though the city's control measures had been effective and there had been no violations in 1991. State air quality data showed that about half of the city's air pollution came from road dust, while another 19% came from Plum Creek timber plant emissions. The Air Quality Bureau commended the city for implementing a policy of washing all sand used on roads and highways in winter and for cleaning up the sand each spring and paving or oiling most of the city streets since the air quality infractions had occurred in 1987. [115] On Sept. 19, 1991, Hungry Horse News publisher Brian Kennedy complimented the city for paving some of the city's streets. "What a difference paved streets make in a town," Kennedy said. "They're nice to drive on, not dusty and they look much, much better." [116]

The air was looking better in Columbia Falls, but air pollution problems lingered. In mid-April 1992, Bob Raisch, a supervisor at the Montana Air Quality Bureau, said that

Columbia Falls could be taken off the EPA's nonattainment list if it could get through one more year without an air pollution violation. The city's air had gone two years without a violation. Raisch explained that if the city stayed on the list, new industries would be forced to comply with more stringent air pollution regulations. Even if the city got off the list, Raisch pointed out, it would have to submit a satisfactory air pollution control strategy to the EPA. [117] In September 1992, Flathead County City-County Health Department Director Joe Russell told the Columbia Falls City Council that tests showed the city had dramatically reduced particulate levels in its air, but that it was technically still in violation of the state's air quality regulations. The last time a violation had taken place was on Oct. 16, 1991, when a severe wind storm fanned grass fires in the region, causing most Western Montana communities to be in violation that day. Council members thought the designation was unfair, and they worried it would cost $80,000 to pave all of School District 6's gravel parking lots as mandated by the county's air pollution program. [118]

The "number two person in the EPA for air quality," Mary Nichols, visited the CFAC aluminum plant on Dec. 7, 1994, where the matter of Columbia Falls' nonattainment status came up in discussion. The city had been classified in nonattainment by the EPA since 1984, but city and industry leaders claimed the city's air had not exceeded particulate standards for about six years, and they argued that the nonattainment status should have been lifted three years earlier in 1991. Nichols said the EPA had not lifted the status because of uncertainty over the amount of particulate contributed to the city's air by local industry. [119] On May 13, 1996, city officials were told by Montana DEQ representative Gretchen Bennitt that air in Columbia Falls was the cleanest in Flathead County and rivaled some of the most unpolluted air in the state. That was a big change from 1990, when city officials were told Columbia Falls had the most polluted air in the county. Bennitt said she was compiling air quality data to present to the EPA in an effort to upgrade the city's air quality status. The city had applied for re-designation in fall 1995. "We won't ever get close to nonattainment status again," she said. "We are ripe for re-designation." The biggest change in local air quality came after the aluminum plant and Plum Creek began to use chemicals to reduce airborne dust at their facilities, which declined from 324 tons in 1990 to 27.9 tons in 1994. Dust from city roads declined from 2,468 tons in 1990 to 1,307 tons in 1994. Bennitt said a final draft of the city's request for re-designation would be ready by June 1, 1996. [120]

In November 1996, city officials continued to argue that the EPA should change the city's nonattainment status. The city, Plum Creek and the aluminum plant had cleaned up emissions and particulate levels and maintained attainment status for the EPA's three-year time limit. The reluctance of the EPA to lift the nonattainment designation might be attributable to air pollution sources outside the city, Columbia Falls Mayor Lyle

Christman told local media, including slash burning in surrounding forests by the Forest Service. According to Bennitt, the city was in a difficult position. If an air quality violation was reported, the city could be sent back into another three-year nonattainment period. Such a violation would not only hurt the city's chances for re-designation, but it would upgrade the status from moderate to serious, she explained. Bennitt said she had been negotiating with the EPA to lift the nonattainment status, but the EPA continued to stall and demand more studies. [121]

In February 1999, Gary Stempin told local media that Columbia Falls could become one of the first towns in Montana to be removed from the Montana DEQ's nonattainment list for PM-10 air pollution. "Columbia Falls took a hit from the Department of Environmental Quality about the amount of particulate matter in the air," he said. "Columbia Falls used to have a cloud of dust hanging over it almost all the time." Stempin said he used a flush truck and an older street sweeper to try to control street dust, and the city recently received $185,000 from the Montana Air Congestion Initiative to help buy new equipment. The city planned on paying off a new street sweeper, buy a 3,500-gallon flush truck and buy de-icing solution storage tanks. Stempin said he was looking for matching funds for the program when he learned that the aluminum plant had been fined $32,000 by the DEQ. Stempin said he was able to use the money from the fine to purchase the needed street equipment. [122] The continuing efforts of local government officials, however, was not enough. As of September 2016, Columbia Falls, Kalispell and Whitefish remained on the EPA's list of U.S. cities in nonattainment for PM-10 particulates. [123]

An effort to establish a countywide air pollution control district in the Flathead began on Sept. 24, 1991, when the Flathead County Commissioners held a hearing to gather public opinion on whether to adopt a program that would give the county health department the authority to enforce state air pollution regulations. The county health department had assisted the state in monitoring air pollution, but it never had the authority to enforce state air pollution regulations. [124] On Oct. 3, the commissioners approved the creation of a countywide air pollution control district with the authority to enforce air quality regulations. Four days later, the Columbia Falls City Council expressed concern that the county's plans would cost the city more money to buy sand for roads and highways and for running the city's street sweeper more often. [125] In November, Plum Creek formally appealed the commissioners' decision saying the proposal called for lowering the amount of allowable emissions at the Columbia Falls timber mill, even though the mill's emissions were below amounts outlined in the proposal. The state's Air Quality Bureau could not submit the Flathead County plan to the EPA until the appeal with Plum Creek was settled. Under the new countywide plan, the county health department would receive $23,220 from the state and federal governments to

administer the program, and the county would be expected to hire a part-time employee to handle air quality enforcement. [126]

A relatively limited Flathead County Air Pollution Control Program was on the books as of 2016 as provided under state law. The goals included protecting human health and safety, preventing injury to plant and animal life and property, fostering the comfort and convenience of the inhabitants, facilitating the enjoyment of the natural attractions, and promoting the economic and social development. Both the program's board and air quality staff fell under the Flathead City-County Health Department's jurisdiction. The program was limited to reducing air pollution problems caused by open burning and road dust. Administration of the Kalispell, Columbia Falls and Whitefish nonattainment districts fell under the county program [127]

Dust was not the only industrial emission of concern in Columbia Falls during this time period. In 1992 and 1993, Plum Creek was among the EPA's top 10 polluters in Montana, but emissions were down slightly. Plum Creek's medium-density fiberboard (MDF) plant in Columbia Falls emitted formaldehyde and ammonia. The plant was eighth on the EPA's top-10 list, with 101,350 pounds of emissions in 1993, down from 110,500 pounds in 1992. Plum Creek environmental engineer Mitchell Leu said extensive stack testing in 1993 reflected "real numbers" of what emissions actually existed, as opposed to using averages in 1992. Leu said emissions at the MDF plant would increase in 1994 with increased production. [128] According to the EPA's toxic release inventory for 2000, the MDF plant ranked number nine in Montana for on-site and off-site releases for all chemicals with 783,250 pounds of air emissions and no water releases. [129]

A solution to the formaldehyde and ammonia releases was eventually found. In October 2008, Montana Rep. Denny Rehberg joined Plum Creek officials at the company's MDF plant to dedicate a new $9.5-million biofilter that used 4 trillion microscopic bacteria to control chemical emissions at the plant. The biofilter removed at least 98% of chemicals, like formaldehyde and methanol, from the plant's emissions. The high-tech air pollution system was Plum Creek's third "bug farm" and the largest such system in the world, according to Plum Creek officials. Biofilters were also treating emissions at Plum Creek's plywood plant in Evergreen, just outside of Kalispell, and emissions from the MDF plant's second production line. The biofilters had been installed in anticipation of increasing EPA regulations, Plum Creek officials said.[130]

City officials, plant managers and local residents were not the only people who noticed air quality improvements around Columbia Falls. In July 2006, Glacier Park's official website reported that air pollutant emissions near the Park were low. The Park cited the largest sources as being Plum Creek Manufacturing and the aluminum smelter, with

emissions of PM-10 particulate matter, nitrogen oxides, sulfur dioxide and fluoride. Fluoride levels were significantly less than they were back in the 1960s, as the aluminum plant had more effective pollution control equipment and was not operating at full capacity. [131] As the local timber industry and city officials dealt with primarily particulate air pollution in the Flathead through the last three decades of the 20th century, the aluminum plant faced a more difficult challenge – reducing fluoride emissions from its potlines, which had dramatically increased with the expansion of the smelter from two potlines to five in the 1960s. The solution required new technology and large amounts of money.

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