Chapter 27

The roaring Sixties

The Anaconda Aluminum Co. smelter came into the 1960s running at 87.5% of capacity after implementing a successful downstream expansion during a time of weak aluminum markets. Cautious at first, the Anaconda Company approached the decade with a modest expansion by one potline at first, then followed up with two more simultaneously. Supporting the company's bullish optimism were a strong and growing market and a new source of hydroelectric power not far from the Flathead Valley. By 1960, Anaconda was in sixth place among U.S. aluminum producers for existing capacity or capacity under construction at 65,000 tons per year and 2.4% of total U.S. capacity. Total U.S. capacity was 2.6 million tons. The top five U.S. producers included Alcoa with 1 million tons or 38.6%; Reynolds with 701,000 tons or 26.4%; Kaiser with 609,000 tons or 23%; Ormet with 180,000 tons or 6.8%; and Harvey Aluminum with 75,000 tons or 2.8%. [1]

Growth in the surrounding community was moving ahead of the plant. According to the 1960 census, Columbia Falls was the fastest growing city in Flathead County, increasing in population by 70% over the past decade to 2,126 residents. Growth was related to new jobs created in Columbia Falls, particularly by the new AAC plant and the lumber industry. [2] The smelter employed 560 workers with an annual payroll of $3.8 million. Columbia Falls' four lumber mills – Plum Creek, F.H. Stoltze Land & Lumber, Rocky Mountain Lumber, and Superior Buildings – employed about 400 workers in year-round operations while another 200 workers brought logs in from nearby forests. Lumber was the number one industry in Flathead County. The wide tax base provided by AAC, Great Northern Railway and the timber industry resulted in the lowest school taxes for any community in Montana. Columbia Falls had good schools, including a new $1.6 million high school and a new 18-room grade school. The junior high took over the former high school. In 1959, the high school had 325 students enrolled with 68 graduating. [3]

Another 1,568 residents lived in rural areas surrounding Columbia Falls, along with 1,243 in the Columbia Heights-Bad Rock area and 1,707 in the Hungry Horse, Martin City, Coram, West Glacier and Essex areas. Assessed valuation inside the city limits of Columbia Falls increased from $1.9 million in 1954 to $3.4 million in 1960. Assessed valuation for School District 6 increased from $12.1 million in 1954 to $31.6 million in 1960 as a result of the new AAC plant. Approximately 150 new homes had been built in the Columbia Falls area as a result of the new AAC plant. [4] Population growth was followed by infrastructure improvements. 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 city wanted to replace 4,000 feet of the 12-inch wooden water main connecting the city to the Cedar Creek reservoir and about 24,000 feet of wood water mains throughout the city. The cost for surfacing about 60% of the city's streets and providing concrete curbs would run about $1.55 million. [5]

Hints at expansion

In February 1960, AAC Vice President Mord Lewis came to Columbia Falls from Louisville, Ky., to inspect the company's aluminum smelter. Lewis announced that the plant would return to 100% production sometime in the summer of 1960. He pointed to a doubling of U.S. automobile production from 3 million to 6 million cars as one factor in the decision. When asked if capacity at the Columbia Falls aluminum smelter would be expanded, Lewis noted that the company was studying ways to increase production, but no decisions had been made yet. Lewis complimented the Columbia Falls operation for its efficiency, safety record and high morale, but he pointed to external factors that hurt the Columbia Falls plant. Railroad freight rates on outbound metal and inbound alumina had increased by 15% over the past five years and were 21% higher for coal tar pitch. Montana property tax rates were considerably higher than at the Terre Haute, Ind., and Louisville plants. The principle reason the plant was built in Columbia Falls was to take advantage of cheaper power, Lewis explained, but utilities in Indiana and Kentucky were actively bidding for more industry. [6] Power costs in the Pacific Northwest were low, and AAC had a better than average contract. In 1963, the Bonneville Power Administration sold power to AAC at an average of $1.66 per megawatt-hour. That same year, Reynolds paid $2.48 per megawatt for BPA power for its smelter in Troutdale, Ore., or 49% higher, Kaiser paid $2.02 for its smelter in Spokane, Wash., or 20% higher, and Alcoa paid $2.07 for its smelter in Vancouver, Wash., or 20% higher. The Harvey smelter in The Dalles, Ore., paid the same price as AAC. [7]

The Columbia Falls plant smelted alumina purchased from the Reynolds Metals Co. and shipped by rail from refineries in Texas and Arkansas. Of all the raw materials used at the plant, only fuel oil and lime came from Montana. All other raw materials were shipped a long distance by rail, including petroleum coke from Illinois, metallurgical coke from Missouri, calcined coal from New York, hard pitch from Minnesota, natural cryolite from Pennsylvania, synthetic cryolite from Washington and foreign sources, and aluminum fluoride from California. Despite the high costs associated with shipping bulk materials long distances, the low cost of electrical power made the AAC plant cost effective. Most of the 60,000 tons per year of aluminum metal produced at the AAC plant was shipped to two Anaconda subsidiaries, the American Brass Co. and the

Anaconda Wire and Cable Co. in Great Falls. [8] By summer 1960, the plant continued operating below 100% capacity despite the recently completed construction of a $25 million fabricating plant in Terre Haute, Ind. [9] In December, Lewis announced that the Columbia Falls smelter would continue to run at 87.5% capacity as it had for the past 17 months. Nationwide, aluminum capacity was operating at 80%, although new uses for aluminum were continually being found. Overall, the profit factor was termed bleak, he said. [10]

While Anaconda executives mulled expansion plans, the AAC plant underwent several modernization projects. In spring 1961, construction began at the casting department for two new furnaces and one casting unit that would enable the plant to pour larger ingots. The project would increase casting capacity from 2-ton ingots to 5-ton. The larger sized ingots were used by the AAC rolling mill in Terre Haute. [11] The 8,900-pound ingots would measure 13 inches thick, 40.5 inches wide and 177 inches long and would be shipped to Terre Haute where they would be rolled into sheet. From there, they would go to the AAC plant in Louisville to be rolled into foil. One ingot rolled to 40 inches wide and 0.00025 inches thick would measure 140 miles long. The modernization program at the Columbia Falls plant created four furnaces in a 12,820 square-foot area of the casting building, with two furnaces supplying a casting station. Each casting furnace had a capacity of 50,000 pounds. Four different sizes of sheet ingot could be produced. In a single month, the Columbia Falls plant would be capable of producing 1,500 tons of sheet-ingot per month. [12]

The first pour at the new sheet-ingot casting station took place on Oct. 17, 1962. The remodeled casting area had two new four-mold direct-chill casting stations, each served by a 50-ton holding furnace and a 25-ton casting furnace. The recent remodeling provided the AAC plant with one of the most up-to-date casting installations in the U.S. Future additions included a new 15-ton alloy furnace along with a 6-ton per hour casting wheel that would produce alloy pig ingots in various weights. The existing direct-chill station would be converted to the production of T-bar ingots. In its original design, the casting plant at Columbia Falls featured two wire-ingot stations, each capable of producing about 25 tons per shift, and two pig-ingot furnaces equipped with mechanized casting and stacking equipment capable of producing about 120 tons per day. No provisions had been made for sheet ingots in the plant's original design. [13]

Another improvement at the AAC plant was radio communications, which had become commonplace by 1962. Two radios were in place in each of the four quarter-mile long potrooms, along with one in the potlines center office and one aboard each of the two alumina-dispensing trucks. The alumina trucks were able to respond to a call for more alumina within minutes. [14] Other new developments at the plant in 1962 included the

establishment of 15 “pure metal” pots with rigid control procedures, an experiment to determine if computers could be used to predict when an anode effect would take place, a long-term test in two pots using alumina produced from clay at a pilot plant in Anaconda, construction of a new 100,000-pound holding furnace in the casting plant, construction of a concrete storage site for ingots next to the casting plant, and construction of natural gas facilities at the smelter. [15]

In April 1961, Lewis announced that AAC would restart the smelter’s 30 idled pots beginning May 1, 1961, and return to 100% capacity after running at reduced capacity since mid-1957. Lewis cited improved market demand, but he pointed out that profits were not as good as they could be and called for improved production costs. [16] In October, AAC President Archie Cochran discussed the impact of aluminum prices in the “Anaconda Aluminum Courier.” Just when AAC was becoming profitable, he said, “the roof fell in again” when Canadian aluminum producers dropped their price by 2 cents per pound on Sept. 22, 1961, forcing Alcoa, Reynolds and Kaiser to follow suit. [17] “We were just getting our heads above water and beginning to show some profit. Now we are starting to feel the money pinch again, particularly at Columbia Falls where the ingot price cut will have the most drastic effect,” Cochran said. [18] A drop of 2 cents cost AAC about $2.6 million, he said. Demand for aluminum continued high now that the plant was running at 100%, and the AAC container plant in Louisville was overwhelmed by orders, especially for household aluminum foil, but the AAC laminating plants at Louisville and Fair Lawn, N.J., were being hurt by extremely competitive market prices. The new Terre Haute mill was still having problems creating a market for its sheet products, but Cochran felt that production from the Terre Haute mill offered the greatest chance for expansion by the company. [19] Back to full capacity, the AAC smelter produced more than 67,500 tons of aluminum in 1962, a new annual record for the plant. The potlines set an all-time monthly production record in December at more than 11 million pounds, and the casting department set an all-time daily record of 386,290 pounds. [20]

During a visit to Columbia Falls in November 1961, Lewis confirmed a report that the company was considering expanding the plant from two potlines to three. Lewis explained that certain economic factors could determine the decision. Taxes in Flathead County were considered high, he said – taxes on the AAC plant had increased from more than $478,000 in 1956 to more than $682,000 in 1961 without any expansion. Added freight costs for a plant so far from suppliers was another concern. Factors favoring expansion included the existing shops and management and the fact that the plant put out a good quality metal product, he said. The Columbia Falls plant produced about 3% of the nation’s primary aluminum, but the Louisville foil plant produced about 13% of the nation’s aluminum foil and about 22% of the nation’s aluminum containers. AAC

needed more primary aluminum production capacity, but if it didn't come from Columbia Falls, it might have to come from a new plant built in the Ohio Valley. Growth in aluminum production in the Ohio Valley resulted mostly from cheaper transportation. Power in the Ohio Valley cost about $4 to $5 per megawatt-hour, while power in Columbia Falls was $1.75. The Bonneville Power Administration, however, could not offer enough firm power to handle an expansion to three potlines, but a new industrial power bracket had become available that would provide low-cost power 90% of the time, meaning it would be lost only in times of extreme drought, Lewis explained. [21]

On Dec. 18, 1961, Mayor Bud Orndorff planned to ask the Columbia Falls City Council to pass a resolution encouraging the AAC plant nearby to go ahead with its plans to expand production capacity. He also hoped the city councils of Kalispell and Whitefish would follow suit. [22] The council duly passed Resolution No. 349, which read in part, "Whereas, the Anaconda Aluminum Co.'s reduction plant near Columbia Falls has been a vital factor in the economic stability and prosperity of Northwest Montana, Flathead County, and this city; and whereas, its employees and officers have been good neighbors and valued, public-spirited citizens; and whereas, it is the understanding that the Anaconda Aluminum Co. is presently considering the expansion of its reduction plant facilities; now therefore, be it resolved by the City Council of Columbia Falls, Montana: That the Council respectfully encourages the Anaconda Aluminum Co. to give every favorable consideration to the early expansion of its reduction plant at Columbia Falls, and that it is the sincere wish of this council and the citizens of Columbia Falls that the Anaconda Aluminum Co. shall continue to prosper and grow, its prosperity being recognized as a vital contribution to the well being of this community." [23]

Cochran and Lewis traveled to Columbia Falls in January 1962 and addressed the plant's management staff at the AAC Employees Club. The visit was described as routine, and Cochran explained that a definite decision on expanding the plant had not been made. "The aluminum industry is, unfortunately, somewhat overbuilt, and additional capacity at this time is not desirable," Cochran said. He talked about competitiveness in the U.S. aluminum industry, particularly in the raw pig market rather than fabricated products, and he spoke of new products, including a laminated fiber and aluminum foil container to be used by the American Oil Co. Cochran also criticized the Flathead's high tax rates compared to those in Kentucky and Indiana, and how higher taxes each year worked against expanding the Columbia Falls plant. [24]

Meanwhile, feasibility studies continued for a possible expansion of the AAC plant, with engineering handled by the Parsons-Jurden Corp. of New York City. The expansion would likely involve the addition of two new potroom buildings similar in design to the existing ones. The plant had been running at 100% capacity since May 1961 with about

547 employees. Payroll for 1961 was more than $3.6 million. The Great Northern Railway had 20 specially built rail cars for the plant's larger sheet-ingots, capable of carrying up to 150,000 pounds, and the cars were shuttled back and forth between Columbia Falls and Terre Haute. The output and efficiency of the casting department had increased since it began making the larger ingots. The smelter shipped about 1,200 rail cars of aluminum per year and received about 3,400 rail cars of alumina from Louisiana, petroleum coke from Illinois and fuel oil. The plant consumed about 150 rail tank cars of fuel oil per year in addition to about 10,000 gallons of propane per month. Construction of a new natural gas pipeline to the Flathead Valley was expected to help reduce costs significantly. [25]

On May 16, 1962, Anaconda Company President Charles M. Brinckerhoff announced during the 67th annual meeting of company's shareholders in Anaconda that the AAC plant might be expanded. "We are selling considerably more aluminum than we can make," Brinckerhoff said. "Additional sheet and foil mills have been ordered and some are already being installed. Under these circumstances, there is a possibility a decision on expansion will be made sometime later this year." A stumbling block in plans for the plant's expansion was the steadily increasing tax rates in Flathead County, he said. A drop in the 1962 appraisal by $1.8 million was expected to halt the spiral in taxes, he said. [26] On July 30 and 31, fourteen AAC executives held a managers meeting at the AAC plant. According to AAC Plant Manager James F. Smith, the meeting was part of AAC's routine rotation plan. The meeting was intended to cover company progress, cost reduction, inventories, competition, communications, cooperative ventures with other Anaconda Company subsidiaries, and future activities. The executives came from Louisville, Terre Haute and Fair Lawn. [27] AAC President Thomas D. Gebhart said AAC had definite plans for expansion, but he saw more advantages to building a smelter next to the rolling mill in Terre Haute, which had better transportation facilities, was closer to markets and had more favorable taxes. Gebhart explained that domestic aluminum production was 14.2% higher for the first five months of 1962, and aluminum producers had only three weeks of inventory by the end of May. AAC fabricated more aluminum than could be produced at Columbia Falls, Gebhart pointed out. AAC produced more than 25% of the nation's rigid aluminum containers and frozen food trays and about 12% of the nation's aluminum foil, while the Columbia Falls plant only produced about 3% of the nation's primary aluminum. [28]

On Nov. 25, 1962, Kenneth S. Smith reported on the Anaconda Company's operations and finances in the New York Times. The company was facing 71% taxes at its Chuquicamata copper mine in Chile and increasing calls for nationalization by the entire political spectrum. At the same time, the company was investing large sums of money in its Anaconda Forest Products mill near Missoula and $40 million in a new copper

concentrating facility in Butte. “In its Anaconda Aluminum Co. subsidiary, the parent Anaconda Company has one of its most impressive profit generators. And it is set to grow,” Smith pointed out. Hungry Horse News editor and publisher Mel Ruder believed Anaconda’s troubles in Chile might mean more investment in Montana, and possibly an expansion of the plant in Columbia Falls. But market conditions were still tough. On Dec. 3, 1962, aluminum prices dropped from 24 cents per pound to 22.5 cents, while operating costs at aluminum smelters were higher than when aluminum sold for 26 cents per pound. [29]

In April 1963, Gebhart sent a letter to all AAC employees explaining recent expansions at Terre Haute and Louisville and suggesting that expansion was expected to take place at Columbia Falls. “Production is at an all-time high, total fabricating sales for the first quarter are up about 10 per cent over the last quarter of ‘62, and employment is expected to reach new records, too,” Gebhart said. “We are able to go ahead confidently with our expansion plans for 1963 because for the first time since the Cochran Foil-Anaconda Aluminum consolidation, the balance sheets show a profit.” Low market prices made the profit small, but it was considered encouraging, he said. A current capital expenditure budget of $7 million was earmarked for new equipment at Terre Haute intended to boost production by 65%, including four new mills, a new scalper, slitter, grinder and new ovens. Gebhart concluded by suggesting that a third potline would be built at the Columbia Falls plant beginning next spring with a completion date of 1965. [30] According to a June 8, 1963 Business Week article, the U.S. aluminum industry was “roaring along” as Alcoa, Reynolds and Kaiser reactivated idled potlines. Industry was optimistic despite low market prices, increasing imports of primary aluminum and impending sales of U.S. aluminum stockpiles. This information supported plans to expand the Columbia Falls plant. [31]

Cochran and Gebhart stopped in Columbia Falls on May 13, 1963, while on their way to the annual Anaconda Company stockholders meeting in Anaconda. Cochran made no additional comments on the possibility of a third potline being added to the plant, although he continued to criticize the Flathead County tax structure. “With this type of tax instability, Montana makes itself much less attractive to industry,” Cochran said. Cochran also talked about global competition in the aluminum industry. The Soviet Union was no longer dumping aluminum on the world market, he said, and competition came from France, Norway, Japan and Canada. Regarding Anaconda’s research into making alumina from clay, Cochran believed the process would be in use by 1970. As for the proposed Libby Dam in northwest Montana, Cochran believed sufficient power was available already for a third potline at the plant, but if a fourth potline was constructed, Libby Dam would become a factor. [32]

Ruder followed up on Cochran's comments about taxes in a May 24, 1963, editorial in the Hungry Horse News. "We view proposed expansion of the Anaconda Aluminum Co. plant as the best economic boost for Flathead County that appears imminent and within reach," he said. "There is one Flathead factor that obviously distresses top management of Anaconda Aluminum Co. It is the instability of the Montana tax pattern." [33] Mansfield commented on AAC's future plans for the Flathead in a July 15, 1963, telegram to the Daily Inter Lake. "The Anaconda Company is to be highly complimented for the large investment program they now have underway in Montana," he said. "These investments contribute to and support the industrial future of our state." [34]

The Libby Dam

While AAC didn't see the need for a new dam in Northwest Montana for a third potline, any further expansion would depend on output from the Libby Dam. By late 1954, talk about a possible hydroelectric dam near Libby raised complex questions of international water rights law between Canada and the U.S. The Libby Dam could raise the level of the Kootenai River by 150 feet at the Canadian Border and back up water 42 miles into British Columbia, storing about 6 million megawatt-hours of power in the reservoir with about 746 megawatts of generating capacity at the dam site. The U.S. employed old Roman and Spanish principles of water rights laws, while the Canadians employed old English common law for water rights. There were three parties in contention. The Canadian government declared that at least one-third of the Libby Dam power should be made available to Canada, but the U.S. government was willing to offer only 20%. The British Columbia provincial government was pushing the Canadian government to accept the U.S. proposal. [35] The Columbia River Treaty signed by Canada and the U.S. in 1964 addressed these issues. The result was an increase in the federal and non-federal hydroelectric capacity in the Pacific Northwest by 1,400 megawatts of firm-peak capability and an average of 750 megawatts of firm-energy capability, along with another 750 megawatts of firm-peak capability and 192 megawatts of firm-energy, all from construction of the Libby Dam. The BPA determined that up to 1,000 megawatts of power could be sold for industrial expansion. Soon after this information became public, both existing and new customers expressed interest in acquiring the new power. [36]

Sen. Mike Mansfield supported the proposed Libby Dam project during discussion before the Senate Committee on Appropriations on May 27, 1961. Mansfield joined Sen. Lee Metcalf in trying to appropriate $350,000 so the Army Corps of Engineers could resume planning the Libby Dam project. Mansfield pointed out that in previous testimony before the committee, he and Metcalf had stated "that it was our understanding that insofar as the Libby project was concerned, there would be a power preference for Montana, based on the Hungry Horse project." The Senate committee

agreed, and Mansfield referred back to the Hungry Horse Dam's authorizing legislation of June 5, 1944. Mansfield pointed out that the 1944 Hungry Horse Act contained "the first such preference established by an Act of Congress through legislative history." The priority position of Montana had been discussed by the Hungry Horse Project's sponsors during hearings in the 78th Congress on House Resolution 3570, which led to the Act, and in reports by the Department of Interior and the House Committee on Irrigation and Reclamation, which recommended enactment. [37]

The question of Montana preference for power from the Libby Dam wasn't settled until March 1, 1988, when a ruling on a pertinent case was issued by the U.S. Ninth Circuit Court of Appeals. In a case brought by Central Montana Electric Power Cooperative Inc. against the BPA, the court ruled that no Montana preference existed for power generated at Libby Dam. The co-op had requested power from Libby Dam in May 1986 citing a "Montana reservation." The BPA denied the request, reasoning that Congress had not established a Montana reservation for power from Libby Dam. The BPA said that a geographic reservation for Montana had been established for the Hungry Horse Dam, but not the Libby Dam, and the co-op challenged the BPA's decision. The appeals court looked at the U.S. Flood Control Act of 1950, which authorized construction of Libby Dam, and found no language expressly establishing a Montana preference for power from Libby Dam. Nor did the appeals court find any language supporting such a preference in subsequent appropriation acts by Congress for construction of Libby Dam. "If Congress intended to establish a Montana preference for Libby power, it would have expressly set forth such a preference as it did when it authorized construction of the Hungry Horse Dam," the appeals court's ruling stated. [38]

The appeals court also looked at the legislative history of Libby Dam and statements made by Sens. Mansfield and Metcalf in which they "expressed their 'understanding' that there would be a Montana power preference for Libby similar to the one for the Hungry Horse project," the appeals court said. "However, such selective excerpts of legislative history only demonstrate that Montana senators hoped that a Montana preference would attach to Libby power. Unless consistent with plain statutory language and other legislative history, such colloquies and statements by individual legislators have no controlling effect." [39] The appeals court also addressed a section in the 1980 Northwest Power Planning Act which stated, "The reservation under law of electric power primarily for use in the State of Montana by reason of construction of Hungry Horse and Libby Dams and reservoirs within that State is hereby affirmed." The appeals court ruled that this paragraph was a "savings provision" intended to maintain the status quo ante and "only affirms whatever reservation under law existed prior to the Northwest Power Planning Act." The appeals court concluded that no Montana preference for power existed for power generated at Libby Dam. [40]

In October 1961, BPA Assistant Administrator Charles W. Kinney spoke to the Kalispell Chamber of Commerce and members of the Montana Rural Electric Co-operatives Association about the proposed Libby Dam. The British Columbia government wanted to market power from the Libby Dam to the U.S. Kinney explained that firm power reserves in the Pacific Northwest could be used up by 1969, at which time sales of power from Canada to the Pacific Northwest could be significant. [41] During a May 1966 visit to Columbia Falls, Mansfield told Ruder that because of treaty obligations with Canada, $32 million had been appropriated to continue construction of the Libby Dam on schedule. He added that the new dam's generated power should be connected to the Hungry Horse Dam in a way that would attract industry. He also said it was because of the Hungry Horse Dam that the aluminum plant was built near Columbia Falls and the Victor Chemical Co. plant was built near Butte. [42]

On March 1, 1967, bids were submitted for the Libby Dam construction. The engineer's estimate was $88.3 million, and the low bid by Morrison-Knudsen was $82.9 million. The contract called for completion of the dam within six years, relocation of three miles of Montana Highway 37 and construction of 3,200 feet of Great Northern Railway mainline detour track. Approximately 5.2 million cubic yards of earth and rock were to be excavated and 3.9 million cubic yards of concrete poured for the 420-foot high, 2,900-foot long dam. The dam's hydroelectric capacity would be 840 megawatts. The total cost for the dam was estimated to be $352 million, of which one-third would pay for 59 miles of Great Northern mainline relocation and the seven-mile long Flathead Tunnel for the railroad. [43]

The Libby Dam was located on the Kootenai River, the third largest tributary of the Columbia River and with greater volume than the Flathead River. On July 20, 1975, the first of the four Westinghouse 105-megawatt generators at the Libby Dam went online and supplied a 230-kilovolt line connected to the Noxon-Conkelley transmission line for use by the AAC plant in Columbia Falls. The U.S. Army Corps of Engineers led the Libby Dam project, which cost nearly $500 million, including $200 million for relocating roads and rail line and $200 million for the dam and the power plant. The project called for future construction of a re-regulation dam downstream and the addition of four more generators. The Libby Dam was expected to be the last major Pacific Northwest power project. A smaller project being considered for the future was the Ben Franklin Dam near Pasco, Wash. [44]

Among the top 10 news stories for 1975 in the Hungry Horse News were new environmental worries and overall growth in the Flathead Valley of Montana. Number four was worries about strip mining for coal in the Cabin Creek area near the North Fork of the Flathead River about eight miles north of the Canada border. Number five was

the dedication of the new Libby Dam. Number six was the construction of a new $6 million Kalispell Regional Hospital. Number nine was increased numbers of tourists at Glacier National Park, where the number of tourists topped 1.5 million for the first time. Number 10 was construction of a new $2.1 million four-lane highway bridge over the Flathead River east of Columbia Falls. [45]

Potline 3 gets green light

Questions about expansion at the Columbia Falls aluminum smelter were answered on Aug. 15, 1963, when Anaconda Company Chairman Clyde Weed formally announced plans to add a third potline to the plant. Construction would begin in early 1964 and be completed by July 1, 1965, he said. The company planned to invest $55 million on new plants, equipment and improvements at all its metals and timber facilities throughout Montana. According to local spokesmen and conventional wisdom, it was expected that excavation of 100,000 cubic yards of earth for the new potrooms would begin in September 1963, but concrete work would not begin until spring 1964, and more than 500 men possibly would be employed building the new potlines starting in summer 1964. This was a much reduced number from the peak force of 1,600 construction workers who built the plant in 1953-1955. John W. Irvine, a project engineer for Anaconda, would leave work building the new copper concentrator in Butte to head up construction of the new potline. Irvine had headed the plant's construction in 1953 to 1955. Contractors were expected to inspect the site by August 1963. Meanwhile, plant manager James Smith, engineering manager Hal Kanzler and production manager Charles Taylor left together for France to inspect a Pechiney aluminum smelter at Nogueres near the Spanish border. "Whoopee. This will certainly improve the Flathead's economy," Columbia Falls Chamber of Commerce President DeWayne Krueger said about the expansion news. "It's great news." [46]

In his response to the news, Mansfield cited the expansion as a good example of the good that could come from the government's construction of hydroelectric dams that provided cheap power for industry. "Other industries have located in western Montana because of Hungry Horse Dam," he said. "It is my sincere hope that in the years to come we will see additional expansion of Montana's many resources through similar, cooperative efforts." [47] Ruder gave his opinion in an Aug. 16, 1963, editorial. "At this time, we'd also like to recognize that Anaconda Aluminum Co. and its employees are good neighbors," he said. "We are also aware of how careful AAC management is in this situation of being the largest Flathead industry. They don't throw their weight around." Ruder mentioned that some residents were concerned about the possibility of increased water and air pollution by the plant's expansion. "For those who are not able to see for themselves, we'd like to state that pollution and contamination controls have worked

effectively at this plant," Ruder said. "Investment by AAC for these factors was over 10 million dollars. The Flathead River downstream from the AAC plant is as sparkling clear and clean as above the plant. We haven't heard of any fume or smoke problems." [48]

Construction of the third potline began in June 1963 by extending the crane transfer building at the north end of the potrooms by 200 feet to accommodate a new pot rebuild facility. The crane transfer building measured 75-feet high and 590-feet long when originally built. A new crane transfer car was being installed that would be capable of carrying two 50-ton overhead cranes while transferring a 90-ton cathode. [49] Excavation of 100,000 cubic yards of earth began on Sept. 3, 1963. The contract was awarded to F&S Contracting Co. of Butte. [50] The earth was transported across the Great Northern Railway tracks and dumped along the banks of the Flathead River. In August, Irvine estimated that construction numbers at the site in 1964 might total 500 to 700 workers. [51] By late September, excavation by F&S Contracting was nearing completion and B&F Excavating of Columbia Falls was digging new storm drains for existing facilities. [52] That month, AAC signed a power contract with the BPA providing 70 megawatts of firm power for a third potline beginning in fall 1965 for $1.2 million per year. The delivery date coincided with the scheduled completion of the Hanford Generating Project, where waste heat from a nuclear reactor would be used to generate 905 megawatts of firm power for the Pacific Northwest. [53]

In October 1963, Weed announced that the Ralph M. Parsons Co. of Los Angeles would be the general contractor to build the new potline. The Engebretson Gravel Co. of Kalispell was contracted to provide gravel for the new buildings. The gravel was dug at the Blue Moon pit west of Columbia Falls. The E.F. Matelich Construction Co. of Kalispell was contracted to build foundations for temporary construction buildings, including offices, a concrete batch plant and shops. Prefabricated construction buildings were being moved from Butte to Columbia Falls. [54] In early November, construction engineers from Anaconda's offices in New York City and the Ralph Parsons Co. came to look over the plant site. [55] In February 1964, crews began bulldozing foot-deep snow from the construction site, while carloads of construction equipment and building materials were unloaded from the Great Northern Railway siding. In the following weeks, workers assembled the concrete batch plant, warehouses, shops and an office. The 128-by-24 foot office building was shipped from Butte, where the Ralph Parsons Co. recently completed work building a new copper concentrator. Excavation work for the two new potrooms was completed in fall 1963. Beginning in spring 1964, concrete foundations would be poured and the American Bridge division of U.S. Steel would begin erecting the steel structure for the potrooms. AAC hoped to have the two potroom buildings enclosed by winter so work could be completed indoors and the potrooms could be operating by July 1965. [56]

The first batch of concrete was poured into forms for footings on March 31, 1964. All the construction shops were completed and favorable weather was forecasted. Ralph M. Parsons Co. employed 153 construction workers. [57] By the second week of April, 250 construction workers were at the site and another 75 were expected to be hired in the next week. Subcontractors included the Hollingsworth Electric Co. of Kalispell. The Kalispell office of the Montana Employment Service warned about a labor surplus in the valley caused by Flathead residents encouraging friends and relatives to come to the valley for work. The state service estimated 25 to 40 new arrivals in the valley each week and warned that many would not find work. [58] By May 1, the Ralph M. Parsons Co. had 412 workers at the site while smelter employees numbered 568. The main electrical subcontractor, Tide-Bay Inc. of Tacoma, Wash., was expected to arrive in a few more days. [59] By mid-May, crews from the American Bridge Co. were unloading structural steel and were expected to begin putting up the steel framework for Potrooms 5 and 6 beginning June 1. [60] One week later, the greatest flood in Flathead history swept past the smelter plant, which was safely located on a bench above the swollen Flathead River, while knocking out rail transportation to the site for months.

Flood of the century

The "flood of the century" hit Northwest Montana, from Flathead County all the way east to Great Falls, in early June 1964. According to the U.S. Weather Bureau, the flood was the most destructive in Montana's history. No lives were lost west of the Continental Divide, but the Great Northern Railway lost more than six miles of mainline track and damages exceeded $5 million. The Army Corps of Engineers estimated damage in Flathead County at $28.3 million, including $13 million for highways, roads and bridges, $6.5 million for buildings, vehicles and their contents, $6 million for transportation losses, $1.8 million for ranch and farm losses and $500,000 in utility damages. Glacier Park estimated $3.9 million in damages to roads, trails, bridges and buildings. About 20 miles of U.S. Highway 2 was washed away. More than 400 homes in Flathead County washed away, including 57 in Columbia Falls. From June 8 through June 9, 1964, records show a total of 11 inches of rain fell in 30 hours on wet snow and saturated soil at the Great Northern depot at Essex. Residents down in the valley were unaware of the impending flood conditions. According to the Army Corps of Engineers, the Flathead River peaked at 26 feet above its normal high-water mark with a flow of 150,000 cubic feet per second. The flood ended as fast as it came, with high water draining away and leaving deep mud and damage to property. The Hungry Horse Dam was credited with reducing flood conditions – flow from the South Fork of the Flathead River to into the reservoir peaked at 81,000 cubic feet per second on June 8 through 9, but outflow from the dam was reduced to only 500 cubic feet per second. [61]

The flood was attributed to unusually heavy snowfall in early May followed by cool temperatures that led to record snow depths in the mountains by June 1. The Flathead River flowed past Columbia Falls at the 12-foot level with a volume of 41,700 cubic feet per second on June 4. Then two to five inches of rain fell in the mountains on June 6, 7 and 8. By noon on June 8, the river had reached flood stage of 14 feet, but little damage had taken place and the Hungry Horse Dam was holding back one third of the river's total flow. By 8 p.m., the river had reached 18 feet at Columbia Falls and it was too late for many families to move their belongings out of harm's way. By 11 p.m., the river topped the highest point on the gauge – 20.4 feet. Word reached Columbia Falls that the Middle Fork of the Flathead River had buckled the bridge at West Glacier, isolating the western half of Glacier Park. Up the Middle Fork towards Marias Pass, fifteen miles of Route 2 was washed out, as was nearly all the Great Northern Railway mainline from West Glacier to Nyack. A 200-foot long washout of the rail line at Bad Rock Canyon took place on June 10. Damage from the weather extended east across the Continental Divide, and President Lyndon Johnson declared a disaster area in Flathead, Glacier, Pondera, Teton, Cascade, Choteau and Toole counties. Reporters from the Hungry Horse News could not find any families in Columbia Falls with flood insurance, and there was concern that federal aid for the disaster would only pay for repairs to bridges and highways. [62]

At the AAC plant, the heavy rain on June 8, 1964, interrupted construction of Potline 3 but caused no delays in normal plant operations. The plant's principal water supply was knocked out of commission, however, including two wells on an island on the river's edge. The water was used to cool equipment in the rectifier and casting. A standby pump was activated, and no damage occurred at the island pump houses. A number of AAC employees had flooded homes, and there was some difficulty in getting to work. [63] By Sept. 25, 1964, the smelter employed 576 workers in operations and maintenance while another 700 were employed by the Ralph M. Parsons Co. building the new potrooms. There was a push to enclose the two new potrooms so that construction could continue through winter. Other construction companies included Otis Elevator, Minneapolis Tank, which was building the alumina silos, Jamar-Olmen, which was installing siding and roofing, and Hartman-Walsh, which was doing the painting. [64] On Oct. 1, 1964, a peak was reached of 710 construction workers at the smelter site. [65] In late October 1964, the Ralph Parsons Co. announced that construction was on schedule and would continue through the winter. Most of the new structural steel for Potrooms 5 and 6 was being enclosed, and the placement of 120 cathode shells was expected to begin later in October. The company had 669 workers at the site, including 175 electricians working for the Tidebay Electric Co. of Tacoma, Wash. [66]

The BPA called out for bids for construction of a new switchyard for potline three in January 1965, including transformers and switching equipment. Power from the BPA switchyard would be delivered to the adjacent rectifier switchyard at 13,800 volts. The original switchyard for Potlines 1 and 2 was owned by AAC and delivered power to the smelter at 230,000 volts. [67] One month later, the BPA announced that the Charles R. Schmiedeskamp Construction Co. of Portland, Ore., was the low bidder for the switchyard at $231,287. The new switchyard would deliver 64 megawatts of firm power from the BPA to the smelter beginning in September 1965. [68]

On Feb. 11, 1965, the Ralph M. Parsons Co. announced that construction of the third potline was about 75% complete. Half of the 120 pots were already in place. [69] By late February, the last of the structural steel was being put in place. [70] On April 16, , the last of the 120 pots was installed. Bake-out of the new pots was scheduled to begin in early July, and charging of the pots would take place in August. [71] On June 1, construction workers lined the anode casings with a one-inch thick layer of petroleum coke. On June 11, the pots were turned over to plant operations for further preparatory work. The anode casings were filled with special anode briquettes, cryolite bath was placed in the cathodes, and electrical connections to the buss and anode pins were inspected. According to plan, the new pots were energized on July 12 to begin the baking-in process, which would take about three weeks. By Aug. 1, the anodes of nine reduction pots would be raised so skirts could be installed, more cryolite bath would be added, and the cut-in process would start. Nine pots would be cut in each day through the month of August. The new pots would begin producing metal immediately, but the quality of the metal would not be satisfactory until mid-September. [72]

Making metal at Potline 3

On Aug. 12, 1965, the Anaconda Aluminum Co. announced it had begun aluminum production in its new potline. All 120 pots were expected to be in operation within a week. Construction of the third potline was estimated to cost about $15 million. [73] Since operations began in August 1955, the smelter had produced 594,816 tons of primary aluminum. When originally built, the plant had a capacity of 60,000 tons per year, but operational and technological improvements since then had increased the plant's capacity to 68,750 tons. Peak annual production took place in 1964 when 68,835 tons were produced. Plant employees had earned $37.8 million dollars in wages and salaries since the smelter began operating, and about 60% of the original work force was still working at the plant in August 1965. [74] Since the plant started, a total of $6 million in property taxes had been paid. [75] In 1965, with a third potline in operation, annual payroll at the smelter had increased to $4,238,000. [76]

Dedication of the new potline coincided with a 10th anniversary celebration at the plant on Aug. 16, 1965. A number of executives and Montana politicians were present, including Anaconda Chairman Clyde Weed, Montana Gov. Tim Babcock, AAC President Thomas D. Gebhart, AAC Vice President William H. Benton, former Montana Gov. J. Hugo Aronson, who spoke 10 years earlier at the plant's inauguration and who lived in nearby Bigfork, the Flathead County Commissioners, the mayors of Columbia Falls and Kalispell, representatives of the valley's Chambers of Commerce, Anaconda Vice President Edward S. McGlone, Montana Power Co. President J.E. Corette, and Ralph M. Parsons, president of the company that built Potline 3. A 50-pound pig cast from the first metal produced in Potline 3 was presented to Babcock for placement in the Montana State Historical Society Museum in Helena. At the head of the table during a luncheon at the AAC Employees Club sat A.C. Bud Senner, the oldest hourly employee at the plant, who began working there on Dec. 1, 1954. Gebhart read telegrams from Sen. Mansfield, who praised the economic benefits made by combining power generated by the Hungry Horse Dam with the aluminum produced by the AAC plant. Gebhart announced that a fourth potline scheduled for construction in 1967-1968 would complete the expansion of the AAC plant in Columbia Falls and that there would be no fifth potline. [77]

On Aug. 20, 1965, the Anaconda Company placed a large ad in the Hungry Horse News titled "Anaconda, A Partner in Montana's Progress." The third potline would increase production from 67,500 tons per year to 100,000 tons per year, the ad stated, and a fourth potline was scheduled to be in operation by 1968 that would increase capacity to 135,000 tons per year. Meanwhile, Anaconda had opened a big new lumber mill in Bonner in 1963, built a multi-million dollar copper concentrator in Butte in 1964 to process lower grade copper ores, and spent millions of dollars modernizing and increasing the capacity of the electrolytic copper refinery in Great Falls. By 1964, Anaconda employed 9,000 workers in Montana and paid out $70 million in wages, salaries and benefits. [78]

Good news for Columbia Falls spread across the region with unforeseen results. On April 25, 1964, the Fargo Forum, the largest daily newspaper in North Dakota, announced in large headline type "Seek Aluminum Plant for N.D." The accompanying article pointed to the new Garrison Dam on the Missouri River and abundant oil and lignite coal as sources of power for electricity. The story reported that a delegation of North Dakotans and representatives from the Great Northern Railway and the Northern Pacific Railway had traveled to New York City to meet with representatives from French and American aluminum companies. Earlier in April 1964, Pechiney, American Metal Climax Inc. and Howe Sound Co. had announced a joint plan to build an aluminum smelter in the U.S. The North Dakotan delegation made sure the aluminum management knew of recent

laws passed by the North Dakotan legislation that provided tax-exempt bonds and loans for companies building electrical generating facilities. The Hungry Horse News commented in an editorial that, “Many western Montanans remember North Dakota as the dust-ridden state they left in the 1930s.” [79]

Economic optimism in the Flathead was contagious by the mid-1960s. In February 1965, results of an economic survey of the Flathead Valley conducted by Pacific Power & Light economist Allan Bruckner were released in a 35-page booklet. The report forecasted that 200 new industrial jobs would be created in the valley in 1965. Growth in retail sales in the valley was higher than in Helena, Great Falls and Butte but lower than in Missoula. [80] On Jan. 21, 1965, AAC Plant Manager James Smith spoke to the Columbia Falls Chamber of Commerce about expansion plans for the aluminum plant. Smith discounted rumors that a fourth potline was being planned for construction any time soon, noting that company sales did not yet warrant further expansion. The decision to build a third potline at the plant was made in August 1963 because AAC was forced to purchase primary aluminum on the open market for its growing fabrication business, he said, and he provided a company timeline. [81]

In fall 1958, the company’s new rolling mill in Terre Haute began operating, Smith said. In 1959, AAC merged with Cochran Foil, which included a foil and container plant in Louisville, Ky. and a foil-laminating plant in Fair Lawn, N.J. In 1963, AAC absorbed the Amarlite Corporation, which produced store fronts, interior doors, partitions and windows for commercial and institutional buildings at its modern extrusion plant in Atlanta, Ga. By January 1965, AAC was the second largest producer of foil containers in the U.S. with 22% of the market, but the company’s metal requirements, about 8,000 tons per month, exceeded the Columbia Falls smelter’s output by 2,500 tons per month, and the additional metal had to be purchased on the open market. About 50% of the metal produced at the Columbia Falls plant was cast as wire ingot and shipped to the Anaconda Wire & Cable plant in Great Falls, where it was made into electrical cable. About 10% was cast into pigs for sale to outside customers, and the remaining 40% was cast as sheet ingot and shipped to Terre Haute. [82]

Alumina for the Columbia Falls smelter was purchased from Kaiser’s alumina refinery in Gramercy, La., and shipped by train at the rate of six trainloads per month, Smith told the Chamber. Pitch and coke were shipped from suppliers in the Minneapolis and Chicago areas. Electrode blocks used to rebuild cathodes were partially supplied from France and partially supplied by sources in the eastern U.S. Chemicals came from France, Italy and parts of the U.S. The raw materials used by the smelter’s two potlines cost more than $12 million per year. For every pound of aluminum metal produced, the plant used two pounds of alumina and two-thirds of a pound of carbon and chemicals.

In 1964, a total of 3,342 train cars delivered raw materials to the smelter, and a total of 1,210 train cars shipped out metal and by-products. The smelter consumed 145 megawatts of power in its two potlines, which would increase to about 215 megawatts with the third potline – about twice the average power generated by the Hungry Horse Dam. By comparison, the total power consumed by the Flathead Valley was about 30 megawatts or about one-seventh of the load of the three potlines – the total plant power needs for three potlines would be equal to the needs of a city with a population of about 500,000. The plant also consumed about 294 million cubic feet of natural gas in 1964. The plant's tax valuation was more than 15% of the total for Flathead County, and the smelter paid $549,000 in Flathead County taxes in 1964. About 65% of the plant's taxes went to schools – AAC paid more than half the costs of running School District 6, Smith concluded. [83]

Another potline – or two

On June 9, 1965, Sen. Lee Metcalf sent a telegram to the Hungry Horse News reporting that the Anaconda Aluminum Co. had formally applied to the BPA for delivery of 70 megawatts of electrical power for a fourth potline at the Columbia Falls smelter. The new potline was expected to cost $25 million, about the same as for Potline 3. According to Metcalf, BPA officials were planning to build a 230-kilovolt transmission line from Hot Springs, Mont., to the Libby Dam project, where it could connect with another line running to the Conkelley Substation next to the smelter. According to Metcalf, AAC had until Sept. 1, 1965 to exercise its option for obtaining additional power for a fourth potline. The BPA had assured Metcalf it would be able to supply the plant with the required power. When contacted by the Hungry Horse News, AAC President Thomas Gebhart confirmed most of Metcalf's telegram, noting there was little chance the fourth potline would not be built. [84]

In December 1965, Smith described other expansions at the plant planned for 1966, including additional equipment in the paste plant, an enlarged garage and an office in the machine shop. Excavation for the two new potroom buildings would take place in 1966, and sand and gravel for concrete would be stockpiled. [85] Increasing the size of the smelter drove the need for more carbon briquettes and a larger paste plant. In spring 1966, planning began to modernize the paste plant rather than expanding the plant or building a new plant. The project was undertaken by the plant's own personnel, including design engineers and paste plant operators. The paste plant had five control stations scattered throughout the building that needed to be centrally operated. Hundreds of miles of wire were run to a central control panel that enabled one man to operate the entire paste plant. The briquette machines were replaced with extruders located beneath the batch mixers, and one additional mixer was installed for making

cathode paste. No production was lost while the construction and installation of the new equipment proceeded. [86]

In July 1966, AAC General Manager E.O. Woster announced that excavation for Potline 4 would begin in August as scheduled. A spokesman for the Anaconda Company in New York City said the company was interested in further expansion, but nothing was planned at that time beyond four potlines. [87] By late July, excavation plans for Potline 4 were on schedule. The F&S Construction Co. of Butte had the contract for the excavation. A general contractor for the fourth potline had not been chosen. [88] But expansion plans took a giant leap on Aug. 11, 1966, when the Anaconda Company announced Potlines 4 and 5 would be constructed at the same time, boosting the plant's capacity to 175,000 tons per year and making it one of the nation's largest aluminum smelters. According to the new plans, the fourth potline would be in operation by July 1968, and the fifth potline would be in operation shortly afterwards. [89]

Expansion at the plant would be eastwards toward Teakettle Mountain. Railroad tracks would need to be moved, and excavated dirt would be hauled north of the plant rather than dumped along the banks of the Flathead River, as was done when Potline 1, 2 and 3 were built. Regular full-time employment at the plant was expected to increase from 661 workers in August 1966 to about 800. According to AAC President Joseph Woodlief, demand for aluminum in the U.S. market was increasing, and the plant in Columbia Falls was a "successful operation." But concerns existed as to whether the smelter would have enough power to run at 100% capacity with five potlines. Conventional wisdom was that the Libby Dam would improve the power situation in the Pacific Northwest, but it wasn't scheduled to be in operation until 1973. AAC had power commitments from the BPA for Potlines 4 and 5 beginning in 1968 – five years before the Libby Dam would start generating power. The BPA commitments were for 175 megawatts of firm power and 45 megawatts of interruptible power, but AAC had faced power shortages in the past. [90]

While four new potrooms were under construction in Columbia Falls, a new alumina refinery was being built in Jamaica through a joint venture of Anaconda, Kaiser and Reynolds. It was expected that all the alumina needed by the Columbia Falls plant would be made available by the Jamaican refinery by late 1969. Support for the expansion plans could be found in the parent company's healthy financials. Anaconda Company sales and operating revenues grew 24% from $993 million in 1965 to $1.2 billion in 1966. Net income per share of stock increased from $7.28 in 1965 to $12.10 in 1966. Dividends increased from $40,942,000 at $3.75 per share in 1965 to $54,716,000 at $5 per share in 1966. Materials and supplies accounted for 36.2% of Anaconda expenditures; wages and salaries were 25.9%; taxes 12.3%; new plants and equipment

8.8%; transportation 3.7%; dividends 4.3%; debt reduction and interest 1.4%; and miscellaneous 7.4%. [91]

On Dec. 21, 1966, Joseph Woodlief replaced Thomas Gebhart as chief executive officer at the Anaconda Aluminum Co. as Gebhart was retiring. Gebhart began working in the aluminum industry in 1924 with a fabrication business. He merged his company with Cochran Foil which in turn merged with AAC. Gebhart was elected executive vice president of AAC in 1959, became president in 1962 and became CEO in May 1963. Woodlief graduated from the University of Montana's law school in 1948 and joined the Anaconda Company's legal department in 1952 as an assistant in labor relations. Woodlief was elected president of AAC on May 5, 1966, after serving as vice-president in charge of industrial relations for the Anaconda Company. [92]

By mid-August 1966, F&S Construction was running two shifts six days a week excavating ground for construction of Potlines 4 and 5 and new railroad tracks. The company had a contract to move 420,000 cubic yards of earth. Concrete foundation work was scheduled to begin in spring 1967. [93] Marshall Weeks, an engineer for the general contractor, Parsons Construction Co. of Los Angeles, met with Anaconda officials at the Columbia Falls plant on Jan. 18, 1967. The construction firm had built Potrooms 5 and 6 in 1964 to 1965 and other projects at the plant. Excavation for the four additional potrooms was completed in fall 1966. At least 1,000 workers were expected to be involved in the project, and a labor meeting was scheduled for Feb. 6 with the Northwest Montana Building Construction Trades Council, which would be responsible for representing the craft workers doing the construction. [94] The four basic crafts represented by the council included ironworkers, carpenters, electricians and laborers. All hiring for the project was to be done through the union halls, and Parsons was instructed to maintain its national and international agreements with labor unions. [95]

The Parsons crews arrived at the plant on Jan. 23, 1967. Unusually good weather allowed Parsons to proceed ahead of schedule with pouring 64,000 cubic yards of concrete for the four 1,080-foot long potroom buildings. [96] Warm temperatures allowed 391 workers to pour 1,200 cubic yards in February. [97] But nature turned around in mid-March when the worst blizzard of what had been a relatively mild winter stalled construction crews. A total of 4,317 cubic yards of concrete had been poured for Potrooms 7 through 10 since construction began early in 1967, but 64,000 cubic yards was expected to be used before the project was completed. Plastic coverings and heaters protected the concrete pours through the colder weather. Parsons had 593 workers at the site, compared with 543 workers at Libby Dam. [98] In April, Mel Ruder nicknamed the construction project the "job center of Western Montana." [99] Kansas City

Structural Steel Co. began erecting the 7,600 tons of structural steel for Potrooms 7 through 10 on April 24. [100]

By mid-June 1967, employment in construction and production at the AAC plant totaled 1,658, compared with 1,200 at the Libby Dam. There was an increase in employment during the summer as college students replaced vacationing workers. [101] A total of 2,100 people were employed by industries within three miles of Columbia Falls, including 365 at the Plum Creek Lumber mill and plywood plant, 105 at the F.H. Stoltze Land & Lumber Co. mill, 65 to 70 at the Superior Buildings mill, and more than 50 at the Rocky Mountain mill. [102] About 90% of the construction workers at the AAC plant voted to take off Monday, July 3, as the Fourth of July fell on a Tuesday, creating a 4-day weekend. A total of 64 college students were working at the plant for the summer, all but six employed as laborers in production. Parsons employed another 30 college students. [103] Construction on additions to the BPA Conkelley switchyard began in mid-July 1967. The equipment was scheduled for energizing in July 1968. Bids were also being taken for construction of a 114-mile long 230-kilovolt powerline from the Noxon Dam in Montana to the Conkelley Substation next to the AAC smelter. The new powerline would be made of 1.4-inch diameter conductors made of 19-strand steel cable overlaid with 54 strands of aluminum. [104] In August, the BPA awarded $231,152 and $338,444 contracts for construction of additional switchyard equipment at the Conkelley Substation to the Charles Schmiedeskamp Co., of Portland, Ore. [105]

The 1967 payroll for the 690 maintenance and production workers at the AAC plant in Columbia Falls came to $5.2 million. The construction payroll came to about $200,000 per week, with as many as 1,336 workers involved in the construction of a new rod casting mill southwest of the potlines along with the four new potrooms. The second largest 1967 payroll in Columbia Falls was Plum Creek at $2.6 million. [106] By September 1967, construction crews totaled 1,295 people as the project neared its peak. Weather had generally been good and most of the remaining work was under cover. [107] The base wage for smelter workers increased by 8 cents to $2.65 per hour on Oct. 15, as previously established by the October 1965 labor contract between AAC and the Aluminum Workers Trades Council. The AAC plant employed 690 people, of which 521 were hourly workers. Maintenance electricians and mechanics were paid Grade 9 wages of $3.49 per hour. [108] Construction of the new continuous rod casting mill and Potline 4 approached completion in late March 1968. Construction crews peaked at 1,336 in September 1967. [109]

The new 103-mile long BPA power line from the Noxon Dam to the Conkelley Substation was energized for the first time on June 29, 1968, and the bake-in procedure for the 120 reduction pots in Potline 4 began July 1. Tapping on these pots was scheduled for

August. A fifth potline for Potrooms 9 and 10 was scheduled to be operating by fall 1968. [110] Workers began the bake-out procedure in which anode briquettes would melt down into monolithic carbon blocks in early July. [111] The first metal was tapped out of pots in the fourth potline on Aug. 3. [112] The bake-in process took about 18 days. Plant Manager E.O. Woster applauded the accomplishment by recognizing the plant's strengths. "We have never had a work shutdown, the plant has an outstanding safety record, but most of all, this plant is people, a lot of people working together to achieve a production and end result of competition in a highly competitive industry," he said. "The Columbia Falls aluminum team has a unique and valuable share in the growth of Flathead County." [113] The bake-in procedure for Potline 5 took place right after Potline 4 was completed, and the fifth potline was operating by October. [114] The Hungry Horse News acknowledged the achievement by choosing the completion of Potlines 4 and 5 as the top news story for 1968. Meanwhile, the number three story was pollution control efforts by Plum Creek, Stoltze and AAC. Management at the smelter plant had announced new pollution control objectives on Aug. 16. [115]

The smelter expansion was accompanied by several new processes adopted by the plant. One was the decision in 1967 to manufacture anode pin connectors rather than purchase them. The plant needed 13,200 of the aluminum connectors, which were bolted to the steel anode pins and then clamped to the aluminum DC buss bars above the anodes. The casting department cast the aluminum shapes and the machine shop milled and drilled the connectors. The project took 8 1/2 months to complete. [116] The biggest addition to the expanded plant was the new rod mill. AAC President Joseph Woodlief had announced plans to build the multi-million dollar continuous casting facility at the AAC plant on March 9, 1967. Record shipments of aluminum ingots were leaving the plant bound for Terre Haute, and output was expected to increase from 100,000 tons per year to 175,000 with completion of Potrooms 7 through 10, he said. [117] Excavation for the 160-by-308 foot rod mill southwest of the main plant next to the Great Northern Railway track began on June 5. The company did not expect to increase employment at the plant, since rod mill workers would be shifted back and forth with the existing potlines and casting operations. [118]

The new continuous casting rod mill went into operation for the first time on July 2, 1968, when hot metal was transported from the reduction buildings to the rod mill, where rod mill superintendent Edward J. Buja ran tests on the new equipment. [119] Buja had left his engineering job at the Anaconda Wire and Cable's general office in New York City to become the new superintendent for the facility. The rod mill cast triangular-shaped bars that would be rolled in tandem into 3/8-inch rod. Equipment in the rod mill building included six holding furnaces, three casting machines, tandem rolling mills and coiling machines. According to plans, hot metal would be transferred from the cast

house to the rod mill in specially designed trucks. Prior to pouring, the hot metal would be fluxed, skimmed and chlorinated. The casting machines would run continuously for eight hours and be fed from more than one furnace. Each casting machine could produce about 77,000 feet of 3/8-inch rod per hour. [120] The 3/8-inch rod would be coiled into 5,000-pound rolls. There were no plans to build a wire mill at the plant to use the coiled rod. The mill operated as part of the Anaconda Wire and Cable Co. [121]

Connecting to the grid

On Sept. 14, 1967, the BPA announced it had signed a 20-year power supply contract with AAC plant. With the addition of two more potlines, the BPA needed to arrange for increased power deliveries. The contract provided 80 megawatts of additional modified firm power at a cost of $1.4 million per year. The company agreed to take about 25% of its power in the form of interruptible power after 1973. The company received assistance from both Mansfield and Metcalf in getting the contract through the U.S. Senate. [122] AAC had purchased $3.4 million worth of electric power from the BPA for the Columbia Falls smelter in fiscal year 1967. The plant was the largest BPA customer in Montana. The top five Montana customers included Montana Power at $1.9 million, Stauffer Chemical at $872,311, Pacific Power & Light at $294,676 and Cominco American at $143,714. About 7% of all BPA power sales went to Montana customers. The BPA sold nearly 44 million megawatt-hours during fiscal year 1967, a 10.7% increase over fiscal year 1966, with total revenues of $104.9 million. [123]

Delivering all that power would require new or enhanced transmission lines. In July 1965, a BPA crew began surveying for a transmission line to be built from Noxon Rapids to the Conkelley Substation. The new transmission line would parallel an existing line from Noxon Rapids to Trout Creek and then head through the Fisher River drainage and Pleasant Valley to Kalispell. The new line would be in addition to a second new transmission line planned to run from Noxon Rapids to the Conkelley Substation via Hot Springs. The two 230-kilovolt transmission lines were expected to provide better voltage regulation and more flexibility for power generated by the Libby Dam. The transmission lines also were necessary to provide additional power for a fourth potline at the AAC plant by 1968. [124] The BPA survey crew used a helicopter and microwave distance-measuring instruments. The new line would take a shorter route over the Cabinet Range. [125] On July 17, 1967, the BPA awarded the contract to build the new 114-mile 230-kilovolt powerline from the Noxon Dam to the Conkelley Substation to the Brandon Co. of Vancouver, Wash., which submitted the low bid of $1.7 million. [126] The new 103-mile long powerline connecting Noxon to Conkelley was energized for the first time on June 30, 1968. The powerline cost $6.5 million and would be repaid through sales of electrical power. [127] The BPA announced it would begin manning the Conkelley

Substation on July 1 with a chief operator, four substation operators and one relief man. At least two men would be present at the substation at all times. Up until this time, the substation had been manned by AAC personnel. [128]

Significant federal funding was needed to build the new transmission lines in Montana. The 1969 fiscal year federal budget approved by President Lyndon Johnson in January 1968 included $8.7 million in construction funds for BPA projects in Western Montana. Construction was to be continued on the 139-mile 500-kilovolt transmission line from the Dworshak Dam near Clearwater, Idaho, to the terminal facilities in Hot Springs, which was scheduled for energizing in April 1972. Funds were also set aside for transmission facilities at the new Libby Dam. The integrating transmission system would include a 25-mile 230-kilovolt loop connecting the Libby Dam to the existing line running from the Noxon Dam on the Clark Fork River to the Conkelley Substation. In addition, a new 60-mile 230-kilovolt line would be constructed from Libby Dam directly to the Conkelley Substation. When all this work was completed, the Conkelley Substation would be linked to the BPA system by four independent lines to the Hungry Horse Dam, the Hot Springs terminal, the Noxon Dam and the Libby Dam. [129]

By November 1970, surveying was underway for construction of a new 60-mile long 230-kilovolt powerline connecting Libby Dam to the Conkelley Substation. The powerline was expected to be finished by 1974, at about the same time the new dam went on line. Environmental concerns being addressed by the Montana Fish and Game Department, the U.S. Forest Service and the BPA included watersheds, fishing streams, aesthetics, wildlife and timber production. [130] In September 1972, however, the BPA announced at a meeting in Whitefish that they were abandoning plans to build the new power line. BPA officials explained that in 1967, as the AAC plant expanded operations, it was believed that the plant would need more power. Now it appeared that no major increase in power would be needed. Another factor in the decision was cost. Instead of constructing the new line, the BPA proposed installing larger conductors on the existing towers from Hot Springs to Conkelley by 1975, thereby providing an additional 100 megawatts in transmission capacity. [131] By March 1975, the BPA was working on plans for a 115-kilovolt addition to the Conkelley Substation and replacing the conductors on the Conkelley-Hot Springs transmission line. [132] In September, the BPA accepted bids for construction on a 230-kilovolt transmission line between the Conkelley Substation and the substation near Kalispell. New conductors would be strung to increase carrying capacity for the line by 30%, or an additional 100 megawatts of power, at a cost of $248,154. [133]

The BPA held three meetings in Flathead County in June 1981 to present plans for construction of a new high power transmission line to meet the aluminum plant's

needs. Power contracted to the AAC plant was expected to increase by 8% to take care of new pollution control equipment. A 230,000-volt line from either Hot Springs or the Libby-Noxon line had been considered, with completion expected in 1985. About 20 people attended the meeting held in Columbia Falls, where some expressed concerns that the AAC plant might eventually shut down, making the additional power supplies unnecessary. The cost for the new line was estimated to be about $20 million. [134] In February 1982, the BPA explained its proposed routing of two new transmission lines through the Flathead Valley. The first would connect the Conkelley Substation to the substation at Hot Springs, and the second would connect Conkelley with a tap on the line connecting the Noxon Dam with the Libby Dam. The 64-mile long 230-kilovolt line to Hot Springs would parallel an existing line. According to the BPA, the new lines were necessary to prevent an overload on existing lines as soon as August 1986, and to increase safety and reliability through 1995, but the AAC plant's load was expected to remain at current levels. The two lines would cost about $20 million to build. [135] Opposition to these proposed transmission lines stopped their construction. By 2001, the West Coast Energy Crisis prompted a need to review these old proposals.

The Anaconda Company's ultimate goal was vertical integration of its aluminum business. By establishing AAC fabrication plants across the U.S. and expanding the Columbia Falls smelter, it had achieved part of that goal. But more projects followed – a large modern smelter at Sebree, Ky., alumina refineries in Jamaica and Ireland, and a giant storage dome in Everett, Wash., for alumina shipped from AAC's new Jamaican refinery and later from Australia. Labor difficulties at the Columbia Falls smelter in the 1960s were a minor distraction to what the company would face once fluoride emissions topped out with five potlines running in 1969.

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