

Joffre Site History



Joffre Manufacturing Site is among the most cost competitive in the world because of its feedstock supply, economics of scale, and advanced technology. It is one of the largest ethylene and polyethylene production complexes in the world, producing over six billion pounds of ethylene and two billion pounds of polyethylene annually.



The 1970s...

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- 1973** NOVA, an Alberta Corporation made a commitment to expand its participation in Alberta's economic base by investigating the opportunity for ethylene and derivative manufacturing.
 - 1974** The Alberta Gas Ethylene Company Ltd. (AGEC) was incorporated.
 - 1975** A public hearing of the application by Alberta Gas Ethylene for an Industrial Development permit was held in Red Deer in June. A letter of understanding from AGEC, NOVA, Dome and Dow outlining the Alberta Petrochemical Project was sent to the Alberta Government in September.
 - 1976** Following two years of planning and negotiation, key agreements defining the Alberta Petrochemical Project were signed on July 14, following which construction of the first ethylene plant (E1) began on a 150 acre site at Joffre, 19 kilometres east of Red Deer in Central Alberta.
 - 1977** Arrangements for long-term financing of the ethylene plant were successfully concluded in November after several months of negotiation.
 - 1978** Hiring of operating staff for the plant commenced.
 - 1979** E1 was brought into operation at the beginning of August, one month ahead of schedule. This plant was officially opened on October 22.



The 1980s...

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- 1981** Order in Council received to proceed with the second ethylene plant (E2) and a polyethylene plant (PE1), following which construction began.
 - 1982** The community liaison group FARM-AGE (now JCAP) is formed to facilitate communication and cooperative relationships between the company and its neighbours.
 - 1984** E2 brought into operation on June 29; PE1 started up on June 22. Commenced delivery of carbon dioxide to Vikor for utilization in enhanced oil recovery, and high purity hydrogen to Canadian Liquid Air.
 - 1986** The Canadian Chemical Producers' Association (CCPA) launches its Responsible Care® program; Novacor's leaders are instrumental in the program's development and the company adopts the on-going commitment to protect human health and the environment.
 - 1987** The Hydrogen Off-Gas Facility (HOG) started up in the spring to supply Cominco with high purity hydrogen for the manufacture of ammonia-based fertilizer. Started up polyethylene pelletizer unit and comonomer recovery facility. Debottlenecked E2 to increase capacity from 1.5 to 1.7 billion pounds
 - 1988** Debottlenecked E1 to increase capacity from 1.2 to 1.4 billion pounds and PE1 to increase capacity from 600 to 850 million pounds
 - 1988** 10th anniversary of E1 celebrated with Open House attended by nearly 1300 visitors.



The 1990s...

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- 1990** Introduction of hexane linear low density polyethylene (LLDPE) resins.
 - 1991** AGECE was amalgamated with Novacor Chemicals Ltd. Started up second polyethylene pelletizer unit.
 - 1992** PE1 increased nameplate capacity to one billion pounds per year.
 - 1993** Debottlenecked E1 to increase capacity to 1,542.2 million pounds/year. This additional feedstock allowed Polyethylene to meet or exceed new nameplate.
 - 1994** Polyethylene increased nameplate capacity to 1.2 billion pounds/year.
 - 1995** Novacor, as a member of the Canadian Chemical Producers' Association (CCPA), and a Responsible Care® company, completed a successful verification of the six Codes of Practice, allowing us to remain an industry leader in safety, health, environment, and risk management.
 - 1996** Novacor changes name to NOVA Chemicals. Announced expansion of the site including a third ethylene plant (E3), and a second polyethylene plant (PE2) utilizing NOVA Chemicals' Advanced SCLAIRTECH™ polyethylene technology. Regulatory application process commences.
 - 1997** Construction of Joffre 2000 began with E3 in mid-year. Investigated feasibility and economics of a cogeneration facility (COGEN) to supply the site's electrical and steam/heat needs. Developed commercial agreement with BP Amoco for a new Linear Alpha Olefins (LAO) plant proposed for the Joffre Site. NOVA Chemicals will be a major supplier and customer.
 - 1998** Following the July 2 merger with TransCanada Pipelines Limited and the split-off of NOVA Chemicals, NOVA Chemicals Corporation is now a focused commodity chemicals company. COGEN construction commences.
 - 1999** NOVA Chemicals celebrates 20 years of success at the Joffre Site and surpasses the 50% complete milestone on Joffre 2000 projects. First company in Canada to receive Canadian Chemical Producers' Association (CCPA) Round 2 Verification. BP's LAO plant construction commences.



The 2000s

- 2000** COGEN synchronized to Provincial power grid in March; official opening June 21. E3 start of initial operations in August recognized through \$25,000 contribution toward the first Habitat for Humanity homes in Red Deer. PE2 completes construction and commences commissioning for 2001 start-up.
- 2001** PE2 achieves initial start-up in April, successfully producing polymer product. E3 officially achieves commercial operations in July, demonstrating operation at an average of 100% of nameplate over three months.
- 2002** Altogas Liquids Inc./Taylor Operations start-up the Joffre Ethane Extraction Plant (JEEP) increasing Joffre Site's ethane supply.
- 2004** Recognizing safety excellence priority, and as part of 25th site anniversary celebrations, contributed \$25,000 to support injury prevention initiatives of the Safe Communities Coalition of Central Alberta.
- 2005** Added the Alberta Ethane Gathering System, a 1,300-km system and key component of Alberta's energy infrastructure to pipeline operating responsibilities. A new Joffre Feedstock Pipeline delivers first propane providing feedstock flexibility to the ethylene business.
- 2006** Delivery of carbon dioxide to Glencoe Resources for use in enhanced oil recovery reduces additional CO₂ emissions from the site. A \$1-million investment in Red Deer College expansion helps address growing demand for skilled trades.
- 2007** E2 successfully extends major turnaround (maintenance and renewal) to a five-year run cycle. For the third consecutive year, site is recognized with a Work Safe Alberta Safety Performer award.
- 2008** Commissioned a new packaging line with the capacity to process 2,000 bags per hour of polyethylene pellets. Construction of a PE1 comonomer recovery facility commences to reduce emissions, flare visibility and energy costs.
- 2009** NOVA Chemicals now 100% owned by the International petroleum Investment Company (IPIC), continuing to operate as a Responsible Care company. Site celebrates 30th anniversary with the same spirit and ethic that built this world-class petrochemical site. After another successful fundraising campaign, – together with our employees, we have now contributed \$2.5 million to the United Way of Central Alberta.
- 2010** Canadian Chemical Producers' Association (CCPA) changes name to Chemistry Industry Association of Canada (CIAC).