Development of the Ranger Mine

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The first indications of what is now Ranger Mine were found by a joint venture of two major Australian mining companies, Peko Wallsend Ltd. and Electrolytic Zinc Co. of Australasia Ltd. in mid-1969. By 1971, sufficient ore reserves had been proven for those companies to undertake an initial process design study and market surveys for uranium concentrates. Negotiations commenced early in 1972 for the granting of a Special Mining Lease and sales contracts were made with two Japanese electric power utilities.

Development of the project was then delayed until early 1979 by a series of political events. Development of the mine and mill started in January 1979 but, in August of that year, the federal government announced its intention to divest itself of its interest in the Ranger venture. Those interests, together with the interests of Peko-Wallsend Operations and Electrolytic Zinc Company, were subsequently acquired by a new company, Energy Resources of Australia Ltd. A series of agreements were concluded by that company which gave assured markets for the major part of production over the first 15 years of the mine's life, provided the necessary financial backing for the development of the project, and introduced 25% foreign equity by parties who were also purchasers of uranium concentrates. The company was then floated on the Australian stock exchanges with a 15% Australian public equity: the remaining equity being held equally by Peko-Wallsend Operations and Electrolytic Zinc company.

Production at the designed annual rate of 3,000 tons U₃O₈ started in October 1981, almost exactly 12 years after the initial discovery. Since that time the mine and mill have been performing at rates in excess of the design criteria and have successfully completed their first two shipments to customers.

INTRODUCTION

The Ranger ore bodies were one of the first discoveries in the major uranium exploration phase starting in Australia in 1966 and continuing until political uncertainty led to a general decline in mineral exploration and to a major decline in uranium exploration in the early 1970s. Fifteen years later, the Ranger mine is in full production at the rate of 3,000 tons of U₃O₈/annum.

In the intervening period, many political, financial, environmental, and marketing problems had to be overcome. The resulting corporate and financial structure is one of the more complex of any mine, and operation of the mine and plant is governed by more legislation and regulation than any other project.

DISCOVERY AND EARLY DEVELOPMENT

A joint venture for mineral exploration in the northern part of Australia was initiated between Electrolytic Zinc Company of Australasia Limited (EZ) and Peko-Wallsend Operations Limited (Peko) in July 1967. The Alligator Rivers Region some 200 km (124 mi) to the east of Darwin in the Northern Territory became the center of activity for uranium exploration. An airborne radiometric survey found the first indication of what are now the Ranger ore bodies in mid-1969, and in October of that year, a ground party reached the site shortly before the onset of the wet season.

The geologists and company executives involved, encouraged by the promise of the new discovery, could have had little idea of the frustrating and tortuous path that lay ahead before the Ranger mine finally came into operation on October 1st, 1981. Initial development was rapid; drilling soon confirmed the potential of the find, and ore resource estimates increased steadily: it was evident that Electrolytic Zinc Company and Peko-Wallsend Operations had a uranium deposit of world significance.

Other finds in this sparsely populated and remote region helped focus the attention of the federal government, which then directly controlled the Northern Territory, on the potential of the uranium mining industry.

In December 1971, Electrolytic Zinc Company and Peko-Wallsend Operations, under the provisions of their exploration joint venture, entered into a separate agreement for the development of the Ranger mine. Process design studies and market investigations were started. Negotiations with the Northern Territory administration for the granting of a special mineral lease also commenced and, by the end of 1972, were virtually concluded. Two Japanese utilities, the Chubu Electric Power Company Incorporated Limited and Kyusyu Electric Power Company Incorporated agreed on the terms of the first sales contracts, and production was planned to begin in 1976. Then came the years of frustration.

1972 TO 1979

A federal government election in December 1972 gave government to a party that had not exercised power for 23 years. Delays and confusion over the definition of a national resource development policy were reflected in the development of the Ranger mine. Exploration drilling, having already proven some 100,350 tons of U₃O₈, was virtually stopped. Though the two sales contracts, which had been approved by the previous government, were confirmed, others were rejected...