As a public servant, Lorna Arnold was fiercely intolerant of anything less than the best. Photograph: Rosie Houldsworth

Lorna Arnold, who has died aged 98, was the official historian of Britain's nuclear project and the author of landmark books on the Windscale reactor accident of 1957, on British nuclear testing in Australia and on the development of the hydrogen bomb.

She brought to these controversial subjects the highest standards of official history writing, and as a result was able to command the respect of both opponents and supporters of the nuclear deterrent, at times when the two could agree on little else.

Her views and habits were shaped in the wartime civil service, where she worked in a secretariat supporting high-level War Office committees, and then in the Foreign Office department that planned the postwar occupation of Germany. She went to Berlin in 1945 to put the plans into action, and then as a diplomat to Washington.
Her experiences taught her a profound respect for the best in British public service and a fierce intolerance of anything less than the best. This rigour she later applied to the people and events she wrote about as a historian, always seeing it as her job to place a clear and accurate story before the public rather than to serve the interests of the nuclear establishment.

But her story has another dimension, for in a long life she repeatedly rose above adversities that would have defeated many and, successful though she was in her field, she is surely one of that army of women denied greater eminence because of their sex.

She was born Lorna Rainbow in London, the daughter of a technician in the Royal Naval Air Service, and among her earliest memories was seeing airships overhead and being told "There's Daddy's ship!" She grew up in Surrey and in 1934 went on a scholarship to Bedford College, London, before training to be a teacher in Cambridge.

Along the way, people noticed this bright, sharp-eyed young woman, among them the literary critic FR Leavis and his wife, Queenie, who drew her for a time into their circle. "I wished," Arnold wrote of these followers, "that I could be as sure of anything as they seemed to be of everything."

She taught briefly and did not like it, and then was laid low by a heart ailment. She recovered in time to be recruited to the civil service on the outbreak of war; there her shrewdness and administrative ability shone through, so that by the time she moved to occupation planning her staff included three majors (all men) and her deputy was the young writer Goronwy Rees. She was not yet 30.

In the unstable Berlin of 1945, where she slept with a revolver under her pillow and was greeted by soldiers as "Miss Rainbow, sir!", she was UK secretary to the economic directorate, engaged in constant, difficult negotiations with the Russians, French and Americans.

A short assignment to Washington in 1946 to discuss cost-sharing for the occupation turned into a full-time post at the embassy there, working alongside Donald Maclean, whose nervous nature puzzled her. A Soviet agent, he would later defect to Moscow.

In 1949, she resigned. She thought her job was done and, with more men once again available for diplomatic posts, she did not feel that she could expect to remain.

Returning to Britain, she married Robert Arnold, an American musician she had met in Washington. They lived at Cheyne Walk in Chelsea, London, where Bob maintained a National Trust collection of musical instruments housed on the lower floors.
In 1953, by which time they had two sons, Bob left her and returned to the US. Suddenly, at 38, she was a single mother without an income. She took a job on the packing line of a biscuit factory in Edgware Road and from there graduated to poorly paid clerical jobs.

A chance encounter in Russell Square with a former Berlin colleague brought her back into public service in 1959, at the Atomic Energy Authority. First she worked in health and safety, and then she took a position managing records and supporting the official historian, Margaret Gowing.

Her first published output was six chapters of Gowing’s 1974 work, Independence and Deterrence: Britain and Atomic Energy 1945-52, and then, as Gowing wound down her involvement, Arnold took wing.

A Very Special Relationship: British Atomic Weapon Trials in Australia (1987) addressed what was then a highly controversial subject with the fairness and clarity that would become her hallmark. Windscale 1957: Anatomy of a Nuclear Accident (1992) revealed her talent, as a non-scientist, for incorporating challenging science in a dramatic narrative, again while navigating highly charged debates about blame. Britain and the H-Bomb (2001), published when she was 85 and her sight was deteriorating, maintained her very highest standards.

She was not only an astute exploiter of records: she had a remarkable gift for making people talk. Her books never lose track of the people among the policies and events. This personal warmth she spread widely: dozens of historians down the years have gone to her for advice and found themselves firm friends of the wise, selfless woman in the warm little house outside Oxford.

Her books reveal nothing of her own views about nuclear weapons, but she was always a sceptic – their effects, she used to say, were disproportionate to almost any objective – and she long ago ceased to believe that Britain could justify having its own deterrent.

Registered blind in 2002, she worked on, producing updated editions of two of her books and then a memoir, My Short Century, in 2012. Weak and frail in recent years, she died after a stroke. She was appointed OBE in 1976.

She is survived by her sons, Geoffrey and Stephen.

• Lorna Arnold, historian, born 7 December 1915; died 25 March 2014

• Lorna Arnold website
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