

CENTRAL INTELLIGENCE AGENCY

OFFICE OF SCIENTIFIC INTELLIGENCE

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SOVIET POTENTIALITIES TO CONDUCT RADIOLOGICAL WARFARE

WP-40-50
23 FEBRUARY 1950

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SOVIET POTENTIALITIES TO CONDUCT RADIOLOGICAL WARFARE

INTRODUCTION:

IT MUST BE EMPHASIZED AT THE OUTSET THAT THERE IS VERY LITTLE POSITIVE INTELLIGENCE ON EITHER SOVIET INTENTIONS OR CAPABILITIES TO ENGAGE IN THE PRODUCTION OF OR TO EMPLOY RADIOLOGICAL WARFARE MATERIALS.

PRODUCTION CAPABILITIES:

YOU ARE ALL FAMILIAR WITH THE PRESIDENT'S ANNOUNCEMENT OF LAST SEPTEMBER 23RD WHICH STATED THAT WITHIN RECENT WEEKS AN ATOMIC EXPLOSION HAD TAKEN PLACE WITHIN THE USSR. IT IS REASONABLY CERTAIN THAT THE FISSIONABLE MATERIAL USED WAS PLUTONIUM, AND THESE FACTS IMPLY THE CAPABILITY TO PRODUCE PLUTONIUM IN SOME QUANTITY, E.G. FROM ONE OR MORE PRODUCTION PILES. THEREFORE, WE MUST NOW PRESUME THAT THE USSR HAS THE BASIC FACILITIES FOR PRODUCING SMALL QUANTITIES OF RADIOLOGICAL WARFARE AGENTS, WHICH MAY TAKE THE FORM OF RAW OR SEPARATED FISSION PRODUCTS, ESPECIALLY IRRADIATED MATERIALS, OR PLUTONIUM ITSELF. THERE IS FAIRLY GOOD INFORMATION THAT THE SOVIET ATOMIC ENERGY PROGRAM IS STILL IN THE CONSTRUCTION PHASE, AND DEPENDING ON THE EMPHASIS WHICH IS PLACED ON THE CONSTRUCTION OF FACILITIES IN THE NEAR FUTURE, THE USSR MAY HAVE THE CAPABILITY FOR PRODUCTION OF LARGE QUANTITIES (TENS OF MEGACURIES) OF RW AGENTS WITHIN TWO OR THREE YEARS. IT IS IMPOSSIBLE AT PRESENT TO DRAW MORE PRECISE CONCLUSIONS FROM THE INFORMATION AVAILABLE.

POLICY AND PROPAGANDA:

THERE IS NO INFORMATION ON SOVIET NATIONAL POLICY WITH RESPECT TO THE EMPLOYMENT OF RADIOLOGICAL WARFARE MATERIALS EITHER OPENLY OR SUBVERSIVELY.

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HOWEVER, IT IS CONSIDERED THAT THE USSR WOULD NOT HESITATE TO USE THESE MATERIALS IF SUCH USE WOULD ASSIST THEM IN ATTAINING THEIR OBJECTIVES. THERE IS NO INTERNATIONAL CONVENTION SPECIFICALLY RESTRICTING THE USE OR EMPLOYMENT OF RW.

SO FAR AS IS KNOWN, THE SOVIETS HAVE NOT ^{directly} EMPLOYED THE TERM "RADIOLOGICAL WARFARE" EITHER IN DISCUSSIONS AT THE UNITED NATIONS, OTHER CONVENTIONS AND CONFERENCES, OR IN ANY OF THEIR PROPAGANDA CAMPAIGNS. IT MUST THEREFORE BE ASSUMED THAT "RADIOLOGICAL WARFARE" IS INCLUDED IN THE CATEGORY OF EITHER "ATOMIC WEAPONS" OR "OTHER WEAPONS OF MASS DESTRUCTION," BOTH OF WHICH THE SOVIETS HAVE PROPOSED SHOULD BE OUTLAWED BY INTERNATIONAL CONVENTION. THE LINE TAKEN BY SOVIET PROPAGANDA ^{for home consumption} HAS BEEN TO MINIMIZE THE EFFECTS OF THE ATOMIC BOMB, INCLUDING RADIATION, AND IT SEEMS REASONABLE TO EXPECT THAT THE EFFECTS OF THE USE OF RADIOLOGICAL WARFARE MATERIALS WOULD BE SIMILARLY MINIMIZED.

DEFENSIVE MEASURES:

PRACTICAL DEFENSIVE MEASURES AGAINST RADIOACTIVE MATERIALS, OTHER THAN IN CONNECTION WITH ATOMIC BOMB ATTACKS, HAVE RECEIVED NO MENTION BY THE SOVIET PRESS AND RADIO. THERE IS SOME EVIDENCE THAT THE VOLUNTEER DEFENSE ORGANIZATION (OSOAVIAKHIM) WAS CONDUCTING SOME TRAINING ON THE EFFECTS OF ATOMIC BOMB ATTACKS PRIOR TO MAY 1948. SOME INSTRUCTION IN THE DETECTION OF RADIOACTIVITY WAS OFFERED, AND ATOMIC AIR RAIDS WERE SAID TO HAVE BEEN SIMULATED TO DRILL THE POPULATION OF STRATEGIC AREAS FOR RAPID MASS MOVEMENTS TO SHELTERS, OR OUT OF THE AREAS. SOME SPECIFIC REPORTS

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APPLICABLE TO THE PROBLEM OF DEFENSE AGAINST RADIOLOGICAL WARFARE ARE:

(1) AN INTELLIGENCE REPORT IN THE SPRING OF 1949 STATED THAT A LARGE PORTION OF THE COUNTERS BEING MANUFACTURED BY ONE GERMAN PLANT FOR THE USSR WAS RUMORED TO BE FOR DISTRIBUTION TO THE RED ARMY DOWN TO THE COMPANY LEVEL.

(2) A SOVIET SCIENTIFIC JOURNAL REPORTED IN MID-1949 THAT A METHOD HAD BEEN DEVELOPED FOR PREPARING VITAMIN-FORTIFIED BLOOD WHICH COULD BE STORED WITHOUT LOSING POTENCY. THE USE OF WHOLE BLOOD TRANSFUSIONS IS STANDARD TREATMENT FOR COUNTERACTING RADIATION EFFECTS.

(3) A NORTH AMERICAN NEWSPAPER ALLIANCE ARTICLE FROM BERLIN DATED 8 FEBRUARY 1950 STATED THAT THE SOVIETS HAD PERFECTED AN INJECTION CONTAINING INSULIN, CERTAIN HORMONES, AND OTHER COMPOUNDS, WHICH WILL IMMUNIZE A HUMAN BEING AGAINST RADIATION SICKNESS FOR 3 DAYS. AN INJECTION IS STATED TO RELIEVE NAUSEA, VOMITING AND CERTAIN TOXIC EFFECTS OF RADIATION SICKNESS IF APPLIED BEFORE TISSUE DECOMPOSITION SETS IN. FURTHER, IT WAS CLAIMED IN THE ARTICLE THAT SEVERAL "CLINICAL PHYSICISTS" SPECIALIZING IN RADIOLOGY, BELIEVE THIS DEVELOPMENT TO BE FEASIBLE, AND THAT AMERICAN INVESTIGATIONS HAVE BEEN CARRIED OUT ALONG SIMILAR LINES WITH SOME SUCCESS.

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IN CONCLUSION, IT IS CONSIDERED THAT THE USSR DOES NOT HAVE AVAILABLE AT THE PRESENT TIME A SUFFICIENT QUANTITY OF RADIOLOGICAL WARFARE MATERIALS TO BE USEFUL IN A MILITARY SENSE, BUT THEY DO HAVE THE CAPABILITY OF DISSEMINATING SMALL QUANTITIES OF RADIOACTIVE POISONS WITHIN THE U. S. THROUGH THE EMPLOYMENT OF SUBVERSIVE INDIVIDUALS AND ORGANIZATIONS, IF THEY SHOULD SO DESIRE.

IT IS OUR OPINION, HOWEVER, THAT FROM A PRACTICAL STANDPOINT, AS COMPARED TO BW AND CW, THE PRODUCTION OF A SIGNIFICANT QUANTITY OF RW MATERIALS REQUIRES AN EXTENSIVE PLANT INSTALLATION, AND WOULD INTERFERE WITH ATOMIC BOMB PRODUCTION. IN ADDITION, ^{RW materials} ~~they~~ ARE DIFFICULT TO HANDLE AND DISSEMINATE, AND THEIR USE IS RELATIVELY INEFFECTIVE. FOR THESE REASONS THEIR EMPLOYMENT BY THE USSR IS CONSIDERED TO BE UNLIKELY.

Note: inserts in red made after presentation to Committee on 24 Feb 50

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56. [ORE], Intelligence Memorandum 225, "Estimate of Status of Atomic Warfare in the USSR," 20 September 1949 (Excerpted photocopy)

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CENTRAL INTELLIGENCE AGENCY

20 September 1949

INTELLIGENCE MEMORANDUM NO. 225

SUBJECT: ESTIMATE OF STATUS OF ATOMIC WARFARE IN THE USSR
(Category No. 5)

GENERAL AS A WHOLE:

The USSR has an atomic energy program which started in late 1945 and which is being vigorously pursued under a top priority. The current estimate of the Joint Nuclear Energy Intelligence Committee is that the earliest possible date by which the USSR might be expected to produce an atomic bomb is mid-1950 and the most probable date is mid-1953. (Secret)

ESTIMATE BY TECHNICAL OBJECTIVES

A-1.

No foreign country is known to be developing a large-scale uranium isotope-separation program, although a number of countries are planning to develop plutonium production facilities. It is believed, that excluding Britain, the USSR, and possibly Canada, no foreign country has the capability of producing sufficient fissionable material to make an atomic bomb within the next ten years. (Secret)

Present information indicates that a plutonium project for the production of fissionable materials is being developed. It is reasonable to suppose that the Soviets have had at least one low-energy pile (probably graphite) operating for a year or more although no incontrovertible evidence exists. It is probable that production piles are now in the

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process of design and/or construction, but their exact status is unknown. There is no evidence of a large-scale uranium isotope separation project. (Secret)

AX-2

There is no information indicating that any foreign country is engaged in a project dealing with radiological warfare agents. (Secret)

AX-3

As the production of radiological warfare agents requires operating production piles, it is apparent that no foreign country can have done very much in this field. (Secret)

AX-4

No information is available.

AX-5

Defensive measures against radiological warfare agents have not been apparent within the USSR. The single possible exception is a report that a large portion of the counters being manufactured by one German plant for the USSR is rumored to be for distribution to the Red Army down to the company level. Large production of field counters for the Soviets has been reported in Germany and elsewhere; but, as far as can be determined, these are primarily for use in the uranium mining operations. Although protective measures for the general public may be in the planning stage, it is difficult to believe that widespread education programs would escape detection. (Secret)

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17. Leahy to the President, 21 August 1946 (Photocopy)

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21 August 1946

From: Admiral Leahy
 To: The President
 No: white #26

DECLASSIFIED
 E.O. 11652, Sec. 1.4 and 1.5 of (2)
 Authority: 140760059
 Date: 7/16/77

The National Intelligence Authority today approved the following quoted directive to be issued by the Authority to General Vandenberg. General Groves approves.

Secretaries Patterson and Forrestal consider it very important that the directive be issued without delay. Secretary Acheson stated that your approval should be obtained.

The members of the Authority recommend your approval with an understanding that any action taken by the Authority will be without prejudice to future change that may be desired by the Atomic Energy Committee. I recommend approval.

"Pursuant to the President's letter of 22 January 1946, designating this Authority as responsible for planning, developing, and coordinating all Federal foreign intelligence activities so as to assure the most effective accomplishment of the intelligence mission related to the national security, the following policies and procedures relating to Federal intelligence activities in the field of foreign atomic energy developments and potentialities affecting the national security are announced:

1. The Director of Central Intelligence, subject to the direction and control of this Authority, is hereby authorized and directed to coordinate the collection by agencies subject to coordination by N.I.A. of all intelligence information related to foreign atomic energy developments and potentialities which may affect the national security, and to accomplish the correlation,

17. (Continued)

evaluation, and appropriate dissemination within the Government of the resulting intelligence. The Director of Central Intelligence is further authorized to arrange with other intelligence agencies of the Government to utilize their collection facilities in this field.

2. To accomplish the function assigned in paragraph 1, the Secretary of War and the Commanding General of the Manhattan Engineer District have authorized the transfer to the Central Intelligence Group of the personnel and working files of the Foreign Intelligence Branch operated by the Commanding General of the Manhattan Engineer District, effective at the earliest practicable date."

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