

Central Intelligence Agency



Washington, D.C. 20505

17 April 2019

Reference: F-2016-01149

This is a final response to your 28 February 2016 Freedom of Information Act (FOIA) request for **“a copy of memos, reports, presentations, etc., for these three topics:**

**Cold Fusion
Nano-Nuclear Reactions
Low Energy Nuclear Reactions.”**

We processed your request in accordance with the FOIA, 5 U.S.C. § 552, as amended, and the CIA Information Act, 50 U.S.C. § 3141, as amended.

We completed a thorough search for records responsive to your request and located one document, consisting of 13 pages, which we can release in segregable form with deletions made on the basis of FOIA exemption (b)(3), and NR Record. “Not Responsive Record” is used for sections that do not mention the topic you requested. A copy of the document and an explanation of exemptions are enclosed. Exemption (b)(3) pertains to information exempt from disclosure by statute. The relevant statutes are Section 6 of the Central Intelligence Agency Act of 1949, as amended, and Section 102A(i)(1) of the National Security Act of 1947, as amended. Also, during our searches, we located additional material that was not originated by the CIA. This material appears to be relevant to your request, and has been referred to the originating agency for review and direct response to you. As the CIA Information and Privacy Coordinator, I am the CIA official responsible for this determination. You have the right to appeal this response to the Agency Release Panel, in my care, within 90 days from the date of this letter. Please include the basis of your appeal. We have determined that in accordance with our regulations, as a matter of administrative discretion, the Agency has waived the fees for this request.

If you have any questions regarding our response, you may contact us at:

Central Intelligence Agency
Washington, DC 20505
Information and Privacy Coordinator
703-613-3007 (Fax)

Please be advised that you may seek dispute resolution services from the CIA's FOIA Public Liaison or from the Office of Government Information Services (OGIS) of the National Archives and Records Administration. OGIS offers mediation services to help resolve disputes between FOIA requesters and Federal agencies. You may reach CIA's FOIA Public Liaison at:

703-613-1287 (FOIA Hotline)

The contact information for OGIS is:

Office of Government Information Services
National Archives and Records Administration
8601 Adelphi Road – OGIS
College Park, MD 20740-6001
202-741-5770
877-864-6448
202-741-5769 (fax)
ogis@nara.gov

Contacting the CIA's FOIA Public Liaison or OGIS does not affect your right to pursue an administrative appeal.

Sincerely,



Riggs Monfort
Information and Privacy Coordinator

Enclosures

Explanation of Exemptions

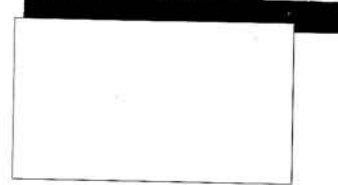
Freedom of Information Act:

- (b)(1) exempts from disclosure information currently and properly classified, pursuant to an Executive Order;
- (b)(2) exempts from disclosure information, which pertains solely to the internal personnel rules and practices of the Agency;
- (b)(3) exempts from disclosure information that another federal statute protects, provided that the other federal statute either requires that the matters be withheld, or establishes particular criteria for withholding or refers to particular types of matters to be withheld. The (b)(3) statutes upon which the CIA relies include, but are not limited to, the CIA Act of 1949;
- (b)(4) exempts from disclosure trade secrets and commercial or financial information that is obtained from a person and that is privileged or confidential;
- (b)(5) exempts from disclosure inter-and intra-agency memoranda or letters that would not be available by law to a party other than an agency in litigation with the agency;
- (b)(6) exempts from disclosure information from personnel and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of privacy;
- (b)(7) exempts from disclosure information compiled for law enforcement purposes to the extent that the production of the information (A) could reasonably be expected to interfere with enforcement proceedings; (B) would deprive a person of a right to a fair trial or an impartial adjudication; (C) could reasonably be expected to constitute an unwarranted invasion of personal privacy; (D) could reasonably be expected to disclose the identity of a confidential source or, in the case of information compiled by a criminal law enforcement authority in the course of a criminal investigation or by an agency conducting a lawful national security intelligence investigation, information furnished by a confidential source; (E) would disclose techniques and procedures for law enforcement investigations or prosecutions if such disclosure could reasonably be expected to risk circumvention of the law; or (F) could reasonably be expected to endanger any individual's life or physical safety;
- (b)(8) exempts from disclosure information contained in reports or related to examination, operating, or condition reports prepared by, or on behalf of, or for use of an agency responsible for regulating or supervising financial institutions; and
- (b)(9) exempts from disclosure geological and geophysical information and data, including maps, concerning wells.

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Directorate of Intelligence

Science and Weapons Review

Tuesday
20 October 1992

CIA|SW



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20 October 1992

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Science and Weapons Review

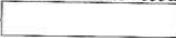
A Publication of the
Office of Scientific & Weapons Research

Tuesday, 20 October 1992

EUROPE/JAPAN: Cold Fusion Continues To Bubble

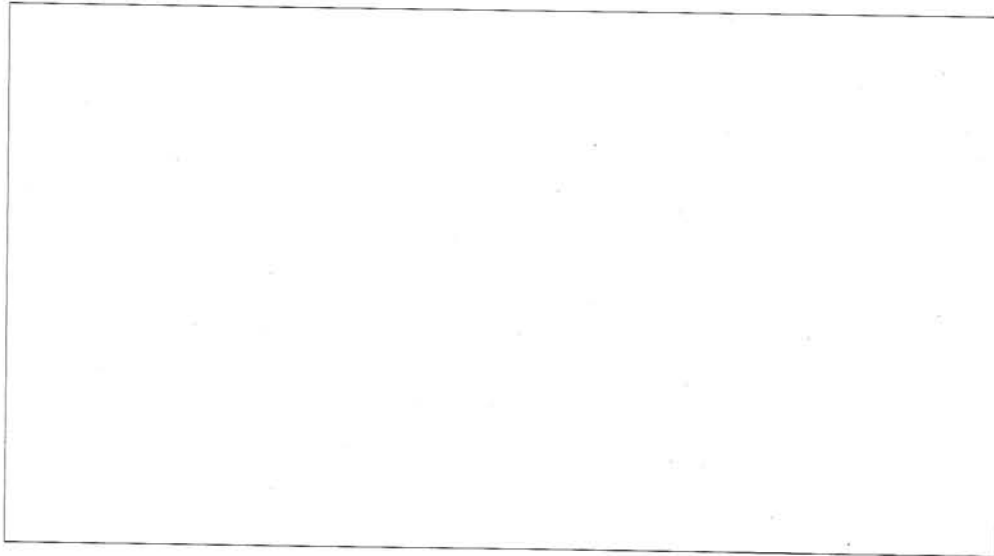
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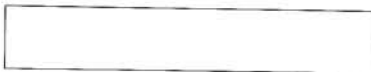
Researchers have continued to try to reproduce low-temperature nuclear fusion in the laboratory and have reported the observation of unusual phenomena. We believe these phenomena are unlikely to be the basis for a new energy source; it is possible, however, that an electrochemical process is involved and that this research could lead to applications in the area of fuel cells. 

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20 October 1992

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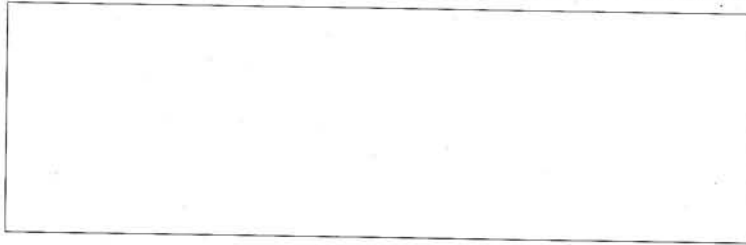
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EUROPE/JAPAN Cold Fusion Continues To Bubble

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Nuclear, Biological, and Chemical Division

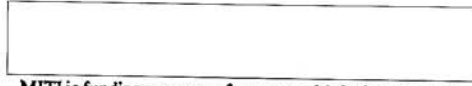
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ACCORDING TO THE 5 September 1992 issue of the European *NEW SCIENTIST* magazine, Martin Fleischmann presented a talk on cold fusion to a recent meeting of the British Association for the Advancement of Science. Fleischmann, a British chemist, and his American colleague Stanley Pons announced in 1989 that they had produced nuclear fusion in a test tube of heavy water at room temperature.

reproduced cold fusion. The researchers claim that, in a one-month experiment starting in December 1991, their apparatus generated an average amount of heat per cubic centimeter equal to 10 times the amount produced in a fuel rod of a nuclear reactor. The number of neutrons they measured decreased as the amount of heat generated increased.

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Fleischmann said that he and Pons are now working on cold fusion at a secret laboratory in France funded mainly by Technova, a think tank set up by the Japanese Ministry of International Trade and Industry (MITI). He showed a video in which the heavy water bubbled violently and evaporated. This 11-minute burst of activity occurred after a week of steady operation. He stated that the palladium electrodes used in the apparatus occupy just 0.04 cubic centimeter, adding "this is as big as we can make it safely." Based on these results, Fleischmann calculates that cold-fusion cells could generate 1 kilowatt of power per cubic centimeter of fuel, a performance comparable to that of a fast-breeder reactor.



MITI is funding a survey of recent cold-fusion research. It is interested in whether the mechanism involved in cold-fusion experiments deserves to be studied further for possible applications in fuel cells.

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According to the British science magazine *NATURE*, in mid-July 1992 MITI's Natural Resources and Energy Agency confirmed newspaper reports that it is hoping to start a government-industry project to pursue the possible application of cold-fusion research in the energy industry. Tomihiro Taniguchi, director of EPTD at MITI, stated that electric utility companies and materials processing industries are interested in the research.

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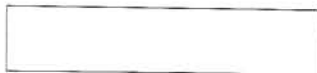
At the same meeting, Frank Close, a British nuclear physicist and cold-fusion critic, confronted Fleischmann. Close pointed out that the very large number of neutrons, alpha particles, or gamma rays expected to accomplish nuclear fusion have not been observed. Fleischmann countered by suggesting that a different form of nuclear fusion was taking place because the process happened not in the gas phase, as studied by physicists, but in the solid lattice of the palladium electrode.

Comment:

Although the cold-fusion phenomena remain an enigma, we believe they are not likely to be the basis of a new power source for mankind. Proponents have not done the systematic experimentation necessary to demonstrate the nature of the mechanism involved and must invoke new physics to explain their results. Questions remain about how much energy is introduced into the apparatus over long time periods before significant activity begins and how this compares to the energy released. All cold-fusion experiments have been done

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According to a Japanese newspaper, researchers at Osaka University led by Akito Takahashi have



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on a laboratory scale; questions related to scaling the apparatus to commercial scale have not been addressed.

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likely will be in the area of fuel cells. If the MITI approach is to search for applications to fuel-cell technology, it would appear to be a prudent one and the one most likely to reap benefits in the near term. Potential applications in materials processing also seem likely.

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We judge that the heat-producing process involved in cold fusion is not a nuclear one. If it is therefore an electrochemical process, any large payoff from cold-fusion research in the field of energy sources most

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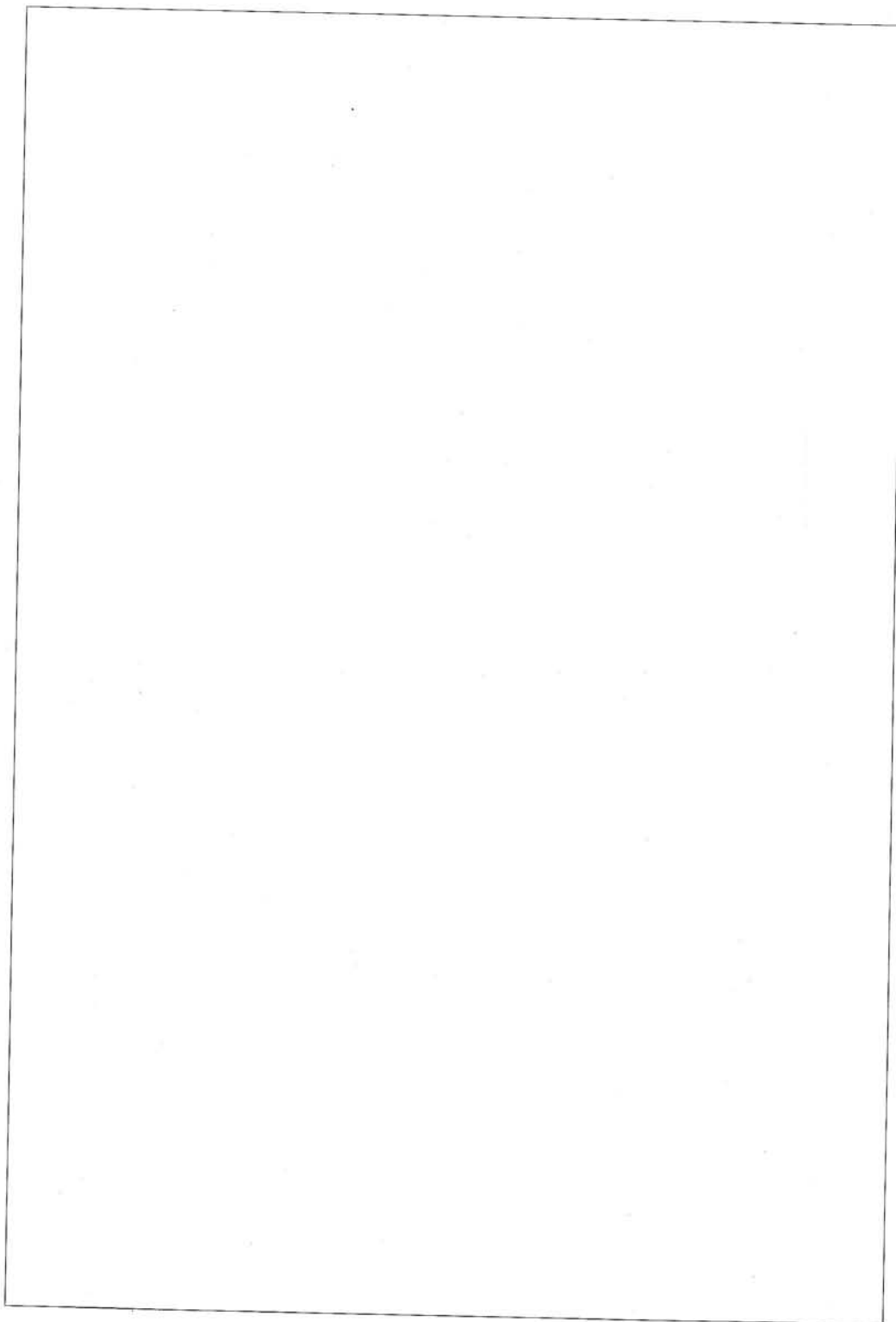
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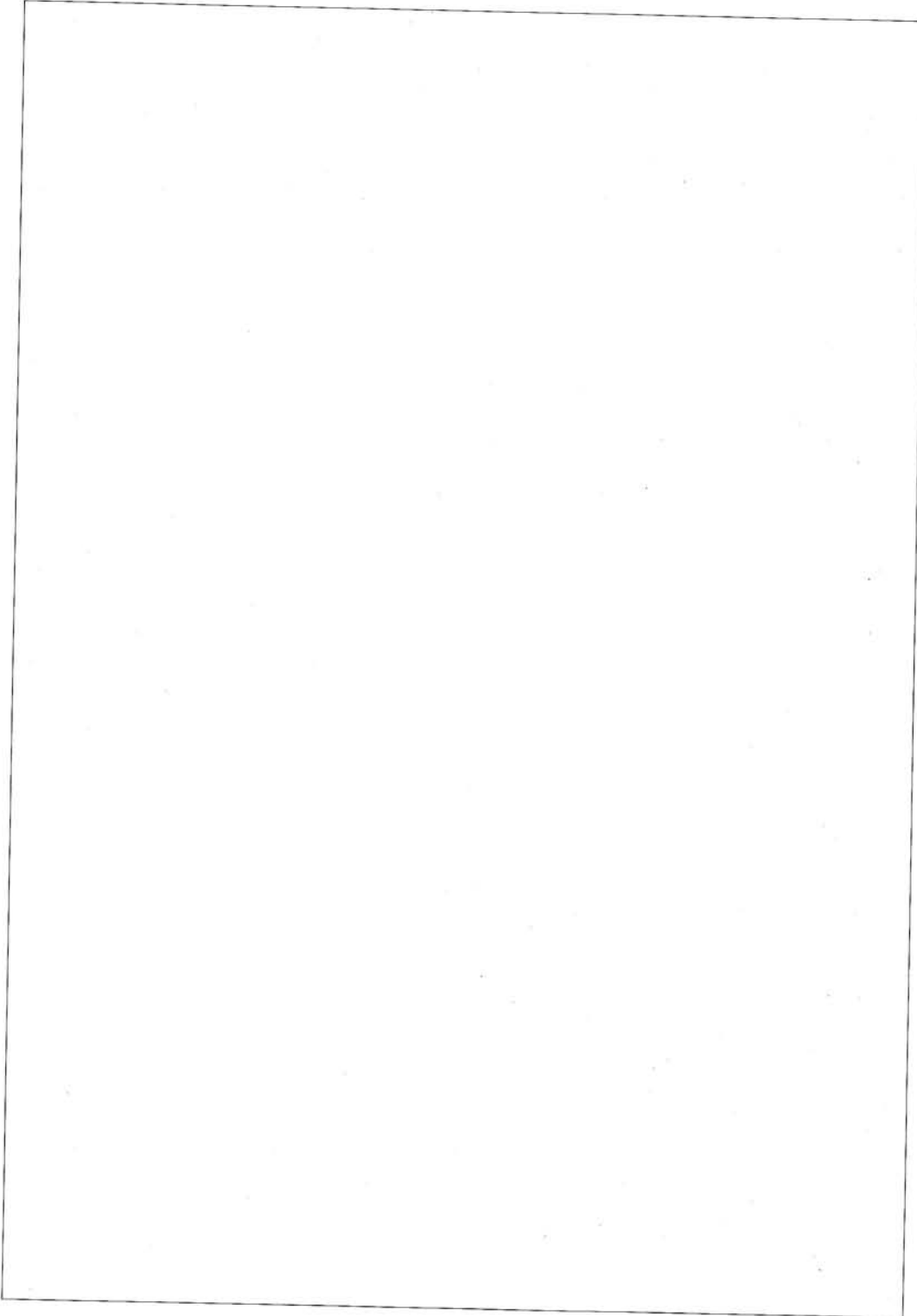
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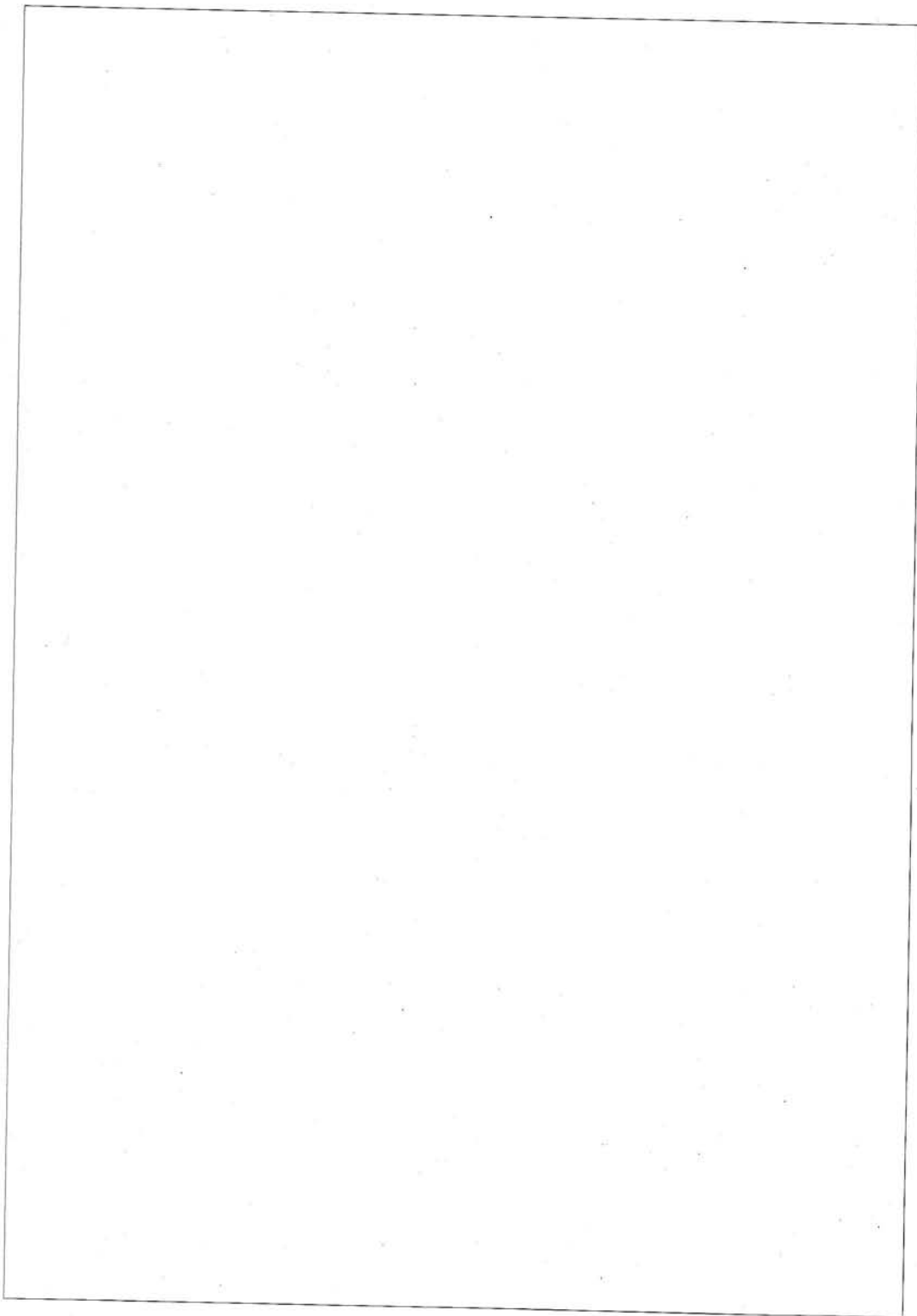
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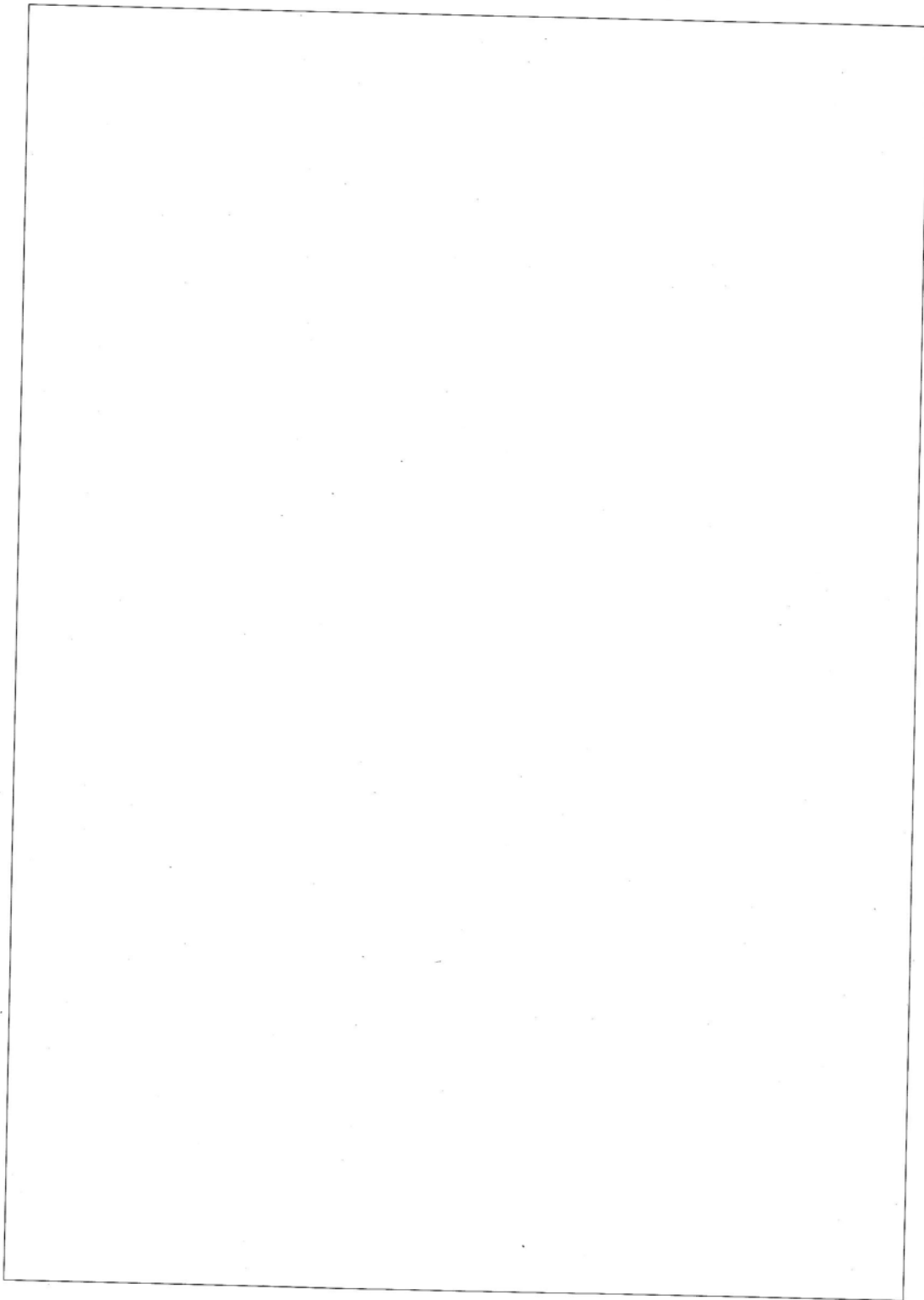
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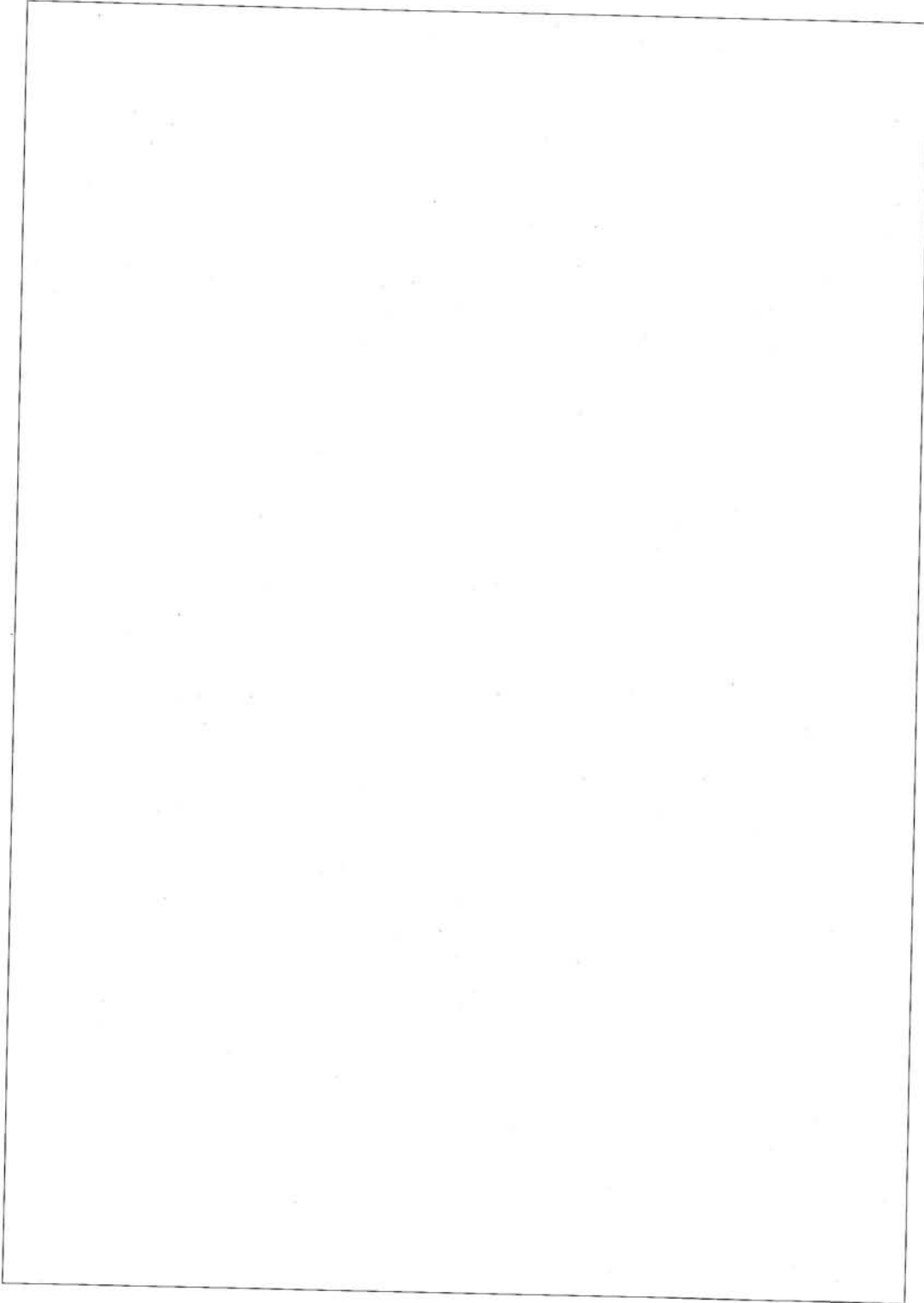
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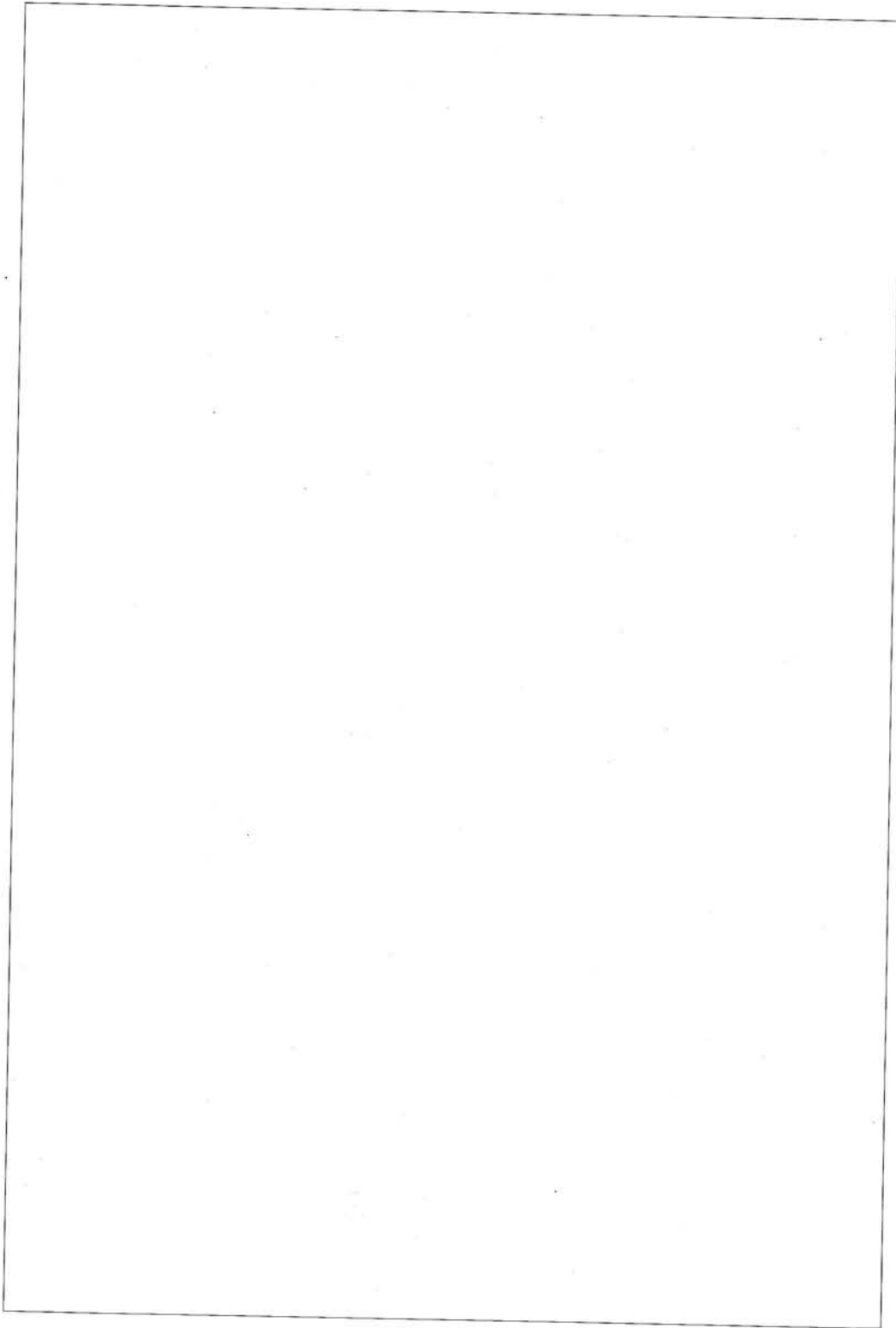
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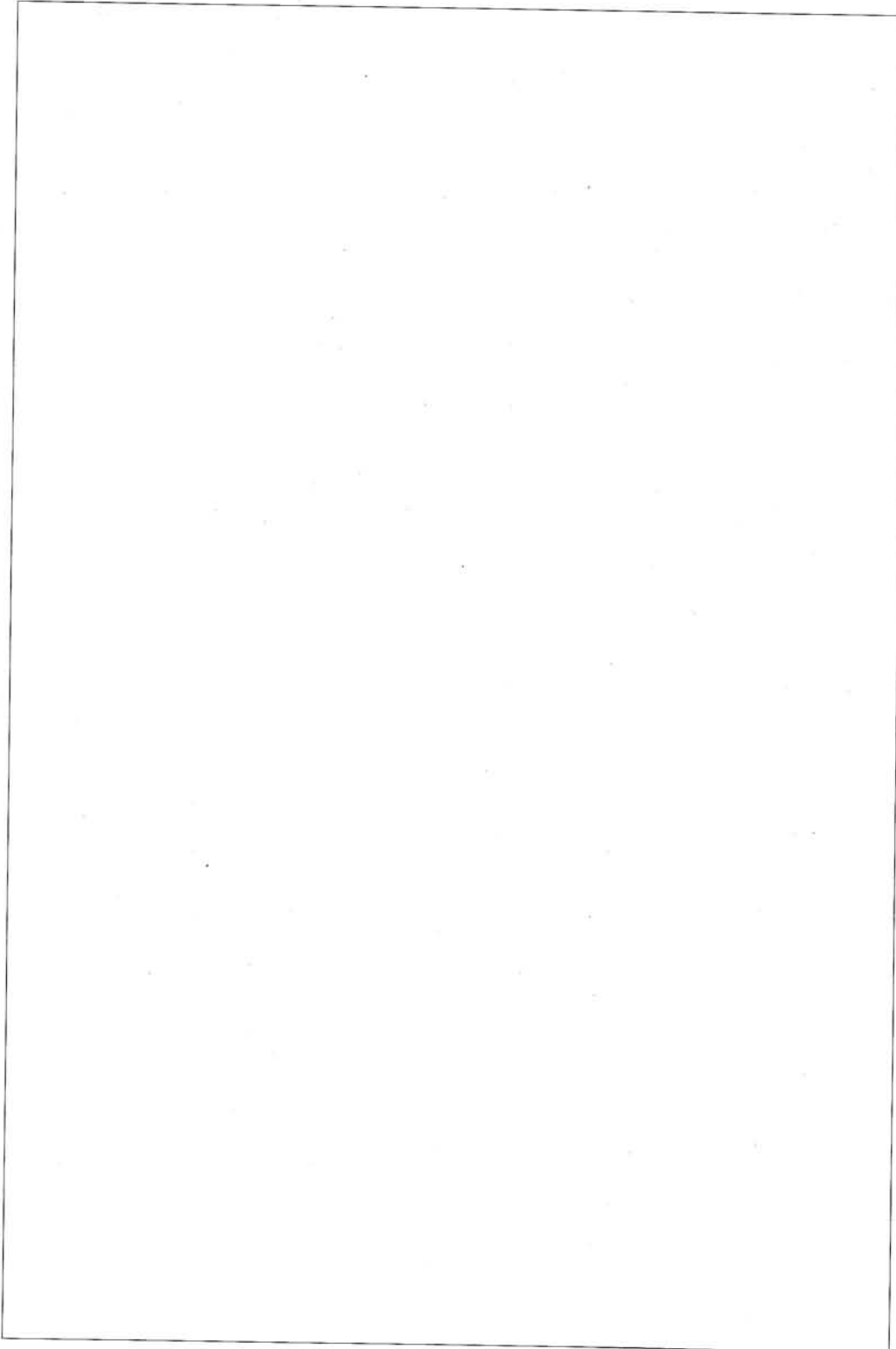
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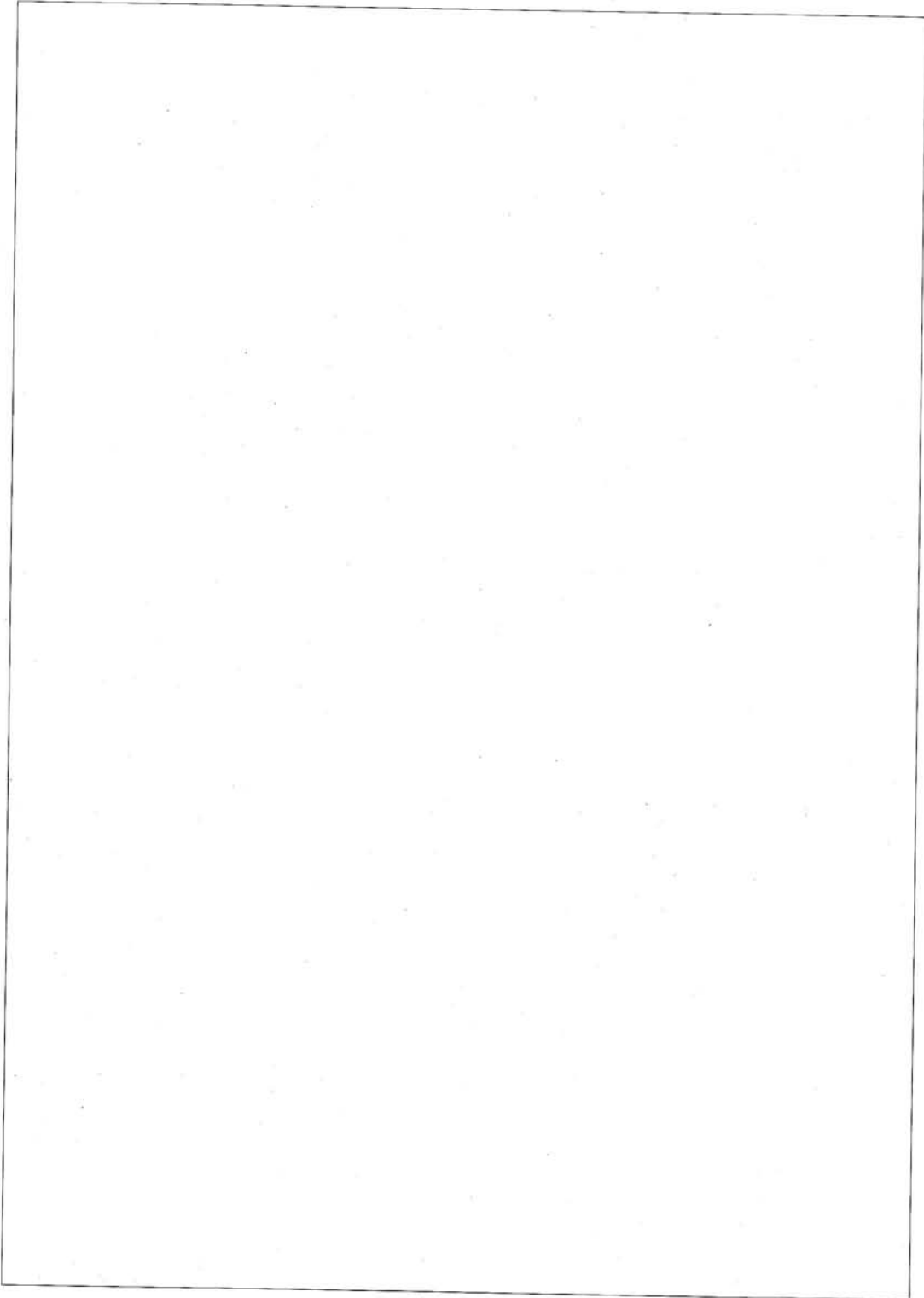
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