

# Loyalty and Security Problems of Scientists: A Summary of Current Clearance Procedures<sup>1</sup>

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A SCIENTIST who is considering a job with the federal government, or with an industrial laboratory or university which has financial support from the government, may need loyalty or security clearance from the appropriate government agency. If the work is "classified,"<sup>3</sup> he will certainly need security clearance, and if he works for the government directly on any kind of job, loyalty clearance is required. But even if he anticipates only unclassified work, either in industry or at a university, he may still need some sort of clearance.

The clearance requirements and the procedures involved are varied and not well understood by most scientists, perhaps not even by a prospective employer. Since government-supported research is rapidly becoming the rule rather than the exception, there is a growing need for scientists to familiarize themselves with a type of problem which has hitherto been in the province of the legal profession.

Among the many questions about which there is considerable confusion is the distinction between *loyalty* and *security* clearance. According to current usage of the term, loyalty clearance refers to the requirements placed upon all government employees (more than two million) by the President's order of March 21, 1947 (7). According to this order, *all* persons employed by or seeking employment from the federal government must be subjected to a loyalty investigation; no distinction is made between persons who do classified work and those who do not. On the other hand, security clearance refers to the special requirements of certain "sensitive security areas," and applies to persons who work with classified or restricted information. Factors considered in processing security cases include questions of loyalty but also

include questions of personal reliability, emotional stability, etc. Altogether, six government agencies—viz., the Atomic Energy Commission, the Departments of Army, Navy, and Air Force, the State Department, and the Central Intelligence Agency—have their own separate security clearance procedures. The last two agencies mentioned do not ordinarily employ scientists. In addition, persons working on contracts from these agencies must have security clearance if they have access to classified or restricted information. The clearance procedures of the Atomic Energy Commission apply to both commission employees and employees of AEC contractors. The three departments of the National Defense Establishment, however, have a different set of procedures for employees of their contractors.

Although these security clearance procedures apply in principle only to persons who actually have access to classified or restricted information, some industrial laboratories and even some university laboratories have considered it convenient, from an administrative point of view, to request security clearance of *all* their employees, regardless of whether or not they are doing classified work. Thus, the impact of the security program is being felt by a relatively large group of scientists.

## THE LOYALTY PROGRAM

Among the numerous government departments and agencies which administer the requirements of the President's loyalty order, the Departments of Commerce, Interior, Agriculture, Navy, and Air Force, the Federal Security Agency, and the Federal Communications Commission are of particular interest to scientists. Such bureaus as the Bureau of Standards, the Civil Aeronautics Administration, the Weather Bureau, the Bureau of Mines, the Geological Survey, the Public Health Service, the National Institutes of Health, and the Food and Drug Administration are included in the departments and agencies mentioned. The formal loyalty procedures of all these are uniform, although the administrative personnel involved naturally varies considerably.

The procedure used is this. The Federal Bureau

<sup>1</sup> This article was submitted to the government agencies involved for comments and criticism.

<sup>2</sup> Members of the committee are L. Spitzer, Jr., chairman, W. A. Higinbotham, associate chairman, A. S. Wightman, secretary, D. R. Hamilton, treasurer, D. Bohm, R. Britten, R. R. Bush, E. G. Butler, A. Einstein, L. P. Eisenhart, S. A. Goudsmit, M. S. Livingston, S. Mudd, D. Pines, O. Veblen, and I. Wolff.

<sup>3</sup> "Classified" information is that which has been adjudged "top secret," "secret," "confidential," or "restricted." (The Atomic Energy Commission uses the term "restricted" instead of "classified.")

of Investigation makes a check of all available records—FBI, Civil Service Commission, Military and Naval Intelligence, and House Committee on Un-American Activities—to see whether there is any derogatory information concerning the individual. If no such information is found, nothing further is done. Whenever any derogatory information is discovered, the FBI carries out a “full field investigation” and then turns the file over to the agency or department in the case of employees or to a Regional Loyalty Board of the Civil Service Commission in the case of applicants. Each federal department and agency has set up a loyalty board to review cases of their employees; adverse decisions made by these boards may be appealed to the department or agency head or a person designated by him. Final appeals from both employees and applicants may be made to a special Loyalty Review Board set up in the Civil Service Commission. This Loyalty Review Board has acted as the administrative head of the entire loyalty program (8).

As of September 18, 1948, 2,136,501 loyalty investigations had been completed and 4,363 “full field investigations” conducted. The results of hearings held as of September 18, 1948, are shown below (3):

<i>Hearing Board</i>	<i>Favor- able</i>	<i>Unfavor- able</i>
Agency boards (employees) ...	1122	69
Agency head (appeals by employees) .....	6	15
Regional CSC board (applicants) .....	159	17
Loyalty Review Board (final appeal) .....	2	6

In all these loyalty hearings, the employee or applicant was presented with a statement of the charges against him and was permitted to be represented by a lawyer and to present evidence through witnesses or otherwise. Strict legal rules of order, however, were not adhered to; in particular, confrontation or cross-examination of witnesses was seldom allowed. The standard for refusal of or removal from employment, according to the original executive order, is that “. . . on all the evidence, reasonable grounds exist for belief that the person involved is disloyal. . . .” Activities which were to be considered included sabotage, espionage, treason, advocacy of revolution by force, unauthorized disclosure of information, and serving the interest of another government. In addition, the doctrine of “guilt by association” was included, since “Membership in, affiliation with or sympathetic association<sup>4</sup> with . . .” organizations declared “subversive”<sup>5</sup>

by the Attorney General were possible causes for a finding of disloyalty. Organizations so designated have been given no avenue of appeal. In the case of membership in the Communist Party and certain other organizations, the Attorney General has declared that dismissal was mandatory under the Hatch Act (Public Law 252—76th Congress) (13).

#### THE ATOMIC ENERGY COMMISSION

The Atomic Energy Act of 1946 (15) requires the AEC to secure an FBI report on all persons having access to restricted data and to determine that such access will not endanger national security. On April 15, 1948, the commission announced its “Interim Procedure” for security clearance of employees (1). The FBI report is first reviewed in the appropriate AEC field office; the Manager of Directed Operations may grant or deny clearance or may refer the case to the Director of Security in Washington.

To aid the manager in reaching a decision, the commission set up a set of criteria on January 5, 1949 (9). Two categories of information were described. The first category included classes “. . . which establish a presumption of security risk,” and in such cases the local manager can deny clearance or refer the case to the Director of Security in Washington. Included in this category are sabotage, espionage, treason, sedition, association with foreign agents, membership in organizations declared subversive by the Attorney General (provided the individual did not withdraw when the organization was so identified, or otherwise establish his rejection of its subversive aims), advocacy of revolution by force, deliberate omission of “significant information” from personnel questionnaires, violation of security regulations, insanity, conviction of criminal offenses, and habitual drunkenness. The second category includes more questionable types of information; in these cases the local manager may grant or deny clearance. Included in this list are “sympathetic interest in totalitarian, fascist, communist, or other subversive political ideologies,” “sympathetic association” with communists or members of other “subversive” organizations (as defined by the Attorney General), identification with subversive “front” organizations or organizations “infiltrated” with subversive persons (when there is additional evidence that the individual’s views agree with those of the subversive “lines”), residence of relatives in certain foreign countries, “close continuing associations” with persons having “subversive interests and associations,” (as defined above), conscientious objection to war except on religious grounds, manifest carelessness, and homosexuality.

When a preliminary decision has been made to refuse security clearance, an employee is presented

<sup>4</sup> This term is not further defined (See 6, page 41).

<sup>5</sup> See 6, page 39.

with a statement of charges and is permitted a hearing before a local Personnel Security Board, which then makes a recommendation to the Manager of Directed Operations. If the decision is still unfavorable to the employee, he may appeal to the Personnel Security Review Board, which until recently was headed by ex-Supreme Court Justice Owen J. Roberts. Charles Fahy, former Solicitor General of the United States, is now head of this board.

According to the Fifth Semiannual Report of the AEC (January, 1949) (10), the Commission has taken action on more than a hundred thousand candidates for clearance, but fewer than two thousand of these involved serious questions concerning eligibility. No recent figures on the number of hearings held have been released, but as of July 15, 1948, fifteen hearings for employees were conducted by local boards (11). At that time, five were granted clearance, and one was refused clearance.

Applicants for AEC jobs or for jobs with AEC contractors have not been allowed any of these procedural safeguards, however. Except in a few cases, no statements of charges or hearings of any sort have been given. During recent months the commission has been considering extending its procedures to include applicants (10, 11), but at the date of this writing no action has been taken.

#### DEPARTMENTS OF ARMY, NAVY, AND AIR FORCE

Public Law 808, passed by the 77th Congress, gave the "power of summary dismissal" to the heads of these departments and thus established the basis for security clearance requirements (14).

Like all other government employees, civilian employees of the Army Department are required to have

a loyalty clearance in accordance with the President's order. The Army may require a more complete investigation of employees to be assigned to sensitive activities, however, and such clearance is called security clearance (5). The removal procedures of Executive Order 9835 are not followed in any case. If an employee is discharged he is given at that time a statement of reasons for the action and may appeal the decision to the Secretary of the Army's Security Review Board. As of October 1, 1948, 79 employees of the Army Department had been removed under these procedures and 16 of them had been reinstated after appeal, according to information obtained from the Office of the Secretary of the Army.

The Department of the Navy requires only loyalty clearance of *all* its employees, and the procedures used are similar to the loyalty procedures of other government agencies (12). When an employee has access to classified materials or information, however, security clearance is required, and in that case no hearings at all are provided. In accordance with the requirements of Public Law 808, passed by the 77th Congress, the employee is presented with a statement of the reasons for his dismissal and he may file a statement protesting such action if he wishes.

The Department of the Air Force has a still different set of procedures in which loyalty and security are considered together (2). A finding of disloyalty necessarily implies that the employee is a "security risk" but not vice versa, according to these procedures. In all cases, two hearings are possible: one before a Loyalty-Security Hearing Board and, in the event of an adverse decision, another before the Loyalty-Security Review Board. Further, a finding of disloyalty may be appealed to the Civil Service Com-

TABLE 1  
SUMMARY OF PROCEDURAL SAFEGUARDS

	Loyalty program		Security programs					
	E*	A†	AEC					
	E*	A†	E*	A†	Army	Navy‡	Air Force	IERB§
Statement of charges presented to accused?	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Hearing held before action taken? . . . . .	Yes	Yes	Yes	No	No	No	Yes	No
Number appeal hearings available. . . . .	2	1	1	0	1	0	1	1
Civilian boards? . . . . .	Yes	Yes	Yes	....	Yes	....	Yes	No
Counsel permitted? . . . . .	Yes	Yes	Yes	....	Yes	....	Yes	Yes
Can accused introduce evidence? . . . . .	Yes	Yes	Yes	....	Yes	....	Yes	Yes
Confrontation of witnesses permitted? . . . .	No	No	No¶	....	No	....	No	No
Transcript of hearing given to accused? . . .	Yes	Yes	Yes	....	Yes	....	Yes	No
Are hearings unclassified? . . . . .	Yes	Yes	Yes	....	Yes	....	Yes	No

\* E—Employee.

† A—Applicant.

‡ Most Navy Department cases are loyalty cases, not security cases (See Navy Civilian Personnel Guide 29).

§ Industrial Employment Review Board (Army, Navy, and Air Force contracts).

|| The Air Force regulations stipulate that a majority of the board be civilians (See Air Force Regulation No. 40-12. September 15, 1948).

¶ Confrontation has been permitted in some cases. (See AEC Fourth Semiannual Report.)

mission Loyalty Review Board. However, even if the Loyalty Review Board issues a favorable decision, the department may still consider the employee to be a security risk.

Applications for jobs in these three departments are handled by the Civil Service Commission and so loyalty clearance is required, as in the case of other government departments and agencies described before. Once employed, however, a person may require additional security clearance under the procedures just stated.

#### ARMY-NAVY-AIR FORCE CONTRACTS

The Army, with the concurrence of the Navy and Air Force, has set up security clearance procedures for employees of contractors of the Army, Navy, and Air Force (4). Designated military officials may grant clearance directly, but doubtful cases are referred to the Army-Navy-Air Force Personnel Security Board, which may direct that the employee be discharged or suspended. This board holds no hearings. Any action may be appealed by the person involved to the Industrial Employment Review Board, in the office of the Provost Marshall General. A hearing before this board is possible only in Washington,

D. C. The board consists of representatives, generally military men, from each of the three departments. No provision is made for the presentation of charges to the individual. The entire hearing is classified and no records or notes on the hearing may be kept by the individual or his lawyer. No further appeals are possible.

All of the procedures that have been described here differ from ordinary legal procedure in this country in at least four major respects (6): (1) no separation between the executive and judicial responsibilities is made in the processing of any loyalty or security cases, (2) no provision is made for a hearing board to write a specific finding of fact after a hearing, (3) confrontation and cross-examination of adverse witnesses are rarely permitted, and (4) the hearings are always closed to the public.

The procedural safeguards, the rights and privileges of individuals, are of particular interest to those scientists who may be involved in clearance problems. Thus, the chief items of the various procedures are summarized in Table 1. Such a condensation clearly cannot be used as the sole basis for judging and comparing various procedures, but may be useful as an index for further inquiry.

#### References

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13. U. S. Statutes, **53**, 1147; *U. S. Code*, **18**, 61; statement of Att. Gen., Memo. No. 10, Loyalty Review Board, June 2, 1948.
14. ———, **56**, 1053; *U. S. Code*, **5**, 652.
15. ———, **60**, 755.

## Biological Synthesis of Radioactive Silk<sup>1</sup>

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**F**IBROIN, THE PROTEIN OF SILK, has been a classical object of study in attempts to elucidate the structure of proteins because it is stable and easily isolated and its composition is con-

stant. Numerous and detailed analyses of its component amino acids (1-3) have revealed that glycine and alanine are present in exceptional concentrations, accounting, in fibroin hydrolyzates, for about three-quarters of the total number of amino acid residues and for about two-thirds of the total weight of the residues (1, 2). These unusual properties of fibroin, and the availability of C<sup>14</sup>-labeled glycine and alanine

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