

CLOSEOUT FOR M93030010

This case was brought to the attention of OIG on March 1, 1993, by Dr. [REDACTED], a program director for the [REDACTED] Section of the Division of [REDACTED] within the Directorate for [REDACTED]. The program director had received allegations of plagiarism and violation of the integrity of peer review from the complainant, Dr. [REDACTED], a faculty member at [REDACTED] University. The complainant alleged that a proposal submitted by Dr. [REDACTED], the subject and a faculty member at the [REDACTED] University in [REDACTED], to the [REDACTED] contained text, figures, and equations plagiarized from the complainant's NSF proposal [REDACTED], "[REDACTED]." The complainant alleged that the subject had obtained a copy of the complainant's proposal from NSF as part of the merit review process.

OIG's investigation report and NSF's Deputy Director's January 5, 1995, letter reflecting her decision constitute the closeout for this case.

cc: Staff Scientist, Deputy AIG-Oversight, AIG-Oversight, IG

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230



OFFICE OF THE
DEPUTY DIRECTOR

January 5, 1995

Dr. [REDACTED]
Department of [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Dear Dr. [REDACTED]

As you are aware, the Office of Inspector General (OIG) of the National Science Foundation (NSF) has conducted an investigation into an allegation that charges you with plagiarism.

I have very carefully reviewed all the materials in the case and write to inform you that I concur with the OIG conclusion that you violated the confidentiality of our peer review process by plagiarizing material from an NSF proposal you received for review. By copying verbatim language or sentences from another source without attribution or offset, and incorporating that language in one of your own proposals, you have violated the confidentiality that NSF insists upon whenever we send proposals to researchers for review.

The instructions to reviewers specifically state that reviewers should not "copy, quote or otherwise use material" from the proposal. Your behavior breached the confidentiality of our peer review process and ignored the conditions of trust inherent in our merit review process. We take this infraction very seriously.

Based on this determination, we will bar you from serving as a peer reviewer for NSF for five years from the date of this letter.

Sincerely,

Anne C. Petersen
Deputy Director

CONFIDENTIAL

NSF OIG INVESTIGATION REPORT

OIG Case Number M93030010

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REPORT OF INVESTIGATION INTO AN ALLEGATION OF MISCONDUCT IN SCIENCE AND ENGINEERING

SUMMARY

The Office of Inspector General (OIG) has determined that Dr. [REDACTED] (the subject) of the [REDACTED] University of [REDACTED] violated the integrity of the confidential peer review process by plagiarizing material from an NSF proposal he received for review. This conclusion is based on an investigation performed by OIG. OIG recommends that NSF find that the subject committed misconduct in science and take the following actions as a final disposition in this case. The subject should receive a letter of reprimand from the NSF Deputy Director. The subject should be told that NSF has made a finding of misconduct in science and that he is prohibited from serving as a reviewer of NSF proposals until April 1999.

OIG'S INQUIRY

OIG received an allegation that proposal [REDACTED] submitted by Dr. [REDACTED] (the subject) to the [REDACTED] contained text, figures, and equations plagiarized from Dr. [REDACTED] (the PI's) NSF proposal [REDACTED]. It was further alleged that the subject's proposal contained ideas plagiarized from the PI's proposal and published papers. OIG was also informed that the subject had obtained the material from the PI's proposal during his confidential peer review.

OIG compared the PI's funded NSF proposal, "[REDACTED]" with the subject's submission, "[REDACTED]" to determine if text, figures, equations, or ideas had been copied from the PI's proposal without indentation or quotation marks and without a citation to the source document.

With regard to the allegation of verbatim plagiarism OIG found nine sections of the subject's proposal that contained material copied from the PI's proposal. Seven of these sections consist of text passages of varying length which appear to be substantially similar or identical to passages found in the PI's proposal. Two other sections consist of diagrams that are found in the PI's proposal. None of these sections was offset from the proposal and none was accompanied by a citation to the source document. There were no references or acknowledgments to the PI's work or his publications in the subject's proposal.

Copies of the relevant portions of the subject's and the PI's proposals are attached as Tabs A and B, respectively. The passages in the PI's proposal that appear to be copied are sequentially numbered and a corresponding number has been placed next to the appropriate passage in the subject's proposal.

With regard to the allegation of plagiarism of ideas (intellectual theft), OIG was informed that the proposed work discussed on page 9 of the subject's proposal had been published previously in papers by the PI¹. The subject's proposal did not cite any of the PI's publications. OIG was further informed that the concepts of crosslinking and blend compatibilization presented in the PI's proposal have not been published; however they appeared in the subject's proposal without any acknowledgment or a statement of permission from the PI. OIG confirmed that the ideas presented in the PI's papers and the PI's proposal did appear in the subject's proposal. OIG noted that the two proposals address the synthesis of a particular class of molecules in a narrow field where intellectual overlap between two experienced PIs could be expected. Under these circumstances it was unclear if these ideas were directly derived from the PI's materials.

With regard to the allegation of violating the integrity of peer review, OIG reviewed the instructions on the Proposal Evaluation Form that NSF reviewers receive. The form states that "NSF receives proposals in confidence and is responsible for protecting the confidentiality of their contents." Reviewers are asked "not to copy, quote, or otherwise use material" from a proposal they receive for peer review.

OIG found that NSF had sent the subject a copy of the PI's NSF proposal with a request for peer review in May 1990. The subject has served as a reviewer for NSF twice, once for proposal [REDACTED], and once prior to that for an earlier submission by the same PI.

In June 1990 NSF received a letter (Tab C) from the subject stating that he

did not have time to review the research proposal. I read briefly the summary of the results achieved upon the previous award in the field of rotaxanes and it seems to me that very good progress was made in this field which requires very hard work and synthetic skills.

Based on the above information, OIG concluded that there was sufficient substance to the three allegations to contact the subject for information.

The Subject's Response and OIG's Analysis

In October 1993, OIG contacted the subject and requested his views on the allegations of plagiarism (copying words and ideas without attribution) and the allegation of violating the integrity of peer review. OIG's letter and the subject's response are attached as Tabs D and E, respectively.

¹ These papers include: [REDACTED]

1) Plagiarism - Intellectual Theft

OIG's letter to the subject contained copies of the relevant portion of the PI's NSF proposal and the five papers that allegedly contained ideas presented in the subject's proposal without attribution to the PI. The subject's comments on the PI's proposal and each of the five papers are summarized below. None of the PI's papers cites NSF support; however, OIG was interested in the subject's response with regard to the papers because it would speak to a possible pattern of intellectual theft.

The subject devoted much of his response to an explanation of the intellectual differences between his proposal and the PI's. He presented a rather vigorous defense that the techniques and rationale forming the foundation of two proposals are quite different. The subject's research is focussed on the crosslinking of polymers and the PI's, as expressed in his proposal, on the formation of non-crosslinked groups and their solubility properties.

OIG noted that the PI's proposal was submitted two years before the first papers from his group discussed crosslinking of these molecules. The emphasis in the subject's proposal on crosslinking and its presence in the PI's papers show that these documents were contemporaries of each other and reflected the evolution of this research field after the submission of the PI's proposal. It is possible that the subject developed his ideas for crosslinking these molecules from the PI's proposal, but a direct connection is not apparent.

The subject stated that the "threading in the synthesis of [REDACTED]" has been a topic for research groups for the last 20 years and cited his own publications from 1976. OIG reviewed the two papers submitted by the subject and found that they were within the same narrow field of study as the PI's. The subject also submitted a single-page document hand-dated 1989 that listed research themes suggested by him to graduate students. Among the themes was the "crosslinking of polymers by [REDACTED]"

The subject stated that following the preparation of the [REDACTED] he intended to convert the molecule into a bifunctional monomer and the method and derivatives for that conversion were not mentioned in the complainant's proposal or papers. It does not necessarily follow that because portions of the subject's conversion scheme are original to him that the remainder was not stolen from the PI.

OIG reviewed the five papers by the PI which described the synthesis of a particular [REDACTED] and the use of that [REDACTED] and its derivatives in the formation of larger complexes. The subject stated that these papers described research in the same general area as that described in his proposal but did not describe his research project. OIG determined that the five papers described research related to the subject's but that the subject's project was different and relied on different methods.

OIG determined that the subject and PI are competitors in the same field of research. A clear link between the PI's proposal or the PI's published papers and the ideas presented in

the subject's proposal could not be established. Allegations of intellectual theft against individuals who have prior research experience in closely related research fields are extremely hard to resolve. It is difficult to develop sufficient evidence to prove one way or another whether the subject developed a particular line of reasoning strictly from the alleged source and not the subject's own resources or from topical information exchanges that lead to similar, but independent, research insights. By describing the similarity between the PI's and his research interests, and establishing his prior research interest and publications in this area, the subject has provided a reasonable explanation for the intellectual similarity between the two proposals.

The subject presented a plausible argument for his independent generation of the ideas. OIG concluded that there was insufficient evidence to pursue the allegation of intellectual theft further.

2) Plagiarism - Copying Without Offset and Attribution

After comparing the subject's and the PI's proposals OIG found 9 passages that contained substantially similar and identical text, figures, and equations. Below is a description of each section (D) followed by the subject's explanation (E) and a conclusion (C). The subject excused the copying by stating "these [passages] deal with introductory general information concerning [REDACTED] formation, which have appeared in many publications and even in books from a long time ago [an example is provided]. **Our research proposal can stand solid on its feet without mentioning any of these passages**" (emphasis in original). When responding to the allegation of copying without offset or attribution the subject did not distinguish between verbatim plagiarism and intellectual theft.

The first six copied passages appear in the "Project Summary" section of the PI's proposal and in "Scientific Background" section of the subject's proposal:

Passage 1

- D** Passage 1 contain fragments of two sentences that explain the equations presented in passage 2.
- E** The subject stated that "the passage marked by you as 1 is an explanation of the terms of the equation."
- C** The subject did not provide an explanation for the identical language in the two proposals.

Passage 2

- D This passage contains a reaction schematic and two energy equations.
- E The subject stated "the diagram and equations . . . appear in the following reference:
[REDACTED]."
- C The subject's proposal does not provide a reference to this article. By stating that material in his proposal came from an article that he elected not to cite, the subject confirmed that he consciously failed to provide a citation to the source of material in his proposal, thereby acknowledging that he had plagiarized from a source proposal.

Passage 3

- D This passage contains about 4 fragmented sentences. It discusses and references separate work by the subject's group and three other research groups.
- E This passage in the subject's proposal contains the same references to the three research groups cited in the PI's proposal. With regard to the work from his laboratory, he stated "the information appears in our own work, ref. 6 [a paper co-authored by the subject], in the proposal and it contains also results cited from our own work mentioned in ref. 6"
- C OIG reviewed the reference and could not find this exact passage in that publication. The subject addressed only the intellectual content of the passage describing work in his lab. The subject did not provide an explanation for the identical language describing work from his and others' laboratories in the two proposals.

Passage 4

- D This passage is the schematic of a reaction. The work related to the schematic, but not the schematic, is attributed to another researcher in the PI's proposal.
- E The subject stated that "the diagram . . . belonging to the work of [another researcher] and co-workers concerning template synthesis, appears, in essence, in the references cited as no. 9 in my proposal"
- C Reference number 9 is a list of 3 citations; none were written by the subject. There is evidence that the subject took this schematic from the PI's proposal, because spurious marks on the figure found in the PI's proposal (produced as an artifact of the PI's reproduction of the figure for his proposal) also appear in the figure in the subject's proposal (circled and noted as "M" in the copies presented in Tabs A and B). The subject did not provide a copy of the material from another source document or the exact

reference for the figure in his proposal or his response to show that the material had come from a source other than the PI's proposal.

Passage 5

- D This passage is a single sentence immediately following the figure in passage 4.
- E The subject stated that this passage is "a continuation of the explanation given in Passage 1."
- C Indeed, in the subject's proposal, passage 5 has been repositioned to follow passage 1, which is immediately preceded by the figure in passage 2. The subject has rearranged these short passages (1 and 5) to suit better the flow of his proposal. The subject provided no explanation for the identical text in the two proposals.

Passage 6

- D This passage is 6 sentences long; five of these sentences discuss work from the subject's laboratory described in reference 6. The remaining sentence is referenced to two published papers by another group.
- E The subject stated that this passage "is [a] reference to our own work." The passage in the subject's proposal contains citations to the work from his lab and another for the work from one of the other laboratories cited in the PI's proposal.
- C OIG reviewed the reference and could not find this exact passage in it. Again, the subject's response only addressed the intellectual content of the passage which described the work in his lab. However, he did not explain how identical language describing work from the subject's and other's laboratories appeared in both proposals thereby failing to address the allegation of verbatim plagiarism.

Passages 7-9 appear in the "Project Description" in the PI's proposal; passage 7 under the subheading "Rationale" and passages 8 and 9 under "Approaches." In the subject's proposal passages 8 and 9 appear in "Scientific Background" and passage 7 in "Objectives and Expected Significance of the Research."

Passage 7

- D This passage contains fragments of two sentences that describe the mechanical properties of rotaxanes.
- E The subject stated that this passage "mentions general[ly] known information."

- C The substance of these sentences may well be generally known. However, the language in the two proposals is identical and this identity was not explained by the subject.

Passage 8

- D This passage contains four short sentences that describe the advantages of one of the two experimental approaches being suggested by the PI.
- E The subject stated that this passage "is general knowledge that is known for close to thirty years." It appears in the introductory section of his proposal.
- C While these sentences in isolation may discuss a well-known principle, the PI applied that principle to his research aims, making it specific to his proposal. The identical wording in both proposals was not explained. The passage is far too long to be attributed to a common technical description constrained by limited means of expression.

Passage 9

- D This is a 3-sentence passage introducing the second of the two experimental approaches suggested by the PI, and describing its advantages.
- E The subject stated that "the ideas in passage marked 9 are mentioned in these references [the three references to the work by another researcher]."
- C The subject failed to explain the reason for the identical language in the two proposals. The passage is far too long to be a technical description constrained by limited means of expression.

For none of the 9 passages did the subject provide an adequate explanation, literature references, or copies of source documents other than the PI's for the identical text, figures, and formulae in the two proposals.

Frequently when individuals respond to inquiries into allegations of plagiarism they state that their copying did not constitute plagiarism either because the copied text did not contain new ideas or because it expressed commonly held ideas that could not be improved by rewording. Each of these individuals has failed to understand that plagiarism involves using *either* the words *or* the ideas of another person without attribution. Any text copied from another author, even if it describes the individual's own research and irrespective of its intellectual content, should be marked off by quotation marks or indentation. A citation to the original work must accompany the text, and must be included in the reference list. With regard to copying without attribution, neither the lack of originality of the ideas in the copied material nor the difficulty of expressing the matter better than the original author did is an acceptable defense. The issue is the copying of another's text, no matter how mundane or well-stated, without indicating that the text was copied or without acknowledging the source.

After reviewing the subject's response, OIG determined that the subject had not adequately addressed the substantial similarity or identical nature of the 9 passages found in the two proposals. He did not provide copies of any other source documents to support his assertion that the copied material was commonly used. In fact, in the case of passage 2 he clearly stated that he was aware that the source document was a publication by another individual and that he had not included a citation to the document in the proposal's reference list. His proposal appears to contain verbatim transcriptions of 9 passages from the PI's proposal. OIG concluded that there was sufficient substance to investigate the allegation of plagiarism.

3) Violating the Integrity of the Confidential Peer Review Process

The subject acknowledged that NSF forwarded the PI's proposal [REDACTED] to him for peer review. He has not provided an adequate explanation for the verbatim transcription of material from the PI's proposal into his own submission to the [REDACTED] Science Foundation. Although requested to do so, the subject did not provide OIG with copies of materials from other documents to show that the copied passages contained commonly used language. By concluding that there was reasonable substance to the allegation that the subject had copied the 9 passages from the PI's proposal which he had received for confidential peer review, OIG also concluded that there was sufficient substance to the allegation that he violated the integrity of the peer review process to conduct an investigation.

OIG'S INVESTIGATION

OIG sent the subject a letter which discussed the exact support needed to disprove the allegations of plagiarism (copying without offset and attribution) and violation of the integrity of confidential peer review. OIG specifically asked the subject to provide copies of the appropriate source documents (see Tab F). The subject's response is attached as Tab G.

In the subject's response he failed to acknowledge that when copying another's text, that text must be offset and a citation provided. He said he considered his proposal a "secret document . . . to come to the attention of a few experts in the field. As such I did not feel it was necessary to give exhaustive references to all what is known, or give reference to every passage since it is not a publication." Therefore he provided "general informative references of [another researcher's] work" but "not on the exact page where" the passage and figure are printed (passages 4 and 9 discussed above). For similar reasons the subject indicated that he did not provide a citation to a 1991 [REDACTED] article (passage 2 discussed above).

With regard to passages 3 and 6, he again attempted to minimize the significance of the passages by insisting they discussed only the work of his laboratory, which they did not. The subject erred by describing the extent of the copying as a "simple passage" and "a sentence." In fact passage 3 consists of 11 lines (3 sentences) and passage 6 consists of 14 lines (5 lengthy sentences). Because the subject's first letter to OIG had stated that the copied text was general knowledge, OIG requested copies of his or others' documents that contained this exact wording.

The subject stated, "I do not have such a written documents, but I could have used such a sentence in describing our work years ago . . . in the many discussions that we had."

The subject reiterates his defense for passages 7 (5 lines) and 8 (5 lines) stating that they are "general[ly] known information and general knowledge, they are so, and no unique descriptive phrases [that] were invented by another were used in my proposal." OIG had requested a reference to and copies of pages from documents other than the PI's proposal to demonstrate the common usage of this material. Without evidence to the contrary OIG has concluded that these phrases are unique to the PI's proposal and the subject copied them verbatim from that document.

The subject failed to address the text in passages 1 (2 lines) and 5 (2 lines) which appear to have been copied from the PI's proposal. Again, without evidence to the contrary, OIG has concluded that these phrases are unique to the PI's proposal and that the subject plagiarized them verbatim from that document.

The subject concluded

From your letter it appears that even using such a simple sentence describing our own work is not allowed if it has been used in a Proposal sent to us for review. Since the Proposal is considered as a secret document and I am not supposed to quote it, then it means I cannot use anymore such a simple sentence to describe my own work. I am not sure that every Reviewer is aware of this fact. If I knew that I am not allowed to quote my own work using such a simple sentence, then I would not have taken on myself to review a Research Proposal. I understood that a Reviewer of a Proposal should keep strictly secret the scientific ideas presented in the Proposal, not make use of it himself, or transfer to others, and to this I have adhered.

By reviewing another investigator's proposal that contains a description of the subject's work, the subject is not barred from future descriptions of his own work; he is, however, restricted from copying and using as his own even "simple sentences" describing his work written by another investigator in a confidential document. This restriction is not limited, as the subject seems to think, to just "the scientific ideas presented in the Proposal."

The NSF Review Form clearly states

The Foundation receives proposals in confidence and is responsible for protecting the confidentiality of their contents . . . For this reason, please do not copy, quote, or otherwise use material from this proposal.

Both the PI's and subject's proposals are considered confidential documents. A reviewer must observe the restrictions against the personal use of material in a reviewed document while an

author, with respect to nonconfidential materials, must accurately indicate copied material and its source. On the basis of the evidence reviewed OIG determined that the subject violated the confidentiality of peer review by plagiarizing material from an NSF proposal received for review into his own proposal.

The subject closed his letter with the comment

I want to stress again that the basic scientific idea in my research proposal . . . [and] the plan of research was prepared without any connection with [the PI's] proposal of 1990 or his publications . . . the research project was suggested to students before I have ever seen [the PI's] proposal of 1990.

OIG determined that the ideas in the subject's proposal may have been original to him; however the subject's proposal was prepared with the benefit of the PI's proposal because it contained a substantial quantity of text and several figures copied from it.

Prior to forwarding the draft investigation report to the subject OIG learned that he was now on sabbatical in the U.S. collaborating with a researcher at a U.S. university. Although that researcher does not have NSF support, the subject's sabbatical in the U.S. raises the possibility that he may be used as a reviewer by NSF, or through his contacts at the researcher's institution he may gain access to confidential documents such as NSF proposals sent to researchers for peer review.

Subject's Response to the Draft Investigation Report

On April 21, 1994, OIG forwarded the draft investigation report to the subject for comment. On May 9, 1994, OIG received a response from the subject (see Tab H). The subject indicated that he felt the report "leaves some doubt as to the originality of my research proposal" and requested that the report specifically state (1) that the PI's proposal did not address the crosslinking of polymers and (2) that the subject had "submitted a document from . . . 1989 (before the NSF proposal was submitted to [him] for review) asserting that the subject of the crosslinking . . . was suggested by [him] to graduate students as a theme for research work" Since OIG's investigation could not determine to what extent, if any, the development of the ideas presented in the subject's proposal was influenced by his review of, and subsequent copying of material from, the PI's proposal, OIG believes the draft report adequately addressed the subject's claims to originality in his proposed crosslinking work. Nonetheless, the final investigation report now includes mention of the single-page document OIG received from the subject.

The subject said he felt the verbatim plagiarism of the nine passages was "overstressed" in the draft investigation report because "they can be omitted altogether without affecting the research proposal or the research plan." OIG disagrees; the subject violated NSF's confidential

peer review process by plagiarizing material from an NSF proposal received for peer review into his own. Confidential peer review is a hallmark of the NSF system and the proposal received by the subject was accompanied by explicit instructions to him not to use the material. Nor does OIG accept the subject's insistence that the passages were not important. The material consisted of a substantial quantity of text, as well as equations and figures. The subject must have included them because, at that time, he felt they contributed to his proposal. PIs rarely take the time or effort to include completely extraneous material in their proposals.

OIG's Conclusion Regarding Misconduct in Science

For NSF to make a finding of misconduct, a preponderance of the evidence must show that the subject committed the acts (violation of confidential peer review and plagiarism) with a culpable state of mind (such as willful, knowing, or grossly negligent) (45 C.F.R. § 689.2(d)). Despite OIG's repeated requests, the subject provided no evidence to demonstrate that the copied material appeared in documents other than the PI's proposal. OIG determined that a preponderance of the evidence available to it showed that the subject had violated the confidential peer review process when he copied 9 passages of material from the PI's proposal without attribution or offset.

In evaluating the subject's state of mind, we consider all the relevant circumstances. In this case, the subject rearranged the copied material to suit the flow of his proposal, indicating that the subject knew the presentation order of the copied material in the confidential source document was not appropriate for his use and he therefore manipulated it to suit his purposes. The subject could not have worked so extensively with this material without being aware that he was not the original author. The subject admitted that he knowingly omitted appropriate source citations from this proposal. In our view, these facts establish, by a preponderance of the evidence, that the subject knowingly violating the integrity of the peer review process and copied the text from the proposal sent to him for confidential peer review into his own proposal submission.

Therefore OIG concluded that a preponderance of the evidence supports the findings that the subject knowingly violated the confidentiality of peer review and plagiarized material from a confidential source document. OIG concluded that the subject committed misconduct in science.

OIG'S RECOMMENDED DISPOSITION

Under § 689.2(b) of NSF's misconduct in science and engineering regulation, "[i]n deciding what actions are appropriate when misconduct is found, NSF officials should consider: (1) How serious the misconduct was; (2) Whether it was deliberate or merely careless; (3) Whether it was an isolated event or part of a pattern; (4) Whether it is relevant only to certain funding requests or awards involving an institution or individual found guilty of misconduct." In this case the copying was found not only in the background section of the proposal but as

support for the proposed work. We believe the evidence supports a finding that the subject knowingly violated the integrity of the peer review process when he plagiarized and manipulated material from a proposal he had received for review into his own. Our review uncovered evidence that the subject knowingly omitted citations to source documents from this proposal. Therefore, we recommend two actions by NSF in response to the misconduct in science by the subject: the subject should be sent a letter of reprimand, which is a Group I action (see § 689.2(a)(1)(i)) and he should be barred from serving as a peer reviewer for NSF for the next five years, which is a Group III action (see 689.2(a)(3)(iii)). No additional action is recommended to protect NSF from additional plagiarism because the subject resides and works in a foreign country and does not submit proposals to the Foundation.

CONCLUSION AND RECOMMENDATION

It is considered plagiarism to use the words (copying without offset or attribution) or ideas (intellectual theft) of another person without permission and attribution. In deciding whether plagiarism (copying without attribution or offset) occurred, neither an individual's intimate knowledge of the field nor his/her difficulty in stating the same concept in his/her own words is a consideration.

The subject in this case is a senior researcher who resides and works in a foreign country. Although he has never held an NSF award, the subject has served as a peer reviewer for NSF on two occasions. Both proposals reviewed by the subject had been submitted by the PI. However, the subject's current sabbatical location and professional affiliation increase the possibility that he may be used as a reviewer by NSF or may otherwise gain access to confidential documents such as NSF proposals. OIG investigated the allegations of plagiarism and violation of confidential peer review and determined that there was sufficient evidence to conclude that the subject plagiarized 9 passages from the PI's proposal which the subject had received from NSF along with a request for confidential peer review. The passages were of different lengths and comprised variously text, figures, and equations. The subject's proposal did not contain a citation or reference to the PI's work, nor did it state that prior permission for the use of any confidential material had been granted by the PI. The subject said that he had consciously omitted necessary source document citations from his proposal.

The material in proposals received for peer review is considered confidential and not to be copied. The subject not only copied from such a document but also failed to explain adequately the absence of offset and attribution for material he copy from it. He stated that he viewed a proposal "as a secret document" and it is not therefore, in his view, held to the same rigorous standard for attribution as are publications. OIG disagrees with this notion that the contents of proposals are held to a less rigorous standard for crediting the work of others than are other, more publicly disseminated, written efforts.

OIG determined that the subject disregarded the instructions on the NSF Proposal Evaluation form which state the reviewer should not "copy, quote or otherwise use material from

this proposal." Any breach in the integrity of the peer review system is serious because it weakens the trust submitting PIs have that when reviewers, whose research interests may be similar to the PIs', evaluate their confidential proposals the reviewers will also not use that confidential material for their own advantage. PIs whose trust in the integrity of this system is weakened may cease to put their best, most creative, ideas in proposals. Such proposals submitted to NSF may describe less creative, less cutting-edge science and the scientist who is withholding his or her best ideas may use part of the NSF support to perform this, undescribed, but more creative, innovative research. Such breaches in trust undermine the system NSF relies on to evaluate proposals. As stated in the Proposal and Award Manual (Manual 10) and repeated in the NSF Proposal Evaluation form, "The Foundation receives proposals in confidence and is responsible for protecting the confidentiality of their contents."

In summary, the subject failed to observe his obligation to hold a proposal received for review in confidence. He failed to observe the practices of offset and attribution for copied material in his proposal and he attempted to portray the extent of copying as minimal. OIG believes the subject knowingly failed to adhere to these accepted practices. Although OIG repeatedly requested evidence to show that the material had not been copied from the PI's proposal, none was provided. Therefore these findings are supported by a preponderance of the available evidence.

In conclusion, OIG recommends that the Deputy Director of NSF find that the subject has committed misconduct, specifically plagiarism and violation of the integrity of confidential peer review, under NSF's definition of misconduct in science and engineering. Given the circumstances of this case, OIG feels that the government's interest will be adequately protected if the following actions are taken:

- (1) NSF should send a letter of reprimand to the subject stating NSF's position that the proposals received for peer review are confidential documents and the materials in them are not to be used in the reviewer's subsequent work.
- (2) NSF should bar the subject from serving as a peer reviewer for NSF for a period of five years from the date of NSF's action.