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U.S. Department of Justice
Immigration and Naturalization Service

Handwritten notes:
Petitioner's case subject to
current hearing instructions
re: 1153(b)(2)

OFFICE OF ADMINISTRATIVE APPEALS
425 Eye Street N.W.
ULLB, 3rd Floor
Washington, D.C. 20536

[Redacted]

File: [Redacted] Office: Nebraska Service Center

Date:

02 JUN 2002

IN RE: Petitioner: [Redacted]
Beneficiary: [Redacted]

Petition: Immigrant Petition for Alien Worker as a Member of the Professions Holding an Advanced Degree or an Alien of Exceptional Ability Pursuant to Section 203(b)(2) of the Immigration and Nationality Act, 8 U.S.C. 1153(b)(2)

IN BEHALF OF PETITIONER:

[Redacted]

Public Copy

INSTRUCTIONS:

This is the decision in your case. All documents have been returned to the office that originally decided your case. Any further inquiry must be made to that office.

If you believe the law was inappropriately applied or the analysis used in reaching the decision was inconsistent with the information provided or with precedent decisions, you may file a motion to reconsider. Such a motion must state the reasons for reconsideration and be supported by any pertinent precedent decisions. Any motion to reconsider must be filed within 30 days of the decision that the motion seeks to reconsider, as required under 8 C.F.R. 103.5(a)(1)(i).

If you have new or additional information that you wish to have considered, you may file a motion to reopen. Such a motion must state the new facts to be proved at the reopened proceeding and be supported by affidavits or other documentary evidence. Any motion to reopen must be filed within 30 days of the decision that the motion seeks to reopen, except that failure to file before this period expires may be excused in the discretion of the Service where it is demonstrated that the delay was reasonable and beyond the control of the applicant or petitioner. Id.

Any motion must be filed with the office that originally decided your case along with a fee of \$110 as required under 8 C.F.R. 103.7.

FOR THE ASSOCIATE COMMISSIONER,
EXAMINATIONS

Robert P. Wieman
Robert P. Wieman, Director
Administrative Appeals Office

DISCUSSION: The employment-based immigrant visa petition was denied by the Director, Nebraska Service Center, and is now before the Associate Commissioner for Examinations on appeal. The appeal will be dismissed.

The petitioner seeks classification pursuant to section 203(b)(2) of the Immigration and Nationality Act (the Act), 8 U.S.C. 1153(b)(2), as a member of the professions holding an advanced degree. The petitioner seeks employment as a chemical engineer. At the time of filing, the petitioner was a doctoral student and research scientist at the University of Washington. The petitioner asserts that an exemption from the requirement of a job offer, and thus of a labor certification, is in the national interest of the United States. The director found that the petitioner qualifies for classification as a member of the professions holding an advanced degree, but that the petitioner has not established that an exemption from the requirement of a job offer would be in the national interest of the United States.

Section 203(b) of the Act states in pertinent part that:

(2) Aliens Who Are Members of the Professions Holding Advanced Degrees or Aliens of Exceptional Ability. --

(A) In General. -- Visas shall be made available . . . to qualified immigrants who are members of the professions holding advanced degrees or their equivalent or who because of their exceptional ability in the sciences, arts, or business, will substantially benefit prospectively the national economy, cultural or educational interests, or welfare of the United States, and whose services in the sciences, arts, professions, or business are sought by an employer in the United States.

(B) Waiver of Job Offer. -- The Attorney General may, when he deems it to be in the national interest, waive the requirement of subparagraph (A) that an alien's services in the sciences, arts, professions, or business be sought by an employer in the United States.

At the time of filing, the petitioner held an M.S. degree in Chemical Engineering from Stanford University. His subsequent Ph.D. degree cannot count toward the degree requirement because he did not hold that degree as of the petition's filing date. The petitioner's occupation falls within the pertinent regulatory definition of a profession. The petitioner thus qualifies as a member of the professions holding an advanced degree. The sole issue in contention is whether the petitioner has established that a waiver of the job offer requirement, and thus a labor certification, is in the national interest.

Neither the statute nor Service regulations define the term "national interest." Additionally, Congress did not provide a specific definition of "in the national interest." The Committee on the Judiciary merely noted in its report to the Senate that the committee had "focused on national interest by increasing the number and proportion of visas for immigrants who would benefit the United States economically and otherwise. . . ." S. Rep. No. 55, 101st Cong., 1st Sess., 11 (1989).

Supplementary information to Service regulations implementing the Immigration Act of 1990 (IMMACT), published at 56 Fed. Reg. 60897, 60900 (November 29, 1991), states:

The Service believes it appropriate to leave the application of this test as flexible as possible, although clearly an alien seeking to meet the [national interest] standard must make a showing significantly above that necessary to prove the "prospective national benefit" [required of aliens seeking to qualify as "exceptional."] The burden will rest with the alien to establish that exemption from, or waiver of, the job offer will be in the national interest. Each case is to be judged on its own merits.

Matter of New York State Dept. of Transportation, I.D. 3363 (Acting Assoc. Comm. for Programs, August 7, 1998), has set forth several factors which must be considered when evaluating a request for a national interest waiver. First, it must be shown that the alien seeks employment in an area of substantial intrinsic merit. Next, it must be shown that the proposed benefit will be national in scope. Finally, the petitioner seeking the waiver must establish that the alien will serve the national interest to a substantially greater degree than would an available U.S. worker having the same minimum qualifications.

It must be noted that, while the national interest waiver hinges on prospective national benefit, it clearly must be established that the alien's past record justifies projections of future benefit to the national interest. The petitioner's subjective assurance that the alien will, in the future, serve the national interest cannot suffice to establish prospective national benefit. The inclusion of the term "prospective" is used here to require future contributions by the alien, rather than to facilitate the entry of an alien with no demonstrable prior achievements, and whose benefit to the national interest would thus be entirely speculative.

Counsel describes the petitioner's work:

[The petitioner] is presently examining electrochemical phenomena related to batteries, fuel cells, and ultracapacitors, all of which are of crucial importance to the United States Navy and the national economy. Specifically, [the petitioner] is examining the role of surface electric fields at platinum/ruthenium catalyst surfaces for development of hydrogen and methanol powered fuel cells. . . . [The petitioner] is a major contributor to the only group in the world studying the influence of electric field on surface reactions.

Counsel asserts that the petitioner "has gained much recognition for his work on fuel cell technology," and indeed is "[r]ecognized as one of the leading researchers in his field." Counsel contends that a national interest waiver is in order because "research labs must draw the most highly qualified, not minimally qualified, individual for a specific research position." Counsel appears to argue that researchers, as a class, ought to be exempt from the job offer/labor certification requirement, despite the plain wording of the statute which indicates that aliens of exceptional ability in the sciences are generally subject to the job offer requirement. We note that the very best researchers are exempt from labor certification if they qualify as aliens of

extraordinary ability or outstanding researchers under sections 203(b)(1)(A) and 203(b)(1)(B) of the Act; thus, the law has already made provisions for "the most highly qualified" researchers.

Along with documentation pertaining to his field of research, establishing its intrinsic merit and national scope, the petitioner submits copies of his published articles and several witness letters that describe his work in further detail. The petitioner's supervisor at the [REDACTED] [REDACTED] states:

[The petitioner] has developed outstanding skills in his ability to examine electrochemical phenomena related to batteries, fuel cells, and ultracapacitors. All of these items are of critical importance to the Navy and to the national economy as well. Our program in examining the nature of high electric fields (which are typical in these devices) in improving performance is one of the top funded projects in the Navy's electrochemistry program.

Specifically, [the petitioner] has developed an understanding of how hydroxyl groups are formed at a silver electrode; this is one of the most important steps in the function of a silver oxide battery. . . . This work . . . represents the most advanced study of double layer surface chemistry to date. [The petitioner] is currently examining the role of surface electric fields at platinum/ruthenium catalyst surfaces for development of hydrogen and methanol powered fuel cells. The Navy's interest in this is in developing fuel cell power plants for the electrical requirements of ships. The primary interest of the United States in fuel cells is in the development of a highly fuel efficient automobile. . . . The current stumbling block is attaining sufficient reaction rates at the catalyst surface, which [the petitioner] is now studying. We are the only group *in the world* studying the influence of electric field on surface reactions, and [the petitioner] is a major part of that work.

(Emphasis in original.) [REDACTED] professor at the University of Washington at the time he wrote his first letter on the petitioner's behalf, states:

[The petitioner] has been characterizing the structure of the electrochemical double-layer. This is a thin layer of solvent containing various ions and other species that forms on an electrode surface during an electrochemical reaction. Spatially, this is the region where all the action takes place during the electrochemical reaction. It is a region whose structure has been postulated for many years but without experimental data to support the assertions. In the last 8 years there has been renewed interest in this region due to the development and application of new analytical methods that allow the study of its structure. [REDACTED] group has led a pioneering effort in characterizing and understanding the electrochemical double-layer and [the petitioner's] contribution to this effort has been significant.

Understanding and controlling the structure of the double-layer has far-reaching technological implications. Interactions in the double-layer currently limit the application of fuel cells, which will replace the internal combustion engine in automobiles in my lifetime. These devices directly convert chemical energy to electrical energy without a combustion process. Most important, they are not subject to constraints on the efficiency of internal combustion engines imposed by the second law of thermodynamics and will thus revolutionize our ability to conserve natural resources. As an added benefit, they do not produce "green house" gases as a byproduct and therefore do not pollute the atmosphere. According to recent reports in the trade literature, researchers are poised to make a breakthrough in this technology. It is through work such as [the petitioner's] that these advances will be made.

[redacted] senior process engineer at Intel Corporation, met the petitioner when they were both graduate students at the University of Washington. Dr. Lu states:

[The petitioner's] research involves studying the electrochemical surface layer of electrodes at nano-scale level using sophisticated space-age technology. . . .

The electrochemical double layer is a very complex system as it is a surface film that contains solvent molecules and ionic species near an electrode surface. Intricate interactions occur among the various species in this surface film during an electrochemical reaction. Fundamental understanding of the surface layer allows us to better control the electrochemical reactions, especially in applications like fuel cell and battery technologies.

[The petitioner's] earlier work has focused on the study of hydroxyl interactions on silver electrodes and structures of surface water. Both of these studies provide insights into the anion-water interactions at the electrode interface, which have direct implication to fuel cell and silver oxide battery technologies.

Another individual who studied alongside the petitioner at the University of Washington is [redacted] [redacted] now at United Technologies [redacted] states:

[The petitioner] has performed fundamental research in several areas of national interest including non-linear dynamics and chaos, the surface chemistry of model electrochemical systems involving water-metal-anion reactions, and the mechanism of ice growth in conditions that mimic the stratosphere. [The petitioner] has proved the surface chemistry of model electrochemical systems using very sophisticated ultra-high vacuum techniques. Among the most novel of these techniques are soft (i.e. low energy) ion beams and vibrational spectroscopy in the far-infrared spectral region. [The petitioner] has focussed on several very important anion-water systems including CO₂-water and OH-water. In addition, [the petitioner] has studied fundamental growth mechanisms of ice formation using ultra-high vacuum spectroscopic techniques.

[The petitioner's] earlier work on non-linear mathematics is in an area of research with broad applications to jet engine design and diagnostics. [The petitioner's] fundamental studies of anion-water interactions are extremely important in fuel cells. . . . It is increasingly clear that without a fundamental understanding of the chemistry of the fuel cell, the potential of fuel cells may never be realized. . . . [The petitioner's] work could [also] help in understanding corrosion mechanisms and help design corrosion resistant materials. [The petitioner] has studied basic growth mechanisms of ice in conditions similar to those found in the stratosphere (i.e. low temperature and pressure). These growth mechanisms can help us understand the catalytic and photo-catalytic processes that lead to acid rain and ozone depletion. Ice apparently plays a decisive role in these processes, although very little is known about the detailed chemistry.

The only initial witness who is not a professor at, or alumnus of, the University of Washington is [redacted] of the Naval Research Laboratory, whose "group . . . has collaborated with [redacted] group on a number of electrochemical related experiments including fuel cells." [redacted] states:

The work which [the petitioner] is carrying out is a unique research program in which he is determining how the water and other species behave at a metal electrode surface. This structure determines how much electricity can be obtained from a . . . silver/zinc battery, and how well a battery can be recharged after it has been used. [The petitioner] has used a number of sophisticated techniques . . . to probe the interface between the liquid and silver metal. . . . In order for the OH⁻ ions to form a charge transfer of an electron from the metal to the solution must occur and this has not been observed previously. This discovery has significant implications to the understanding of charge transfer reactions which all battery and fuel cell reactions are. Further, this research has important implications for fuel cells because the ability to move water into the interface is critical to the oxidation of methanol in a direct methanol fuel cell. This is one of the most pressing questions facing fuel cell technologists at this time.

[redacted] states that the petitioner is "a valuable asset to the fuel cell and battery infrastructure of the US" because industry usually "must hire people with little or no background in electrochemistry and train them at a tremendous expense over a long period of time," whereas the petitioner already has extensive training and skills in that area.

The director denied the petition, acknowledging the intrinsic merit and national scope of the petitioner's work but finding that the petitioner's own contribution does not warrant a waiver of the job offer requirement that, by law, attaches to the classification that the petitioner chose to seek. The director stated that the petitioner's "achievements appear to be commensurate with those expected of successful graduate students."

Counsel asserts that the director erred by failing to issue a request for evidence in accordance with 8 C.F.R. 103.2(b)(8). The director, in the notice of decision, asserted that the petitioner's initial filing

was "comprehensive," and therefore contained sufficient evidence to allow a decision to be rendered. Careful review of the cited regulation, however, shows that the regulation requires the director to issue a request for further evidence "in . . . instances where there is no evidence of ineligibility, and . . . the Service finds that the evidence submitted either does not fully establish eligibility . . . or raises underlying questions regarding eligibility." The point of contention thus appears to be whether the documentation submitted with the petition contained evidence of ineligibility, or merely did not fully establish eligibility. The director evidently considered the record to contain evidence of ineligibility. This point is difficult to resolve in a proceeding such as this one, where the required evidence is not a specific document or other immediately identifiable piece of evidence. Nevertheless, the director did not identify any particular evidence that shows, on its face, that the petitioner is ineligible for the benefit sought. Rather, the director appears, in effect, to have denied the petition because the evidence submitted did not fully establish eligibility, in which case the proper course of action would have been to request further evidence. 8 C.F.R. 103.2(b)(8) does not specify any particular remedy for the director's failure to adhere to the regulation. At this point, the decision already having been rendered, the most expedient remedy for this complaint is the full consideration on appeal of any evidence that the petitioner would have submitted in response to a request for further evidence.

Counsel argues on appeal that the petitioner's "contributions to the field of fuel cell technology has influenced the field to a substantially greater extent than that of other minimally qualified researchers in chemical engineering based on his pioneering research . . . , his recognition by leading researchers in the field, and by his being selected to present his work at the prestigious Gordon Research Conference on Fuel Cell."

Counsel observes "fewer than 30 of the approximately 3000 doctorate candidates each year in chemical engineering specialize in fuel cell technology." This figure does not demonstrate that the petitioner is especially accomplished in his field; it merely reflects that there are many subspecialties within the larger field of chemical engineering. If the intended argument is that there are very few fuel cell specialists in the United States, then we note our previous finding that a shortage of qualified workers in a given field, regardless of the nature of the occupation, does not constitute grounds for a national interest waiver. Given that the labor certification process was designed to address the issue of worker shortages, a shortage of qualified workers is an argument for obtaining rather than waiving a labor certification. See Matter of New York State Dept. of Transportation, supra.

Counsel's remaining arguments on appeal derive from supplementary materials submitted with the appeal, primarily further witness letters. [REDACTED] president and CEO of Nu Element, Inc., "a Seattle-based fuel cell company," states:

I came to know [the petitioner] through many technical consultations on fuel cell engineering issues. My company is currently developing state-of-the-art fuel cell[s] for residential and small business applications and [the petitioner] has been instrumental in providing expert collaborations on fuel cell design and analysis. [The petitioner] will continue to contribute to our research and development efforts as he plans to join our technical team.

Documentation submitted on appeal indicates that Nu Element's "initial product will be a home and small business PEM fuel cell system to run parallel to the electrical grid for primary or backup power. These systems can produce between 5-40 kW and will be powered by natural gas." The above information indicates that the petitioner intends to work with fuel cells "for residential and small business applications" rather than for naval applications, even though U.S. Naval support for the petitioner's graduate studies was represented as a keystone of the initial petition. The reference to what the company's "initial product will be" also indicates that Nu Element is a startup company that has not yet offered any products in the marketplace; rather, "The Company is within two years of completion of core technology development and 1.5 additional years until commercialization." The nature of the petitioner's work for [REDACTED] cannot positively affect the outcome of the petition, because the petitioner did not yet work there, or even claim to have plans to work there, at the time he filed the petition. A petitioner may not make material changes to a petition that has already been filed in an effort to make an apparently deficient petition conform to Service requirements. See Matter of Izumij, I.D. 3360 (Assoc. Comm., Examinations, July 13, 1998), and Matter of Katigbak, 14 I&N Dec. 45 (Reg. Comm. 1971), in which the Service held that beneficiaries seeking employment-based immigrant classification must possess the necessary qualifications as of the filing date of the visa petition.

[REDACTED] describes current efforts by the automotive industry to develop zero-emission fuel cell vehicles, but she offers no indication that the petitioner's work with home and office power generators at [REDACTED] would have any direct impact on automotive fuel cell research and development. Documents in the record indicate that automotive fuel cells would likely run on methanol or gasoline, rather than natural gas which is the fuel source for [REDACTED] projected fuel cells.

[REDACTED] who studied for a Ph.D. at the University of Washington at the same time as the petitioner, states:

[The petitioner] has conclusively shown that hydroxyl ions are formed when water reacts with the silver oxide surface, which is a crucial reaction present in a silver oxide/zinc battery. The hydroxyl ions stabilize the water layer directly adjacent to the surface, and can migrate into the electrolyte adjacent to the electrode. This charge transfer mechanism via hydroxyl ion migration has inspired new ideas on how the performance of a battery can be characterized. . . .

[The petitioner's] work has revealed complex interactions between methanol, water, and hydrogen ion on the catalyst surface, which were previously unknown. The results from his work are extremely important in designing strategies to optimize the power output of Direct Methanol Fuel Cells. . . .

[The petitioner's] contribution to fuel cell electrocatalysis is very significant, and most of the results are the first of a kind in this area. His scientific contribution far surpassed the expected output of an average U.S. graduate student.

[REDACTED] formerly a professor at the University of Washington and now the associate director of the Interfacial and Processing Sciences group at the Pacific Northwest National Laboratory, Richland, Washington, offers a second letter on the petitioner's behalf. The text of this letter is virtually identical to his earlier letter, submitted with the initial petition, and therefore it would be redundant to quote excerpts from the second letter.

The Gordon Research Conference to which counsel and some witnesses refer took place in July 2000, after the petition's filing date. Days before the petition was filed in June 2000, the conference's organizers informed the petitioner that his "poster has been selected as one of the winning entries in the Fuel Cells Gordon Conference student poster scholarship competition." The petitioner has submitted some documentation pertaining to the Gordon Research Conferences, but this documentation has no information directly relevant to the conferences' student competitions.

We do not dispute that the witnesses of record see value in the petitioner's work. The record, however, does not establish first-hand that the petitioner is responsible for what are generally recognized as especially significant advances in fuel cell technology. All of the witnesses of record are the petitioner's former professors or fellow students at the University of Washington, collaborators, or prospective employers, and the record does not establish that professionals outside of the petitioner's circle of classmates, mentors and employers share similar opinions regarding the petitioner's work. The initial petition was predicated on the importance of fuel cell research to the U.S. Navy and automobile manufacturers. The appeal documents contain nothing to show that the petitioner's past work has been adopted by the Navy or by the manufacturers, and the petitioner's intended future work clearly involves non-mobile fuel cell units. We readily acknowledge the overall importance of fuel cell research, the economic and environmental benefits of which are obvious, but given the current structure of the statute and regulations, the overall importance of a given field of endeavor cannot establish eligibility for a waiver.

As is clear from a plain reading of the statute, it was not the intent of Congress that every person qualified to engage in a profession in the United States should be exempt from the requirement of a job offer based on national interest. Likewise, it does not appear to have been the intent of Congress to grant national interest waivers on the basis of the overall importance of a given profession, rather than on the merits of the individual alien. On the basis of the evidence submitted, the petitioner has not established that a waiver of the requirement of an approved labor certification will be in the national interest of the United States.

The burden of proof in these proceedings rests solely with the petitioner. Section 291 of the Act, U.S.C. 1361. The petitioner has not sustained that burden.

This denial is without prejudice to the filing of a new petition by a United States employer accompanied by a labor certification issued by the Department of Labor, appropriate supporting evidence and fee.

ORDER: The appeal is dismissed.