



MEMORANDUM

To: Edward T. Foote II, President

From: Steven Green, Chair, Faculty Senate [Signature]

Date: 5 September 2000

Subject: Faculty Senate Legislation #2000-04(B) - Approval of the Name for the Rosenstiel School of Marine and Atmospheric Science Noble Gas Isotope Laboratory

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The Faculty Senate at its 30 August 2000 meeting, voted to approve the name of a sponsored center, the Rosenstiel School of Marine and Atmospheric Science Noble Gas Isotope Laboratory, for the period of time of continuous funding and any extensions thereafter.

This legislation is now forwarded to you for your action.

SG/kl

cc: Luis Glaser, Provost
Otis Brown, Dean
Zafer Top, Marine and Atmospheric Chemistry

9/7
Stewart
I approve.
Thanks.
[Signature]

CAPSULE: Faculty Senate Legislation # 2000-04(B) - Approval of the Name for the Rosenstiel School of Marine and Atmospheric Science Noble Gas Isotope Laboratory

RESPONSE BY THE PRESIDENT: Approve DATE: 9/7/00

OFFICE OR INDIVIDUAL TO IMPLEMENT: Provost

APPROVED: [Signature]

EFFECTIVE DATE OF LEGISLATION: \_\_\_\_\_

NOT APPROVED AND REFERRED TO: \_\_\_\_\_

REMARKS (IF NOT APPROVED): \_\_\_\_\_

## Noble Gas Isotope Laboratory

**History and Objectives:** Noble Gas Isotope Laboratory (NGIL) was established in 1981 by Dr. Zafer Top at RSMAS as part of an effort to expand tracer measurement capability at the University of Miami. The facility consists of three noble-gas mass-spectrometers, associated vacuum inlet and processing lines, and other relevant measurement hardware. One of the objectives was to increase the national capability to measure oceanic tritium and helium isotopes, tracers that provide decadal time-scale information for the global ocean. Only two laboratories existed in the US with such capability prior to 1981.

The laboratory was established largely by sponsored research funds and it was conceived that its continuance would also depend on such funding. Additionally, the second objective was to provide measurement service to other institutions, with unrestricted funds. During the first decade of its operation, the laboratory was managed with research funds largely from federal agencies. In the last decade, contributions from "other" sources have increased to significant levels, so much so that in the past year outside income has exceeded the sponsored research income.

**Organization and Operation:** The administrative organization of the laboratory is simple: it consists of a director and technical staff. The founding director is Dr. Zafer Top, a research professor at the Division of Marine and Atmospheric Chemistry (MAC). The laboratory is a subunit of MAC. The number of technical staff varies according to the workload of the laboratory. There have been as many as three technicians and two part time student assistants during the laboratory's involvement in the World Ocean Circulation Experiment. During less busy times, the laboratory is run by one technician and a part time student assistant.

Technical staff are trained and supervised by the director, as prescribed by the University regulations. The staff follows a generally mechanistic approach to produce data, which are then checked, finalized and released by the director. The director exploits research opportunities through proposals, individual or multi-disciplinary, as well as publicizes the outside services especially applicable to groundwater problems. The laboratory maintains a web page to disseminate research findings, as well as information on tracer applications to groundwater problems to attract inquires and contracts from private consulting companies and state government agencies.

Secretarial assistance is sought from MAC when necessary. Agreements for outside services, billing, etc. are performed by the director. The NGIL collaborates closely with the Tritium Laboratory, another subunit of MAC, both because the facilities are housed in the same building, and their measurement functions overlap to some extent. Dr. J. Happell, the director of the Tritium Laboratory, supervises the operation of NGIL in the absence of Dr. Zafer Top, and vice-versa. Other UM faculty with interests in tracer applications, participate in collaborative research using the NGIL, however this collaboration does not entail their participation in the running of the laboratory.