DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

Public Meeting to Announce an Opportunity to Collaborate With the National Institute of Standards and Technology (NIST) in a Program to Commercialize NIST's Transition-Edge-Sensor (TES) X-Ray Microcalorimeter Technology

AGENCY: National Institute of Standards and Technology, Commerce.

ACTION: Notice of public meeting.

SUMMARY: The National Institute of Standards and Technology invites interested parties to attend a meeting on August 8, 1997 to discuss the commercialization of NIST's transition-edge-sensor (TES) x-ray microcalorimeter technology. This is not a grant program.

The objectives of the meeting are: (1) Brief industry on the current status of NIST's microcalorimeter technology (to include a laboratory tour); (2) Discuss potential commercialization paths for the TES x-ray microcalorimeter technology involving US manufacturers, including: nonexclusive licensing with multiple companies, exclusive licensing with a single company, co-exclusive licensing with a limited number of companies, informal NIST/industry collaboration, cooperative research and development agreements (CRADAs), and industry consortia.

DATES: The meeting will take place on August 8, 1997, beginning at 10:00 a.m., Mountain Time.

ADDRESSES: The meeting will take place at NIST's Boulder, Colorado, facilities: Room 1107, 325 Broadway, Boulder, CO, 80303. Inquiries should be sent to Building 820, Room 213, National Institute of Standards and Technology, Gaithersburg, MD 20899.

FOR FURTHER INFORMATION CONTACT: Ernest R. Graf, Telephone: 301–975–2870; FAX: 301–869–2751; E-mail: egraf@nist.gov.

SUPPLEMENTARY INFORMATION: NIST's mission concerning its microcalorimeter technology is to provide to US manufacturers the methods and basic understanding that they need to provide and prove world leadership in performance, metrology, and quality of their products. The NIST microcalorimeter is in many ways superior to other low-temperature x-ray detectors. The current performance of the NIST microcalorimeter in terms of resolution, count rate, and collection solid angle makes it appropriate to consider commercialization.

There are currently four NIST patents/patent applications that are related to the microcalorimeter. At the August 8, 1997 meeting NIST will also discuss other patented technology necessary for the commercialization of the microcalorimeter. International patent protection is possible on the third and fourth NIST inventions described below.

(1) ''Particle Calorimeter with Normal Metal Base Layer;'' US Patent No. 5,634,718; issued June 3, 1997; NIST Docket No. 94–005; noticed in the **Federal Register** as available for licensing on March 22, 1995. The patent describes the use of a normal metal absorber in a microcalorimeter, which gives significant advantages in increased detector speed and uniformity. Other claims in the patent are use of a normal metal absorber in measuring energy events with particles or photons other than x-rays, and construction using a thermally insulating membrane, normal metal superconductor (NS) contacts for thermal isolation, normal metal insulator superconductor (NIS) tunnel junctions, superconducting quantum interference device (SQUID) readout, ridge structures for fast heat diffusion, multiple temperature sensors for position readout and greater uniformity, and electronic heat pulses for calibration. This patent covers many aspects of our microcalorimeters based on transition edge sensors.

(2) ''Superconducting Transition Edge Sensor;'' filed in August 26, 1996; NIST Docket No. 96–033; noticed in the **Federal Register** is available for licensing on May 8, 1997. The invention describes a reliable and manufacturable method of producing a superconducting film with a transition temperature that is tunable and in the range of interest (from approximately 50 to 300 mK.) The superconducting components to the bilayers are Al and Ti. Al-based bilayers are readily manufacturable, produce reproducible transition temperatures, can be readily incorporated with microfabrication technology, and have great advantages over other superconductors for this application.

(3) ''Microcalorimeter X-ray Detectors with X-ray Lens;'' filed March 5, 1997; NIST Docket No. 96–034; jointly owned with X-ray Optical Systems, Inc. The invention describes the combined use of polycapillary optics with microcalorimeter detectors. The invention enables present-day microcalorimeter spectrometers with areas under 0.1 mm^2 to have collection solid angles that are large enough for many practical applications. Although the construction of larger area detectors without capillary optics may be possible in the future, the use of x-ray optics has fundamental advantages because they enable the use of small detectors, which consequently have faster count rates and higher resolution.

(4) ''Improved Mechanical Support for Two Pill Adiabatic Demagnetization Refrigerators,'' to be filed in July 1997; NIST Docket No. 96–035. The invention mainly describes a practical implementation of dual Kevlar™ string mechanical supports that are needed in a two pill refrigerator. We believe this invention makes the supports easier to manufacture, assemble, and maintain in the field.

NIST anticipates that a challenge to the manufacturers of the above technology will be to understand, design, and manufacture the sub-systems that are necessary to make the system operate; the patents themselves will not provide all the information needed.

Because the manufacturers may not be familiar with the technologies' underlying subsystems, such as the infrared blocking x-ray filters, adiabatic demagnetization refrigerator (ADR) construction, ADR control electronics, SQUID electronics readout, and detector manufacture and mounting, NIST offers the opportunity for a close working relationship to utilize NIST expertise to speed commercialization.

Dated: July 3, 1997.

Elaine Bunten-Mines,

Director, Program Office, The National Institute of Standards and Technology.

[FR Doc. 97–18118 Filed 7–9–97; 8:45 am]

BILLING CODE 3510–13–M

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 062797B]

Endangered Species; Permits

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Issuance of modifications 3 and 4 to incidental take permit 844 (P503I).

SUMMARY: Notice is hereby given that NMFS has issued modifications to a permit to the Idaho Department of Fish and Game at Boise, ID (IDFG) that authorizes an incidental take of Endangered Species Act-listed species during sport-fishing activities, subject to certain conditions set forth therein.

ADDRESSES: The applications and related documents are available for

review in the following offices, by appointment:

Office of Protected Resources, F/PR3, NMFS, 1315 East-West Highway, Silver Spring, MD 20910–3226 (301-713-1401); and

Protected Resources Division, F/NWO3, 525 NE Oregon Street, Suite 500, Portland, OR 97232–4169 (503–230–5400).

SUPPLEMENTARY INFORMATION: The modifications to a permit were issued under the authority of section 10 of the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531-1543) and the NMFS regulations governing ESA-listed fish and wildlife permits (50 CFR parts 217–222).

Notice was published on March 27, 1997 (62 FR 14672) that an application had been filed by IDFG for modification 3 to incidental take permit 844 (P503I). Modification 3 to permit 844 was issued to IDFG on May 21, 1997. Permit 844 authorizes IDFG an incidental take of adult and juvenile, threatened, Snake River spring/summer chinook salmon (*Oncorhynchus tshawytscha*) and adult, threatened, Snake River fall chinook salmon (*Oncorhynchus tshawytscha*) associated with the State of Idaho's sport-fishing activities. For modification 3, IDFG is authorized an increase in the incidental take of adult, threatened, unmarked, naturally-produced, Snake River spring/summer chinook salmon associated with the sport fisheries on the Little Salmon River and the Clearwater River in Idaho. The fisheries in these watersheds target adult, non-listed, fin-clipped, hatchery-produced, spring and summer chinook salmon. As stated in its amended Conservation Plan, IDFG will maintain efforts to minimize the impacts to ESA-listed fish, including public information efforts, biological monitoring, and enforcement. Modification 3 is valid in 1997 only.

Notice was published on May 5, 1997 (62 FR 24421) that an application had been filed by IDFG for modification 4 to incidental take permit 844 (P503I). Modification 4 to permit 844 was issued to IDFG on June 17, 1997. For modification 4, IDFG is authorized an incidental take of unmarked residual, ESA-listed, Snake River sockeye salmon (*Oncorhynchus nerka*) associated with a kokanee fishery in Redfish Lake in Idaho from the date of issuance until August 7, 1997. The purpose of the fishery is to reduce the kokanee population in Redfish Lake because kokanee are a direct competitor with captive-brood sockeye salmon for habitat and food. IDFG have amended the Conservation Plan for this permit by outlining a monitoring strategy of the potential take of ESA-listed species resulting from the Redfish Lake kokanee fishery. The amended Conservation Plan includes the scheme that anglers will be directed to avoid harvesting fish marked with external hatchery indications. Modification 4 is valid in 1997 only. Permit 844 expires on April 30, 1998.

Issuance of the modifications to a permit, as required by the ESA, was based on a finding that such actions: (1) Were requested/proposed in good faith, (2) will not operate to the disadvantage of the ESA-listed species that are the subject of the permit, and (3) are consistent with the purposes and policies set forth in section 2 of the ESA and the NMFS regulations governing ESA-listed species permits.

Dated: July 2, 1997.

Nancy Chu,

Chief, Endangered Species Division, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. 97–18116 Filed 7–9–97; 8:45 am]

BILLING CODE 3510–22–F

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 062597C]

Red Drum Fishery and Reef Fish Resources of the Gulf of Mexico

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of receipt of an application for an exempted fishing permit; request for comments.

SUMMARY: NMFS announces the receipt of an application for an exempted fishing permit (EFP) from Mr. Joe Hendrix on behalf of SeaFish Mariculture, L.L.C., San Antonio, Texas (applicant). If granted, the EFP would authorize a feasibility study of net cage culture of finfish associated with offshore oil and gas platforms in the northern Gulf of Mexico.

DATES: Written comments must be received on or before August 11, 1997.

ADDRESSES: Comments on the application must be mailed to the Southeast Regional Office, NMFS, 9721 Executive Center Drive N., St. Petersburg, FL 33702.

The application and related documents are available for review upon written request to the address above.

FOR FURTHER INFORMATION CONTACT: Georgia Cranmore, 813–570–5305.

SUPPLEMENTARY INFORMATION: The EFP is requested under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 *et seq.*) and regulations at 50 CFR 600.745, concerning ''Scientific research activity, exempted fishing permits, and exempted educational activity.''

According to the applicant, the purpose of the proposed study is to determine whether it is feasible to grow commercial quantities of native fish species in the offshore environment of the Gulf of Mexico using aquaculture techniques. The applicant proposes to place hatchery-raised juvenile fish in net cages attached to offshore platforms, feed them, allow them to grow for approximately 12 months, harvest them from the cages, land them in Texas, and sell them. No wild-caught fish will be involved in this study.

The proposed study involves activities otherwise prohibited by regulations implementing the Fishery Management Plans for the Red Drum Fishery and the Reef Fish Fishery of the Gulf of Mexico (FMPs). The applicant requires authorization to harvest, possess, and sell red drum (*Sciaenops ocellata*), greater amberjack (*Seriola dumerili*), and red snapper (*Lutjanus campechanus*) taken from Federal waters of the Gulf of Mexico. In addition, authorization is required to possess or sell greater amberjack or red snapper below the minimum size limit, and to harvest or possess red snapper in excess of established trip limits and/or during a closed season.

The applicant also intends to use dolphin (*Coryphaena hippurus*), Florida pompano (*Trachinotus carolinus*), and southern flounder (*Paralichthys lethostigma*) in offshore aquaculture operations. Florida pompano and southern flounder are not subject to Federal fishery management in the Gulf of Mexico. Dolphin are included under a Federal fishery management plan for coastal migratory pelagic resources, but no plan management measures restrict possession, harvest, or sale of dolphin in Federal waters of the Gulf of Mexico.

The applicant is also applying to the Texas Parks and Wildlife Department for authorization to land and sell these species in Texas.

The applicant proposes to place hatchery-raised juvenile fish (fingerlings) in 3 cages attached to oil and gas platforms operated by Shell Offshore Services, Inc., and located approximately 48 nautical miles (nm) south-southwest of Freeport, TX. The cages measure 76–129 feet (23–39 m) in diameter and will contain a maximum fish biomass of 852,000 lb (386,461 kg).