

**SYSTEM LOCATION:**

Primary Location: Reporting Systems, Inc., 851 Coho Way, Suite 301, Bellingham, WA 98225–2021.

**SECONDARY LOCATION:**

United States Marine Corps (USMC) Installation Fire and Emergency Services (F&ES) Departments. Official mailing addresses are contained in the Standard Navy Distribution List (SNDL).

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Federal employees, Active Duty Marines, Reserve and retired Marines involved in responding to U.S. Marine Corps F&ES emergency incidents.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Individual's name, Social Security Number (SSN), date of birth, home address, marital status, gender, ethnic group, home and work phone numbers, employment history, awards, years of service, administrative data consisting of; rank/grade, citizenship, emergency contact information (includes dependent information), military/Federal employees and off-duty education. Training information includes fire and emergency service certifications and qualifications, fire and emergency service skills and schools.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

10 U.S.C. 5013, Secretary of Navy; 10 U.S.C. 5041, Headquarters, Marine Corps; DoDI 6055.06, DoD Fire and Emergency Services (F&ES) Program; Marine Corps Order 11000.11B, Marine Corps Fire Protection and Emergency Services Program; and E.O. 9397 (SSN), as amended.

**PURPOSE(S):**

The Emergency Incident Reporting System provides records management and reporting for the Fire and Emergency Services (F&ES) program. The system collects and reports on all types of emergency incidents responded to by U.S. Marine Corps F&ES resources. It has the capability to collect, analyze and report prevention and inspection data as well as equipment inventories. The system also collects personnel training, certifications required for employment, and administrative data. Provides required reporting capabilities to plan, program, budget for, and execute the U.S. Corps Fire and Emergency Services (F&ES) program.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

In addition to those disclosures generally permitted under 5 U.S.C. 552a(b) of the Privacy Act of 1974, these

records contained therein may specifically be disclosed outside the DoD as a routine use pursuant to 5 U.S.C. 552a(b)(3) as follows:

To emergency care and definitive care medical professionals as allowed by law during the course of providing medical treatment.

To Officials and employees of federal, state and local government through official request for information with respect to law enforcement, investigatory procedures, criminal prosecution, civil court action and regulatory order.

To the United States Fire Administration National Fire Incident Reporting System (NFIRS) as required by DODI 6055.06, DoD Fire and Emergency Services (F&ES) Program for the collection and reporting of incident response information.

To disaster related agencies and services such as the American Red Cross and the Federal Emergency Management Agency (FEMA) as required in the provision of emergency related services.

To the Occupational Safety and Health Administration (OSHA) during the course of an on-site inspection.

The DoD "Blanket Routine Uses" set forth at the beginning of the Marine Corps' compilation of systems of records notices apply to this system.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:****STORAGE:**

Electronic storage media and paper records in file folders.

**RETRIEVABILITY:**

By name, Social Security Number (SSN), and/or date of birth.

**SAFEGUARDS:**

System login is accomplished by DoD Common Access Card (CAC). Public Key Infrastructure (PKI) network login is required and allows for documents to be digitally signed and encrypted. All U.S. unauthorized persons may enter and leave buildings only with an authorized escort. Records are maintained in areas accessible only to authorized personnel with a specific and recorded need-to-know.

**RETENTION AND DISPOSAL:**

Records generated by the system are considered permanent records and will retire to Washington National Records Center (WNRC) when 4 years old and transfer to National Archives and Records Administration (NARA) when 20 years old.

**SYSTEM MANAGER(S) AND ADDRESS:**

Policy Official, Program Manager, Fire and Emergency Service Program (LFF–1) Headquarters, U.S. Marine Corps, 2 Navy Annex, Washington, DC 20380–1775.

Fire Chiefs of the local U.S. Marine Corps F&ES Installations. Official mailing addresses are contained in the Standard Navy Distribution List (SNDL).

**NOTIFICATION PROCEDURES:**

Individuals seeking to determine whether information about themselves is contained in this system of records should address written inquiries to the Installation Fire Chief. Official mailing addresses are contained in the Standard Navy Distribution List (SNDL).

Request must include name, Social Security Number (SSN) and date of birth, the request must also be signed and contain a complete mailing address.

**RECORD ACCESS PROCEDURES:**

Individuals seeking to access records about themselves contained in this system of records should address written inquiries to the Installation Fire Chief. Official mailing addresses are published in the Standard Navy Distribution List (SNDL).

Request must include name, Social Security Number (SSN) and date of birth, the request must also be signed and contain a complete mailing address.

**CONTESTING RECORD PROCEDURES:**

The U.S. Marine Corps rules for contesting contents and appealing initial agency determinations are published in Secretary of the Navy Instruction 5211.5E; 32 CFR part 701; or may be obtained from the system manager.

**RECORD SOURCE CATEGORIES:**

From individuals; supervisors; personnel files; federal, state and local agencies; educational institutions; and automated system interfaces.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

[FR Doc. 2010–32401 Filed 12–23–10; 8:45 am]

BILLING CODE 5001–06–P

**DEFENSE NUCLEAR FACILITIES SAFETY BOARD**

[Recommendation 2010–2]

**Pulse Jet Mixing at the Waste Treatment and Immobilization Plant**

**AGENCY:** Defense Nuclear Facilities Safety Board.

**ACTION:** Notice, recommendation.

**SUMMARY:** Pursuant to 42 U.S.C. 2286a(a)(5), the Defense Nuclear Facilities Safety Board has made a recommendation to the Secretary of Energy concerning the use of pulse jet mixing at the Waste Treatment and Immobilization Plant located in Washington State.

**DATES:** Comments, data, views, or arguments concerning the recommendation are due on or before January 26, 2011.

**ADDRESSES:** Send comments, data, views, or arguments concerning this recommendation to: Defense Nuclear Facilities Safety Board, 625 Indiana Avenue, NW., Suite 700, Washington, DC 20004-2901.

**FOR FURTHER INFORMATION CONTACT:** Brian Grosner or Andrew L. Thibadeau at the address above or telephone number (202) 694-7000.

Dated: December 20, 2010.

**Peter S. Winokur,**  
*Chairman.*

### **Recommendation 2010-2 to the Secretary of Energy**

*Pulse Jet Mixing at the Waste Treatment and Immobilization Plant*

**Pursuant to 42 U.S.C. 2286(a)(5).**

**Atomic Energy Act of 1954, as Amended.**

Dated: December 17, 2010.

### **Introduction**

Legacy wastes from decades of nuclear weapons production by the Department of Energy (DOE) and its predecessor agencies include high-level radioactive waste stored in 177 underground tanks at the Hanford Site. The risk posed by the continued storage of wastes in these tanks is considerable. Many of the tanks have a history of leakage, several are more than 60 years old, and most will be far beyond their intended service life by the time the wastes are retrieved and processed into stable forms. DOE must ensure that the Hanford Waste Treatment and Immobilization Plant (WTP) in conjunction with the Hanford tank farm waste feed delivery system will operate safely and effectively for many decades to eliminate the safety hazards posed by the wastes. This imperative requires that the pulse jet mixing and transfer systems relied upon in the WTP design perform reliably and effectively for decades of WTP operations, and that technical issues with the performance of these components be resolved in time to enable DOE to meet its existing commitment to begin WTP operation in 2019.

### **Background**

In a letter to DOE's Assistant Secretary for Environmental Management dated January 6, 2010, the Defense Nuclear Facilities Safety Board (Board) summarized its concerns related to WTP's mixing and transfer systems; specifically, that the pulse jet mixers (PJMS) lacked sufficient power to mix adequately and to transfer the most rapidly settling particles expected to be present in the Hanford waste inventory. In its letter, the Board identified three significant safety issues related to pulse jet mixing: (1) Retention of fissile materials in vessel heels would present a criticality safety concern, (2) retention of flammable gas due to the presence of solids in vessel heels, and (3) the presence of a large solids inventory could have a detrimental effect on the vessel level instrumentation, which is required to control the PJMs.

In its May 17, 2010, response to the Board's letter, DOE committed to take actions to increase confidence in successful operation of WTP. These actions included integrated testing of vessel mixing and transfer systems at a larger scale. However, DOE did not provide details such as the scope and schedule for this effort.

On July 1, 2010, the Consortium for Risk Evaluation and Stakeholder Participation (CRESP), an independent technical review team under contract to DOE, issued a report that identified concerns similar to the Board's. Specifically, CRESP found that there was uncertainty in PJM performance and that the absence of full-scale or near full-scale testing represented a large risk for the WTP program. The CRESP report presented DOE with thirteen recommendations that addressed topics of Board concern, e.g., large-scale testing, reliance upon computational fluid dynamics modeling, functional performance specifications for inspecting and accessing vessel bottoms, heel removal needs and operating strategies, and criticality safety.

On October 7-8, 2010, the Board held a public hearing on WTP issues, of which one session focused on evaluating the state of the PJM design. In advance of the public hearing, the Board asked DOE to respond to written questions related to PJMs. These questions focused on the scope of integrated testing at larger scale and DOE's actions to address the concerns raised by CRESP. DOE provided written responses to the Board's questions on September 8, 2010, but did not provide insight into the scope or schedule of the large-scale testing. DOE's responses stated that the objectives and schedule

for the large-scale testing were projected to be established by the end of calendar year 2010; this has since been revised to January 2011. DOE's response also stated that DOE and its contractors would address the recommendations from the CRESP report, but that schedules for addressing most of the recommendations had not yet been established.

The Board's written questions also asked DOE to describe each open safety issue related to PJM performance. DOE responded that the primary safety-related issue that remained open was associated with performance of the integrated mixing and transfer system, which includes the PJM mixing system and associated controls, the suction line, and the vessel sampling system. DOE did not identify any concerns related to accumulation of solids in WTP vessels.

In response to the questions posed by the Board, DOE included a response from Pacific Northwest National Laboratory (PNNL) providing its expert opinion on the adequacy of the PJM design. PNNL has performed considerable testing and analysis in support of the WTP mixing system design. PNNL noted in part:

- Phase 1 testing performed by PNNL predicted inadequate mixing in some vessels. The WTP project team subsequently changed the mixing criterion from complete off-bottom suspension to a bottom-clearing metric. This change represents a significant reduction of the mixing criterion.

- The WTP project team commissioned additional testing to this new criterion using waste simulants. PNNL has several concerns related to the simulants used in the WTP project team's tests, as the simulants were not necessarily physically representative or bounding of actual waste. PNNL expressed the concern that mixing performance observed in the WTP project team's tests may be better than actual plant performance.

- The current design lacks an adequate scaling basis to relate small-scale test results to full-scale plant performance. The scaling of the mixing, transfer system, and pump-down process is complex. The absence of an experimentally validated scaling basis for pump-down represents a significant weakness of the current design basis.

During the Board's public hearing, DOE and its contractors acknowledged the need for large-scale testing and committed to complete relevant portions of such testing before installing process vessels in the WTP Pretreatment Facility, which is currently under construction at the Hanford Site. DOE

informed the Board that development of suitable waste simulants would likely be the most time-consuming aspect of the preparations for large-scale testing. DOE's commitment to complete applicable portions of a large-scale testing program prior to installation of the Pretreatment Facility vessels is a positive development.

#### Unresolved Concerns

The Board believes that the testing and analysis completed to date have been insufficient to establish, with confidence, that the pulse jet mixing and transfer systems will perform adequately at full scale. The Board's unresolved technical concerns are summarized below:

*Limitations of the small-scale testing program*—The small-scale testing program did not investigate the performance limits of the PJM design. Rather, it demonstrated that the mixing system met a reduced mixing criterion using simple simulant materials that were not fully representative of the characteristics of Hanford's high-level wastes. The testing program did not evaluate the entire range of WTP operating conditions, used non-prototypic equipment for much of the testing, and did not include multi-batch test runs to establish whether the mixing and transfer systems could operate for long periods under a variety of operating conditions. The program did not address the behavior of non-Newtonian wastes, such as the effects of variations of viscosity within a vessel, or the unique arrangement of PJMs in vessels containing these wastes. Pump-out testing did not include prototypic simulant or transfer system components, and lacked a well-established scaling basis. Large-scale testing would remedy this issue.

*Modeling of mixing performance*—Computer simulations of mixing performance, such as the Low Order Accumulation Model, have not been verified and validated, yet have been used to advance the WTP mixing design. DOE plans to use computer simulations in validating the final WTP mixing design and is working to verify and validate a computational fluid dynamics code (FLUENT) for this purpose. Any use of computer simulations must be technically defensible, and the limits of each computational fluid dynamics simulation need to be well understood to prevent potential safety issues from arising during operations.

*Waste characterization and feed certification*—The WTP safety strategy depends upon obtaining representative samples from the high-level waste feed

tanks to support WTP's waste feed certification requirements, and from WTP process vessels to ensure safety-related criteria are met. This capability has not been demonstrated in the Hanford Tank Farms or WTP process vessels. Obtaining samples that are sufficiently representative to support bounding estimates of the composition and properties of both the solid and liquid fractions of the high-level waste is required in order to demonstrate that the WTP can be operated safely (*e.g.*, prevent inadvertent criticality and plugging of transfer lines).

The WTP project team has altered its mixing performance criterion and made changes to the waste acceptance criteria, such as reducing the allowable solids concentration for WTP feed to address unfavorable mixing test results. DOE and its contractors have not yet been able to explain the full impact of these changes on DOE's ability to qualify WTP feed and process the entirety of Hanford's high-level waste using WTP. Additionally, DOE and its contractors have not been able to explain how representative samples from PJM-mixed tanks will be obtained.

*Planned WTP process vessel modifications*—DOE is planning to add capabilities for heel dilution, vessel pump-out, and visual inspection to address potential risks and uncertainties remaining from small-scale testing; however, the specifications for and capabilities of these systems have not been established.

*Limitations of PJM controller and instrumentation testing*—DOE has not performed PJM controller and instrumentation tests with a combination of (1) A prototypic simulant; (2) a full-scale PJM system driven by jet pump pairs; and (3) prototypic level/density instrumentation and controllers. Pretreatment Engineering Platform testing revealed that the level/density probes provided spurious data because of plugging and interference resulting from hydrodynamic pressures from the PJMs and transfer pumps. In addition, PNNL stated that the PJM controller testing performed in 2009 had several limitations and that "any extrapolation of the data above and beyond the scope of the present work should be done with extreme caution."

#### Recommendation

Therefore, the Board recommends that DOE:

1. Develop a large-scale test plan, including a schedule and milestones that addresses the issues raised by the Board in this recommendation, by CRESF in its letter reports addressing

pulse jet mixing, and by PNNL. The objective of the test plan should be to define the limits of the WTP pulse jet mixing and transfer systems given the complete range of physical properties for the high-level waste stored in the Hanford Tank Farms. The elements of the test plan should include: (1) Design of simulants; (2) design of the prototypic mixing systems, including PJM control and tank level control systems, and the transfer system for the large-scale test; and (3) criteria for review and interpretation of the large-scale test results. The test plan schedule should be constructed such that results from the testing can be used to inform WTP process vessel design decisions. The large-scale test platform must integrate the scaling of the mixing and transfer systems such that the scaling of the test platform is technically defensible.

2. Develop waste simulants for the mixing and transfer system testing that envelope the complete range of physical properties for the high-level waste stored in the Hanford Tank Farms. The simulant selection should include simulants representative of the waste's Newtonian and non-Newtonian properties and particle shape, *e.g.*, irregularly shaped simulant particles. The physical properties selected for each simulant must reflect uncertainties in the existing characterization of the high-level wastes.

3. Complete verification and validation of any computational models used by the WTP project team (*e.g.*, Low Order Accumulation Model and FLUENT) based on the results from the large-scale testing.

4. Demonstrate the ability to obtain representative samples of the solids and liquids in all of WTP's vessels, including demonstrating that representative samples can be obtained even if the assumed WTP design particle size or density is exceeded. This will ensure that the sampling system does not exclude large, dense particles and artificially bias the measured particle size and density distribution. The representativeness of these samples must be statistically defensible and meet appropriate confidence limits given the significance of the safety-related issues in WTP.

5. Define the impact on the waste retrieval, feed delivery, and feed certification processes due to any limitations of the WTP mixing and transfer systems, and demonstrate the ability to obtain adequately representative samples from the waste feed tanks to ensure the WTP waste acceptance criteria can be reliably enforced.

6. Establish functional design criteria for the heel dilution, heel pump-out, and visual inspection functions, and demonstrate the capabilities and limits of these systems through the large-scale testing.

7. Identify the technical and safety-related risks that remain unresolved upon completion of the large-scale testing and establish suitable risk management strategies to ensure that each remaining risk will have little, if any, potential impact on DOE's ability to begin WTP operations safely and consistent with existing commitments.

In order to preclude unnecessary delay in the WTP project, the Board urges the Secretary to avail himself of the authority under the Atomic Energy Act (U.S.C. 2286d(e)) to "implement any such recommendation (or part of any such recommendation) before, on, or after the date on which the Secretary transmits the implementation plan to the Board under this subsection."

Peter S. Winokur, Ph.D.,  
Chairman.

[FR Doc. 2010-32365 Filed 12-23-10; 8:45 am]

BILLING CODE 3670-01-P

## DEPARTMENT OF EDUCATION

### Office of Special Education and Rehabilitative Services; Overview Information; National Institute on Disability and Rehabilitation Research (NIDRR)—Research Fellowships Program; Notice Inviting Applications for New Awards for Fiscal Year (FY) 2011

*Catalog of Federal Domestic Assistance (CFDA) Number:* 84.133F-1.  
Dates:

*Applications Available:* December 27, 2010.

*Deadline for Transmittal of Applications:* February 25, 2011.

#### Full Text of Announcement

##### I. Funding Opportunity Description

*Purpose of Program:* The purpose of the Research Fellowships Program is to build research capacity by providing support to enable highly qualified individuals, including those who are individuals with disabilities, to conduct research on the rehabilitation of individuals with disabilities.

**Note:** This program is in concert with NIDRR's currently approved long range plan (the Plan). The Plan is comprehensive and integrates many issues relating to disability and rehabilitation research topics. The Plan, which was published in the **Federal Register** on February 15, 2006 (71 FR 8165), can be accessed on the Internet at the following site:

<http://www.ed.gov/about/offices/list/osers/nidrr/policy.html>.

Through the implementation of the Plan, NIDRR seeks to: (1) Improve the quality and utility of disability and rehabilitation research; (2) foster an exchange of expertise, information, and training to facilitate the advancement of knowledge and understanding of the unique needs of traditionally underserved populations; (3) determine the best strategies and programs to improve rehabilitation outcomes for underserved populations; (4) identify research gaps; (5) identify mechanisms of integrating research and practice; and (6) disseminate findings.

*Priorities:* This competition contains one absolute priority and one invitational priority.

*Absolute Priority:* For FY 2011, this priority is an absolute priority. In accordance with 34 CFR 75.105(b)(2)(ii), these priorities are from the regulations for this program (34 CFR 356.10). Under 34 CFR 75.105(c)(3) we consider only applications that meet this priority.

This priority is:

##### Research Fellowships Program

Fellows must conduct original research in an area authorized by section 204 of the Rehabilitation Act of 1973, as amended (the Act). Section 204 authorizes research demonstration projects, training, and related activities, the purpose of which are to develop methods, procedures, and rehabilitation technology that maximize the full inclusion and integration into society, employment, independent living, family support, and economic and social self-sufficiency, of individuals with disabilities, especially individuals with the most significant disabilities, and to improve the effectiveness of services authorized under the Act.

Within this absolute priority, we are particularly interested in applications that address the following invitational priority.

*Invitational Priority:* Under 34 CFR 75.105(c)(1) we do not give an application that meets this invitational priority a competitive or absolute preference over other applications.

This priority is:

For FY 2011, the Secretary is particularly interested in applications from eligible applicants who are individuals with disabilities.

**Program Authority:** 29 U.S.C. 762(e).

*Applicable Regulations:* (a) The Education Department General Administrative Regulations (EDGAR) in 34 CFR 75.60 and 75.61, and parts 77, 82, 84, 85, and 97. (b) The regulations for this program in 34 CFR part 356. (c)

The regulations in 34 CFR 350.51 and 350.52.

##### II. Award Information

*Type of Award:* Discretionary grants.

*Estimated Available Funds:* The Administration has requested \$111,919,000 for the NIDRR program for FY 2011, of which we intend to use an estimated \$505,000 for the Research Fellowships Program. The actual level of funding, if any, depends on final congressional action. However, we are inviting applications to allow enough time to complete the grant process if Congress appropriates funds for this program.

*Estimated Range of Awards:* \$60,000 to \$65,000 for Merit Fellowships and \$70,000 to \$75,000 for Distinguished Fellowships.

*Estimated Average Size of Awards:* \$63,000 for Merit Fellowships and \$73,000 for Distinguished Fellowships.

*Maximum Awards:* We will reject any application that proposes a budget exceeding \$65,000 for Merit Fellowships and \$75,000 for Distinguished Fellowships for a single budget period of 12 months. (These Fellowships are described in the *Eligible Applicant* section of this notice.) The Assistant Secretary for Special Education and Rehabilitative Services may change the maximum amount through a notice published in the **Federal Register**.

*Estimated Number of Awards:* Seven total, including both Merit Fellowships and Distinguished Fellowships.

**Note:** The Department is not bound by any estimates in this notice.

*Maximum Project Period:* We will reject any application that proposes a project period exceeding 12 months. The Assistant Secretary for Special Education and Rehabilitative Services may change the maximum project period through a notice published in the **Federal Register**.

##### III. Eligibility Information

1. *Eligible Applicants:* Eligible individuals must have training and experience that indicate a potential for engaging in scientific research related to the solution of rehabilitation problems of individuals with disabilities. The program provides two categories of Research Fellowships: Merit Fellowships and Distinguished Fellowships.

(a) To be eligible for a Merit Fellowship, an individual must have either advanced professional training or independent study experience in an area that is directly pertinent to disability and rehabilitation. In the most