Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

CERTIFIED MAIL

September 2, 2009

Mr. Tom Clements
Friends of the Earth
1112 Florence Street
Columbia, South Carolina 29201

Dear Mr. Clements:

FREEDOM OF INFORMATION ACT REQUEST (FOI 2009-0059)

Your Freedom of Information Act (FOIA) request dated July 11, 2009, addressed to the U.S. Department of Energy (DOE) Savannah River Operations Office has been forwarded to this office for response and was received on July 15, 2009. In that letter you requested the following information:

1. "Documents related to the last shipment of U.S. non-pit surplus weapons-grade plutonium from DOE's Hanford Site in Washington State to the Savannah River Site."
2. "Documents related to the arrival and storage at SRS of the last shipment of non-pit plutonium from Hanford."
3. "Documents reflecting the quantity of the overall amount and number of containers of non-pit plutonium shipped from Hanford and received at SRS, including the amount in this last shipment and the number of containers."
4. "Documents on the shipment from Hanford and receipt at SRS of the first shipment of Fast Flux Test Facility (FFTF) unirradiated fuel. This request covers any nonconformance reports (NCRs) and any Authorization to Ship Request forms."
5. "A representative sample of photos, in electronic form, of: a) the truck(s) involved in the shipment on the non-pit plutonium, b) non-pit plutonium shipping containers and storage in K-Area of those containers and c) photos of the FFTF cask(s) and transport vehicle(s)."

This is a partial response and enclosed are documents responsive to items 3, 4 and 5 of your request. The FOIA provides that an agency respond to requests within twenty working days. However, the FOIA permits an agency to extend the time limit to respond to a request in certain circumstances. These circumstances include the need to collect records from other locations, review large number of records, and consult with other offices. The remaining documents responsive to your request are currently being reviewed for any FOIA Exemptions that may apply and this review will require consultation with other DOE offices such as Headquarters, the Savannah River Operations Office and the National Nuclear Security Administration Service Center. We will notify you as soon as the review is complete.

If you have any questions regarding your request, please contact me at our address above or on (509) 376-6288.

Sincerely,

Dorothy Riehle
Freedom of Information Act Officer
Office of Communications
and External Affairs

OCE:DCR

Enclosures

Enclosure

SUBMITTED IN RESPONSE TO FOIA REQUEST NO. SR-09-028

ITEM #3

Consisting of 24 pages, including coversheet

CH2M HILL
Plateau Remediation Company
PO Box 1600
Richland, WA
99352

CH2MHILL
Plateau Remediation Company

March 30, 2009

CHPRC-0900193

Mr. Fred Dohse, Director
Nuclear Materials Operations
Savannah River Nuclear Solutions, LLC
Aiken, South Carolina 29809

Dear Mr. Dohse:

HANFORD 9975 SHIPPING CAMPAIGN

The purpose of this letter is two-fold: 1) To thank you for your support on the successful shipping campaign of the 9975/3013s and 2) to provide you with CH2M Hill Plateau Remediation Company's (CHPRC) commitment on the proper loading configuration of the final shipment.

I personally wanted to take this time to thank you and your staff for the outstanding support provided by the Savannah River Site to complete the Hanford 9975/3013 shipping campaign. Many members of both of our organizations have done an excellent job in accomplishing this challenging effort. This project has allowed the Hanford site and CHPRC to meet our commitments for the de-inventory of the most attractive Special Nuclear Material at Hanford and will allow us to continue our mission of the Decommissioning of the Plutonium Finishing Plant (PFP). I look forward to our continued working relationship associated with shipments of our un-irradiated fuel to be shipped in the Hanford Un-irradiated Fuel Package.

As you are aware, the last shipment of the 9975s will be in a different configuration than those previously sent to you. We understand your concerns associated with the need for Savannah River to have a specific loading configuration for the last shipment and I am providing you my assurance that this container will be loaded onto the conveyance per your staff's direction in order to meet your facility's requirements during off-loading. Attached is our loading plan per our loading procedure ZAP-000-0049 which details the shipping configuration inside the conveyance. After the actual loading operation of the container my staff will fax an advanced copy of the Manifest document for your receiving agency's review and approval prior to the release of the convoy from the PFP.

You may contact me at (509) 376-3293 or your staff may contact Bob Leonard at (509) 308-0416 with any questions regarding this matter.

Sincerely,

Steven T. Dahlgren
Vice President PFP Closure,
Balance of Site D&D Infrastructure

RCL:dlr

Attachment

cc: R. Koenig

on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this Notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

DATES: Comments regarding this proposed information collection must be received on or before November 13, 2007. If you anticipate difficulty in submitting comments within that period, contact the person listed below as soon as possible.

ADDRESSES: Written comments may be sent to: Dr. Judith D. Foulke, Office of Worker Safety and Health Policy (HS–11), U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, or by fax at (301) 903–7773 or by e-mail at *judy.foulke@hq.doe.gov.*

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the information collection instrument and instructions should be directed to the person listed above in **ADDRESSES.**

SUPPLEMENTARY INFORMATION: This ICR contains: (1) *OMB No:* 1910–5105; (2) *Package Title:* Occupational Radiation Protection Program; (3) *Type of Review:* Renewal; (4) *Purpose:* The recordkeeping and reporting requirements that comprise this information collection will permit DOE and its contractors to provide management control and oversight over health and safety programs concerning worker exposure to ionizing radiation; (5) *Respondents:* 50; (6) *Estimated Number of Burden Hours:* 50,000. *Statutory Authority:* Title 10, Code of Federal Regulations, part 835.

Pursuant to the Paperwork Reduction Act of 1995, Agency Information Collection Extension.

Issued in Washington, DC, on August 24, 2007.

Lesley A. Gasperow,

Director, Office of Resource Management, Office of Health, Safety and Security.

[FR Doc. E7–17843 Filed 9–10–07; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

Amended Record of Decision: Storage of Surplus Plutonium Materials at the Savannah River Site

AGENCY: Department of Energy.

ACTION: Amended Record of Decision.

SUMMARY: The U.S. Department of Energy (DOE) is amending the Record of Decision (ROD) for the *Storage and Disposition of Weapons—Usable Fissile Materials Programmatic Environmental Impact Statement* (DOE/EIS–0229, 1996; Storage and Disposition PEIS). Specifically, DOE has decided to take the actions necessary to transfer approximately 2,511 additional 3013-compliant packages [1] containing surplus non-pit weapons-usable plutonium metals and oxides to the Savannah River Site (SRS), near Aiken, South Carolina. Approximately 2,300 containers will be transferred from the Hanford Site (Hanford) near Richland, Washington; 115 containers will be transferred from the Lawrence Livermore National Laboratory (LLNL) in California; and 96 containers will be transferred from the Los Alamos National Laboratory (LANL) in New Mexico. All 3013 containers will be shipped inside Type B shipping packages (e.g., 9975 packages) in Safe Secure Transports (SSTs). In addition, DOE could transfer the equivalent of about one thousand 3013 containers, in the form of unirradiated fuel assemblies originally intended for the Fast Flux Test Facility (FFTF) at Hanford, and miscellaneous fuel pins that that were not put into fuel assemblies, to the SRS.[2] At a lower priority and only if adequate storage space is available, DOE will transfer approximately five hundred additional 3013 containers from LLNL and LANL to provide operational flexibility in the laboratories and to alleviate the demands there on storage capacity needed to support nuclear weapons research missions. Surplus plutonium in 3013-compliant containers will be stored in the K-Area Material Storage (KAMS) facility and FFTF fuel will be stored in the K-Area complex.

This action will consolidate storage of surplus, non-pit weapons-usable plutonium from Hanford, LANL, and LLNL at SRS, pending disposition.[3]

[1] A container that complies with DOE–STD–3013, Stabilization, Packaging, and Storage of Plutonium-Bearing Materials.

[2] The use of FFTF and the unirradiated fuel currently at Hanford is being considered in conjunction with the evaluation of reasonable alternatives in the Global Nuclear Energy Partnership (GNEP) Programmatic EIS. The planned shipment of the FFTF unirradiated fuel to SRS is scheduled for the second half of Fiscal Year 2009. If FFTF is still being considered as part of GNEP following completion of the PEIS (expected in 2008), DOE may choose not to ship the unirradiated FFTF fuel to SRS.

[3] Based on DOE's current surplus plutonium disposition plans, DOE expects to disposition the surplus plutonium stored in KAMs in less than 20 years. DOE has analyzed the potential environmental impacts of storage of such plutonium in KAMs for up to 50 years.

DOE has prepared a Supplement Analysis (SA), *Storage of Surplus Plutonium Materials at the Savannah River Site* (DOE/EIS–0229–SA–4, August 2007), in accordance with DOE National Environmental Policy Act (NEPA) regulations (10 CFR 1021.314) to determine whether consolidated storage of this plutonium is a substantial change to the proposed action or whether there are significant new circumstances or information relevant to environmental concerns such that a supplemental EIS or a new EIS would be needed. Based on the SA, DOE has determined that no further review under NEPA is required.

FOR FURTHER INFORMATION CONTACT: Copies of NEPA documents related to this decision, including this Amended ROD, are available on DOE's NEPA Web site at: *http://www.eh.doe.gov/nepa.* To request copies of these documents, please contact: The Center for Environmental Management Information, P.O. Box 23769, Washington, DC 202–586–3769, Telephone: 800–736–3282 (in Washington, DC: 202–863–5084).

For further information concerning the storage of surplus, non-pit plutonium at the SRS, contact: Andrew R. Grainger, NEPA Compliance Officer, Savannah River Operations Office, U.S. Department of Energy, P.O. Box B, Aiken, South Carolina 29802, Telephone: (803) 952–8001, E-mail: *drew.grainger@srs.gov.*

For information on DOE's NEPA process, contact: Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Compliance, GC–20, U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585–0119, (202) 586–4600, or leave a message at (800) 472–2756.

SUPPLEMENTARY INFORMATION:

Background

At the end of the Cold War, the United States declared large quantities of plutonium and uranium surplus to the defense needs of the nation. At that time, materials were in various forms and various stages of the material manufacturing and weapons fabrication processes and located at several weapons complex sites that DOE had operated in the preceding decades. DOE began the process of placing these materials in safe, stable configurations suitable for storage until disposition strategies could be developed and implemented. Through a series of decisions supported by appropriate NEPA analyses, DOE has decided to store surplus, non-pit, weapons-usable

plutonium materials at SRS facilities pending disposition. DOE's Supplement Analysis, *Storage of Surplus Plutonium Materials at the Savannah River Site,* (DOE/EIS–0229–SA–4, August 2007), describes the NEPA reviews and DOE's decisions regarding transportation and storage of plutonium materials. Prior NEPA reviews and accompanying decisions that are directly related to today's decision are described in the following paragraphs.

In an April 19, 2002 (67 FR 19432), Amended Record of Decision (ROD), DOE announced its decision to immediately consolidate long-term storage in the K-Area Material Storage (KAMS) facility at SRS of surplus, non-pit plutonium from the Rocky Flats Environmental Technology Site (RFETS). In addition, DOE noted that cancellation of the then-planned immobilization facility for surplus plutonium disposition and the selection of the long-term storage alternative at SRS removed the basis for the contingency contained in previous RODs (which conditioned transport of surplus, non-pit plutonium from RFETS to SRS on the selection of SRS as the site for the immobilization facilities), and amended those RODs accordingly. DOE also stated that long-term storage of surplus plutonium and the ultimate disposition of that plutonium were separate actions, and that combining long-term storage and disposition was not required to implement either decision, and served no significant programmatic objective. Transfer of plutonium materials from RFETS to SRS was completed in 2003 and these materials are stored in 3013 containers inside 9975 shipping packages in the KAMS facility. In the 2002 Amended ROD, DOE left unchanged it's prior decision to store surplus, non-pit plutonium at Hanford, Idaho National Laboratory (INL), and LANL, pending disposition (or movement to lag storage at the disposition facility).[4]

Following the events of September 11, 2001, DOE revised the threat criteria and the postulated capabilities of those who might perpetrate acts of violence against DOE assets. As a result of this new threat guidance, DOE determined that the consolidation of plutonium at SRS into one location—KAMS—and enhancement of the security of that location, would provide the most advantageous means to meet this challenge and assure the safety and security of the stored material. Therefore, DOE cancelled a project to install stored surveillance and stabilization capability to ensure compliance with DOE–STD–3013 in F-Area and decided to construct the K-Area Interim Surveillance (KIS) project and the Container Surveillance and Storage Capability (CSSC) project in the K-Area complex. DOE prepared an environmental assessment, *Safeguards and Security Upgrades for Storage of Plutonium Materials at the Savannah River Site* (DOE/EA–1538, December 2005) and issued a Finding of No Significant Impact (FONSI) in December of 2005, to address the impacts of these and related security projects. The EA addressed surplus plutonium materials in the SRS inventory as of December 2005. The KIS Project, which became operational in June 2007, and the CSSC project, which is currently scheduled for operations in 2010, will provide surveillance and stabilization capability and capacity for storage of 3013 containers outside of KAMS (but in the K-Area complex) adequate to support the surveillance program required by DOE–STD–3013.

Decision: Consistent with DOE's prior decision to reduce over time the number of locations where the various forms of plutonium are stored, DOE has decided to consolidate storage of surplus, non-pit, weapons-usable plutonium from Hanford, LANL, and LLNL at SRS, pending disposition. Following appropriate congressional notification, in accordance with section 3155 of the National Defense Authorization Act for Fiscal Year 2002 (Pub. L. 107–107), DOE will transfer, over a period of about two to three years, approximately 2,511 additional 3013-compliant packages[5] containing plutonium metals and oxides to SRS. Approximately 2,300 containers will be transferred from Hanford, 115 containers will be transferred from LLNL, and 96 containers will be transferred from LANL. All 3013 containers will be shipped inside Type B shipping packages (e.g., 9975 packages) in Safe Secure Transports (SSTs). All containers will be certified compliant with DOE–STD–3013 and Department of Transportation requirements prior to shipment, and DOE will acquire and obtain certification of additional shipping containers, if needed.

In addition, DOE could transfer the equivalent of about one thousand 3013 containers, in the form of unirradiated fuel assemblies and miscellaneous fuel pins originally intended for the Fast Flux Test Facility (FFTF) at Hanford, to the SRS.[6] This material will be shipped in Type B shipping packages, in SSTs, and stored in the K-Area Complex in the Type B shipping packages, pending disposition. DOE will monitor the condition of the shipping packages while in storage to insure their integrity, including inspection of seals to monitor for corrosion or leakage. DOE will continue to store RFETS and SRS surplus, non-pit plutonium in approximately 2,800 containers inside Type B shipping packages at SRS. Storage will be in compliance with applicable Technical Safety Requirements (TSRs) and Safety Analysis Reports (SARs), and the total mass of stored plutonium will be significantly less than 15 metric tons. DOE has previously evaluated storage of non-pit surplus plutonium from RFETS and other DOE sites, as needed, in KAMS (*Supplement Analysis for Storing Plutonium in the Actinide Packaging and Storage Facility and the Building K–105 at the Savannah River Site.* (DOE/EIS–0229–SA–1, July 1998).

In addition, DOE will transfer approximately five hundred 3013 containers from LLNL and LANL to remove surplus inventory, provide operational flexibility, and to alleviate the demands there on storage capacity needed to support nuclear weapons research missions. This transfer will take place only if storage space is available in KAMS. Space is limited by the number of storage positions allowed in recognition of the spacing requirements dictated by the TSRs and SARs. DOE could increase the number of storage spaces by modifying the storage configuration after review, and revision as necessary, of the safety authorization basis.

DOE will use the KAMS facility for consolidated storage. Nearby areas of the K-Area complex, where the KIS is and CSSC will be located, will be used for surveillance and restabilization activities. Storage spaces necessary to support surveillance activities are available in the K-Area complex. Unirradiated FFTF fuel will also be stored in the K-Area complex.

Basis for Decision: DOE's decision to consolidate surplus plutonium at SRS will reduce the number of sites with

[4] DOE indicated in the Storage and Disposition PEIS ROD (DOE, 1997) that 0.3 metric tons of plutonium stored at LLNL was primarily research and development and operational feedstock material not surplus to government needs, and that the material would continue to be stored for use at LLNL. DOE has since determined that there is no programmatic need for this material, and that transferring the material to SRS for long-term storage would reduce surveillance costs at LLNL. In 1999, DOE determined that 3 to 4 metric tons of plutonium material will be retained at the Idaho National Laboratory for potential future use.

[5] A 3013 container has a maximum capacity of about 4.4 kilograms of plutonium. However, few containers have the maximum amount of plutonium.

[6] See footnote 2.

special nuclear material; enhance the security of these materials; reduce the risk plutonium poses to the public and environment; reduce or avoid the costs associated with plutonium storage, surveillance and monitoring, and security at multiple sites; and relocate the material to DOE's planned site for surplus plutonium disposition. Plutonium consolidation has been encouraged by independent reviews of DOE's activities, including the Government Accountability Office (GAO) in its July 2005 report entitled *Securing U.S. Nuclear Materials: DOE Needs to Take Action to Safely Consolidate Plutonium* (GAO–05–665) and recently by the Defense Nuclear Facilities Safety Board (DNFSB). In its June 26, 2007, report to Congress, the DNFSB stated: "The Board believes consolidation of excess plutonium into a single, robust facility suitable for extended retrievable storage is logical from a safety perspective. DOE should aggressively pursue consolidation of its excess plutonium." Furthermore, transferring within the next two to three years all the surplus plutonium currently at Hanford to SRS would enhance security and avoid the expenditure of about $200 million for security upgrades to be compliant with DOE's 2005 Design Basis Threat (DBT) guidance, as well as tens of millions of dollars more each year for security and monitoring to continue storing the material at Hanford.

Separately from the consolidation and storage activities DOE is announcing today, DOE is preparing a *Supplemental Environmental Impact Statement for Surplus Plutonium Disposition at the Savannah River Site* to evaluate the potential environmental impacts of alternative methods to disposition surplus, non-pit plutonium materials. The action alternatives identified in the Notice of Intent (72 FR 14543; March 28, 2007) for this Supplemental EIS involve: (1) A glass can-in-canister approach that would be installed in K-Area; (2) a ceramic can-in-canister approach that would be installed in K-Area; and (3) the Mixed Oxide (MOX) Fuel Fabrication Facility, currently under construction at SRS. In conjunction with any of these alternatives, DOE would utilize the existing H-Canyon and Defense Waste Processing Facility (DWPF) for the disposition of up to about four metric tons of surplus, non-pit plutonium materials. DOE's selection of one or more of these alternatives would ensure that surplus, weapons-usable plutonium that is currently at SRS, or that would be shipped to SRS as a result of the actions evaluated in this SA, would be placed in a form that would facilitate a disposition path out of South Carolina.

Supplement Analysis: DOE prepared a Supplement Analysis (*Storage of Surplus Plutonium Materials at the Savannah River Site,* (DOE/EIS–0229–SA–4, August 2007) to determine if consolidating storage at SRS of surplus, non-pit, weapons-usable plutonium from Hanford, LLNL, and LANL represented new circumstances or information requiring preparation of a supplemental EIS or a new EIS. The environmental impacts discussed in the SA are described in the following paragraphs.

Transportation

DOE will ship plutonium materials compliant with the DOE-STD–3013 in 3013 packages inside Type B shipping containers (e.g., 9975 containers) from Hanford, LLNL, and LANL to KAMS at SRS using SSTs. DOE will ship unirradiated FFTF fuel from Hanford to SRS in Type B shipping packages (e.g., the Hanford Un-irradiated Fuel Package) in SSTs. At KAMS, the 9975 containers will be received and stored; the 3013 packages will not be removed from the 9975 shipping containers. The Type B shipping packages containing the unirradiated FFTF fuel will be stored in the K-Area complex at SRS.

DOE previously evaluated the impacts of transporting 17 metric tons of non-pit, surplus plutonium to SRS in the *Surplus Plutonium Disposition* (SPD) EIS (DOE/EIS–0283, 1999), which addressed alternatives for disposition and was tiered from the Storage and Disposition PEIS. In the SPD EIS Alternative 3, DOE analyzed the transportation of surplus pit and non-pit plutonium to SRS. Table L–1 of the SPD EIS summarized the material shipments; included were surplus non-pit weapons-usable plutonium materials from Hanford, LLNL, LANL, RFETS, and INL (Argonne National Laboratory—West). The Hanford material specifically included FFTF fuel pins and assemblies. Alternative 3 included shipment of a greater quantity of surplus, non-pit plutonium materials to SRS than does the consolidation decision DOE is announcing today.

In the SPD EIS, DOE estimated that normal (incident-free) transportation operations could result in 0.024 latent cancer fatalities (LCF) among transportation workers and 0.034 LCF in the total affected population over the duration of the transportation activities. In preparing the SPD EIS, DOE used a dose conversion factor of 5×10^{-4} deaths per rem of dose to the affected population. Currently, DOE recommends a dose conversion factor of 6×10^{-4} deaths per rem. Using the currently recommended dose conversion factor, the estimated risk would be about 0.029 LCF among transport workers and about 0.041 LCF in the total affected population. In addition, DOE estimated that 0.019 nonradiological fatalities could occur as a result of vehicular emissions. DOE also estimated the impacts of accident scenarios, and in all cases the risk of a fatality is less than one. No accidents occurred during shipment of the RFETS plutonium to the SRS.

DOE has analyzed the impacts of transporting plutonium from Hanford, LLNL, and LANL (as well as INL and RFETS) to SRS in the SPD EIS. That analysis assumed that surplus non-pit plutonium would be transported in Type B containers in SSTs, just as DOE will do for the consolidation action announced today. DOE will make all shipments in shipping packages with current certificates, consistent with Department of Transportation requirements and DOE's prior NEPA reviews. The transportation required to implement this action is a subset of the transportation activities evaluated in the SPD EIS.

Storage

The KAMS facility requires no physical modification to accommodate the proposed storage of surplus, non-pit, weapons-usable plutonium from Hanford, LLNL, and LANL. The environmental impacts of storage of fissile material at SRS were presented in the *Interim Management of Nuclear Materials EIS* (DOE/EIS–0220, October 1995) and the *Storage and Disposition PEIS*. These two EISs contain calculated annual impacts presented over specific time periods. DOE also evaluated storage of surplus plutonium materials from RFETS and other sites, as needed, in 3013 containers inside Type B shipping containers in KAMS, and concluded that KAMS storage for up to 50 years did not represent significant new information relevant to environmental concerns, and that additional NEPA review was not required (DOE/EIS–0229–SA–01, 1998). The consolidated storage action DOE is announcing today involves the same forms of surplus plutonium and the same shipping and storage containers (which would be certified Type B containers), as DOE has previously analyzed.

DOE has initiated two projects to provide the stored plutonium surveillance and restabilization capability required as part of the monitoring program that is an integral

part of DOE–STD–3013. The KIS project, which became operational in June 2007, provides limited, temporary surveillance capability until the CSSC project is completed. Current plans call for the CSSC to be operational in 2010. DOE completed an EA (DOE/EA–1538, December 2005) evaluating the impacts of construction and operation of KIS and CSSC in the K-Area complex (near but not in KAMS), and related security upgrades in K-Area. Storage space adequate for the needs of the KIS and CSSC surveillance activities are provided outside of KAMS and a limited number of 3013 containers will be temporarily stored without Type B shipping containers when CSSC becomes operational. DOE evaluated the impacts of these actions in the EA, and determined the impacts would not be significant (Finding of No Significant Impact (FONSI), (DOE/EA–1538, December 2005). While the inventory in KAMS will increase as a result of the transfer and storage of surplus non-pit plutonium from Hanford, LLNL, and LANL, the number of 3013 containers stored outside of KAMS, or undergoing surveillance activities requiring opening of the cans, will not increase. The number of cans undergoing surveillance activities is limited by the facility safety analysis and technical safety requirements, and neither would change as a result of storing more material in KAMS. Therefore, DOE's action is not different in regard to surveillance actions than those DOE has previously evaluated and found to be insignificant.

DOE has found no anomalous conditions in either the 3013 containers or the stored plutonium material in the DOE–STD–3013 surveillance program. Similarly, performance of the Type B shipping containers has been as expected, with no instances of unacceptable performance. The K-Area Structural Assessment Program, mentioned in the 2002 ROD, has not revealed any condition or degradation that would affect the structural integrity of the facility.

Unirradiated fuel from the FFTF facility at Hanford will be stored in Type B shipping packages in the K-Area transfer bay in the K-Area complex. Storage of FFTF fuel in Type B shipping containers in the K-Area transfer bay will provide a level of safety equivalent to that resulting from storage of plutonium in 3013 containers inside 9975 shipping packages in KAMS. In addition, DOE evaluated the storage of irradiated tritium-producing burnable absorber rods in Type B shipping containers (the same configuration for the storage of FFTF fuel) in the K-Area transfer bay (DOE/EA–1528, *Storage of Tritium-Producing Burnable Absorber Rods in K-Area Transfer Bay at SRS*, June 2005) and found the environmental impacts to be insignificant (FONSI, DOE/EA–1528, June 2005).

Intentional Destructive Acts

DOE provides substantial safeguards and security measures for both transportation and storage of plutonium. Safeguards and security are designed to prevent theft or diversion of materials, and to prevent exposure of workers and the public to radiation from the material during transportation and storage. DOE recognizes that an attack against surplus plutonium cargo may cause very undesirable consequences, such as release of radionuclides into the environment.

Following the events of September 11, 2001, DOE is continuing to consider and implement measures to minimize the risk and consequences of potential terrorist attacks on DOE facilities and activities. DOE conducts vulnerability assessments and risk analyses in accordance with DOE Order 470.3A, *Design Basis Threat Policy* and DOE Order 470.4A, *Safeguards and Security Program*. The safeguards applied to protecting the K-Area complex involve a dynamic process of enhancement to meet threats, and those safeguards will evolve over time. It is not possible to predict whether intentional destructive acts would occur at these locations, or the nature or types of attacks. Nevertheless, DOE has evaluated security scenarios involving malevolent or terrorist acts in an effort to assess potential vulnerabilities and identify improvements to security procedures and response measures. The physical security protection strategy is based on a graded and layered approach supported by a guard force trained to detect, deter, and neutralize adversary activities. Facilities are protected by staffed and automated access control systems, barriers, surveillance systems and intrusion detection systems.

Plutonium materials intended for consolidated storage would be received and stored in the K-Area Complex. DOE evaluated accident scenarios during storage of plutonium materials in the *Interim Management of Nuclear Materials EIS* (DOE/EIS–0220, October 1995). DOE finds that the accident impacts are representative of the potential impacts of intentional destructive acts against the facilities proposed for consolidated storage, particularly in light of the robust nature of the facilities themselves and the improved security and response measures that have been put in place in recent years.

In the SPD EIS, DOE evaluated the impacts of a severe accident while transporting plutonium oxide material in Type B shipping containers in Safe Secure Transports (SSTs). The hypothetical accidents modeled for the impact assessment involve either a long-term fire or tremendous impact of crushing forces. In the case of crushing forces, a fire would have to be burning in order to spread the plutonium as modeled. These accidents were assumed to cause a ground-level release of 10 percent of the radioactive material in the SST. These accidents fall within the Nuclear Regulatory Commission's severity Category VIII, with an accident frequency in rural areas of about 1×10^{-7} per year (once in 10 million years). DOE estimated that if such an accident were to occur in an urban area as many as 114 cancer fatalities could result. In addition, the accident itself would cause a number of non-radiological fatalities, depending upon the specific circumstances.

In reviewing the nature and consequences of the accident scenarios described in the SPD EIS, DOE finds that the consequences bound the consequences of a hypothetical terrorist attack on an SST carrying surplus non-pit plutonium. Because of the robust nature of the Type B containers and the SSTs, and because shipments are protected, DOE finds it unlikely that an attack could generate the forces required to release as much material as postulated for a severe accident. Therefore, DOE expects the potential consequences of a terrorist attack on a shipment of surplus, non-pit plutonium to be equal to or less than those of a severe accident.

Defense Nuclear Facilities Safety Board Report to Congress

In December 2003, the Defense Nuclear Facilities Safety Board (DNFSB) issued a Report to Congress on Plutonium Storage at the Department of Energy's Savannah River Site. The DNFSB is an independent Federal agency chartered by Congress to provide recommendations to the Department of Energy on the safety of defense nuclear facilities. The Board's report contains proposals for enhancing the safety, reliability, and functionality of plutonium storage at SRS; one proposal concerns KAMS and four concern F-Area. However, subsequent to issuance of the Board's report, DOE decided to utilize only KAMS and the K-Area complex for storage of plutonium and for future stabilization and packaging operations, and to deinventory F-Area of all plutonium prior to the end of 2006.

With respect to KAMS, the Board proposed that fire protection systems be installed and that unnecessary combustibles be eliminated. In response to this proposal, the Department determined that fire suppression equipment would be installed in the Neutron Multiplicity Counting Room of KAMS, fire detection equipment would be installed throughout KAMS, and the cable combustible load in the actuator tower above KAMS would be removed. DOE completed removal of the actuator tower cables in August 2006. DOE plans to begin installation of a fire detection system in KAMS in 2007 and complete it in 2008. DOE also plans to begin installation of a fire suppression system in the Neutron Multiplicity Counting Room in 2008 and complete the installation in 2009.

In addition, the fire protection posture designed into KAMS was to minimize both transient and fixed combustibles within the facility such that the remaining worst possible fire could not cause a release of plutonium. The walls separating the KAMS facility from the remainder of the K-Reactor building were fabricated into a two-hour fire boundary. Combustibles outside the facility fire boundaries were minimized, contained, or mitigated to ensure the KAMS facility fire boundaries were rated longer than any credible fire would burn.

Supplement Analysis Conclusion And Determination: DOE has fully evaluated transportation of surplus, non-pit plutonium materials for SRS and storage at SRS of such materials from Hanford and LANL in the Storage and Disposition PEIS and SPD EIS. The action announced today, consolidated storage of surplus, non-pit plutonium materials at SRS, including transportation of the materials to SRS, is addressed in the Storage and Disposition PEIS, the SPD EIS, and other NEPA reviews addressed above. DOE evaluated the potential impacts of conducting plutonium surveillance and stabilization activities required by DOE–STD–3013 in the *Environmental Assessment for the Safeguards and Security Upgrades for Storage of Plutonium Materials at the Savannah River Site,* and found the impacts to be insignificant. Some of these documents are now 10 or more years old. However, DOE has reviewed the analyses and assumptions relevant to the potential environmental impacts of the actions described herein and found any changes to be insignificant.

DOE's 2007 SA shows that the potential environmental impacts associated with the further consolidation of surplus non-pit, weapons-usable plutonium from Hanford, LLNL and LANL would not be a significant change from the potential environmental impacts associated with the alternatives analyzed in previous NEPA reviews. DOE is not proposing a substantial change that is relevant to environmental concerns. No significant new circumstances or information bearing on the proposed action and relevant to environmental concerns are presented by the proposed consolidation of plutonium storage. Therefore, DOE does not need to conduct additional NEPA review prior to transferring surplus non-pit plutonium materials from Hanford, LLNL, and LANL to SRS for consolidated storage pending disposition, as described above.

Issued in Washington, DC, this 5th day of September, 2007.

James A. Rispoli,

Assistant Secretary for Environmental Management.

[FR Doc. E7–17840 Filed 9–10–07; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ER07–1222–000; Docket No. ER07–1223–000]

CR Clearing, LLC; Cow Branch Wind Power, LLC; Notice of Issuance of Order

September 4, 2007.

CR Clearing, LLC and Cow Branch Wind Power, LLC (collectively, "the Applicants") filed applications for market-based rate authority, with accompanying market-based rate tariffs. The proposed market-based rate tariffs provide for the sale of energy and capacity at market-based rates. The Applicants also requested waivers of various Commission regulations. In particular, the Applicants requested that the Commission grant blanket approvals under 18 CFR part 34 of all future issuances of securities and assumptions of liability by the Applicants.

On August 31, 2007, pursuant to delegated authority, the Director, Division of Tariffs and Market Development-West, granted the requests for blanket approval under part 34 (Director's Order). The Director's Order also stated that the Commission would publish a separate notice in the **Federal Register** establishing a period of time for the filing of protests. Accordingly, any person desiring to be heard concerning the blanket approvals of issuances of securities or assumptions of liability by the Applicants, should file a protest with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure. 18 CFR 385.211, 385.214 (2004).

Notice is hereby given that the deadline for filing protests is October 1, 2007.

Absent a request to be heard in opposition to such blanket approvals by the deadline above, the Applicants are authorized to issue securities and assume obligations or liabilities as a guarantor, indorser, surety, or otherwise in respect of any security of another person; provided that such issuance or assumption is for some lawful object within the corporate purposes of the Applicants, compatible with the public interest, and is reasonably necessary or appropriate for such purposes.

The Commission reserves the right to require a further showing that neither public nor private interests will be adversely affected by continued approvals of the Applicants' issuance of securities or assumptions of liability.

Copies of the full text of the Director's Order are available from the Commission's Public Reference Room, 888 First Street, NE., Washington, DC 20426. The Order may also be viewed on the Commission's Web site at *http://www.ferc.gov,* using the eLibrary link. Enter the docket number excluding the last three digits in the docket number filed to access the document. Comments, protests, and interventions may be filed electronically via the internet in lieu of paper. See, 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the "e-Filing" link. The Commission strongly encourages electronic filings.

Kimberly D. Bose,

Secretary.

[FR Doc. E7–17855 Filed 9–10–07; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ER07–1246–000]

Harvest Windfarm, LLC; Notice of Issuance of Order

September 4, 2007.

Harvest Windfarm, LLC (Harvest) filed an application for market-based rate authority, with an accompanying tariff. The proposed market-based rate tariff provides for the sale of energy and

SUPPLEMENT ANALYSIS

STORAGE OF SURPLUS PLUTONIUM MATERIALS AT THE SAVANNAH RIVER SITE

INTRODUCTION AND PURPOSE

In April 2002, DOE decided to immediately consolidate long-term storage at the Savannah River Site (SRS) of surplus, non-pit weapons-usable plutonium then stored at the Rocky Flats Environmental Technology Site (RFETS) (DOE, 2002a). That 2002 decision did not affect an earlier DOE decision made in the January 21, 1997, Record of Decision (ROD, DOE, 1997) for the *Storage and Disposition of Weapons-Usable Fissile Materials Programmatic Environmental Impact Statement* (Storage and Disposition PEIS, DOE, 1996) to continue storage of non-pit surplus plutonium at Hanford, the Idaho National Laboratory (INL), and the Los Alamos National Laboratory (LANL), pending disposition (or movement to lag storage at the disposition facility). DOE has since transferred all surplus weapons-usable plutonium from RFETS to Pantex and SRS.

DOE now proposes to consolidate storage at the SRS of surplus, non-pit weapons-usable plutonium from the Hanford site (Hanford), the Los Alamos National Laboratory (LANL), or the Lawrence Livermore National Laboratory (LLNL).[1,2] This Supplement Analysis (SA) evaluates the need for additional National Environmental Policy Act (NEPA) review regarding this proposal.

This proposal to consolidate storage of surplus non-pit weapons-usable plutonium at SRS would reduce the number of sites with special nuclear material; enhance the security of these materials; reduce the risk plutonium storage poses to the public and environment; reduce or avoid the costs associated with plutonium storage, surveillance and monitoring, and security at multiple sites; and relocate the material to DOE's planned site for surplus plutonium disposition. Plutonium consolidation has been encouraged by independent reviews of DOE's activities, including the Government Accountability Office (GAO) in its July 2005 report entitled *Securing U.S. Nuclear Materials: DOE Needs to Take Action to Safely Consolidate Plutonium* (GAO-05-665) and recently by the Defense Nuclear Facilities Safety Board (DNFSB). In its June 26, 2007, report to Congress, the DNFSB stated: "The Board believes consolidation of excess plutonium into a single, robust facility suitable for extended retrievable storage is logical from a *safety* perspective. DOE should aggressively pursue consolidation of its excess plutonium." Furthermore, transferring within the next two to three years the surplus, non-pit weapons-usable plutonium currently at Hanford to SRS would enhance security at the Hanford site and avoid the expenditure of about $200 million for security upgrades to be compliant with the 2005 Design

[1] Based on DOE's current surplus plutonium disposition plans, DOE expects to disposition the surplus plutonium stored in KAMs in less than 20 years. DOE has analyzed the potential environmental impacts of storage of such plutonium in KAMs for up to 50 years.

[2] DOE indicated in the *Storage and Disposition PEIS* ROD (DOE, 1997) that 0.3 metric tons of plutonium stored at LLNL was primarily research and development and operational feedstock material not surplus to government needs, and that the material would continue to be stored for use at LLNL. DOE has since determined that there is no programmatic need for this material, and that transferring the material to SRS for storage would reduce surveillance costs at LLNL. In 1999, DOE determined that 3 to 4 metric tons of plutonium material will be retained at the Idaho National Laboratory for potential future use.

Basis Threat (DBT) guidance, as well as tens of millions of dollars more each year for security and monitoring to continue storing the material at Hanford.

At SRS, DOE would use the K-Area Material Storage (KAMS) facility and portions of the K-Area complex for consolidated storage and surveillance of this material. Consistent with previous decisions for such RFETS plutonium (DOE, 1998a), this surplus, non-pit weapons-usable plutonium would be transferred to and stored in KAMS in a form and in containers that meet the DOE Standard for storage of plutonium, DOE-STD-3013 (DOE, 2004a).[3] In addition, the 3013 containers would remain inside Type B (e.g., a 9975) shipping packages, except for temporary storage necessary for surveillance activities to ensure safe storage. DOE would also transfer unirradiated fuel (consisting of fuel pins and fuel assemblies) primarily from the Fast Flux Test Facility (FFTF) currently stored at Hanford to SRS.[4] The fuel pins and assemblies would be shipped to SRS and stored in Type B shipping packages (e.g., Hanford Un-irradiated Fuel Package) inside the K-Area complex.

The Council on Environmental Quality regulations for implementing NEPA, 40 CFR 1502.9(c), direct Federal agencies to prepare a supplement to an EIS when an agency "(i) makes substantial changes in the proposed action that are relevant to environmental concerns, or (ii) there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or impacts." DOE regulations for compliance with NEPA, 10 CFR 1021.314(c), direct that when it is unclear whether a supplement to an EIS is required, DOE must prepare an SA to assist in making that determination.

Separately from the proposed consolidation and storage activities evaluated in this SA, DOE is preparing a *Supplemental Environmental Impact Statement for Surplus Plutonium Disposition at the Savannah River Site* to evaluate the potential environmental impacts of alternative methods to disposition surplus, non-pit plutonium materials. As stated in the Notice of Intent (72 FR 14543; March 28, 2007), "in addition to achieving the ultimate goal of permanent disposition of surplus plutonium materials, DOE independently needs to improve the configuration of the storage system for these materials, pending disposition" (quoting DOE, 2002a).[5] The action alternatives in the Supplemental EIS involve: (1) a glass can-in-canister approach that would be installed in K-Area; (2) a ceramic can-in-canister approach that would be installed in K-Area; and (3) the Mixed Oxide (MOX) Fuel Fabrication Facility, currently under construction at SRS. In conjunction with any of these alternatives, DOE would utilize the existing H-Canyon and

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[3] In its 1998 Amended ROD (DOE, 1998a) for the *Storage and Disposition PEIS*, DOE indicated that all plutonium materials shipped to SRS would be stable and, except for classified metal parts, would be packaged to meet the requirements of DOE Standard 3013, Stabilization, Packaging, and Storage of Plutonium-Bearing Materials.

[4] The use of FFTF and the unirradiated fuel currently at Hanford is being considered in conjunction with the evaluation of reasonable alternatives in the *Global Nuclear Energy Partnership (GNEP) Programmatic EIS*. The planned shipment of the FFTF unirradiated fuel to SRS is scheduled for the second half of Fiscal Year 2009. If FFTF is still being considered as part of GNEP following completion of the PEIS (expected in 2008), DOE may choose not to ship the unirradiated FFTF fuel to SRS.

[5] The proposed action analyzed in this SA involves a different purpose and need, different facility (KAMS), different technologies, and potential environmental impacts, as well as a more imminent timing, than the alternatives being analyzed in the Supplemental EIS. The proposed consolidation analyzed in this SA would not trigger, prejudice or limit the alternatives analyzed in the Supplemental EIS, and DOE could select one or more of the alternatives analyzed in the Supplemental EIS regardless of whether DOE decides to consolidate storage of surplus plutonium pursuant to this SA.

Defense Waste Processing Facility (DWPF) for the disposition of up to about four metric tons of surplus, non-pit plutonium materials. DOE's selection of one or more of these alternatives would ensure that surplus, weapons-usable plutonium that is currently at SRS, or that would be shipped to SRS as a result of the action evaluated in this SA, would be placed in a form that would facilitate a disposition path out of South Carolina.

BACKGROUND

Through a series of decisions supported by appropriate NEPA analyses, DOE has decided to store certain of its surplus non-pit weapons-usable plutonium at SRS facilities. Existing facilities at SRS are being used for storage of SRS surplus plutonium materials as well as surplus plutonium received from RFETS. The relevant NEPA documents are listed and briefly described in Table 1. The documents and the decisions DOE made in regard to plutonium storage and disposition are described in greater detail following Table 1.

Table 1. NEPA Reviews and Decisions Related to Plutonium Storage and Disposition at the SRS

October 1995 - Interim Management of Nuclear Materials (IMNM) EIS - This document assessed the potential environmental impacts of actions necessary to manage nuclear materials then stored at SRS until decisions on their ultimate disposition were made and implemented. DOE did not evaluate actions for offsite materials in the IMNM EIS, but the analysis applies to types of nuclear materials regardless of origin. Construction of a new Actinide Packaging and Storage Facility (APSF) was included in the analysis. This EIS did not establish a limit to the period for which materials could be stored. In many cases (e.g., for existing plutonium metal stored in vaults at SRS and Pu-239 solutions), however, material was to be stored until DOE made "long-term storage or disposition decisions."

December 1995 - IMNM EIS ROD - The ROD identified the selected management (stabilization methods and storage) for the majority of SRS's "vulnerable" nuclear materials and announced the decision to build the APSF.

December 1996 - Storage and Disposition of Weapons-Usable Fissile Materials PEIS - This document analyzed the potential environmental consequences (over a 50-year storage period consistent with DOE-STD-3013) of alternatives for long-term storage, including storage pending disposition, and disposition of weapons-usable fissile materials from the dismantlement of U.S. nuclear weapons. The preferred alternative for storage of non-pit plutonium from RFETS and SRS was to store it in an expanded APSF at SRS, and to phase out storage at RFETS. The preferred alternative for disposition of plutonium involved a combination of immobilization for direct disposal and manufacture of MOX fuel for commercial reactors.

January 1997 - ROD for Storage and Disposition of Weapons-Usable Fissile Materials PEIS - This document selected weapons-usable fissile materials storage and surplus plutonium disposition strategies. For plutonium storage, DOE decided to

consolidate part of its weapons-usable plutonium storage by upgrading and expanding existing and planned facilities at Pantex (plutonium pits) and SRS (non-pit plutonium). At SRS, plutonium was to be stored in an expanded APSF. Plutonium currently stored at Hanford would remain there until disposition (or move to lag, *i.e.* temporary, storage at a disposition facility). Non-pit weapons-usable plutonium would be moved from RFETS to SRS after stabilization was performed at RFETS and after the material was packaged in DOE-approved containers pursuant to existing procedures. In addition, shipment of the non-pit plutonium from RFETS to SRS after stabilization would only be implemented if the subsequent ROD for a plutonium disposition site called for immobilization of plutonium at SRS.

August 1998 - Amended ROD for Storage and Disposition of Weapons-Usable Fissile Materials PEIS - To support early closure of RFETS and early deactivation of plutonium storage facilities at Hanford, this amended decision allowed for accelerated shipment of non-pit surplus plutonium from RFETS to SRS before completion of the APSF, as well as the relocation of all Hanford surplus weapons-usable plutonium to the SRS, pending disposition. However, consistent with the January 1997 ROD, DOE decided to only implement the movement of RFETS and Hanford non-pit, surplus weapons-usable plutonium inventories to the SRS if the SRS were selected as the immobilization disposition site. To accommodate storage of the RFETS non-pit plutonium prior to completion of the APSF, space was to be provided in K-Area at the SRS. Prior to issuing an amended ROD (DOE, 1998a), DOE prepared an SA (DOE, 1998b) to evaluate storage in the KAMS facility (for 10 years), rather than in APSF, because APSF would not be complete in time to support early deinventory of RFETS.

November 1999 - Surplus Plutonium Disposition (SPD) EIS - This EIS identified the environmental impacts of reasonable alternatives for the proposed siting, construction, and operation of three facilities for the disposition of up to 50 metric tons of surplus plutonium, as well as a No Action alternative. The preferred alternative was a hybrid approach: immobilizing 17 metric tons of surplus plutonium and using the remaining 33 metric tons to fabricate mixed oxide fuel (to be "burned" in commercial nuclear reactors). SRS was the preferred site for all three disposition facilities (pit disassembly and conversion, MOX fabrication, and immobilization). The No Action alternative analyzed the impacts of continued storage of plutonium at sites across the DOE complex for a 50-year period.

January 2000 - SPD EIS ROD - Consistent with the January 1997 decision for the Storage and Disposition PEIS, DOE affirmed its decision to use a hybrid approach for the safe and secure disposition of up to 50 metric tons of surplus plutonium using both immobilization and MOX technologies. DOE also decided to construct and operate three new facilities (Pit Disassembly and Conversion Facility, Immobilization Facility, and MOX Fuel Fabrication Facility) at SRS.

January 2001 - Amended IMNM ROD - This ROD cancelled the APSF project and allowed for the installation of stabilization and packaging capability to meet DOE's plutonium storage standard within Building 235-F.

November 2001 - Amended IMNM ROD - This ROD cancelled the Building 235-F plutonium packaging and stabilization project, and DOE decided to modify existing or install new furnaces and an outer can welding capability within FB-Line in Building 221-F.

April 2002 - SA and Amended ROD for SPD EIS and Storage and Disposition PEIS - DOE modified its decisions on storage and disposition of surplus plutonium. DOE cancelled the immobilization portion of DOE's disposition strategy. DOE selected the alternative of consolidated long-term storage at SRS of non-pit surplus plutonium stored separately at RFETS and at SRS. DOE left unchanged its prior decision to continue storage of surplus non-pit weapons-usable plutonium at Hanford, INL, and LANL, pending disposition (or movement to lag, *i.e.* temporary, storage at the disposition facility). DOE decided to utilize the KAMS facility for consolidated long-term storage of non-pit plutonium from RFETS and SRS. Cancellation of the immobilization facility and selection of consolidated storage removed the basis for contingency contained in previous RODs (which conditioned transport of non-pit surplus plutonium from RFETS to SRS for storage on the selection of SRS as the site for the immobilization facilities), and, accordingly, DOE amended those RODS. DOE also stated that storage of plutonium and the ultimate disposition of that plutonium were separate actions addressed separately in the Storage and Disposition PEIS, and that while previous RODs combined these actions, such combination was not required to implement either decision, and served no programmatic purpose. The SA supporting the Amended ROD (DOE, 2002b) evaluated storage, in accordance with DOE-STD-3013, of surplus plutonium and plutonium materials from RFETS and other sites, as needed, in KAMS pending disposition.

April 2003 - SA and Amended ROD for SPD EIS - DOE amended its decision to allow for the disposition of up to 34 metric tons of plutonium (instead of 33 metric tons) and for preparing 6.5 metric tons of plutonium previously intended for immobilization for use as feed material for MOX fuel fabrication. The majority of the 6.5 metric tons of plutonium is located at Hanford, LLNL, and LANL, but DOE did not change the storage location for that material.

November 2003 - SA and Amended ROD for SPD EIS - DOE amended the 2000 ROD to allow for the fabrication of MOX fuel lead assemblies in France instead of at LANL.

December 2005 - Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the Safeguards and Security Upgrades for Storage of Plutonium Materials at the SRS - DOE evaluated installation and operation of interim and permanent capability for plutonium surveillance and stabilization in K-Area at SRS, including deinventory of plutonium from F-Area for storage in K-Area, storage of plutonium in 3013 containers (rather than 3013s in 9975 shipping containers) to accommodate surveillance and stabilization, and installation of safeguards and security upgrades in K-Area and the Advanced Tactical Training Area.

At the end of the Cold War, the United States declared large quantities of plutonium and uranium surplus to the defense needs of the nation. At that time, materials were in various forms and various stages of the material manufacturing and weapons fabrication processes and located at several weapons complex sites that DOE had operated in the preceding decades. DOE began the process of placing these materials in safe, stable configurations suitable for storage until disposition strategies could be developed and implemented. The following is a summary of the NEPA documentation relevant to the storage and disposition of surplus plutonium materials for which DOE is now proposing actions.

In 1995, DOE prepared the *IMNM EIS* and evaluated a suite of alternatives for ensuring the continued safe management and storage of nuclear materials at SRS (DOE, 1995a). A part of the preferred alternative was the construction of the APSF to prepare, package, and store plutonium oxide and metal in accordance with DOE's standard for long-term storage of plutonium, DOE-STD-3013 (DOE, 2004a)[6]. The APSF also was intended to provide space for consolidated storage of plutonium and special actinide materials at the SRS. DOE's ROD for the *IMNM EIS* (DOE, 1995b) included the decision to construct the APSF. DOE ensures safe storage and processing operations through conformance to Technical Safety Requirements (TSRs) based on the Safety Analysis Reports (SARs) for the facilities and processes. The SARs and TSRs address issues such as criticality safety and material concentrations, as mentioned in the RODs cited above.

The *Storage and Disposition PEIS* (DOE, 1996) analyzed the potential impacts of various alternatives for the long-term storage (up to 50 years) of approximately 50 metric tons of surplus, weapons-usable plutonium (including weapons pits and non-pit material consisting of metals, oxides, alloys, and unirradiated fuels) throughout the DOE complex. The Storage and Disposition PEIS addressed several alternatives including consolidated storage at SRS and the preferred alternative that involved the shipment of RFETS non-pit plutonium to SRS and storage in an expanded APSF. DOE's decision (DOE, 1997) was consistent with the preferred alternative. DOE decided to reduce over time the number of locations where the various forms of plutonium are stored, through a combination of storage alternatives in conjunction with a combination of disposition alternatives. DOE also decided to expand the planned APSF at SRS to store those surplus, non-pit plutonium materials currently at SRS and surplus non-pit plutonium materials from RFETS, pending disposition. In the ROD, DOE also stated that transfer of plutonium materials to the SRS would be contingent upon, among other things, stabilization of the materials to comply with DOE-STD-3013 and selection of SRS as the immobilization disposition site in the ROD for the SPD EIS (then in preparation). DOE stated that placement of surplus, non-pit plutonium materials in a new storage facility at SRS, pending disposition at SRS, would allow utilization of existing expertise and plutonium handling

[6] DOE-STD-3013 has been modified a number of times since its original issue. DOE-STD-3013 specifies criteria for safe, long-term storage of plutonium materials, and requires implementation of a surveillance program to assure that the storage criteria are met over time. The surveillance program requires that DOE have the capability to restabilize stored plutonium if it is found to be outside the safe storage specifications. In addition, the surveillance program assures the integrity of the Type B shipping containers used in storage through an inspection and maintenance program. The most notable change in the standard is a reduced frequency for surveillance of plutonium metal. No changes to the standard have been made that would invalidate any assumptions or analysis concerning the impacts of transporting or storing plutonium in compliance with the standard.

capabilities at a location where disposition activities could occur. DOE said that the decision to store non-pit plutonium from RFETS at SRS places most non-pit material at a plutonium-competent site with the most modern, state-of-the-art storage and processing facilities and at a site with the only remaining large-scale chemical separation and processing capability in the DOE complex.

To accelerate the closure of RFETS from 2010 to 2006, DOE decided to prepare additional suitable storage space in K-Area at SRS, later designated as KAMS (DOE, 1998a). The KAMS storage space would be used to store surplus, non-pit plutonium from RFETS. Prior to this decision, an SA was prepared to analyze storage for up to 15 metric tons (including plutonium from SRS, RFETS, and Hanford) of surplus plutonium materials in KAMS for a period of up to 10 years (DOE, 1998b). The SA demonstrated that this action would not result in a substantial change in the proposed action relevant to the environmental concerns evaluated in the Storage and Disposition PEIS and that the action did not present significant new circumstances or information relevant to the environmental concerns evaluated in the Storage and Disposition PEIS (DOE, 1996). DOE issued the SA, along with the amended ROD that announced the decision to construct and operate KAMS to facilitate early closure of the RFETS (DOE, 1998a). In this amended ROD, DOE also stated that it would relocate all Hanford surplus weapons-usable plutonium to the SRS between 2002 and 2005, pending disposition. However, consistent with the Storage and Disposition PEIS ROD, DOE would only implement the movement of RFETS and Hanford non-pit, surplus weapons-usable plutonium inventories to SRS if SRS were selected as the immobilization disposition site.

In 1999, DOE completed the *SPD EIS* (DOE, 1999) and in January 2000, issued a ROD (DOE, 2000a). Consistent with the January 1997 decision on the Storage and Disposition PEIS, DOE affirmed its decision to use a hybrid approach for the safe and secure disposition of up to 50 metric tons of surplus plutonium using both immobilization and MOX fuel technologies. DOE also decided to construct and operate three new facilities (Pit Disassembly and Conversion Facility, Immobilization Facility, and MOX Fuel Fabrication Facility) at SRS for surplus plutonium disposition.

Because of APSF cost growth, resource limitations, and the potential for integrating its plutonium storage activities, DOE evaluated alternative stabilization and storage options (DOE, 2000b). DOE decided in a January 2001 Amended ROD for the *IMNM EIS* (DOE, 2001), to cancel the APSF project and initiate a project to install monitoring, stabilization, and packaging equipment required to comply with DOE-STD-3013, in the F-Area Material Storage Facility at SRS. DOE determined that the impacts of this action had been evaluated in the *IMNM EIS* and stated its decision to continue to use existing vault space in F-Area at SRS for interim storage pending final disposition. The previous decision (DOE, 1998a) to store surplus, non-pit plutonium from RFETS in KAMS was reaffirmed.

However, following the events of September 11, 2001, DOE reassessed the threat criteria relative to the protection of plutonium and other nuclear materials. As a result of this reassessment, DOE revised the criteria and the postulated capabilities of those who might perpetrate acts of violence against DOE assets. As a result of this new threat guidance, DOE determined that the consolidation of plutonium at SRS into one location - KAMS - and enhancement of the security

of that location would provide the most advantageous means to meet this challenge and ensure the safety and security of the stored material. Therefore, DOE cancelled the project to install surveillance and stabilization capability in F-Area and proposed to construct the K-Area Interim Surveillance (KIS) project and the Container Surveillance and Storage Capability (CSSC) project in the K-Area complex. DOE prepared an EA, *Safeguards and Security Upgrades for Storage of Plutonium Materials at the Savannah River Site* (DOE, 2005a), and issued a FONSI (DOE, 2005b), to address the impacts of these and related security projects. The EA addressed surplus plutonium materials in the SRS inventory as of December 2005. The KIS project, which became operational in June 2007, and the CSSC project, currently planned to be operational in 2010, will provide surveillance and stabilization capability and capacity for storage of 3013 containers outside of KAMS (but in the K-Area complex) adequate to support the surveillance program required by DOE-STD-3013. KIS is operational and will allow DOE to comply with quarterly sampling requirements for stored plutonium materials, either material currently in the SRS inventory, or material that would be received as a result of the proposed action described in this SA.

In April 2002 (DOE, 2002a), DOE amended its previous storage and disposition decisions and decided to immediately consolidate long-term storage at the SRS of surplus, non-pit weapons-usable plutonium then stored at RFETS. Prior to issuing the Amended ROD, DOE prepared an SA (DOE, 2002b) to evaluate the potential impacts of storage of up to 15 metric tons of plutonium materials in 9975 shipping containers in KAMS for up to 50 years. DOE decided to store the plutonium in 9975 shipping containers to provide an additional margin of safety due to the lack of HEPA filtration for potential emissions from accidents in KAMS. DOE noted that cancellation of the immobilization facility and selection of the long-term storage alternative removed the basis for the contingency contained in previous RODs (which conditioned transport of surplus, non-pit plutonium from RFETS to SRS on the selection of SRS as the site for the immobilization facilities), and amended those RODs accordingly. DOE also noted that long-term storage of surplus plutonium and the ultimate disposition of that plutonium are separate actions, and that combining long-term storage and disposition was not required to implement either decision, and served no significant programmatic objective. Transfer of plutonium materials from RFETS to SRS was completed in 2003 and these materials are stored in 3013 containers inside 9975 shipping packages in the KAMS facility.

PROPOSED ACTION

Consistent with DOE's prior decision to reduce over time the number of locations where the various forms of surplus, weapons-usable plutonium are stored, DOE now proposes to consolidate storage of surplus, non-pit weapons-usable plutonium from Hanford, LANL, and LLNL at SRS, pending disposition. DOE proposes to transfer non-pit plutonium currently stored at Hanford, LLNL[7], and LANL to SRS. This action would result in the relocation of surplus, non-pit plutonium (suitable for disposition) to the SRS, where the H-Canyon processing facility is in operation, the MOX facility is under construction, and a small-scale plutonium vitrification facility is proposed. Under the proposed action addressed in this SA, DOE would transfer, over

[7] The LLNL materials were not identified as surplus in the Storage and Disposition PEIS (DOE, 1996), but were included in the inventory evaluated in the storage alternatives, including the consolidated storage alternative.

a period of about two to three years approximately 2,511 additional 3013-compliant packages[8] containing plutonium metals and oxides to SRS. Approximately 2,300 containers would be transferred from Hanford; 115 containers would be transferred from LLNL; and 96 containers would be transferred from LANL. All 3013 containers would be shipped inside Type B shipping packages (e.g., 9975 packages) in Safe Secure Transports (SSTs). All containers would be certified as compliant with DOE-STD-3013 and Department of Transportation requirements prior to shipment, and DOE would acquire additional shipping containers if needed. In addition, DOE would transfer the equivalent of about 1,000 3013 containers, in the form of unirradiated fuel assemblies originally intended for the FFTF at Hanford, and miscellaneous fuel pins that were not put into fuel assemblies, to the SRS.[9] This material would be shipped in Type B shipping packages, in SSTs, and stored in the K-Area complex in the Type B shipping packages, pending disposition. DOE would monitor the condition of the fuel casks while in storage to ensure their integrity, including inspection of seals to monitor for corrosion or leakage. DOE will continue to store RFETS and SRS surplus, non-pit plutonium in approximately 2,800 3013 containers inside Type B shipping packages at SRS. Storage would be in compliance with applicable TSRs and SARs, and the total mass of stored plutonium would be significantly less than 15 metric tons.

In addition, DOE would transfer approximately 500 3013 containers from LLNL and LANL to remove surplus inventory, provide operational flexibility, and to alleviate the demands there on storage capacity needed to support nuclear weapons research missions. This transfer would take place only if storage space were available in KAMS. Space is limited by the number of storage positions allowed in recognition of the spacing requirements dictated by the TSRs and SARs. DOE could increase the number of storage spaces by modifying the storage configuration after review, and revision as necessary, of the safety authorization basis.

The proposed action involves using the KAMS facility for consolidated storage. Nearby areas of the K-Area complex, where the KIS is and CSSC will be located, will be used for surveillance and restabilization activities. Storage spaces necessary to support surveillance activities are available in the K-Area complex. Unirradiated FFTF fuel will also be stored in the K-Area complex.

DOE's Nuclear Material Consolidation and Disposition Coordinating Committee (NMDCCC) considered storage and consolidation alternatives that may be used to provide enhanced security and yield a potential cost savings pending disposition. The proposed action described in this SA for consolidation is the same as the alternative recommended by the NMDCCC.

[8] A 3013 container has a maximum capacity of about 4.4 kilograms of plutonium. However, few containers have the maximum amount of plutonium.
[9] See footnote 3.

ENVIRONMENTAL IMPACTS

Transportation

DOE would ship plutonium materials compliant with the DOE-STD-3013 in 3013 packages inside Type B shipping containers (e.g., 9975 containers) from Hanford, LLNL, and LANL to KAMS at SRS using Safe Secure Transports. DOE would ship unirradiated FFTF fuel from Hanford to SRS in Type B shipping packages (e.g., the Hanford Un-irradiated Fuel Package) in SSTs. At KAMS, the shipping containers would be received and stored; the 3013 packages would not be removed from the shipping containers. The Type B shipping packages containing the unirradiated FFTF fuel would be stored in the K-Area complex at SRS.

DOE evaluated the impacts of transporting 17 metric tons of surplus, non-pit, plutonium to SRS in the *SPD EIS* (DOE, 1999), which addresses alternatives for disposition and is tiered from the Storage and Disposition PEIS (DOE, 1996). In the SPD EIS Alternative 3, DOE surplus pit and non-pit plutonium would be transported to SRS, where disposition facilities for immobilization and fabrication of MOX fuel would be constructed. Table L-1 of the *SPD EIS* summarizes the material shipments; included are non-pit materials from Hanford, LLNL, LANL, RFETS, and INL (Argonne National Laboratory – West). The Hanford material includes FFTF fuel pins and assemblies and miscellaneous fuel pins. Alternative 3 includes shipment of a greater quantity of surplus, non-pit plutonium materials to SRS than does the proposal considered in this SA.

In the *SPD EIS*, DOE estimated that normal (incident-free) transportation operations could result in 0.024 latent cancer fatalities (LCF) among transportation workers and 0.034 LCF in the total affected population over the duration of the transportation activities. In preparing the *SPD EIS*, DOE used a dose conversion factor of 5×10^{-4} deaths per rem of dose to the affected population. Currently, DOE recommends (DOE, 2004b) a dose conversion factor of 6×10^{-4} deaths per rem. Using the currently recommended dose conversion factor the data cited in this paragraph would be about 0.029 LCF among transportation workers and about 0.041 LCF in the total affected population. In addition, DOE (DOE, 1999) estimated that 0.019 nonradiological fatalities could occur as a result of vehicular emissions. DOE also estimated the impacts of accident scenarios, and in all cases the risk of a fatality is less than one (DOE, 1999). No accidents occurred during shipment of the RFETS surplus plutonium to SRS.

DOE has analyzed the impacts of transporting plutonium from Hanford, LLNL, and LANL (as well as INL and RFETS) to SRS in the SPD EIS. That analysis assumed surplus, non-pit plutonium would be transported in Type B containers in SSTs, just as DOE is proposing for the action described in this SA. The transportation DOE proposes in this SA is a subset of the transportation activities evaluated in the *SPD EIS*. DOE would make all shipments in shipping packages with current certificates, consistent with Department of Transportation requirements and DOE's prior NEPA reviews.

Storage

The KAMS facility requires no physical modification to accommodate the proposed storage of surplus, weapons-usable, non-pit surplus plutonium from Hanford, LLNL, and LANL. DOE has

evaluated storage of surplus plutonium materials from RFETS and other sites, as needed, in 3013 containers inside Type B shipping containers in KAMS (DOE, 1998b; DOE, 2002b). The forms of the surplus plutonium, and the shipping and storage containers (which would be certified Type B containers), would be the same as DOE has previously analyzed.

DOE has initiated two projects to provide the stored plutonium surveillance and restabilization capability required as part of the monitoring program that is an integral part of DOE-STD-3013. The KIS project, which began operating in June 2007, provides limited, temporary surveillance capability until the CSSC project is completed. Current plans call for CSSC to be operational in 2010. DOE completed an EA (DOE, 2005a) evaluating the impacts of construction and operation of KIS and CSSC in the K-Area complex (near but not in KAMS), and related security upgrades in K-Area. Storage space adequate for the needs of the KIS and CSSC surveillance activities are provided outside of KAMS, and a limited number of 3013 containers will be temporarily stored without 9975 shipping containers when CSSC becomes operational. DOE evaluated the impacts of these actions in the EA, and determined the impacts would not be significant (DOE, 2005b). While the inventory in KAMS would increase as a result of the transfer and storage of surplus, non-pit weapons-usable plutonium from Hanford, LLNL, and LANL, the number of 3013 containers stored outside of KAMS, or undergoing surveillance activities requiring opening of the cans, would not increase. The number of cans undergoing surveillance activities is limited by the facility safety analysis and technical safety requirements, and neither would change as a result of storing more material in KAMS. Therefore, the proposal described in this SA is not different in regard to surveillance actions than those DOE has previously evaluated and found to be insignificant.

DOE has found no anomalous conditions in either the 3013 containers or the stored plutonium material in the DOE-STD-3013 surveillance program. Similarly, performance of the Type B shipping containers has been as expected, with no instances of unacceptable performance. The K-Area Structural Assessment Program, mentioned in the 2002 ROD (DOE, 2002a), has not revealed any condition or degradation that would affect the structural integrity of the facility.

Unirradiated fuel from the FFTF facility at Hanford would be stored in Type B shipping containers in the K-Area transfer bay in the K-Area complex. Storage of FFTF fuel in Type B shipping containers in the K-Area transfer bay would provide a level of safety equivalent to that resulting from storage of plutonium in 3013 containers in 9975 shipping packages in KAMS because of the integrity of the storage form and containers. In addition, DOE evaluated the storage of irradiated tritium-producing burnable absorber rods in Type B shipping containers (the same configuration for the proposed storage of FFTF fuel) in the K-Area transfer bay (DOE, 2005c) and found the environmental impacts to be insignificant (DOE, 2005d).

Intentional Destructive Acts

DOE provides substantial safeguards and security measures for both transportation and storage of plutonium. Safeguards and security are designed to prevent theft or diversion of materials, and to prevent exposure of workers and the public to radiation from the material during transportation and storage. DOE recognizes that an attack against surplus plutonium cargo may cause very undesirable consequences, such as release of radionuclides into the environment.

Following the events of September 11, 2001, DOE is continuing to consider and implement measures to minimize the risk and consequences of potential terrorist attacks on DOE facilities. DOE conducts vulnerability assessments and risk analyses in accordance with DOE Order 470.3A, *Design Basis Threat Policy* and DOE Order 470.4A, *Safeguards and Security Program.* The safeguards applied to protecting the K-Area complex involve a dynamic process of enhancement to meet threats(i.e., safeguards will evolve over time). It is not possible to predict whether intentional destructive acts would occur at these locations, or the nature or types of attacks. Nevertheless, DOE has evaluated security scenarios involving malevolent or terrorist acts in an effort to assess potential vulnerabilities and identify improvements to security procedures and response measures. The physical security protection strategy is based on a graded and layered approach supported by a guard force trained to detect, deter, and neutralize adversary activities. Facilities are protected by staffed and automated access control systems, barriers, surveillance systems and intrusion detection systems.

Plutonium materials intended for consolidated storage under the proposal described in this SA would be received and stored in the K-Area Complex. DOE evaluated accident scenarios during storage and processing of plutonium materials in the *IMNM EIS* (DOE, 1995a) and during storage in the K-Area Complex in a subsequent EA (DOE 2005a). The accident impact analyses in the IMNM EIS and the EA are representative of the potential impacts of intentional destructive acts against the facilities proposed for consolidated storage, particularly in light of the robust nature of the facilities themselves and the improved security and response measures that have been put in place in recent years.

In the *SPD EIS* (DOE 1999), DOE evaluated the impacts of a severe accident while transporting plutonium oxide material in Type B shipping containers in Safe Secure Transports (SSTs). The hypothetical accidents modeled for the impact assessment involve either a long-term fire or tremendous impact or crushing forces. In the case of crushing forces, a fire would have to be burning in order to spread the plutonium as modeled. These accidents were assumed to cause a ground-level release of 10 percent of the radioactive material in the SST. These accidents fall within the Nuclear Regulatory Commission (NRC, 1977) severity Category VIII, with an accident frequency in rural areas of about 1×10^{-7} per year (once in 10 million years). DOE estimated that if such an accident were to occur in an urban area as many as 114 cancer fatalities could result. In addition, the accident itself would cause a number of non-radiological fatalities, depending upon the specific circumstances.

In reviewing the nature and consequences of the accident scenarios described in the SPD EIS, DOE finds that the consequences bound the consequences of a hypothetical terrorist attack on an SST carrying surplus non-pit plutonium. Because of the robust nature of the Type B containers and the SSTs, and because shipments are protected, DOE finds it unlikely that an attack could generate the forces required to release as much material as postulated for a severe accident. Therefore, DOE expects the potential consequences of a terrorist attack on a shipment of surplus, non-pit plutonium to be equal to or less than those of a severe accident.

Defense Nuclear Facilities Safety Board Report to Congress

In December 2003, the Defense Nuclear Facilities Safety Board (DNFSB) issued a Report to Congress on Plutonium Storage at the DOE's Savannah River Site (DNFSB, 2003). The DNFSB is an independent Federal agency created by Congress to provide recommendations to DOE on the safety of defense nuclear facilities. The Board's report contains proposals for enhancing the safety, reliability, and functionality of plutonium storage at SRS; one proposal concerns KAMS and four concern F-Area. However, subsequent to issuance of the Board's report, DOE decided to utilize only KAMS and the K-Area complex for storage of plutonium and for future stabilization and packaging operation, and to deinventory F-Area of all plutonium prior to the end of 2006.

With respect to KAMS, the Board proposed that fire protection systems be installed and that unnecessary combustibles be eliminated. In response to this proposal, DOE determined that fire suppression equipment would be installed in the Neutron Multiplicity Counting Room of KAMS, fire detection equipment would be installed throughout KAMS, and the cable combustible load in the actuator tower above KAMS would be removed. DOE completed removal of the actuator tower cables in August 2006. DOE plans to begin installation of a fire detection system in KAMS in 2007 and complete installation in 2008. DOE also plans to begin installation of a fire suppression system in the Neutron Multiplicity Counting Room in 2008 and complete the installation in 2009.

In addition, the fire protection posture designed into KAMS was to minimize both transient and fixed combustibles within the facility such that the remaining worst possible fire could not cause a release of plutonium. The walls separating the KAMS facility from the remainder of the K-Reactor building were fabricated into a two-hour fire boundary. Combustibles outside the facility fire boundaries were minimized, contained, or mitigated to ensure the KAMS facility fire boundaries were rated longer than any credible fire would burn.

Specifically with respect to the cable combustible load in the actuator tower above the KAMS facility, the tower was modified to prevent a fire in the tower from propagating into the material storage area by creating a passive 40-square-foot vent in the tower to release hot gases. The structural steel supporting the hoist motor and cable reel in the tower was coated with fire proofing to provide a 90-minute fire-rated enclosure. Additionally, the floor penetrations from the tower to the material storage area were sealed with grout to a thickness equivalent to a three-hour fire rating.

CONCLUSION

DOE has fully evaluated transportation of surplus, non-pit plutonium materials to SRS and consolidated storage at SRS of such materials from Hanford and LANL in the *Storage and Disposition PEIS* (DOE, 1996a) and the *SPD EIS* (DOE, 1999). Transfer to and consolidated storage at SRS of LLNL plutonium materials is addressed in the SPD EIS (DOE, 1999). Thus, the current proposed action of consolidated storage of surplus, non-pit plutonium materials at SRS, including transportation of the materials to SRS, is addressed in the Storage and Disposition PEIS and the SPD EIS. DOE evaluated the potential impacts of conducting plutonium surveillance and stabilization activities required by DOE-STD-3013 in the

Environmental Assessment for the Safeguards and Security Upgrades for Storage of Plutonium Materials at the Savannah River Site (DOE, 2005a), and found the impacts to be insignificant (DOE, 2005b). Some of these documents are now 10 or more years old. However, DOE has reviewed the analyses and assumptions relevant to the potential environmental impacts of the proposal described in this SA and found any changes to be insignificant. The impacts of the proposed consolidation of surplus, non-pit plutonium material at SRS are the same in kind and in degree as the impacts DOE has evaluated in the *Storage and Disposition PEIS*, *SPD EIS*, and related NEPA analyses.

DETERMINATION

This SA shows that the potential environmental impacts associated with the consolidation at SRS of surplus, non-pit, weapons-usable plutonium from Hanford, LLNL and LANL would not be a significant change from the potential environmental impacts associated with the alternatives analyzed in previous NEPA reviews. DOE is not proposing a substantial change that is relevant to environmental concerns. No significant new circumstances or information bearing on the proposed action and relevant to environmental concerns are presented by the proposed consolidation of plutonium storage. Therefore, DOE does not need to conduct additional NEPA review prior to transferring surplus non-pit weapons-usable plutonium materials from Hanford, LLNL, and LANL to SRS for consolidated storage.

Issued in Washington, D C , this 5th Day of September 2007

James A. Rispoli
Assistant Secretary for Environmental Management

REFERENCES

Defense Nuclear Facilities Safety Board (DNFSB, 2003). *Plutonium Storage at the Department of Energy's Savannah River Site Report to Congress,* December 2003.

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(DOE, 2005a). *Environmental Assessment for the Safeguards and Security Upgrades for Storage of Plutonium Materials at the Savannah River Site,* DOE/EA-1538, December 2005.

(DOE, 2005b). *Finding of No Significant Impact for the Safeguards and Security Upgrades for Storage of Plutonium Materials at the Savannah River Site,* December 2005.

(DOE, 2005c). *Environmental Assessment for the Storage of Tritium-Producing Burnable Absorber Rods in K-Area Transfer Bay at the Savannah River Site,* DOE/EA-1528, June 2005.

(DOE, 2005d). *Finding of No Significant Impact for the Storage of Tritium-Producing Burnable Absorber Rods in K-Area Transfer Bay at the Savannah River Site,* June 2005.

Government Accountability Office (GAO), 2005. *Securing U.S. Nuclear Materials: DOE Needs to Take Action to Safely Consolidate Plutonium,* GAO-05-665, July 2005.

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Westinghouse Savannah River Company (WSRC), 2004. *Receipt and Storage of FFTF Fuel,* WSRC-TR-2004-00603, December 2004.

Enclosure

SUBMITTED IN RESPONSE TO FOIA REQUEST NO. SR-09-028

ITEM #4

Consisting of 20 pages, including coversheet

NONCONFORMANCE REPORT

SHT 1 OF 2

COLUMBIANA HI

TECH WO/JOB # 08-018 PART NAME: Lid Weldment 1 w/ECN NCR NO.: 1845

DRAWING NO.: PO5CM2-213-A1 REV. PO5CM2-213R1-E1 P.O. NO.: 20090005 20080597

PART S/N: PO5CM2-211-A1 S/N001 QTY INSP.: 1 QTY REJ.: 1

Traveler S/N 15066

REQUIREMENT/SPECIFICATION DESCRIPTION:

Drawing requires Vent Port detail to contain a .250" +/- .010 diameter counterbore located 2.52" deep.

Thru hole is required to be .19" +/-.030".

DESCRIPTION OF NONCONFORMANCE (ACTUAL CONDITION):

Vent Port counter bore and thru hole diameter ranges from .277" to .278" diameter (.018" OHL .058' OHL).

Phillip Morris 1-28-09

INSPECTOR DATE

J. Brachfield 1-28-09

QUALITY ASSURANCE DATE

CAUSE AND CORRECTIVE ACTION TO PRECLUDE RECURRENCE:

Cause: Vendor Error. Tool marks had to be removed to maintain 32 finish.

Corrective Action: Vendor has been verbally made aware of this instance. Customer encouraged to evaluate changes to the configuration shown on the drawing to make the assembly more easily machined.

J. Brachfield 1-28-09

SIGNATURE/DEPT. DATE

DISPOSITION:

CHT recommended disposition is "Repair". Submit to customer for review and approval.

Continue to process through but not beyond the final operation of the final Traveler 08-018-00A. JTB FOR DWO 1-28-09

1-28-09

ENGINEERING DATE

J. Brachfield 1-28-09

QUALITY ASSURANCE DATE

Exhibit Q -05-1

NONCONFORMANCE REPORT _____ NCR NO.: 1845

SHT 2 OF 2

IS THIS NCR POTENTIALLY REPORTABLE UNDER 10CFR21: X NO _____ YES

(IF YES PERFORM 10CFR21 EVALUATION PER COLUMBIANA HI TECH QA PROGRAM REQUIREMENTS AND ATTACH RESULTS TO THIS NCR.)

DISCREPANCY CODE:

V,H-3-3,19-AA-1

J. Bischfield
QUALITY ASSURANCE

1-28-09
DATE

CUSTOMER REVIEW/APPROVAL (IF REQUIRED):

DISPOSITION ACTION: APPROVED AS RECOMMENDED: _____ DISAPPROVED: _____

CUSTOMER APPROVAL RECEIVED. SEE ATTACHED AES NCR 2009006. JAB 1-29-09

TITLE: _____ DATE _____

TITLE: _____ DATE _____

TITLE: _____ DATE _____

COMMENTS/REMARKS:

NCR CLEARED: TRAVELERS DISPOSITION HAS BEEN COMPLETED AND ALL PAPERWORK, REWORK/REPAIR (IF APPLICABLE), TRAVELERS AND/OR PURCHASE ORDERS HAVE BEEN CLEARED.

J. Bischfield
STAMP/SIGNATURE

1-29-09
DATE

Exhibit Q -05-1

AREVA

AREVA Federal Services LLC

NONCONFORMANCE REPORT

NCR No.:	NCR-2009-006	Revision No.:	0	Hold Tag No.:	Applied by CHT
Supplier Name:	CHT	Supplier NCR No.:	NCR 1845	Project No.:	P05CM2
Client Name:	CHPRC	P.O. / Contract No.:	34084	Page:	1 of

ORIGINATION

Description of Nonconforming Item or Equipment:
The Vent Port feature called out in drawing P05CM2-213, Rev 2, Sheet 3, Section D-D calls for a .19 dia through hole with a .250 diameter counterbore 2.52" deep.

Applicable Drawing(s), Specification(s), Procedure(s), etc:
- Drawing P05CM2-213, Rev. 2
- SARP Drawing 41199-20, Sheet 4, Section K-K

REQUIREMENT(S) VIOLATED:
Drawing P05CM2-213 requires Vent Port detail to contain a .250"+/-.010 diameter counterbore located 2.52" deep with a through hole diameter of .19" ± 0.030".

NONCONFORMING CONDITION:
Contrary to the requirements, the Vent Port counterbore and thru hole measured .266"diameter (.006" over high limit for the .25" diameter hole). In addition, during the performance of the leakage rate test, through that feature, demonstrated that the O-ring failed to seal.

Originator Name and Signature: A. Kee — Date: 1/28/2009

DISPOSITION

Recommended Disposition:	☐ USE-AS-IS	☒ REPAIR	☐ REWORK	☐ REJECT
Re-Inspection Required:	☒ YES (required for all Rework and Repair)		☐ NO	

Licensing Review Required: ☒ YES ☐ NO P. Nuns 1/29/09

Technical Justification (for Repair or Use-as-Is):
Increase this feature to be Ø.277" through hole and increase the size of the O-ring on the Vent Port plug to compensate for this size.

The as machined condition enables performance of the two vent port feature requirements:

1) enable pressure equalization between the cask cavity and the external environment for purposes of installation and removal of the HUFP lid and,

2) enable leakage rate testing of the HUFP primary containment bore seal.

The oversized .25" dia bore does require a change in the vent port plug bottom o-ring. The P05CM2-210 drawing, Item 9, requires revision to identify the required o-ring. The "use-as-is" condition shall be verified by leakage rate testing using the changed o-ring.

The SARP drawing 41199-20, Sheet 4, Section K-K dimensioning and tolerancing of the feature in question allows for the oversized hole condition. The Item 21 o-ring is called out that drawing is dimensioned and toleranced sufficiently to allow for the larger o-ring.

Performed By: (sign and date) 1/29/2009 — Approved By: (PM sign and date) 1/29/2009

EVALUATION

Condition Evaluation

Condition Evaluated for Significance: (PM sign and date) 1/29/09	Significant Issue Adverse to Quality? (Yes = a CAR must be created)	☐ YES	☒ NO
Concurrence with Significance Evaluation: (QAM sign and date) 1/29/09	CAR No.:	N/A	

APP'L

Approvals and Concurrences

Customer Approval Required?	☒ YES	☐ NO	Reference: CONTRACT #34084, SUB. REQ. 23, VERS. 3

CLOSURE

Disposition and Action Completion

Re-inspection:	☑ Accepted	☐ Rejected	Re-inspected By:	SEE ATTACHED REPORT	Date:
Hold Tag(s) Removed by:	CHT PERSONNEL			Date: 1/29/09	☐ N/A (Explain):
Actions Complete – NCR can be closed: (PM)	RE Bunnum				Date: 1/29/09
Actions Verified - NCR Closed: (QAM)	Bernard Cowan for D.T. Penfleton				Date: 1/29/09

AFS-QA-FRM-15.10 Rev. 01 (Issued July 1, 2008)
Refer to AFS-QA-PRC-15.1, Control of Nonconforming Items

AREVA

AREVA Federal Services LLC

NONCONFORMANCE REPORT

NCR No.:	NCR-2009-003	Revision No.:	0	Hold Tag No.:	N/A
Supplier Name:	Columbiana Hi-Tech	Supplier NCR No.:	N/A	Project No.:	P05CM2
Client Name:	CHPRC	P.O. / Contract No.:	34084	Page:	1 of 2

ORIGINATION

Description of Nonconforming Item or Equipment:
This NCR is used to identify that O-Rings I/N P05CM2-210-8, 9, 10, and 11 procurement documentation records did not accurately document how the SARP Table 9.2-3, *Level of Quality Assurance Effort for Q Categories*, were met. SARP Table 9.2-3 requires that for Category B items, the procurement records must indicate that these items were either purchased from a qualified vendor or be commercial grade dedicated to the essential attributes provided by AFS.

Applicable Drawing(s), Specification(s), Procedure(s), etc:
- HUFP SARP Table 9.2-2, Safety Assessment of Packaging Features
- HUFP SARP Table 9.2-3, Level of Quality Assurance Effort for Q Categories
- HUFP SARP Section 9.4 Procurement Document Control
- AFS Fabrication Drawings P05CM2-210, Rev. 1, P05CM2-201, Rev. 3, P05CM2-202, Rev. 2, P05CM2-214, Rev. 2
- HUFP SARP Drawings 41199-20, and 41199-30
- AFS Fabrication Specification AFS-GF-SPC-002,

REQUIREMENT(S) VIOLATED:
- HUFP SARP Table 9.2-3 requires that for "Procurement Document Control" Category 'B' items shall be procured either by a supplier on a qualified supplier list, or Commercial Grade Dedicated Items are acceptable.
- HUFP SARP Paragraph 9.4, first paragraph infers that "Procurement Document Control" applies to the "Purchasers of packages and replacement items..."

NONCONFORMING CONDITION:
CHT documentation was not available to support the procurement of the O-rings.

Originator Name and Signature: B. Counterman K. K. for B.C. **Date:** 01/26/2009

DISPOSITION

Recommended Disposition:	☒ USE-AS-IS	☐ REPAIR	☐ REWORK	☐ REJECT
Re-Inspection Required:	☐ YES (required for all Rework and Repair)		☒ NO	
Licensing Review Required:	☒ YES	☐ NO	Lic. Mgr. Phil News 1/26/09	

Technical Justification (for Repair or Use-as-Is):
The CHT procurement process orders material based on the critical attributes provided by AFS in their Quality Classification Forms and/or AFS Fabrication Specifications and the HUFP Design Agent concurs with these attributes. Verification of commercial grade dedication consists of the CHT certificate of conformance identifying that the specified attributes were provided with the procured materials. Additionally, CHT provides a CGD document under the CHT program certifying the attributes are reviewed and are compliant to the purchase order requirements. Because the records were in process, the information requested was not available at the time of the surveillance activities. The O-rings were not procured from a vendor on CHT's ESL. As such, CHT is utilizing their Commercial Grade Dedication program/procedure to evaluate the received material against the purchase order and then dedicate these items. The Table 9.2-2 Category B items were evaluated for similar issues. A process improvement was implemented with respect to the documentation to ensuring that when required CGD is completed.

Performed By: (sign and date) A. Kee 01/26/2009 **Approved By:** (PM sign and date) A. Kee 01/26/2009

EVALUATION

Condition Evaluation

Condition Evaluated for Significance: (PM sign and date) A. Kee 1/26/2009	**Significant Issue Adverse to Quality?** (*Yes = a CAR must be created*)	☐ YES	☒ NO
Concurrence with Significance Evaluation: (QAM sign and date) D. Duncan 1/26/09	**CAR No.:**	N/A	

Approvals and Concurrences

APPL

Customer Approval Required?	☒ YES	☐ NO	**Reference:** CONTRACT #34084, SUB. REQ. 23, V. 1

Disposition and Action Completion

Re-Inspection:	☐ Accepted	☐ Rejected	**Re-Inspected By:**	N/A	**Date:**

AREVA	AREVA Federal Services LLC
	NONCONFORMANCE REPORT

Hold Tag(s) Removed by:		N/A NCR for documentation purposes only [illegible]	Date: 1/26/09	☒ N/A (Explain):
CLOSURE	Actions Complete – NCR can be closed: (PM)	R E Bruhnam		Date: 1/27/09
	Actions Verified - NCR Closed: (QAM)	Bernard Couet for D.D. per Telecon		Date: 1/27/09

NONCONFORMANCE REPORT

COLUMBIANA HI
TECH WO/JOB # 08-018 PART NAME: Upper Impact Limiter 3 w/ ECN NCR NO.: 1840

DRAWING NO.: PO5CM2-201 REV. 201R3-E1 P.O. NO.: N/A

PART S/N: PO5CM2-201-A1 S/N 001 QTY INSP.: 1 QTY REJ.: 1
Traveler S/N 14967

REQUIREMENT/SPECIFICATION DESCRIPTION:

Contract requires compliance to drawings for dimensional requirements (including tolerances).

DESCRIPTION OF NONCONFORMANCE (ACTUAL CONDITION):

Drawing allows an overall height dimension of 35" with a tolerance of ±1/8". (Ref. drawing zone A5) Actual overall height is 35.340" creating an out of tolerance condition. (Oversized by .215").

Susann Lambert 1-23-09
INSPECTOR DATE

J. Burchfield 1-23-09
QUALITY ASSURANCE DATE

CAUSE AND CORRECTIVE ACTION TO PRECLUDE RECURRENCE:

Cause: Multiple causes noted including dimensional stack-up, impractical fabricability and possible expansion during foam pour.

Corrective Action: Adjust fabrication to nominal values, evaluate utilizing additional foam bracing and request customer evaluation of increasing the ± 1/8" tolerancing currently allowed.

1-23-09
SIGNATURE/DEPT. DATE

DISPOSITION:

CHT recommended disposition is "Use As Is". Submit NCR to customer for review and approval.

Continue to process through but not beyond the Final Inspection Operation 80. RF for UW0 1-23-09

1-23-09
ENGINEERING DATE

J. Burchfield 1-23-09
QUALITY ASSURANCE DATE

Exhibit Q -05-1

1-30-09

NONCONFORMANCE REPORT _____ NCR NO.: 1840

SHT 2 OF 2

IS THIS NCR POTENTIALLY REPORTABLE UNDER 10CFR21: X NO _____ YES

(IF YES PERFORM 10CFR21 EVALUATION PER COLUMBIANA HI TECH QA PROGRAM REQUIREMENTS AND ATTACH RESULTS TO THIS NCR.)

DISCREPANCY CODE:

H.C-7-5.16-AA-1

J. Burchfield
QUALITY ASSURANCE

1-23-09
DATE

CUSTOMER REVIEW/APPROVAL (IF REQUIRED):

DISPOSITION ACTION: APPROVED AS RECOMMENDED: _____ DISAPPROVED: _____.

CUSTOMER APPROVAL RECEIVED, SEE ATTACHED AFS NCR 2009-004. QAB 1-29-09

TITLE: _____ DATE _____

TITLE: _____ DATE _____

TITLE: _____ DATE _____

COMMENTS/REMARKS:

NCR CLEARED: TRAVELERS DISPOSITION HAS BEEN COMPLETED AND ALL PAPERWORK, REWORK/REPAIR (IF APPLICABLE), TRAVELERS AND/OR PURCHASE ORDERS HAVE BEEN CLEARED.

J. Burchfield
STAMP/SIGNATURE

1-29-09
DATE

Exhibit Q -05-1

1-30-09

AREVA

AREVA Federal Services LLC

NONCONFORMANCE REPORT

NCR No.:	NCR 2009-004	Revision No.:	0	Hold Tag No.:	N/A
Supplier Name:	Columbiana Hi-Tech	Supplier NCR No.:	1840 & 1841	Project No.:	P05CM2
Client Name:	CHPRC	P.O. / Contract No.:	34084	Page:	1 of 1

ORIGINATION

Description of Nonconforming Item or Equipment:
HUFP Impact Limiters

Applicable Drawing(s), Specification(s), Procedure(s), etc:
Drawing P05CM2-201, Rev. 3
Drawing P05CM2-202, Rev. 2

REQUIREMENT(S) VIOLATED:
Drawings P05CM2-201 and P05CM2-202 require that the overall height, of the impact limiters, is 35 ± 1/8".

NONCONFORMING CONDITION:
Contrary to this requirement the impact limiter measurement, to the highest point, was discovered to have the following dimensions:
P05CM2-201 (Upper Impact Limiter) overall height is 35.340
P05CM2-202 (Lower Impact Limiter) overall height is 35.400

Originator Name and Signature: B. Counterman for B.C. Date: 1/26/09

DISPOSITION

Recommended Disposition:	☒ USE-AS-IS	☐ REPAIR	☐ REWORK	☐ REJECT
Re-Inspection Required:	☐ YES (required for all Rework and Repair)		☐ NO	
Licensing Review Required:	☒ YES	☐ NO		

Technical Justification (for Repair or Use-as-Is):
The deviation in overall height has no impact on form, fit, or function of the HUFP package operations. The SARP has been reviewed and the only instance of potential non-compliance with the license is with compliance to the 41199-30 drawing. Sheet 2 of drawing 41199-30, Rev 2 Zone A and B/8 requires a height of 35 inches with a tolerance of ± ½ inch (reference the tolerance block for fractional dimension callouts in the default tolerance block found in sheet 1 of the drawing). The worst case dimension of 35.4 inches is within the SARP allowable of 35 ½ inches and is therefore acceptable.

Performed By: (sign and date) Phil Nau 1/26/09
Approved By: (PM sign and date) 01/27/2009

Condition Evaluation

EVALUATION

Condition Evaluated for Significance: (PM sign and date) 01/27/2009	Significant Issue Adverse to Quality? (Yes = a CAR must be created)	☐ YES	☒ NO
Concurrence with Significance Evaluation: (QAM sign and date) 1/28/09	CAR No.:	N/A	

Approvals and Concurrences

APPL

Customer Approval Required?	☒ YES	☐ NO	Reference: CONTRACT #34084, SUB. REG. #23, V.2

Disposition and Action Completion

Re-Inspection:	☐ Accepted	☐ Rejected	Re-inspected By:	N/A	Date:
Hold Tag(s) Removed by:				Date:	☐ N/A (Explain):

CLOSURE

Actions Complete – NCR can be closed: (PM)	RE Bowman	Date: 1/29/09
Actions Verified – NCR Closed: (QAM)	Bernard Counterman for D.D. Peterson	Date: 1/29/09

AFS-QA-FRM-15.10 Rev. 01 (Issued July 1, 2008)
Refer to AFS-QA-PRC-15.1, Control of Nonconforming Items

1-30-09

NONCONFORMANCE REPORT

COLUMBIANA HI
TECH WO/JOB # 08-018 PART NAME: Lower Impact Limiter 2 w/ ECNs NCR NO.: 1841

DRAWING NO.: PO5CM2-202 REV. E1 - E5 P.O. NO.: N/A

PART S/N: PO5CM2-202-A1 S/N 001 QTY INSP.: 1 QTY REJ.: 1
Traveler S/N 14968

REQUIREMENT/SPECIFICATION DESCRIPTION:

Contract requires compliance to drawings for dimensional requirements (including tolerances).

DESCRIPTION OF NONCONFORMANCE (ACTUAL CONDITION):

Drawing allows an overall height dimension of 35" with a tolerance of ±1/8". (Ref. drawing zone A5) Actual overall height is 35.400" creating an out of tolerance condition. (Oversized by .275").

Susan Lambert 1-23-09
INSPECTOR DATE

J. Burchfield 1-23-09
QUALITY ASSURANCE DATE

CAUSE AND CORRECTIVE ACTION TO PRECLUDE RECURRENCE:

Cause: Multiple causes noted including dimensional stack-up, impractical fabricability and possible expansion during foam pour.

Corrective Action: Adjust fabrication to nominal values, evaluate utilizing additional foam bracing and request customer evaluation of increasing the ± 1/8" tolerancing currently allowed.

Rod Fuchs 1-23-09
SIGNATURE/DEPT. DATE

DISPOSITION:

CHT recommended disposition is "Use As Is". Submit NCR to customer for review and approval.

Continue to process through but not beyond the Final Inspection Operation 80. RA for OWO 1-23-09

Rod Fuchs 1-23-09
ENGINEERING DATE

J. Burchfield 1-23-09
QUALITY ASSURANCE DATE

Exhibit Q -05-1

1-30-09

NONCONFORMANCE REPORT _____ NCR NO.: 1841

SHT 2 OF 2

IS THIS NCR POTENTIALLY REPORTABLE UNDER 10CFR21: ___X___ NO _____ YES

(IF YES PERFORM 10CFR21 EVALUATION PER COLUMBIANA HI TECH QA PROGRAM REQUIREMENTS AND ATTACH RESULTS TO THIS NCR.)

DISCREPANCY CODE:

H,C-7-5.16-AA-1

J. Buckfield
QUALITY ASSURANCE

DATE

CUSTOMER REVIEW/APPROVAL (IF REQUIRED):

DISPOSITION ACTION: APPROVED AS RECOMMENDED: _____ DISAPPROVED: _____.

CUSTOMER APPROVAL RECEIVED. SEE ATTACHED AFS NCR 2009-004. JPB 1-29-09 JPB 1-29-09

TITLE: DATE

TITLE: DATE

TITLE: DATE

COMMENTS/REMARKS:

NCR CLEARED: DISPOSITION HAS BEEN COMPLETED AND ALL PAPERWORK, REWORK/REPAIR
TRAVELERS (IF APPLICABLE), TRAVELERS AND/OR PURCHASE ORDERS HAVE BEEN CLEARED.

J. Buckfield
STAMP/SIGNATURE

1-29-09
DATE

Exhibit Q -05-1

1-30-09

AREVA

AREVA Federal Services LLC

NONCONFORMANCE REPORT

NCR No.:	NCR 2009-004	**Revision No.:**	0	**Hold Tag No.:**	N/A
Supplier Name:	Columbiana Hi-Tech	**Supplier NCR No.:**	1840 & 1841	**Project No.:**	P05CM2
Client Name:	CHPRC	**P.O. / Contract No.:**	34084	**Page:**	1 of 1

ORIGINATION

Description of Nonconforming Item or Equipment:
HUFP Impact Limiters

Applicable Drawing(s), Specification(s), Procedure(s), etc:
Drawing P05CM2-201, Rev. 3
Drawing P05CM2-202, Rev. 2

REQUIREMENT(S) VIOLATED:
Drawings P05CM2-201 and P05CM2-202 require that the overall height, of the impact limiters, is 35 ± 1/8".

NONCONFORMING CONDITION:
Contrary to this requirement the impact limiter measurement, to the highest point, was discovered to have the following dimensions:
P05CM2-201 (Upper Impact Limiter) overall height is 35.340
P05CM2-202 (Lower Impact Limiter) overall height is 35.400

for K.M.C. 1/28/09

Originator Name and Signature: B. Counterman — for B.C. — **Date:** 1/26/09

DISPOSITION

Recommended Disposition:	☒ USE-AS-IS	☐ REPAIR	☐ REWORK	☐ REJECT
Re-Inspection Required:	☐ YES (required for all Rework and Repair)		☐ NO	
Licensing Review Required:	☒ YES	☐ NO		

Technical Justification (for Repair or Use-as-Is):
The deviation in overall height has no impact on form, fit, or function of the HUFP package operations. The SARP has been reviewed and the only instance of potential non-compliance with the license is with compliance to the 41199-30 drawing. Sheet 2 of drawing 41199-30, Rev 2 Zone A and B/8 requires a height of 35 inches with a tolerance of ± ½ inch (reference the tolerance block for fractional dimension callouts in the default tolerance block found in sheet 1 of the drawing). The worst case dimension of 35.4 inches is within the SARP allowable of 35 ½ inches and is therefore acceptable.

Performed By: (sign and date) Phil Nau 1/26/09 — **Approved By:** (PM sign and date) 01/27/2009

Condition Evaluation

EVALUATION

Condition Evaluated for Significance: (PM sign and date) 01/27/2009	**Significant Issue Adverse to Quality?** (Yes = a CAR must be created)	☐ YES	☒ NO
Concurrence with Significance Evaluation: (QAM sign and date) 1/28/09	**CAR No.:**	N/A	

Approvals and Concurrences

APPL

Customer Approval Required?	☒ YES	☐ NO	**Reference:** CONTRACT #34084, SUB. REQ. #23, V.2

Disposition and Action Completion

Re-Inspection:	☐ Accepted	☐ Rejected	**Re-inspected By:**	N/A	**Date:**
Hold Tag(s) Removed by:				**Date:**	☐ N/A (Explain):
CLOSURE Actions Complete – NCR can be closed: (PM)					**Date:** 1/29/09
Actions Verified – NCR Closed: (QAM)	Bernard Counterman for D.D. per telecon				**Date:** 1/29/09

AFS-QA-FRM-15.10 Rev. 01 (Issued July 1, 2008)
Refer to AFS-QA-PRC-15.1, Control of Nonconforming Items

1-30-09

JUN 16 2009

AREVA 5

NONCONFORMANCE REPORT

COLUMBIANA HI

TECH WO/JOB #	08-018	PART NAME:	Lid Weldment	NCR NO.:	1871
DRAWING NO.:	PO5CM2-213	REV.	3	P.O. NO.:	N/A
PART S/N:	PO5CM2-211-A1-003	QTY INSP.:	1	QTY REJ.:	1

Trav. S/N 15161

REQUIREMENT/SPECIFICATION DESCRIPTION:

Drawing requires step dimension between top of Lid Assembly and the surface where the Lid rests on the Body Collar to be 1.380" +/-.010".

DESCRIPTION OF NONCONFORMANCE (ACTUAL CONDITION):

During a review by the end user, it was noted that this dimension was recorded with a value that is out of tolerance (1.396") and the attribute was acceptance stamped without identifying the condition as nonconforming (see the attached copy of the Dimensional Data Sheet).

INSPECTOR	5-12-09 DATE	QUALITY ASSURANCE	5-12-09 DATE

CAUSE AND CORRECTIVE ACTION TO PRECLUDE RECURRENCE:

Cause: Human Error - Either the dimension was recorded incorrectly (typographical error) or the Inspector failed to identify that the dimension was a nonconforming condition.

Corrective Action: A review was performed to determine the extent of condition by reviewing documents for all Lids that were previsoulsy shipped and conducting dimensional inspection to confirm that no other lids were out of tolerance for this dimension. The results of the review indicate that all Lids except the one noted in this NCR are either in tolerance or the value recorded in the Dimensional Data Sheet indicates that they are in tolerance. As a result of the review, there is a high degree of certainty at CHT that the dimension was simply recorded with a typographical error and probably is in tolerance as no other units were found to be nonconforming. Training has been conducted with all Inspection personnel for the purpose of raising awareness of this instance and also ensuring that an appropriate level of attention is paid when completing documentation of dimensional inspections. A copy of the Training Record is attached for reference.

SIGNATURE/DEPT.	5-12-09 DATE

DISPOSITION:

CHT recommended disposition is "Use As Is". Submit NCR to customer for review and approval. Upon approval, the Final Documentation Package will be updated to reflect this instance.

ENGINEERING	5-12-09 DATE	QUALITY ASSURANCE	5-12-09 DATE

Exhibit Q -05-1

EXHIBIT Q-05-1

JUN 16 2009

AREVA

NONCONFORMANCE REPORT NCR NO.: 1871
SHT 2 OF 2

IS THIS NCR POTENTIALLY REPORTABLE UNDER 10CFR21: X NO _____ YES

(IF YES PERFORM 10CFR21 EVALUATION PER COLUMBIANA HI TECH QA PROGRAM REQUIREMENTS AND ATTACH RESULTS TO THIS NCR.)

DISCREPANCY CODE:

H-7-20-B-1

J. Burchfield
QUALITY ASSURANCE

5-12-09
DATE

CUSTOMER REVIEW/APPROVAL (IF REQUIRED):

DISPOSITION ACTION: APPROVED AS RECOMMENDED: _____ DISAPPROVED: _____.

CUSTOMER APPROVAL RECEIVED. SEE ATTACHED AFS NCR 2009-016 REV. 1. JAB 6-12-09

TITLE: _____ DATE _____

TITLE: _____ DATE _____

TITLE: _____ DATE _____

COMMENTS/REMARKS:

NCR CLEARED: TRAVELERS DISPOSITION HAS BEEN COMPLETED AND ALL PAPERWORK, REWORK/REPAIR (IF APPLICABLE), TRAVELERS AND/OR PURCHASE ORDERS HAVE BEEN CLEARED.

J. Burchfield
STAMP/SIGNATURE

6-12-09
DATE

Exhibit Q -05-1

EXHIBIT Q-05-1

Columbiana Hi Tech

JUN 16 2009
AREVA 5

DEPARTMENT: Quality Control

TRAINING RECORD

Date: 05-12-09 Time: 1/2 hour

Subject Material: Ensuring an appropriate level of attention is paid when completing documentation of dimensional inspections.

Reference Material: W. O. # 08-018, Traveler 15161, CHT NCR 1871 Lid Weldment

Instructor(s): J. Burchfield

Attendance Roster:

Name	Classification	Name	Classification
S. Simao	Inspector	R. Shepherd	Inspector
C. Hudson	Inspector	P. Morris	Inspector
D. Bell	Inspector		
S. Lambert	Quality Engineer		

Summary of Session: This training session was conducted to ensure awareness of applicable personnel of the events surrounding the generation of the above referenced NCR. Specifically, this training session covered the nature of the deficiency identified by the above referenced NCR. Particular emphasis was placed on the need to ensure that an appropriate level of attention is paid when completing documentation of dimensional inspections.

All personnel left the training session with a clear understanding of the nature of the deficiency and the actions necessary to prevent this type of instance in the future.

By: J. Burchfield

(Use additional pages as necessary)

JUN 16 2009
AREVA 5

3-23-09

COLUMBIANA HI TECH

1802 FAIRFAX RD, GREENSBORO, NC 27407

DIMENSIONAL DATA SHEET

PART NO. P05CM2-211-A1			TRAVELER SERIAL NO. 15161 Page 2 of 6
PART NAME Body Weldment			W.O. NO. 08-018-02-A
INSPECTOR C. Hudson	LEVEL II		SERIAL NUMBER

DIMENSION OR FEATURE	DWG ZONE	ACTUAL DIMENSION	STAMP	COMMENTS OR NOTES	DATE	INSPECTION EQUIPMENT SERIAL NUMBER
Parallelism W/I .020"		w/I .020	CHT 9	Parallelism with datum B	3.18.09	CHT-539
4.400" ±.010		4.400 4.405	CHT 9	Lug dimension	3.18.09	CHT-535
True Position W/I Ø .010		w/I .010	CHT 9	Datum A & B	3.18.09	CHT-539
Drawing P05CM2-213 Lid Weldment						
1.380" ±.010		1.396	CHT 9	Step location	3.18.09	CHT-5416
1.670" ±.010		1.668	CHT 9	Groove location	3.18.09	CHT-5164 CH 3/18/09
2.420" ±.010		2.424	CHT 9	Groove location	3.18.09	CHT-564
3.130" ±.010		3.133	CHT 9	Groove location	3.18.09	CHT-564
Surface Profile W/I .005"		w/I .005	CHT 9	Surface Profile with datum A & B, 3 Groove surfaces	3.18.09	CHT-539
Surface Profile W/I .005"		w/I .005	CHT 9	Surface Profile with datum A & B	3.18.09	CHT-539
.265" ±.005		.263-.266	CHT 9	Groove depth	3.18.09	CHT-520

JUN 16 2009

AREVA

AREVA Federal Services LLC

NONCONFORMANCE REPORT

Number:	NCR-2009-016	NCR Revision No.:	1	Page:	1 of 1
Supplier Name:	CHT	Supplier NCR No.:	1871	Hold Tag No.:	N/A
Client Name:	CHPRC	P.O./Contract No.:	34084-5	Project No.:	01925.01.C002.03

ORIGINATION

NONCONFORMING ITEM OR EQUIPMENT:
Lid Weldment, Drawing No. P05CM2-213, HUFP S/N 003

DETAILED DESCRIPTION of NONCONFORMING CONDITION:
The dimension recorded on Traveler Serial No. 15161 is 1.396. The dimension required by the above referenced drawing is 1.380 +/- .010. This attribute was acceptance stamped without identifying the condition as nonconforming.

REQUIREMENT(S) VIOLATED:
Drawing No. P05CM2-213 specifies a maximum dimension of 1.390 for distance between the top of the lid and the surface where the Lid rests on the Body Collar.

APPLICABLE DRAWING(S), SPECIFICATION(S), PROCEDURE(S), Etc:
Drawing No. P05CM2-213

Originator: R. E. Burnham (Originator printed name and signature) RE Burnham — **Date:** 5/15/09

DISPOSITION

Recommended Disposition: ☒ USE-AS-IS ☐ REPAIR ☐ REWORK ☐ REJECT

Re-Inspection Required: ☐ YES (required for all Rework and Repair) ☒ NO

Technical Review and Justification (for Repair or Use-as-Is):
In the event that this attribute is compliant and was merely recorded in error, the part is acceptable for use as is. In the event that this attribute is noncompliant, it is acceptable for use as is as this dimension is compliant with the SARP, which allows a dimensional range of from 1.26 to 1.50, and this non-conformance does not affect fit, form or function of the Lid as demonstrated through the assembly and leak testing of this unit.

Licensing Review Required: ☒ YES (required for items licensed by the NRC or other Regulatory Authority) ☐ NO

Licensing Review Results (for licensed items):
I concur with the technical review and justification. RJM

Reviewed By: (Reviewer(s) printed name(s) and signature(s)) RJM — **Date:** 5/15/09

Checked By: (Checker printed name and signature) — **Date:** 5/15/09

Approved By: (PM printed name and signature) RE Burnham — **Date:** 5/15/09

EVALUATION

Condition Evaluated for Significance: (PM signature and date) RE Burnham 5/15/09 — **Significant Issue Adverse to Quality?** (Yes = a CAR must be created) ☐ YES ☒ NO

Concurrence with Significance Evaluation: (QA signature and date) 5/15/09 — **CAR No.:** N/A

APPL

Customer Approval Required? ☒ YES ☐ NO — **Customer Approval Received:** (Date and method of approval - letter, email, etc.) REF. SUB. # 023, V. 007

RE-INSPECTION

Re-inspection: ☐ Accepted ☐ Rejected — **Re-inspected By:** (Inspector printed name and signature) N/A — **Date:**

Hold Tag(s) Removed by: (QA printed name and signature) N/A — **Date:** — ☐ N/A (Explain):

CLOSURE

Actions Complete – NCR can be closed: (PM printed name and signature) RE Burnham R. BURNHAM — **Date:** 6/11/09

Actions Verified - NCR Closed: (QA printed name and signature) B. CULLERTON — **Date:** 6/11/09

AFS-QA-FRM-15.10 Rev. 03 (Revised March 24, 2009)
Refer to AFS-QA-PRC-15.1, Control of Nonconforming Items

AREVA

JUN 16 2009

AREVA Federal Services LLC

NONCONFORMANCE REPORT

.Number:	NCR-2009-016	NCR Revision No.:	0	Page:	1 of 1
Supplier Name:	CHT	Supplier NCR No.:	1871	Hold Tag No.:	N/A
Client Name:	CHPRC	P.O./Contract No.:	34084-5	Project No.:	01925.01.C002.03

ORIGINATION

NONCONFORMING ITEM OR EQUIPMENT:
Lid Weldment, Drawing No. P05CM2-213, HUFP S/N 003

DETAILED DESCRIPTION of NONCONFORMING CONDITION:
The dimension recorded on Traveler Serial No. 15161 is 1.396. The dimension required by the above referenced drawing is 1.380 +/- .010. This attribute was acceptance stamped without identifying the condition as nonconforming.

REQUIREMENT(S) VIOLATED:
Drawing No. P05CM2-213 specifies a maximum dimension of 1.390 for distance between the top of the lid and the surface where the Lid rests on the Body Collar.

APPLICABLE DRAWING(S), SPECIFICATION(S), PROCEDURE(S), Etc:
Drawing No. P05CM2-213

Originator: R. E. Burnham (Originator printed name and signature) — Date: 5/12/09

DISPOSITION

Recommended Disposition:	☒ USE-AS-IS	☐ REPAIR	☐ REWORK	☐ REJECT
Re-inspection Required:	☐ YES (required for all Rework and Repair)		☒ NO	

Technical Review and Justification (for Repair or Use-as-Is):
In the event that this attribute is compliant and was merely recorded in error, the part is acceptable for use as is. In the event that this attribute is noncompliant, it is acceptable for use as is as this dimension is compliant with the SARP and does not affect fit, form or function of the Lid as demonstrated through the assembly and leak testing fo this unit.

Licensing Review Required: ☒ YES (required for items licensed by the NRC or other Regulatory Authority) ☐ NO

Licensing Review Results (for licensed items):
Dimension is compliant with the SARP

Reviewed By: PHIL NOSS (Reviewer(s) printed name(s) and signature(s)) — Date: 5/12/09

Checked By: R. MIGLIORE (Checker printed name and signature) — Date: 5/12/09

Approved By: R. Burnham (PM printed name and signature) — Date: 5/12/09

EVALUATION

Condition Evaluated for Significance: (PM signature and date) 5/12/09 — **Significant Issue Adverse to Quality?** (Yes = a CAR must be created) ☐ YES ☒ NO

Concurrence with Significance Evaluation: (QA signature and date) 5/12/09 — **CAR No.:** N/A

APP'L

Customer Approval Required? ☒ YES ☐ NO — **Customer Approval Received:** (Date and method of approval - letter, email, etc.) See NCR-2009-016 Rev01

RE-INSPECTION

Re-inspection: ☐ Accepted ☐ Rejected — **Re-inspected By:** (Inspector printed name and signature) — Date:

Hold Tag(s) Removed by: (QA printed name and signature) — Date: — ☐ N/A (Explain):

CLOSURE

Actions Complete – NCR can be closed: (PM printed name and signature) — Date:

Actions Verified - NCR Closed: (QA printed name and signature) See NCR-2009-016 Rev 01 — Date: 5/15/09

AFS-QA-FRM-15.10 Rev. 03 (Revised March 24, 2009)
Refer to AFS-QA-PRC-15.1, Control of Nonconforming Items

HUFP Fabrication "Use-As-Is" and "Repair" Nonconformance Reports (NCRs) for Units SN-001, SN-002, SN-003 and SN-005
Note: There are no "Use-As-Is" or "Repair" NCRs on Unit SN-005

HUFP Unit Number	CHT NCR Number	Type	CHT Nonconforming Item	CHT Disposition	Areva NCR Number	Areva Nonconforming Item	Areva Disposition	CHT NCR Closed	Date Closed	Areva NCR Closed	Date Closed
SN-001	1845	Repair	Requirement: Drawing requires vent port detail to contain a .250" ± .010 diameter counter bore located 2.52" deep. Thru hole is required to be .19 ± .030". Nonconformance: Vent port counter bore and thru hole diameter ranges from .277" to .278" diameter (.018" OHL .058" OHL)	CHT recommended disposition is "Repair". Submit to customer for review and approval. Continue to process through but not beyond the final operation of the final Traveler 08-018-00-A.	NCR-2009-006	Requirement: Drawing POSCM2-213 requires Vent Port detail to contain a .250" ± .010 diameter counterbore located 2.53" deep with a through hole diameter of .19 ± 0.030". Nonconformance: Contrary to the requirements, the Vent Port counterbore and thru hole measured .266" diameter (.006" over high limit for the .25" diameter hole). In addition, during the performance of the leakage rate test, through that feature, demonstrated that the O-ring failed to seal	Increase this feature to be .277" diameter through hole and increase the size of the O-ring on the Vent Port plug to compensate for this size. The as machined condition enables performance of the two vent port feature requirements: 1) enable pressure equalization between the cask cavity and the external environment for purposes of installation and removal of the HUFP lid and, 2) enable leakage rate testing of the HUFP primary containment bore seal. The oversized .25" dia bore does require a change in the vent port plug bottom o-ring. The PO5CM2-210 drawing, Item 9, requires revision to identify the required o-ring. The "use-as-is" condition shall be verified by leakage rate testing using the changed o-ring. The SARP drawing 41199-20, Sheet 4, Section K-K dimensioning and tolerancing of the feature in question allows for the oversized hole condition. The item 21 O-ring is called out that drawing is dimensioned and toleranced sufficiently to allow for the larger O-ring	Closed	1/29/2009	Closed	1/29/2009
SN-001	NA	Use-As-Is	NA	NA	NCR-2009-003	Requirement: HUFP SARP Table 9.2-3 requires that for "Procurement Document Control" Category 'b" items shall be procured either by a supplier on a qualified supplier list or Commercial Grade Dedicated Items are acceptable. HUFP SARP Paragraph 9.4, first paragraph infers that "Procurement Document Control" applies to the "Purchasers of packages and replacement items." Nonconformance: CHT documentation was not available to support the procurement of the o-rings	The CHT procurement process orders material based on the critical attributes provided by AFS in their Quality Classification Forms and/or AFS Fabrication Specifications and the HUFP Design Agent concurs with these attributes. Verification of commercial grade dedication consists of the CHT certificate of conformance identifying that the specified attributes were provided with the procured materials. Additionally, CHT provides a CGD document under the CHT program certifying the attributes are reviewed and are compliant to the purchase order requirements. Because the records were in process, the information requested was not available at the time of the surveillance activities. The O-rings were not procured from a vendor on CHT's ESL. As such, CHT is utilizing their Commercial Grade Dedication program/procedure to evaluate the received material against the purchase order and then dedicate these items. The Table 9.2-2 Category B items were evaluated for similar issues. A process improvement was implemented with respect to the documentation to ensure that when required CGD is completed	NA	NA	Closed	1/27/2009
SN-001 Upper Impact Limiter	1840	Use-As-Is	Requirement: Contract requires compliance to drawings for dimensional requirements (including tolerances). Nonconformance: Drawing allows an overall height dimension of 35" with a tolerance of ± 1/8". (Ref: drawing zone A5) Actual overall height is 35.340" creating an out of tolerance condition (Oversized by .215)	CHT recommended disposition is "Use-As-Is". Submit NCR to customer for review and approval. Continue to process through but not beyond the Final Inspection Operation 80	NCR-2009-004	Requirement: Drawings POSCM2-201 and PO5CM2-202 require that the overall height of the impact limiters is 35 ± 1/8". Nonconformance: Contrary to this requirement the impact limiter measurement, to the highest point, was discovered to have the following dimensions: POSCM2-201 (Upper Impact Limiter) overall height is 35.340 and POSCM2-202 (Lower Impact Limiter) overall height is 35.400	The deviation in overall height has no impact on form, fit or function of the HUFP package operations. The SARP has been reviewed and the only instance of potential non-compliance with the license is with compliance to 41199-30 drawing. Sheet 2 of drawing 41199-30, Rev. 2 Zone A and B/8 requires a height of 35 inches with a tolerance of ± 1/2 inch (reference the tolerance block for fractional dimension callouts in the default tolerance block found in sheet 1 of the drawing). The worst case dimension of 35.4 inches is within the SARP allowable of 35 1/2 inches and is therefore acceptable	Closed	1/29/2009	Closed	1/29/2009

HUFP Fabrication "Use-As-Is" and "Repair" Nonconformance Reports (NCRs) for Units SN-001, SN-002, SN-003 and SN-005
Note: There are no "Use-As-Is" or "Repair" NCRs on Unit SN-005

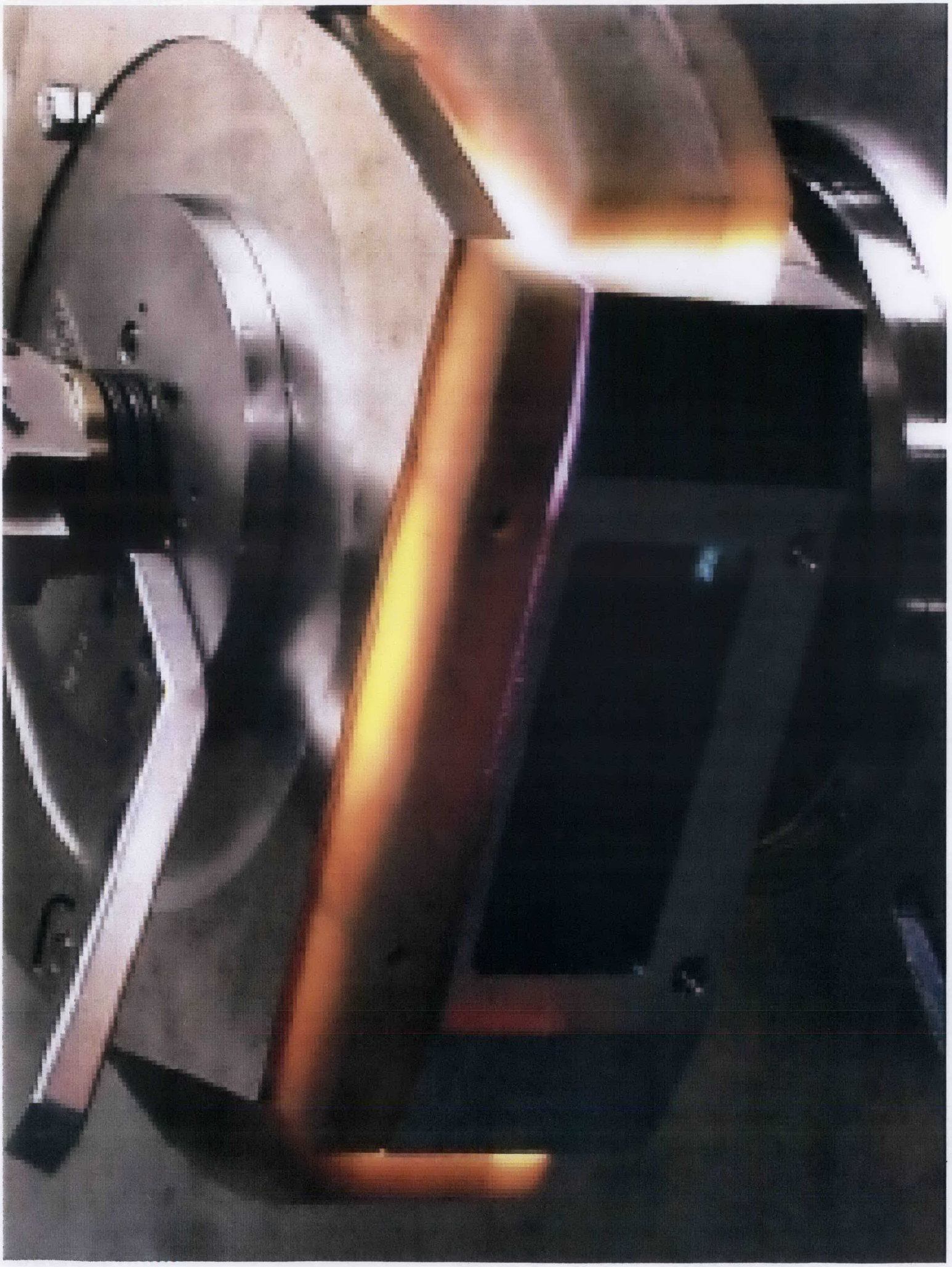
HUFP Unit Number	CHT NCR Number	Type	CHT Nonconforming Item	CHT Disposition	Areva NCR Number	Areva Nonconforming Item	Areva Disposition	CHT NCR Closed	Date Closed	Areva NCR Closed	Date Closed
SN-001 Lower Impact Limiter	1841	Use-As-Is	Requirement: Contract requires compliance to drawings for dimensional requirements (including tolerances) Nonconformance: Drawing allows an overall height dimension of 35" with a tolerance of ± 1/8" (Ref drawing zone A5) Actual overall height is 35.400" creating an out of tolerance condition (Oversized by .275)	CHT recommended disposition is "Use-As-Is". Submit NCR to customer for review and approval. Continue to process through but not beyond the Final Inspection Operation 80	NCR-2009-004	Requirement: Drawings PO5CM2-201 and PO5CM2-202 require that the overall height of the impact limiters is 35 ± 1/8". Nonconformance: Contrary to this requirement the impact limiter measurement, to the highest point, was discovered to have the following dimensions: PO5CM2-201 (Upper Impact Limiter) overall height is 35.340 and PO5CM2-202 (Lower Impact Limiter) overall height is 35.400	The deviation in overall height has no impact on form, fit or function of the HUFP package operations. The SARP has been reviewed and the only instance of potential non-compliance with the license is with compliance to 41199-30 drawing. Sheet 2 of drawing 41199-30, Rev. 2 Zone A and B/8 requires a height of 35 inches with a tolerance of ± 1/2 inch (reference the tolerance block for fractional dimension callouts in the default tolerance block found in sheet 1 of the drawing). The worst case dimension of 35.4 inches is within the SARP allowable of 35 1/2 inches and is therefore acceptable	Closed	1/29/2009	Closed	1/29/2009
SN-002	NA	Use-As-Is	NA	NA	NCR-2009-003	See discussion for Unit 1	See discussion for Unit 1	NA	NA	Closed	1/27/2009
SN-003	1871	Use-As-Is	Requirement: Drawing requires step dimension between top of Lid Assembly and the surface where the Lid rests on the Body Collar to be 1.380" +/- .010". Nonconformance: During a review by the end user, it was noted that this dimension was recorded with a value that is out of tolerance (1.396") and the attribute was acceptance stamped without identifying the condition as nonconforming (see the attached copy of the Dimensional Data Sheet)	CHT recommended disposition is "Use-As-Is". Submit NCR to customer for review and approval. Upon approval, the Final Documentation Package will be updated to reflect this instance	NCR-2009-016	Requirement: Drawing No. PO5CM2-213 specifies a maximum dimension of 1.390 for distance between the top of the Lid and surface where the lid rests on the Body Collar. Nonconformance: The dimension recorded on Traveler Serial No. 15161 is 1.396. The dimension required by the above reference drawing is 1.380 +/- 0.10. This attribute was acceptance stamped without identifying the condition as nonconforming.	In the event that this attribute is compliant and was merely recorded in error, the part is acceptable for use as is. In the event that this attribute is noncompliant, it is acceptable for use as is as this dimension is compliant with the SARP, which allows a dimensional range of from 1.26 to 1.50, and this nonconformance does not affect fit, form, or function of the lid as demonstrated through the assembly and leak testing of this unit	Closed	6/12/2009	Closed	6/11/2009
SN-003	NA	Use-As-Is	NA	NA	NCR-2009-003	See discussion for Unit 1	See discussion for Unit 1	NA	NA	Closed	1/27/2009

Enclosure

SUBMITTED IN RESPONSE TO FOIA REQUEST NO. SR-09-028

ITEM #4

Consisting of 6 pages, including coversheet

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