

November 4, 2008

MEMORANDUM TO: Thomas Hiltz, Chief
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FROM: Michael Raddatz, Senior Project Manager */RA/*
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SUBJECT: STAFF REVIEW OF 10 CFR 76.68 CHANGES TO THE
PADUCAH GASEOUS DIFFUSION PLANT LICENSING
DOCUMENTS MADE BETWEEN DECEMBER 2003 AND
SEPTEMBER 2008

The headquarters staff, in consultation with the regional inspectors, has reviewed the changes made since issuance of the 2003 Paducah Gaseous Diffusion Plant (PGDP) Certificate of Compliance inclusive of Revision 112. The staff considered the following requirements pertaining to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 76.68, while performing the review:

- the Corporation shall conduct a written safety analysis which demonstrates that the changes would not result in undue risk to public health and safety, the common defense and security, or to the environment;
- the changes must be authorized by responsible management and approved by a safety review committee;
- the changes may not decrease effectiveness of the plant's safety, safeguards, and security programs;
- the changes may not involve a change in any condition to the certificate of compliance;
- the changes may not involve a change to any condition to the approved compliance plan; and
- the changes may not involve an un-reviewed safety question.

The NRC staff has prepared a short summary of the 176 changes (Enclosure 1) made by PGDP and placed them into the following categories:

1. Sixty two (62) changes were documented of what staff considered administrative details such as organizational changes, clarifications and/or correction of errors, lease and sublease changes, chronological updates, revised references, and similar actions.
2. Forty four (44) changes were documented of modifications to process equipment or procedures.
3. Thirty (30) changes were documented of modifications to accommodate revision of Nuclear Criticality Safety requirements on the processes.
4. Ten (10) changes were documented of procedural and/or equipment utilized to enact the Fundamental Nuclear Materials Control Plan.
5. Seven (7) changes were documented of procedural and/or equipment utilized to ensure plant security.
6. Six (6) changes were documented of the physical plant facilities such as demolition, construction, or boundary/fence movements.
7. Five (5) changes were documented of equipment and/or procedural modifications affecting fire protection
8. Nine (9) changes were documented of equipment and/or procedural modifications affecting emergency preparedness.
9. Three (3) changes were documented in the area of radiation protection.

The staff began the review by examining the process followed by United States Enrichment Corporation (USEC) in making the changes authorized by 10 CFR 76.68. The staff found that the review process at PGDP is referred to as Plant Change Review (PCR). The PCR is performed and documented by USEC within a document identified as the Request for Application Change (RAC). The process involves a systematic evaluation of plant changes to determine whether they alter any Certificate of Compliance Condition, Technical Safety Requirements (TSR), Transportation Certificates of Compliance, or involve a safety, safeguards or security program decrease in effectiveness, or an Unresolved Safety Question (USQ).

Performance of the PCR process evaluates changes and screens them to determine if a Written Safety Analysis, Decreased in Effectiveness Evaluation and Unreviewed Safety Question Determination need to be performed. These evaluations are performed by two Qualified Reviewers, an originator, and a reviewer. The completed evaluations are then approved by the Nuclear Safety Manager or, when appropriate, an approved functional organization manager. The PCR and associated documents, as required by TSR 3.10, are then reviewed by the Plant Operations Review Committee (PORC).

The PORC consists of a quorum made up of the chairman and technical representation from Operations, Engineering, Nuclear Criticality Safety (NCS) Engineering, Radiological Safety, and

Quality Assurance. Other plant organizations such as Security or Nuclear Regulatory Affairs may also serve on the PORC or be present to provide additional technical assistance.

The PORC will recommend to the General Manager the approval or disapproval of the item(s) under consideration. The 10 CFR 76.68 evaluations are quality records and are maintained in accordance with plant procedures and are available for inspection at the facility.

As part of the routine inspection program, regional-based inspectors reviewed selected changes made to the facility throughout the performance assessment period, including revisions to the Safety Analysis Report (SAR), and verified that the certificate holder was complying with 10 CFR 76.68 requirements. On an annual basis, USEC submits to the NRC all of the changes to licensing documents that resulted from the 10 CFR 76.68 reviews, accompanied by a short summary explaining the revisions. These summaries are included as appendix A-H. Upon receipt the staff reviews all the change summaries, the latest being Revision 112, dated August 11, 2008. If the staff considers that a change(s) warrants further review, he/she has the option of requesting copies of the RAC packages. The majority of the changes are administrative in nature.

In order to establish reasonable assurance that the applicant was following its process, documenting its findings, and reaching reasonable conclusions, the staff requested 6 specific RAC packages from USEC. These packages were selected at random, to reflect a cross section of the 10 CFR 76.68 changes made during the past 5 years. The results of the staff review are documented in Enclosure 2.

Based on the above, the staff concludes that there is reasonable assurance that USEC has adequately described and documented the changes for its Certificate of Compliance, made since its 2003 recertification and through revision 112, under the provisions of 10 CFR 76.68, and that specific NRC approval of these changes was not required. Therefore, the staff finds that the applicant is in compliance with the requirements of 10 CFR 76.36 (c) (iii).

Enclosures: As stated

cc: V. Shanks, USEC-Paducah

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DATE	10/09/08	10/10/08	11/03/08	11/04/08

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10 CFR 76.68 Changes Made to Licensing Documents

Paducah Gaseous Diffusion Plant

December 2003 to September 2008

Administrative Nature

Revision 82

03C029 Revise SAR to change safety code for elevators from the ANSI A17.1, 1974 edition to the ANSI A17.1, 1971 edition.

Revision 83

03C009 Revise the FNMCP to allow appointment of an alternate Database Administrator who may be required to perform the duties of the current Database Administrator in their absence or stead. The designated Database Administrator still must meet the qualifications required for either the NMA Manager or NMC&A Manager positions.

Revision 85

02C050 Revise Classified Matter Plan to declassify the DYMCAs system (PORTS only) and make editorial change to the Transportation Security Plan.

02C079 Revise Classified Matter Plan to run the DYMCAs system on an unclassified computer system (PORTS only).

Revision 86

03C021 Combine PGDP and PORTS DUMP and DFP into common plans. update DU generation and disposition to reflect duration of new certificate.

Revision 88

03C039R1 Revise TSR Table 3.2.2.1, Minimum Staffing Requirement for Fire Services, to clarify the applicability of 4-hour time requirement stipulated in footnote "a".

Revision 89

02C070 Revise SAR to clarify the cascade equipment housing boundary and maximum housing open surface during maintenance activities.

03C016 Revise SAR to make minor corrections to the for C-360 PGLD description.

03C031 Revise SAR to implement NRC approved change to provide written event reports within 60 days instead of 30 days.

- 03C041 Revise NRC Region III to NRC Region II in the PGDP Certificate Application to reflect NRC transfer of Regulatory Oversight of the GDPs to Region II.
- 03C052 Revise SAR to incorporate ANSI N14.1-2001 for use with all operations associated with 30B cylinders. The SAR currently references ANSI N14.1-1995.
- 03C054 Revise SAR to incorporate ANSI N14.1-2001 for use with all cylinder operations larger than 2½ tons. The SAR currently references ANSI N14.1-1990.
- 03C056 Revise SAR to make multiple error corrections and clarifications to NCS discussions. No changes to the plant were made and all changes comply with existing NCS requirements.
- 03C057 Revise SAR to make minor administrative change to the NCSA approval process.
- 04C001 Revise SAR to make minor change to Work Order approval process to support implementation of electronic process.

Revision 91

- 04C019 Revise SAR Table 1-4, Authorized Uses of NRC Regulated Materials, to allow PGDP to receive two 48Y (14 ton) cylinders from the former Starmet CMI, Inc., site (reviewed and approved by NRC).

Revision 92

- 04C017 Revise SAR and GDPSP to change “NRC Division of Facilities and Security” to “NRC Division of Nuclear Security”.

Revision 93

- 04C023 Revise SAR to support new management positions for VP and Chief Information and Security Officer, and the Director, Corporate Security.
- 04C031 Revise FNMCP to address Sarbanes-Oxley Act-related concerns to improve IT organization control of database programming staff. NMC&A programmers will be re-assigned from NMC&A to IT.
- 04C033 Revise FNMCP to update references to applicable regulations as a result of changes to 10 CFR 70 and 10 CFR 74.

Revision 94

- 05C002 Revise DFP and DUP to reflect changes required for CY05.

Revision 95

- 03C006 Revise SAR to delete redundant text concerning the requirement to perform annual uranium sampling and handling hood air velocity evaluations, and to remove the requirement that specifies IS&H as the only group responsible for uranium sampling and handling hood air velocity evaluations.

- 03C046 Revise TSR to credit the Jet Station Barrier Frame for preventing a dropped load or a horizontal impact from crane-carried load from breaching the C-337-A jet station piping.
- 04C002 Revise SAR to clarify structure of the radiation protection organization and the required qualifications for the HP supervisor and the Radiation Protection Manager.
- 04C022 Revise SAR and EPLAN to make miscellaneous minor editorial/administrative corrections.
- 04C027 Revise SAR to change responsibility for product cylinder shipping from the Chemical Operations Manager to the UF₆ Handling Manager.
- 04C032 Revise SAR to show that the location of the C-600 backup generator is outside the C-607 building rather than inside the building.
- 04C035 Revise SAR to add the C-360 Technetium traps as an additional example of a high radiation level area.
- 04C037 Revise SAR to reflect organizational changes that involve deletion of the Plant Services Organization, the Commitment Management Group, adding the Customer Service and Product Scheduling Manager, and changing the title of "Fire Service Manager" to "Fire Chief."
- 05C006 Revise FNMCP to delete NME Manager position in FNMCP.
- Revision 96
- 05C010 Revise EPLAN general employee training requirements and make other editorial and position title changes.
- 05C019 Revise TSR basis statement and SAR to clarify the location of the freezer/sublimator UF₆ vent line manual block valve in relation to the rupture disc.
- Revision 97
- 04C034R1 Revise Table 1-4, Authorized Uses of NRC Regulated Materials to provide an accurate description of PGDP activities. Revise TSR 2.2.43 and 2.3.4.7 to correct a typographical error.
- Revision 100
- 04C021 Revise SAR to clarify who is required to read and initial logbooks.
- 04C025 Revise SAR to clarify that a Needs Analysis is used to determine the training that is required prior to the implementation of new or modified procedures.
- 05C009 Revise SAR to correct minor inconsistencies in Fire Services titles, qualifications, and responsibilities.
- 05C015 Revise SAR to incorporate changes to 10 CFR 71 Final Rule revision.
- 05C023 Revise SAR to correct minor inaccuracies in the description of the permits and tagging systems.

05C035	Revise TSR Basis statement in TSR 2.3.4.7 and 2.4.4.11 to specify the correct SAR reference number.
05C038	Revise SAR to reflect realignment of Environmental Compliance/Waste Management Group to NRA, Chemical Operations and HP, and to revise title of NRA Manager and NRA Director.
<u>Revision 104</u>	
06C010	Revise GDPSP to separate the current GDPSP into stand alone (PGDP and PORTS specific) plans.
<u>Revision 105</u>	
05C012	Revise SAR to clarify freezer/sublimator power supplies and terminology for trip settings and correct error in safety system classification for RCW equipment and A-line return valve.
05C024	Revise Transportation Security Plan to clarify when USEC is applicable for late or lost shipments from Russia or to enriched product shipments between PORTS and PGDP. Also clarify how the requirements of 10 CFR 73.67 are met by the licensee and make editorial changes.
05C030	Revise SAR to describe HQ/PGDP reorganization.
06C006	Revise SAR to clarify nominal quantities of process safety management chemicals.
06C008	Revise SAR to clarify specific conditions evaluated for pigtail failure scenario variations.
06C012	Revise SAR to clarify that a secondary function of C-315 is to support vapor transfers of UF ₆ at enrichments of less than 1.0 wt% ²³⁵ U.
<u>Revision 106</u>	
05C028	Revise SAR to clarify the AQ boundary for the low pressure datum system and inventory instrumentation required for nuclear material accountability.
06C004	Revise SAR lease maps to reflect de-leasing of C-743 trailers.
<u>Revision 107</u>	
05C032	Revision of DFP and DUP to reflect changes required for CY06.
<u>Revision 110</u>	
07C002	Revise SAR to clarify that Human Resources maintains and documents key position qualification requirements.
07C008	Revise SAR to replace "tape player" with "audio playback device" to account for the use of other playback devices.
07C017	Revise SAR to clarify text addressing lube oil supply and drain tanks.

07C018 Revise SAR to clarify that only selected "00" and "000" cells actuate alarms from the ADP system in the ACR when the coolant temperature exceeds set limits.

Revision 111

07C030 Revise SAR to correct typographical error in SAR Table 3.15-3 for autoclave inventory control system.

08C001 Revise SAR to correct description for load tap changers.

08C003 Revise SAR to update the ECSR to support Certification renewal.

08C004 Revise SAR to correct PGDP mailing address.

08C005 Revise SAR 5.1, "Environmental Protection-Radiological" to support Certification renewal.

Revision 112

07C026 Revise DUMP and DFP to incorporate revised cost estimates.

08C008 Revise SAR to correct autoclave control pressure from 5 psia to 5 psig.

08C010 Revise SAR to reflect organizational changes.

Process Procedures/Equipment

Revision 82

02C058 Revise TSR 2.4.4.12 to delete the cell isolation surveillance requirement.

Revision 84

03C012 Revise SAR to describe the new UF₆/R-114 Separation System in C-335. The new system will have favorable geometry for operation up to the plant assay limit of 5.5wt%²³⁵U.

02C061 Revise SAR to describe an R-114 recovery process for gases exiting the UF₆/R-114 Separation System.

Revision 87

03C053 Revise TSR 2.4.4.3 to remove the UF₆/R114 Separation Unit and the 1.30 assay limit. Also, the basis statement will be revised to remove the discussion of the UF₆/R114 Separation Unit.

Revision 89

03C015 Revise SAR operational descriptions of C-409 Hand Tables and C-409 Uranium Precipitation System.

03C023 Revise SAR to change the configuration of recorders in the cascade enrichment facility ACR for monitoring and trending surge drum pressures.

03C025 Revise SAR to remove unnecessary sampling requirements for the C-400 solution receiving tanks.

03C028 Revise SAR to address increased usage frequency of the C-360 elevator and levelator as a result of shipping and transfer operations being transferred to PGDP.

03C034 Revise SAR to allow re-feed of 2S cylinders, P10 tubes, and J tubes to the cascade in the C-310 product withdrawal facility.

03C047 Revise SAR to change the inspection criteria and periodicity for large UF₆ cylinders.

03C049 Revise SAR to allow cold burping a cylinder at the C-310 product withdrawal stations. Burping is currently conducted at the C-310 burping station.

03C051 Revise SAR description of surge drum pressure transmitters to reflect that electronic pressure transmitters are used. Currently the SAR only describes pneumatic pressure transmitters.

03C055 Revise SAR to clarify that administrative controls ensure that fluorine is not valved into the UF₆/R-114 separation system except during regeneration, conditioning or passivation.

04C004 Revise SAR to include alternate RCW valve positions for freezer/sublimator modes, correct inconsistencies between NCSE and SAR safety system safety functions and boundaries, and miscellaneous

SAR changes to clarify the description of the F/S components and support systems.

04C007 Revise SAR to clarify the use of trend analysis and the sources of equipment performance history data used in evaluating PM tasks and frequencies.

Revision 90

04C010R1 Revise QAP (dual site plan) to add new appendix (Appendix D). Appendix D was developed to define how the provision of the QAP apply to activities associated with clean-up and machine removal in the X-3001 building (PORTS only).

Revision 95

02C077 Revise SAR to delete reference to the UF6 control valve full open alarms for the C-333 and C-337 Area Control Rooms. The alarms are no longer needed to alert operators that a cylinder is completely fed out.

04C006 Revise SAR to clarify the C-360 sampling manifold and associated equipment may be treated with HF/nitrogen gas mixtures to remove contaminates.

04C014 Revise SAR to incorporate modifications to the water disinfection system at C-611 to meet new federal and state regulations.

04C016 Revise SAR to clarify that RCW supply and return manual block valves may be closed if the 3-way RCW valve is not operable or available during "hot standby" or "modified hot standby" freezer/sublimator modes of operation.

04C036 Revise SAR to increase capacity of the two process building cranes located on the C-310 cell floor from 5 tons to 6 tons by replacing parts associated with hoisting gear mechanisms. Minor corrections/clarifications concerning process building cranes will also be made.

Revision 98

04C038 Revise SAR and EPLAN to clarify which chemical processes are covered by the Process Safety Management program, establish maximum chemical quantities at each covered process and recognize that one-ton container chlorine cylinders are no longer stored at the C-611 storage yard.

Revision 100

05C007 Revise SAR to remove the tilt mechanism limit switches from the cylinder roll interlock system AQ-NCS boundary. This change will also clarify operation of the cylinder roll interlock system.

05C016 Revise SAR to delete the C-360 process gas leak detection programmable logic controller from the UF₆ release detection system boundary and correct the voltage from 24-VDC to 200-VDC.

- 05C021 Revise SAR to allow using two or more parent cylinders (of different assays) to blend assays to achieve a desired assay per customer request and also to allow the use of multiple parent cylinders (of the same assay) to fill a daughter cylinder completely.
- 05C031 Revise SAR to allow the use of dry or liquid forms of the chemical added to the Alkali tank.
- 05C036 Revise TSR 2.2, Appendix A to add BNFL Model 48F cylinder and add a note to tables specifying that BNFL cylinder does not have the minimum volume specified in ANSI N14.1 but does have 5% free volume with current UF₆ contents.
- 06C003 Revise SAR to clarify operation description for the solid uranium salvage operations in the C-710 laboratory.

Revision 105

- 05C020 Revise SAR to implement modifications to the fluorine distribution system to enable use of a gas mixture (molar) containing 20% fluorine and 80% nitrogen as delivered in a multi-tube trailer.
- 05C022 Revise SAR to incorporate "Addendum 3 to ANSI N14.1" which provides for use of a countersunk plug.

Revision 106

- 06C014 Revise SAR to remove one of the UF₆ Infrared analyzers in C-310 and provide alternate sampling capability for this point by extending a sample line to the existing Fourier Transform analyzer.
- 06C021 Revise SAR to remove obsolete uninterruptible power supply from the C-333A/C-337A feed facilities.

Revision 108

- 05C040 Revise TSR to allow controlled feeding at PGDP.

Revision 109

- 07C012 Revise TSR to address the minimum number and location of UF₆ detector heads that are needed in the heated housings of interbuilding tie-lines to support above atmospheric operations in the interbuilding UF₆ process lines.

Revision 110

- 04C028 Revise SAR to show the addition of a line and connection to the suction side of the recirculation pump for the transfer of solution from the NaOH mixing tank.
- 06C011 Revise SAR to implement use of skid-mounted pumping stations in the cascade for seal and wet air exhaust.

- 06C016 Revise SAR to add the DUF₆ Conversion Facility to the list of services provided by the sanitary water system. This will tie in the DUF₆ Conversion Facility to the plant water line and the sanitary water line at the southwest corner of C-333.
- 06C020 Revise SAR to add an administrative control for interbuilding tie line UF₆ process piping pressures to limit operation below atmospheric pressure.
- 07C015 Revise QAP to clarify records requirements for non-commercial suppliers and revise C-100 record storage vault fire protection requirements.
- 07C016 Revise SAR to clarify that non-uprated cascade cells are not equipped with an ACR general alarm (for a cell) on the buffer system or cell instrument cubicle/duct temperature, and that non-uprated transformers use forced draft flow with alarms on loss of power to the fans.
- 07C021 Revise SAR to remove the hood currently installed on the C-360 transfer ventilation system and replace it with a nozzle. The nozzle is similar in design to the autoclave ventilation systems and will function in the same manner to remove particulate at the transfer station during cylinder changes.

Revision 111

- 04C028 Revise SAR to install a new one-inch line to provide an alternate method of feeding solution from the NaOH mixing tank into the C-409 uranium precipitation system.
- 07C010 Revise SAR to install new air compressor in C-601 facility.
- 07C013 Revise SAR to discuss repair of structural deficiencies in the C-331/C-333 interbuilding tie-line and support structure.

Nuclear Criticality Safety Requirements

Revision 84

- 02C042R1 Revise SAR to modify the UF₆/Coolant Separation System to implement nuclear criticality safety (NCS) controls and install an R-12 pump to increase cold trap effectiveness and coolant reclamation connections for future use.
- 03C040 Revise SAR to implement revised NCS requirements for operation and maintenance of the freezer/sublimers.

Revision 89

- 02C064 Revise SAR to include the unit datum system as an active engineered feature (AEF) credited for NCS and make minor corrections to C-710 operation descriptions.
- 03C018 Revise SAR to incorporate new analysis that shows machining wastes are non-fissile and can be classified as "NCS-Exempt."
- 03C024 Revise SAR description of NCS controls for disassembly and decontamination of fissile compressors in C-400 Compressor Pit.
- 03C027 Revise SAR to make the UF₆ release detection systems in C-360 AQ-NCS active engineered features in accordance with NCS requirements.
- 03C032 Revise SAR to add the C-310 Normetex Pump Discharge Block Valve Closure on Pump Trip as an NCS AEF (active engineered feature).
- 03C038 Revise SAR to include a safe mass value for 2.1 gallon drums which allow classification as spacing-exempt, allow a ventilation hood to be used during sampling activities and allow two drum monitor surveys to be used to characterize waste containers.
- 03C042 Revise SAR to delete specific discussion of NCS controls for disposal of potentially fissile samples from the C-710 laboratory. NCS controls for this waste operation are indistinguishable from other waste operations discussed in the SAR and no specific discussion is necessary.
- 03C044 Revise SAR to delete the discussion of the Unit High Datum Isolation System as an AQ-NCS active engineered feature and an AQ-NCS system.
- 04C008 Revise SAR description to indicate there are no credible pathways for an accidental criticality for sample bulb washing in all of the cascade buildings and C-360.
- 04C011 Revise SAR to implement revised NCS requirements for the C-400 uranium recovery operations. The revisions allow the use of solution (magnetic) level gauges on the twelve 20-inch stainless steel solution tanks, clarify posting requirements, reanalyze criticality safety scenarios, and clarify process descriptions.

Revision 95

- 04C024 Revise SAR to incorporate changes made to NCS requirements for handling and storage of contaminated waste.
- 04C026 Revise SAR to incorporate changes made to NCS requirements for the operation and shutdown of the cascade.
- 04C039 Revise SAR to incorporate changes made to NCS requirements to support a geometrically safe elevator pit sump pump and a new AEF feature for immediate tripping the sump pump following a UF₆ release detected by zones 2, 3, and/or 4.
- 04C041 Revise SAR to clarify the AQ-NCS boundary definition provided for the C-310 Normetex Pumps High Oil Pressure Trip.
- 05C001 Revise SAR to clarify types of NCS deficiencies that are trended for identifying adverse trends.

Revision 100

- 05C008 Revise SAR to implement revised NCS requirements that remove the C-360 UF₆ release detection system as a credited SRI control.
- 06C001 Revise SAR to clarify that geometry controls are listed in NCSAs.
- 06C002 Revise SAR to implement revised NCS requirements for the operation of the fixed high efficiency filter systems in C-310.

Revision 105

- 05C018 Revise SAR to incorporate changes made to NCS requirements for Motor Shop.

Revision 110

- 05C037 Revise SAR to implement revised NCS requirements for the C-400 solution transfer operations and to clarify that floor drains near fissile operations are sealed to ensure an unsafe mass of uranium does not enter the drain system.
- 07C003 Revise SAR to implement revised NCS requirements for the seal change, disassembly and decontamination operations.
- 07C005 Revise SAR to clarify the description of the AQ-NCS boundary for the cylinder roll interlock system.

Revision 111

- 06C018 Revise SAR to implement revised NCS requirements for cell servicing areas.
- 07C014 Revise SAR to implement revised NCS requirements for pressure transmitter operations.
- 07C023 Revise SAR to implement revised NCS requirements for vacuum cleaners and waste drums.
- 07C025 Revise SAR to implement revised NCS controls for process infrared and process gas chromatography laboratory.

Revision 112

06C019

Revise SAR to describe revised NCS requirements for UF6 process equipment received from off site.

07C028

Revise SAR to implement NCS requirements for Carboy final disposal options.

Fundamental Nuclear Materials Control Plan (FNMCP)

Revision 83

03C030 Revise FNMCP to address the creation of the Customer Order Management Group at PGDP as a result of PORTS shutdown and make operational function changes relative to processing raw shipment, receipt and movement data.

Revision 85

03C043 Revise the FNMCP to change the methodology for calculation of drum concentration and assay.

Revision 89

03C050 Revise the FNMCP to clarify the description of confirmatory measurements analysis in the FNMCP.

Revision 93

04C013 Revise FNMCP to incorporate an alternate measurement method currently described in SAR 5.7-2 Table for uranium purity determination when applied to C-310 stack samples. Also updated Tables 4-1 of FNMCP.

Revision 95

04C015 Revise SAR to clarify the quality classification of scales and the inventory instrumentation required for nuclear material accountability.

Revision 99

05C014 Revise the FNMCP to correct typographical errors, make administrative corrections, state that the Maintenance Organization assumes the test weight program, revise time frame for using test containers, delete use of NLB lab and update shipper/receiver primary flows.

Revision 110

07C001 Revise SAR to add more analytical capability for radiochemical analysis with the current instrumentation.

07C009 Revise FNMCP to clarify requirements if outside laboratories are contracted for measurement services and enhance description of bi-monthly dynamic inventory.

Revision 111

07C024 Revise FNMCP scale check frequencies to match TSR frequencies.

Revision 112

08C002 Revise FNMCP to correct typographical errors and clarify requirements for controlled feeding process.

Plant Security

Revision 85

- 03C045 Revise Physical Security Plan to delete requirement that roto-gates be located adjacent to security portals
- 03C048 Revise SAR to describe the new 800 MHz trunked radio system that will replace the existing VHF radio network.

Revision 92

- 02C069 Revise Physical Security Plan and Transportation Security Plan to include references to NMC&A at PORTS and Customer Service and Product Scheduling at PGDP resulting from the elimination of the Customer Service and Product Scheduling organization at PORTS. Transportation Security Plan updated to clarify that the GDPs are provided daily updates of the transporter's progress.
- 04C018 Revise Physical Security Plan to incorporate PORTS only changes. An editorial change was made to correctly identify a USEC cylinder yard, and a change was made to add information regarding exit-only Roto-Gates at PORTS (dual site plan).

Revision 98

- 04C029 Revise the Classified Matter Security Plan to clarify use of temporary security badges and keys to classified security containers, revise the Physical Security Plan to clarify that the perimeter fencing is at least 11 gauge and identify the CAA perimeter in relation to the C-720-H warehouse.
- 05C017 Revise Physical Security Plan and Classified Matter Security Plan to support implementation of the Security Plan for the American Centrifuge Lead Cascade Facility.
- 05C026 Revise Classified Matter Plan to increase security key inventory frequencies from annually to monthly. Revise Classified Matter Plan to add an additional example of a NSI derivative classification stamp.

Facility Changes

Revision 85

03C019 Revise SAR to show installation of buildings C-224, C-225, C-226, C-227, and C-228 inside CAA perimeter and relocate the existing CAA perimeter fencing for additional buildings being added.

Revision 110

03C033 Revise SAR lease map to show installation of building C-229 inside the CAA perimeter and relocation of the CAA perimeter fencing west of Gates 18, 19, and 20 to the new building C-229.

04C020 Revise SAR lease map to show resurfacing the existing yard with concrete and reworking the storm drainage system. Yard size will be increased to the north, thereby increasing the design capacity for cylinders in the yard.

05C003 Revise SAR to reflect that DOE is assigning cylinder management responsibilities for DOE-owned cylinders to UDS. Because UDS does not have a FOCI clearance, it is important that DOE cylinders, to the greatest extent practical, be located outside the CAA where a security clearance would not be required for entry. The proposed SAR changes will adjust the CAA boundary such that most DOE cylinder yards are located outside the CAA, in a fenced, controlled area where access is restricted to only those with official business.

07C027 Revise SAR to add fencing to include 740-G inside the CAA and remove lease maps from the EPlan and RWMP.

Revision 112

07C004 Revise SAR to describe new C-745-B Low Level Waste Storage Building that will store non-fissile waste.

Fire Protection

Revision 89

- 02C006R1 Revise SAR to remove reference to “transite” exterior walls and discuss combustible building siding.
- 03C022 Revise the SAR Fire Protection Program description to reflect organizational change. Also clarified when fire investigations are performed and removed redundant information.
- 03C039 Revise TSR Table 3.2.2.1 Minimum Staffing Requirement for Fire Services.

Revision 106

- 06C009 Revise SAR to make corrections, clarifications and/or process improvements to Fire Protection related sections of the application

Revision 111

- 07C022 Revise SAR to add redundant smoke detectors to the C-333A/C-337A UF₆ release detection system to improve reliability.

Emergency Preparedness

Revision 83

- 03C036 Revise EPLAN to change the time for the EOC to become operational from 15 minutes to 60 minutes.
- 03C008 Revise SAR to clarification that the emergency valve closer systems must have the ability to close multiple positions in the event of a release on one position.
- 03C020 Revise SAR to change the event reporting timeframe for 10 CFR 76.120 reportable events, and to correct a paragraph references cited for 10 CFR 21.21.
- 05C011 Revise SAR to add the air pressure regulator as a separate item to the AQ boundary identified for the CAAS building air horns.

Revision 98

- 05C005 Revise SAR and EPLAN to change primary meteorological monitoring from the C-802 meteorological tower to the C-300 meteorological tower. Also made miscellaneous minor and administrative changes to the SAR and Emergency Plan.

Revision 102

- 06C013 Revise TSR to allow use of “Buddy System” in lieu of CAAS audibility for localized high noise areas.

Revision 103

- 06C005 Revise TSR Minimum Staffing Table and SAR to delete the APSS position.

Revision 112

- 07C007 Revise Eplan to correct titles and remove reference to the severe weather warning computer station which is not a required part of the plant weather monitoring system.
- 08C009 Revise Eplan to make editorial changes.

Radiation Protection

Revision 100

04C040

Revise SAR to change bioassay action levels to gain a more accurate depiction of intake potential and dose associated with incidents and special bioassay used to monitor events.

Revision 101

05C039

Revise TSR to reduce HP minimum staffing from 2 to 1.

Revision 111

07C019

Revise SAR to implement modified HP survey frequency requirements.

Request for Application Change (RAC) Reviews Performed by NRC Staff

Revision to TSR Table 3.2.2.1 Minimum Staffing Requirement for Fire Services

Regulatory Requirement

10 CFR 76.68 (a) "Plant changes" states: The Corporation may make changes to the plant or to the plant's operations as described in the safety analysis report without prior Commission approval provided all the provisions of this section are met. The staff has reviewed the Package associated with the change and made the following findings:

Findings

Has the corporation conducted a written safety analysis which demonstrates that the changes would not result in undue risk to public health and safety, the common defense and security, or to the environment?

YES NO

Are the changes authorized by responsible management approved by a safety review committee?

YES NO

Do the changes decrease effectiveness of the plant's safety, safeguards, and security programs

YES NO

Do the changes involve a change in any condition to the certificate of compliance?

YES NO

Do the changes involve a change to any condition to the approved compliance plan?

YES NO

Do the changes involve an un-reviewed safety question?

YES NO

Conclusion

The staff has reviewed the package and independently verified that changes to the TSRs were properly dispositioned. In this case the changes were necessitated as a consequence of the approval of an amendment request (amendment 2) by the Certificate Holder.

Revise TSR Table 3.2.2.1, Minimum Staffing Requirement for Fire Services, to clarify the applicability of 4-hour time requirement stipulated in footnote “a”.

Regulatory Requirement

10 CFR 76.68 (a) “Plant changes” states: The Corporation may make changes to the plant or to the plant's operations as described in the safety analysis report without prior Commission approval provided all the provisions of this section are met. The staff has reviewed the Package associated with the change and made the following findings:

Findings

Has the Corporation conducted a written safety analysis which demonstrates that the changes would not result in undue risk to public health and safety, the common defense and security, or to the environment?

YES NO

Are the changes authorized by responsible management approved by a safety review committee?

YES NO

Do the changes decrease effectiveness of the plant's safety, safeguards, and security programs

YES NO

Do the changes involve a change in any condition to the certificate of compliance?

YES NO

Does the change require a modification of the TSRs?

YES NO

Do the changes involve a change to any condition to the approved compliance plan?

YES NO

Do the changes involve an un-reviewed safety question?

YES NO

Conclusion

The staff has reviewed the package and independently verified that changes to the TSRs were properly dispositioned. In this case the changes were necessitated as a consequence of the approval of an amendment request (amendment 2), by the Certificate Holder. This was in addition to the original change, thus this change is noted as Revision 1 and inserted a clarifying language into the table.

Revise SAR to describe the new UF6/R-114 Separation System in C-335. The new system will have favorable geometry for operation up to the plant assay limit of 5.5wt%235U.

Regulatory Requirement

10 CFR 76.68 (a) "Plant changes" states: The Corporation may make changes to the plant or to the plant's operations as described in the safety analysis report without prior Commission approval provided all the provisions of this section are met. The staff has reviewed the Package associated with the change and made the following findings:

Findings

Has the corporation conducted a written safety analysis which demonstrates that the changes would not result in undue risk to public health and safety, the common defense and security, or to the environment?

YES NO

Are the changes authorized by responsible management approved by a safety review committee?

YES NO

Do the changes decrease effectiveness of the plant's safety, safeguards, and security programs?

YES NO

Do the changes involve a change in any condition to the certificate of compliance?

YES NO

Do the changes involve a change to any condition to the approved compliance plan?

YES NO

Do the changes involve an un-reviewed safety question?

YES NO

Conclusion

The staff has reviewed the package and independently verified that changes to the licensing documents were properly dispositioned. In this case, the changes were necessitated by the installation of a new UF₆/R-114 separation system within the C-335 building. The Certificate holder performed a new Nuclear Criticality Safety Evaluation and Approval to document that the compliance with the double contingency principal for maintenance and operation of favorable geometry within the new system. This change allows this equipment to operate at the maximum plant assay.

Revise SAR to increase capacity of the two process building cranes located on the C-310 cell floor from 5 tons to 6 tons by replacing parts associated with hoisting gear mechanisms. Minor corrections/clarifications concerning process building cranes will also be made.

Regulatory Requirement

10 CFR 76.68 (a) "Plant changes" states: The Corporation may make changes to the plant or to the plant's operations as described in the safety analysis report without prior Commission approval provided all the provisions of this section are met. The staff has reviewed the Package associated with the change and made the following findings:

Findings

Has the corporation conducted a written safety analysis which demonstrates that the changes would not result in undue risk to public health and safety, the common defense and security, or to the environment?

YES NO

Are the changes authorized by responsible management approved by a safety review committee?

YES NO

Do the changes decrease effectiveness of the plant's safety, safeguards, and security programs?

YES NO

Do the changes involve a change in any condition to the certificate of compliance?

YES NO

Do the changes involve a change to any condition to the approved compliance plan?

YES NO

Do the changes involve an un-reviewed safety question?

YES NO

Conclusion

The staff has reviewed the package and independently verified that changes to the licensing documents were properly dispositioned. In this case, the changes were to increase the capacity of the process building cranes from 5 tons to 6. This involved replacing parts associated with the hoist mechanisms. The specification for the parts was obtained from the manufacturer. They determined that the change was within the required safety factors and thus was allowable.

Revise TSR 2.2, Appendix A to add BNFL Model 48F cylinder and add a note to tables specifying that BNFL cylinder does not have the minimum volume specified in ANSI N14.1 but does have 5% free volume with current UF6 contents.

Regulatory Requirement

10 CFR 76.68 (a) "Plant changes" states: The Corporation may make changes to the plant or to the plant's operations as described in the safety analysis report without prior Commission approval provided all the provisions of this section are met. The staff has reviewed the Package associated with the change and made the following findings:

Findings

Has the corporation conducted a written safety analysis which demonstrates that the changes would not result in undue risk to public health and safety, the common defense and security, or to the environment?

YES NO

Are the changes authorized by responsible management approved by a safety review committee?

YES NO

Do the changes decrease effectiveness of the plant's safety, safeguards, and security programs?

YES NO

Do the changes involve a change in any condition to the certificate of compliance?

YES NO

Do the changes involve a change to any condition to the approved compliance plan?

YES NO

Do the changes involve an un-reviewed safety question?

YES NO

Conclusion

The staff has reviewed the package and independently verified that changes to the licensing documents were properly dispositioned. In this case, the changes resulted from the approval of amendment 6 to its certificate. The amendment details the changes and this review was performed to ensure that the SAR was properly updated.

Revise SAR to incorporate new analysis that shows machining wastes are non-fissile and can be classified as “NCS-Exempt.”

Regulatory Requirement

10 CFR 76.68 (a) “Plant changes” states: The Corporation may make changes to the plant or to the plant's operations as described in the safety analysis report without prior Commission approval provided all the provisions of this section are met. The staff has reviewed the Package associated with the change and made the following findings:

Findings

Has the corporation conducted a written safety analysis which demonstrates that the changes would not result in undue risk to public health and safety, the common defense and security, or to the environment?

YES NO

Are the changes authorized by responsible management approved by a safety review committee?

YES NO

Do the changes decrease effectiveness of the plant's safety, safeguards, and security programs?

YES NO

Do the changes involve a change in any condition to the certificate of compliance?

YES NO

Do the changes involve a change to any condition to the approved compliance plan?

YES NO

Do the changes involve an un-reviewed safety question?

YES NO

Conclusion

The staff has reviewed the package and independently verified that changes to the licensing documents were properly dispositioned. In this case the wastes generated as a result of machining operations will no longer be required to be handled as potentially fissile material. A new analysis was performed, using the revised criteria for decontamination, which shows that there is no credible path to criticality. Therefore, NCS controls were removed as unnecessary. The staff reviewed the materials provided in support of this change and found them acceptable.