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United States Nuclear Regulatory Commission Document Control Desk Washington, D. C. 20555-0001

Subject: Request for NRC Approval of Reduction-In-Commitment Changes in the Quality Assurance Program Material Receipt Inspection Process and Responsibilities

Ladies and Gentlemen:

9808280269 980824

This letter provides proposed reduction-in-commitment changes to Davis-Besse Nuclear Power Station's (DBNPS), Unit 1 Updated Safety Analysis Report (USAR) Chapter 17.2, "Quality Assurance During the Operations Phase," (Quality Assurance Program). Pursuant to 10 CFR 50.54(a)(3), Toledo Edison (TE) hereby submits its plans regarding changes in the material receipt inspection process and responsibilities at the DBNPS, Unit 1.

Although these modifications, as discussed in detail in the attached 10CFR50.54(a) review, have been identified as reductions-in-commitment, the Quality Assurance (QA) Program continues to satisfy the criteria of 10CFR50, Appendix B, because the changes alter commitments that are not regulatory requirements.

Toledo Edison requests that the NRC approve these proposed changes to the DBNPS Quality Assurance Program within the next 60 days in accordance with 10 CFR 50.54(a)(3)(iv). These proposed modifications in the material receipt inspection process transfer responsibilities to an area other than a traditional Quality Assurance/Quality Control organization. This philosophy is similar to receipt inspection changes approved by the NRC for the Peach Bottom Atomic Power Station and Limerick Generating Station (NRC TAC NO. U00806, QA 94-09), and for the Duane Arnold Energy Center (NRC Region III letter, dated December 20, 1995).

Rus!

If you have any questions regarding this submittal, please contact Mr. James L. Freels, Manager - Regulatory Affairs, at (419) 321-8466.

Very truly yours,

JCS/laj

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Attachments

cc: A. B. Beach, Regional Administrator, NRC Region III
 S. J. Campbell, DB-1 NRC Senior Resident Inspector
 A. G. Hansen, DB-1 NRC/NRR Project Manager
 Utility Radiological Safety Board

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## ATTACHMENT 1 D AVIS-BESSE NUCLEAR POWER STATION

# USAR SECTION 17.2, "QUALITY ASSURANCE DURING THE OPERATIONS PHASE"

# **CONTENT AFFECTED BY PROPOSED CHANGES**

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Note

The reduction modifications proposed in this submittal are typed, bolded, underlined and ballooned on the attached marked-up USAR pages.

The attached marked-up pages of USAR Section 17.2 also include several non-reduction changes made prior to the changes proposed by this submittal. These non-reduction changes are handwritten and identified in boxes to differentiate them from the reduction modifications proposed in this submittal and for which NRC approval is being requested.

The purpose of these non-reduction changes was the reorganization of the procurement engineering function including transferring its reporting from Davis-Besse Supply to Design Basis Engineering. These non-reduction changes are not discussed in this submittal (i.e., the 10 CFR 50.54 evaluation). The non-reduction change have been included to promote a thorough understanding of the design engineering, procurement engineering and receipt inspection functions that would result from the NRC's approval of the proposed modifications to the receipt inspection process.

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#### FRESIDENT - POWER GENERATION GROUP

The President - Power Generation Group reports to the Chairman, President and Chief Executive Officer and is responsible for directing the operation of all CEC/CSC power stallons.

#### SENIOR VICE PRESIDENT - NUCLEAR

The Senior Vice President - Nuclear reports to the President - Proves Generation Group and is responsible for directing the operation of the Davis-Besse Nuclear Power Station.

#### VICE PRESIDENT - NUCLEAR · DAVIS-BESSE

The Vice President - Nuclear reports directly to the Senior Vice President - Nuclear and is responsible for all matters relating to the engineering. design, operations, maintenance and modification of the Davis-Besse Nuclear Power Station. The Vice President - Nuclear exercices responsibility over the Toledo Edison Nuclear Group. Me reserves the authority to conduct or order the auditing of any activity it any time to determine compliance to the requirements specified in the Nuclear Quality Assurance Manual (NOAM). He is responsible for final approval of the Nuclear Quality Assurance Manual 19 (NQAM) and the ASME Quality Assurance Manual (AQAM) and is also responsible for conducting continual review of the overall effectiveness of the Quality 20 Assurance Program. 16

#### 17.2.1.4 Toledo Edison Nuclear Group

#### DIRECTOR - NUCLEAR ASSURANCE

The Director - Nuclear Assurance reports to the Vice President - Nuclear. 20 He is authorized to identify quality problems: initiate, recommend or provide 19 solutions, through designated channels; and verify implementation of solutions. Conditions adverse to quality that appear to werrant suspension of reactor operation, including startup or power generation are immediately reported to the Plant Manager. The Director - Muclear Assurance is responsible for the development, maintenance and approval of the Nuclear Quality Assurance Manual (NQAM) and the ASME Quality Assurance Manual (AQAM) as their sponsor. The Director - Nuclear // surance is responsible for adequate staffing of the Nuclear Assurance Department. The Director is responsible for managing the activities of independent safety engineering. and the review of external information and plant operations assessments. The Director - Nuclear Assurance is responsible for managing support services associated with procedural control, records management and document control. and coordinating support services requested from the Centerior Service 20 Company. The Director - Nuclear Assurance is responsible for nuclear training and providing direction for the Nuclear Training Program to support 19 the needs of site personnel in accordance with laws, regulations, standards and commitments. The Director Nuclear Assurance is also responsible for security to ensure the security requirements are maintained in accordance with the Industrial Security Plan.

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#### MANAGER - NUCLEAR SAFETY AND INSPECTION

9 The Manager - Nuclear Safety & Inspection reports to the Director - Nuclear 19 Assurance and is responsible for managing the Nuclear Safety & Inspection staff in the quality review, inspection, and examination of plant structures, 14 systems, and components within the scope of the Nuclear Quality Assurance Program to assure compliance to procedural, drawing, and engineering specification requirements. This responsibility includes the inspection of welding to verify it meets ASME, National Board, and State of Ohio requirements in addition to coordinating the activities of the Authorized Inspection Agency to ensure Code compliance. The Manager - Nuclear Safety & 19 Inspection is also responsible for development and maintenance of the Nuclear Safety & Inspection and selected Nuclear Assurance Department Procedures and review and approval of the ASME Quality Assurance Manual (AQAM) to verify it meets ASME, National Board, and State of Ohio requirements. The Manager - Nuclear Safety & Inspection is also responsible for review of all corrective action documents for close-out. review and approval or concurrence 20 with select site procedures, feeeipt inspections, vendor surveillances and Staff training. The Manager - Nuclear Safety & Inspection is also 19 responsible for directing the activities of the independent safety 18 engineering group in providing technical expertise onsite to allow for systematic and independent assessment of plant activities, surveillance of plant operations and maintenance activities to provide independent technical verification that these activities are performed correctly, and investigation of plant incidents which may affect the underlying assumptions in the USAR Accident Analysic. The Manager - Nuclear Safety & Inspection is also 19 responsible for the review of all external information received in support of improved performance and reliability and for plant operations assessments. 18 The Mapager-Nuclear Safety and Inspection is responsible for coordinating, 20 inspection and examination services provided by the Centerior Service Company. plant

He is also responsible for receipt inspections, source inspections, and review of vendor supplied documentation associated with nuclear fuel and radioactive waste.

#### MANAGER - QUALITY ASSESSMENT

The Manager - Quality Assessment reports to the Director - Nucl ar Assurance. 14 but is authorized direct access to the Vice President - Nuclear or higher Corporate management for qualicy assurance matters if such a need exists. The Manager - Quality Assessment is free of non-QA related duties. He is independent from cost and scheduling considerations when opposed to safety considerations. He has the authority and organizational freedom necessary to adequately fulfill assigned responsibilities. The Manager - Quality Assessment is responsible for assuring and advising the Plant Manager and Vice 20 President-Nuclear of the adequacy and effectiveness of implementation of the approved Nuclear quality Assurance Program. He is responsible for review 19 and approval of the Nuclear Quality Assurance Manual to verify it meets codes, standards, and regulatory commitments. He also has the responsibility and authority for the interpretation of the Nuclear Guality Assurance Manual requirements, and codes, standards and regulatory commitments as they pertain to quality assurance requirements. The Manager - Quality Assessment has the authority to identify quality problems; initiate, recommend, or provide solutions, through designated channels; verify implementation of solutions; and verify conformance to established quality requirements. The Manager -Quality Assessment has the responsibility and authority to suspend

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#### DIRECTOR - ENGINEERING AND SERVICES

The Director - Engineering and Services reports directly to the Vice President - Nuclear and is responsible for all engineering activities in support of design control, plant modifications, and system performance requirements for Davis-Besse Nuclear Power Station. The Director -Engineering and Services is responsible for directing all phases of interaction relating to regulating agencies to ensure compliance with laws, regulations, and commitments. His responsibilities also include direction for Emergency Preparedness Program, Environmental Compliance Program, and Industrial Safety Program. The Director - Engineering and Services is responsible for purchasing and materials management activities, including coordination of support services provided by the Centerior Service Company. His responsibilities also include activities associated with budget and cost control, and nuclear projects. The Director - Engineering and Services is also responsible for the budget, administration, procedure control, and training within the Engineering and Services Department.

### MANAGER - DESIGN BASIS ENGINEERING

The Manager - Design Basis Engineering reports to the Director - Engineering and Services and is responsible for managing and coordinating Davis-Besse modification engineering, and associated safety evaluations to assure safe designs and continued conformance to design requirements. This includes the maintenance of design drawings, specifications and calculations. He is responsible for functions relating to: reliability and risk assessment; nuclear reactor analysis; nuclear safety analysis; simulator engineering; reactor engineering; nuclear fuel procurement. performance and design; reactor refueling; and core physics testing. He is also responsible for installation, improvements and maintenance of plant computer monitoring, computer aided engineering systems, and coordinating nuclear fuel procurement, and computer related services provided by the Centerior Service Company.

#### MANAGER - PLANT ENGINEERING

The Manager - Plant Engineering reports to the Director - Engineering and Services and is responsible for minimizing Davis-Besse forced outages and lost capacity by providing engineering services to ensure proper installation, operation, preventive maintenance, testing, and problem resolution for optimum system performance and reliability. He is responsible for providing direct day-to-day engineering, support in the areas of: plant thermal performance monitoring; in-service inspection and testing; modification testing and special testing; predictive maintenance; evaluation of plant chemistry and radiochemistry issues; and special engineering projects. Additional responsibilities include engineering support to address non-routine technical issues related to the operation and maintenance of Davis-Besse, and maintenance of the Fire Hazards Analysis Report (FHAR).

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receipt and source inspection.	and procurement engineering including
)	receipt inspections, source inspections, and review of vendor
	radioactive waste).

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be performed under the most adverse design conditions as determined by analysis.

When alternate calculations are performed to verify the correctness of the original calculations, they include provisions for verifying the appropriateness of assumptions, input data, and code or other calculation method used. The alternate method when used is required to provide results which are consistent with the original calculation or analysis.

#### 17.2.3.5 Design Package Review

Prior to release, the completed design package is reviewed by Nuclear Group Departments affected by the design. All review comments are documented and resolved, and in addition, analyzed for potential impact on safety evaluations and design verifications.

#### 17.2.4 PROCUREMENT DOCUMENT CONTROL

#### 17.2.4.1 General

The procurement of materials, components, equipment, consumables, spare and replacement parts, services, etc., necessary for plant operation, refueling, maintenance, and modification are controlled in accordance with approved procedures. These procedures specify measures that describe the process for the preparation and control of procurement documents, control of supplier and contractor performance. source evaluation and selection, source verification, receiving inspection and testing, and item or service acceptance. The requirements of ANSI N45.2.13 and ANSI N45.2.2 are incorporated into their procedures whenever the requirements are applicable.

Expeditious procurement activities are defined in procedures to support unanticipated requirements. These procedures contain provisions for material traceability and controls to prevent the declaration of operability of the system until such time that the activity and documentation requirements specified in the approved procurement document have been completed or evaluated by Davis-Besse Supply for operability.

The procurement of spare or replacement parts for structures, systems and components within the scope of the Nuclear Quality Assurance Program are subject to requirements equal to or greater than the original requirements.

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Nuclear fuel is procured through the use of formal contracts signed by an officer of CSC. An individual has been designated by the Plant Manager as the "Fuel Custodian" and acts in the capacity of the Manager-Davis-Besse Supply for the procurement of nuclear fuel under the responsibility of the Manager-Nuclear Engineering. Davis-Besse Supply performs technical evaluations of items purchased commercial grade that are to be used in Nuclear Safety Related applications to assure the items will perform their intended safety functions. Procedures developed by Davis-Besse Supply describe the commercial grade dedication process including the following elements: The methods for determining if a basic component as defined in 10CFR21, can be upgraded or purchased as commercial grade and dedicated for NSR application. The criteria for identifying the critical characteristics by analysis, including the methods for verifying that the characteristics are

- controlled by the manufacturers. The criteria and methods for identifying the critical characteristics C . that are essential for the items purpose and function under the most
- severe operating conditions that the item will be subjected. The criteria for determining the type and depth of product acceptance d. and for determining the "Point of Dedication" at which time Centerior Service Company assumes the responsibility for 10CFR21 reportability

#### 17.2.4.2 Procurement Documents

requirements.

All materials and contracted services provided for Davis-Besse are authorized by an approved procurement document.

Procurement documents either contain a description of the technical and quality requirements for the item or service, or reference engineering specifications which contain these requirements. The procurement documents include provisions for the following, as applicable:

- a . A description of the scope of work to be performed by the supplier.
- b. Reference or inclusion of the applicable regulatory requirements. design basis, ASME codes, and other industry standards.
- Inclusion or reference of basic technical requirements including с. drawings, specifications, quality requirements, and special instructions and requirements for designing, fabricating, cleaning, erecting, packaging, handling, shipping, storage and inspection. References are identified by titles and revision.
- Requirements for the supplier to have a documented quality assurance d. program to the extent specified in the Purchase Order as appropriate to the items or services being procured.
- Requirement for extending applicable requirements of the procurement е. documents to the supplier's lower-tier suppliers.

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	f. Identification of documents to be prepared, maintained, submitted, or made available for review and/or approval, such as drawings, specifications, procedures, sub-supplier procurement documents, manufacturing and inspection plans, inspection and test records, personnel and procedure qualifications, and material chemical and physical test results.	
	g. Provisions for CSC right-of-access to the suppliers' facilities and records for audits and source inspection.	14
	h. Requirement for reporting and approval for disposition of nonconform- ing items and adherence to 10CFR21 requirements.	
	and hold/witness points; and that the supplier is included on a listing of approved vendors.	
	17.2.4.3 Procurement Document Review 5	
	Procurement documents are prepared by a procurement engineer and reviewed by 16 a separate engineer knowledgeable of technical and quality requirements prior to supervisor approval and award to a supplier to the Nuclear Assurance 18	
(	Department will also review selected procurement documents including those 16 that require source inspection or unique receipt inspection activities. 9 Changes to the technical and quality requirements, including supplier selection, are subject to the same degree of review as the original procurement document. 5	
	Review and approval by Davis Bosse Supply assures that the technical 20 and quality requirements are sufficient, clear and adequately stated; can be inspected and controlled; and include adequate accept/reject criteria. These requirements include regulatory, administrative and reporting requirements; specifications; codes and industrial standards; test and inspection require- ments, and special process instructions that must be complied with by suppliers.	•
	(The multiple reviews conducted by Davis Besse Supply, and where applicable the Nuclear Assurance Department, are performed to assure that quality requirements are sufficient, clear and adequately stated;	
	adequate: accept/reject criteria are included; the checklist prepared by Davis Besse Supply are included that describes the characteristics to be inspected at receiving inspection; and that the supplier is included. on a listing of approved vendors	
	17.2.4.4 Supplier Selection	
	Prior to award, potential suppliers are evaluated to determine their ability to supply items or services in accordance with the requirements of pro- curement documents. The evaluation also includes a technical evaluation, which may include direct evaluation of the suppliers; facilities and personnel as described in 17.2.7.	
Procurement of procurement of characterist:	documents include criteria prepared by engineers that describe the ics to be inspected at receipt	
inspection.	17.2-23 REV 20 12/96	

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#### 17.2.6.4 Restricted Documents

Departments with the cospectibility for the initiation or use of Safeguard documents, have procedures that describe the handling and processing of these documents. These procedures incorporate the requirements specified in the NQAM under Document Control and provide the additional controls specified in the NQAM section entitled Industrial Security.

#### 17.2.7 CONTROL OF PURCHASED MATERIAL, EQUIPMENT AND SERVICES

#### 17.2.7.1 Supplier Selection

Potential suppliers or contractors are evaluated prior to contract award to determine their ability to supply the required items or services. An assessment of the suppliers' Quality Assurance Program is performed based on any or all of the following:

- a. Review and evaluation of the supplier's current quality records supported by qualitative and quantitative information which can be objectively evaluated.
- b. Evaluation of the supplier's history of providing items or services which perform satisfactorily in actual use.
- c. Verification of the supplier's technical and quality capability as determined by direct evaluation of this facilities and personnel, and the implementation of his quality assurance program.
- d. Verification that the supplier is a holder of a current ASME Certificate of Authorization or Quality Systems Certificate, or a National Board Certificate Holder whose scope is consistent with the item/ services to be procured.
- Suppliers considered acceptable are placed on an Approved Vendors
  List. Th Manager-Quality Assessment is responsible for controlling and
  maintaining suppliers on this list using the results from periodic
  evaluations, source surveillance/audits, receiving inspection reviews,
  and operational performance reviews.



Source verification action by Nuclear Assurance (such as source surveillance, and audits), and Design Basis Engineering (such as source inspection) are

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#### 17.2.7.4 Acceptance of Services

Services such as inspection, engineering and consulting service; and installation, repair, overhaul or maintenance work is accepted by performing a technical verification of data provided, surveillance or audit of the activity, cr a review of objective evidence for conformance to the procurement document requirements such as certifications, stress reports or inspection reports.

#### 17.2.8 IDENTIFICATION AND CONTROL OF MATERIALS, PARTS AND COMPONENTS

#### 17.2.8.1 General

Procedures have been developed by Davis-Besse Supply. Engineering and Plant Maintenance for the identification and control of materials, consumables, parts, spare parts, components, subassemblies, including subdivided materials. These procedures have been established to ensure that identification is maintained either on the item or on records traceable to the item to preclude use of incorrect or defective items or materials.

Procurement activities are controlled in accordance with Section 17.2.4.

Items such as chemicals, reagents, solvents, petroleum products, asbestos, and hazardous or radioactive materials are identified and controlled to preclude contamination or damage to the station and to prevent injury to personnel.

Items having limited storage life or operating life are identified and controlled to preclude inadvertent use of items with an expired shelf life or operating life.

Filler metal used during weld operations is purchased, received, stored and released under controlled conditions. While in storage, filler metal is stored in accordance with the manufacturer's recommendations, and each heat and lot is kept segregated from other heats and lots in storage bins or holding ovens. Only one type and heat/lot of electrodes or rod are issued at any given time. The quantity of filler metal issued and the quantity of 'sused filler metal or stubs returned is documented.

#### 17.2.8.2 Identification

Identification requirements are established during the generation of specifications, drawings or procurement documents. Physical identification is specified to the maximum extent possible. Where physical identification on the item is either impractical or insufficient, tagging, or other appropriate means such as documentation traceable to the item is utilized.

The identification of items is maintained by means such as part number, serial number or heat numbers throughout fabrication, installation, repair, modification, maintenance and use of the item. Traceability of items to

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#### 17.2.9.4 Nondestructive Examination

The Quality Control Section has the responsibility for the development and qualification of Davis-Besse Nuclear Power Station NDE procedures in compliance with the applicable codes and standards. These procedures are approved by a Level III in the appropriate NDE method. Engineering also has the responsibility for specifying the appropriate NDE method for each repair or modification and for assigning qualified personnel to perform NDE.

Fersonnel performing nondestructive examinations are required to be certified in accordance with the provisions of SNT-TC-1A.

When the services of an outside agency is required, these services are obtained through the procurement process. The contracted agency's Level III may be appointed in writing by the Director - Nuclear Assurance to act as a Level III for the Davis-Besse Nuclear Power Station.

#### 17.2.10 INSPECTION

#### 17.2.10.1 General

Inspections are performed on activities affecting quality to verify conformance with related design drawings, specifications, and other controlling documents, and to ensure that maintenance, repair or modification work has been satisfactorily completed. Individuals performing inspections are other than those who performed or directly supervised the activity being inspected.

The Inservice Inspection Program is conducted in compliance with 10CFR50.55a, Section XI of the ASME Boiler and Pressure Vessel Code, USAR and Technical Specification requirements.

When the quality cannot be verified during inspection of the end product, the Quality Control Section utilizes direct in-process inspections of work activities. If inspection of the work is impossible or inconclusive, indirect control by the monitoring of process methods, equipment, and personnel is provided. Both inspection and process monitoring are provided when necessary to ensure adequate control.

#### 17.2.10.2 Procedures

The Nuclear Quality Assurance Manual contains provisions which require that maintenance, repair or modification procedures he submitted to the Nuclear Assurance Department for review. Quality Control personnel are required to prepare inspection procedures and checklists from information obtained from design documents and work controlling procedures to determine which inspections are required and the acceptance and rejection criteria. When Engineering establishes additional requirements or criteria, these are also included in the inspection checklists.

> Inspection personnel (Nuclear Safety & Inspection QC personnel, and Design Basis Engineering receipt/source inspection personnel)

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inspector (Nuclear Safety & Inspection QC personnel, or Design Basis Engineering receipt/source inspection personnel)

Appropriate hold and witness points are specified in work controlling documents. When a hold point has been reached, work cannot proceed beyond that point until inspection is either performed or waived by an authorized designes from Quality Control.

#### 17.2.10.3 Personnel Qualifications

Personnel performing inspection functions are qualified through an established documented program in accordance with the requirements of ANSI 5 N45.2.6 as endorsed by NRC Regulatory Guide 1.58. Training and qualification 9 records are maintained in an up-to-date status by the Nuclear Assurance 18 Department. 8

#### 17.2.10.4 Supplier Control

Suppliers are required to establish and implement an inspection program to ensure that procurement document requirements are satisfied. Nuclear Assurance personnel perform selective surveillance inspections to evaluate and monitor **procurement** to verify adherence to procurement document requirements. A system of mandatory hold points is established for critical operations and inspections to permit witnessing of such operations and inspections.

Contractors that perform special purpose inspections, such as inservice inspections, perform such work under the control of onsite supervision. This provides assurance that contractor personnel, equipment and procedures are properly qualified and adequate to perform the inspection.

plant processes, and Design Basis Engineering personnel perform selective inspections

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#### 17.2.10.5 Inspection Reports

Each inspection activity is documented and the results are reviewed to ensure that inspections were properly performed and documented. The inspection reports are also reviewed to ensure inclusion of the following information.

- a. Identification of characteristics and activities inspected.
- b. Inspection results, including objective evidence that acceptance criteria has been fulfilled.
- c. Identification of reference documents such as procurement documents, drawings, specifications, work orders and procedures.
- d. Identification of inspector and date(s) of inspection.
- e. Identification of M&TE used, when applicable.
- f. Identification of person approving inspection results.
- g. Information pertaining to conditions adverse to quality discovered as a result of the inspection.

#### 17.2.11 TEST CONTROL

#### 17.2.11.1 General

A testing program has been established which is planned and executed to assure that testing is performed to demonstrate that structures, systems and components will perform satisfactorily in service. Testing is accomplished in accordance with controlled written test procedures prepared by Plant Operations and Engineering that incorporate the requirements and acceptance limits established to verify operability or functional performance. Test results are documented and evaluated to assure that requirements have been satisfied.

#### 17.2.11.2 Types of Tests

SURVEILLANCE and PERIODIC TESTS are performed to determine continuing functional readiness and adequacy for those systems and components which are normally in a standby condition or to evaluate whether there has been any degradation of performance, or any departure from the prescribed operating conditions for the systems and components which are normally in service. Surveillance tests are written to implement the surveillance requirements contained in the Technical Specifications.

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documented to verify compliance with storage requirements to prevent deterioration.

Cleaning operations are performed as necessary prior to preservation, packaging, storing or installing items to the level specified in procedures or procurement documents. The requirements for verifying and documenting the performance of cleaning operations and the resulting level of cleanliness is also specified.

The controls for releasing items from storage for installation or usage is defined in written procedures. These procedures specify measures for traceability from the Purchase Order to the area of installation or usage, authorized withdrawal and return of the items to storage. The procedures also describe an inventory control system for "limited life" items (including consumables) which precludes issuance of items whose shelf life has expired without reassessment of their suitability for use.

#### 17.2.13.4 Shipping

Procurement documents and shipping procedures specify special environmental protection requirements during transit to ensure that damage of the shipped item is minimized. These documents include precautions for handling items during loading, unloading. 1 Transit marking and labeling is also required to be adequate to identify, maintain and preserve the shipment, including indication of the present of special environments, or the need for special controls.

17.2.14 INSPECTION, TEST, AND OPERATING STATUS

#### 17.2.14.1 General

Measures have been established in the Nuclear Quality Assurance Program that require contractors and onsite organizations to indicate the inspections, test, and operating status of structures, systems, and components by suitable methods of identification and in associated records. These measures are required to prevent the inadvertent use of nonconforming, inoperative, or malfunctioning systems, structures or components, and to readily verify that required inspections and tests have been performed.

Written procedures describe the process for tagging and documenting the status of valves, breakers, and related controls for inspection, test or maintenance. These procedures also describe the methods for altering the sequence of required tests, inspections, and other operations important to safety to ensure that equivalent reviews and approvals are performed.

## 17.2.14.2 Inspection Status

and Design Basis Engineering have

The Nuclear Assurance Department has the responsibility for maintaining procedures which address inspection status indicators that provide means for assuring that required inspections are performed and that the acceptability of items with regard to inspections is known. The status indication is accomplished by such means as physical location, tags, markings, work travelers, stamps, inspection records, or other suitable means. The

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receipt inspection

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authority for application and removal of status indicators is specified in procedure and documents that control the activity.

Materials and items received at Davis-Besse are inspected for shipping damage by Davis-Besse Supply. If no damage is noted, the material or item is tagged and placed into a Hold Area for processing through Accelving (Inspection) Damaged materials are also identified with a Hold for Acceptance Tag, placed in a Hold Area and processed as a nonconformance. Items or materials accepted by Accelving Inspections are identified individually or by bulk with an Accept Tag and placed in storage.

Logs, status boards or displays, and tags are used to identify inoperable or off-normal equipment. Release of equipment for maintenance modification. or test, maintaining the status indicators during work activities, and the return of equipment is controlled and documented by the Shift Supervisor in accordance with administrative procedures.

Prior to authorizing the release of equipment for maintenance, modification, or test, the Shift Supervisor verifies that plant status will allow the release of equipment, and assures that plant operating personnel are cognizant of changes in equipment status, including the degree of potentially degraded protection when a redundant safety system or a safety system support system has been removed from service.

Equipment authorized to be removed from service is controlled to assure personnel and reactor safety. These controls include safety tags and other appropriate measures that administratively and, if required, physically prevent unauthorized operators.

Associated valves, breakers, controls, etc., are placed in their proper configuration, and tagged at each location that the equipment can be operated. Independent verification by qualified operations personnel is performed to assure that the correct equipment has been removed from service and is placed in the proper configuration.

Control Room tagouts are designated and affixed to prevent obstruction of other controls, instruments, or indicating lights.

Status boards and displays are used by licensed and non-licensed operators to provide visual display of the plant status and the inoperability of essential equipment. Status indicators are controlled and maintained current to reflect the operational status of plant structures, systems and components at all times.

When equipment is returned to service, safety tags are removed and status indicators inform personnel of the equipment's updated operational status.



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## ATTACHMENT 2 DAVIS-BESSE NUCLEAR POWER STATION

## EVALUATION OF PROPOSED QUALITY ASSURANCE PROGRAM REDUCTIONS

## DAVIS-BESSE NUCLEAR POWER STATION (DBNPS) USAR CHAPTER 17.2, "QUALITY ASSURANCE DURING THE OPERATIONS PHASE"

10 CFR 50.54 EVALUATION FOR UCN 97-062 CHANGES IN QUALITY ASSURANCE PROGRAM MATERIAL RECEIPT INSPECTION PROCESS AND RESPONSIBILITIES

## SUMMARY OF MODIFICATIONS

The changes to Updated Safety Analysis Report (USAR) Chapter 17.2, Quality Assurance During the Operations Phase (i.e., the Nuclear Quality Assurance Program Description (NQAPD)), proposed in USAR Change Notice (UCN) 97-062 transfer most material receipt inspection functions from the DBNPS Nuclear Assurance Department's Nuclear Safety & Inspection Section to the Engineering and Services Department's Design Basis Engineering Section, and change references to the specific inspection status "Accept Tag".

## PROPOSED CHANGES

The proposed changes to the USAR Chapter 17.2, which constitutes the DBNPS QA Program, are shown as the typed, bolded, underlined, and ballooned changes on the marked-up USAR pages of Attachment 1 and are reductions in commitments under 10 CFR 50.54(a).

### DESCRIPTION OF MODIFICATIONS

A description of each proposed modification to USAR Chapter 17.2 is described in this section of the 10 CFR 50.54 (a) evaluation. These reduction-in commitment modifications described in this evaluation are bolded as indicated below. These modifications correspond with the reduction changes as typed, bolded, underlined and ballooned on the marked-up USAR pages in Attachment 1.

- 17.2.1.4, Page 17.2-5: Delete "receipt inspections, vendor surveillances and review of vendor supplied documentation," from the fourth sentence of the Manager - Nuclear Safety and Inspection position description and add a new sentence: "He is also responsible for receipt inspections, source inspections, and review of vendor supplied documentation associated with nuclear fuel and radioactive waste."
- 17.2.1.4, Page 17.2-5: Add "plant" to the last sentence of Manager Nuclear Safety & Inspection position description: "The Manager - Nuclear Safety and Inspection is

responsible for coordinating **plant** inspection and examination services provided by the Centerior Service Company."

- 3) 17.2.1.4, Page 17.2-8: Add "including receipt inspections, source inspections, and review of vendor supplied documentation (except for nuclear fuel and radioactive waste)" to the third sentence of the Manager Design Basis Engineering position description: "He is responsible for functions relating to: reliability and risk assessment; nuclear reactor analysis; nuclear safety analysis; simulator engineering; reactor engineering; nuclear fuel procurement, performance and design; reactor refueling; core physics testing; and procurement engineering including receipt inspections, source inspections, and review of vendor supplied documentation (except for nuclear fuel and radioactive waste)."
- 4) 17.2.1.4, Page 17.2-8: Add "receipt and source inspection," to the last sentence of the Manager - Design Basis Engineering position description: "He is also responsible for installation, improvements and maintenance of plant computer monitoring, computer aided engineering systems, and coordinating nuclear fuel procurement, receipt and source inspection, and computer related services provided by the Centerior Service Company."
- 5) 17.2.4.3, Page 17.2-23: Delete the second sentence of the first paragraph: "The Nuclear Assurance Department will also review selected procurement documents including those that require source inspection or unique receipt inspection activities."
- 6) 17.2.4.3, Page 17.2-23: Add "and hold/witness points; and that the supplier is included on a listing of approved vendors" to the first sentence of the second paragraph: "Review and approval by procurement engineers assures that the technical and quality requirements are sufficient, clear and adequately stated; can be inspected and controlled; and include adequate accept/reject criteria and hold/witness points; and that the supplier is included on a listing of approved vendors."
- 7) 17.2.4.3, Page 17.2-23: Add a new third sentence to the second paragraph: "Procurement documents include criteria prepared by procurement engineers that describe the characteristics to be inspected at receipt inspection."
- 8) 17.2.4.3, Page 17.2-23: Delete the third paragraph: "The multiple reviews conducted by Davis-Besse Supply, and where applicable the Nuclear Assurance Department, are performed to assure that quality requirements are sufficient, clear and adequately stated; inspectability requirements are satisfied; hold or witness points are adequate; accept/reject criteria are included; the checklist prepared by Davis-Besse Supply are included that describes the characteristics to be inspected at receiving inspection; and that the supplier is included on a listing of approved vendors."

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- 9) 17.2.7.2, Page 17.2-28: Add "Design Basis Engineering" to the first sentence of the second paragraph: "Procedures have been developed by Design Basis Engineering and Nuclear Assurance that describe the criteria for determining the type of verification required during fabrication, inspection, testing and shipping at the vendor's facility, including methods for incorporating these provisions into procurement document requirements."
- 10) 17.2.7.2, Page 17.2-28: Modify the second sentence of the second paragraph: "Source verification action by Nuclear Assurance (such as source surveillance and audits) and Design Basis Engineering (such as source inspection) are performed to confirm that procurement document requirements have been satisfied."
- 11) 17.2.7.3, Page 17.2-28: Change "Receiving Inspection" to "receipt inspection" in the first sentence of the first paragraph: "Items purchased for use in quality related applications are processed through **receipt inspection** prior to storage, installation or use."
- 12) 17.2.7.3, Page 17.2-28: Add "Design Basis Engineering and" in the third paragraph:
  "The methods used for verifying the validity of Certificates of Conformance, Certificates of Compliance or material physical or chemical analysis reports are identified by **Design Basis Engineering and** Nuclear Assurance Department procedures."
- 13) 17.2.7.3, Page 17.2-28: Add "Design Basis Engineering or", change "with an" to "e.g.," to the fourth paragraph: "Upon completion of receiving inspection activities, accepted items are identified (e.g., Accept Tag) and released by Design Basis Engineering or Nuclear Assurance to Davis-Besse Supply for storage or issue."
- 14) 17.2.10.2, Page 17.2-32: Change "Quality Control" to "Inspection (Nuclear Safety & Inspection QC personnel, and Design Basis Engineering receipt/source inspection personnel)" in the second sentence of the paragraph: "Inspection personnel (Nuclear Safety & Inspection QC personnel, and Design Basis Engineering receipt/source inspection personnel) are required to prepare inspection procedures and checklists from information obtained from design documents and work controlling procedures to determine which inspections are required and the acceptance and rejection criteria."
- 15) 17.2.10.2, Page 17.2-33: Change "designee from Quality Control" to "inspector (Nuclear Safety & Inspection QC personnel, or Design Basis Engineering receipt/source inspection personnel)" in the second sentence of the paragraph: "When a hold point has been reached, work cannot proceed beyond that point until inspection is either performed or waived by an authorized inspector (Nuclear Safety & Inspection QC personnel, or Design Basis Engineering receipt/source inspection personnel)."

- 16) 17.2.10.4, Page 17.2-33: Add "plant" and "Design Basis Engineering personnel perform selective inspections" to the second sentence of the first paragraph: "Nuclear Assurance personnel perform selective surveillance inspections to evaluate and monitor plant processes, and Design Basis Engineering personnel perform selective inspections to verify adherence to procurement document requirements."
- 17) 17.2.14.2, Page 17.2-40: Add "and Design Basis Engineering have" to the first sentence of the first paragraph: "Nuclear Assurance **and Design Basis Engineering have** the responsibility for maintaining procedures which address inspection status indicators that provide means for assuring that required inspections are performed and that the acceptability of items with regard to inspections is known."
- 18) 17.2.14.2, Page 17.2-41: Change "Receiving Inspection" to "receipt inspection" in the second sentence of the second paragraph: "If no damage is noted, the material or item is tagged and placed into a Hold Area for processing through **receipt inspection**."
- 19) 17.2.14.2, Page 17.2-41: Change "Receiving Inspection" to "receipt inspection" and "with an" to "e.g.," in the last sentence of the second paragraph: "Items or materials accepted by **receipt inspection** are identified individually or by bulk (e.g., Accept Tag) and placed in storage."

### **REASON FOR MODIFICATIONS**

The reason for each Quality Assurance Program modification is discussed below. The next section evaluates these modifications.

- This change eliminates the Nuclear Safety & Inspection Section's responsibilities for receipt inspection, vendor surveillance inspection (aka source inspection) and review of vendor supplied documentation (except fuel and radioactive waste) and transfers these responsibilities to the Design Basis Engineering Section (see item #3 below).
- This change restricts Nuclear Safety & Inspection's coordination of inspection and examination services provided by Centerior Service Company to only "plant" inspections and examinations.
- This change adds receipt inspections, source inspections, and review of vendor supplied documentation to the Design Basis Engineering Section (except nuclear fuel and radioactive waste).
- 4) This change adds coordination of receipt and source inspection services to the Design Basis Engineering Section.

- 5) This change removes the Nuclear Assurance review of procurement documents from the Procurement Document Review discussion. The Nuclear Assurance Department performs this function under the independent audit process required by 10 CFR 50 Appendix B Criterion XVIII, Technical Specification 6.5.2.8 and USAR 17.2.18.1.
- 6) This change transfers procurement document review for hold-witness points and supplier inclusion on a listing of approved vendors from Davis-Besse Supply to the Design Basis Engineering procurement engineers.
- This change assigns the preparation of receipt inspection criteria, as documented in procurement documents, to the procurement engineers.
- 8) This change removes responsibility for procurement document review for receipt/source from the Nuclear Assurance Department (see item 5 above). The remainder of the requirements in this third paragraph are duplicated in the first two paragraphs of USAR Section 17.2.4.3. Elimination of this third paragraph will remove this duplication.
- 9) This change adds source verification to Design Basis Engineering. Source inspection will be done by Design Basis Engineering while the Nuclear Assurance Department's activities will generally focus on vendor audits and surveillances.
- This change adds source verification responsibilities to Design Basis Engineering. Source inspection will be done by Design Basis Engineering while the Nuclear Assurance Department's activities will generally focus on vendor audits and surveillances.
- 11) This change revises "Receiving Inspection" to "receipt inspection" to better describe the activity performed.
- 12) This change removes verification of Certificates of Conformance, Certificates of Compliance, and material physical/chemical analysis reports from the Nuclear Assurance Department (except for nuclear fuel and radioactive waste) and adds the function to Design Basis Engineering.
- 13) This change transfers receipt inspection and item inspection status tagging and item release from Nuclear Assurance (except for nuclear fuel and radioactive waste) to Design Basis Engineering. The change also clarifies the requirement for a specific "Accept Tag".
- This change allows Design Basis Engineering receipt/source inspection personnel to prepare inspection procedures and checklists.

- 15) This change requires designated Design Basis Engineering receipt/source inspection personnel to perform/waive hold points inspections.
- 16) This change limits Nuclear Assurance Safety & Inspection functions to plant processes and transfers some receipt/source inspection activities to Design Basis Engineering.
- 17) This change allows Lesign Basis Engineering, as well as Nuclear Assurance, to prepare/maintain inspection status procedures to support their receipt/source inspection activities.
- 18) This change revises "Receiving Inspection" to "receipt inspection" to better describe the activity performed.
- 19) This change revises "Receiving Inspection" to "receipt inspection" to better describe the activity being performed and clarifies the requirement for a specific "Accept Tag".

## EVALUATION

The receipt/source inspection function was originally part of the station operations group (circa early 1970's) but has been part of the Nuclear Assurance (aka Quality Assurance/ Quality Control) organization for over twenty years. The function was transferred to the Quality Control section in 1976 (prior to the DBNPS's commercial operation) as site quality assurance audit/inspection activities were consolidated under the growing Quality Assurance department.

The proposed changes primarily involve the transfer of the receipt and source inspectionrelated functions (except inspection of radioactive waste and nuclear fuel) and receipt inspection personnel from Nuclear Assurance to Design Basis Engineering procurement engineering. Following approval and implementation of this change, the receipt/source inspection activities will be divided between "plant" inspections (including radioactive waste and nuclear fuel which are inspected in the plant), and "warehouse/vendor" inspections (services and components).

The following activities are presently performed by Nuclear Assurance receipt inspection personnel and, under this change, will be performed by Design Basis Engineering personnel as part of the procurement engineering function assuring that vendors meet purchase requirements:

- preparing receipt/source inspection procedures and checklists,
- review of procurement documents for receipt/source inspection planning (including inspection criteria, hold/witness points, and supplier inclusion on the Approved Vendors List),

- receipt/source inspection review/verification of vendor supplied documentation (including Certificates of Conformance, Certificates of Compliance, and material physical/chemical analysis reports),
- receipt/source inspection (in .iuding performing/waiving hold points),
- receipt/source inspection acceptance status tagging,
- item receipt/source inspection release, and
- coordination of corporate receipt/source inspection services.

The Nuclear Assurance Department's Nuclear Safety & Inspection Section will maintain responsibility for training and qualification of receipt/source inspection personnel , including Design Basis Engineering's inspectors, under NRC Regulatory Guide 1.58 and ANSI N45.2.6-1978 requirements (including maintaining associated records). The Nuclear Safety & Inspection Section QC inspectors will also continue to conduct inspections supporting radioactive waste shipments and nuclear fuel activities. Additionally, the Nuclear Assurance Department's Nuclear Safety & Inspection Section will continue to be responsible for plant inspection/examination related activities to support plant operation, maintenance and modification activities and will still coordinate corporate services involving plant inspections/examinations.

Transferring the receipt inspection function will eliminate an element of independent quality assurance oversight of procurement activities. However, the Technical Specification 6.2.1.d requirements for the Quality Assurance function's organizational freedom and independence from operating pressures would continue to be satisfied as follows:

Nuclear Assurance/Quality Assessment auditors will continue to provide independent quality assurance oversight/checking of procurement engineering functions, including receipt/source inspection, during surveillance of related processes and audits performed pursuant to 10 CFR 50 Appendix B Criterion XVIII, Technical Specification 6.5.2.8 and USAR 17.2.18.1 requirements.

The receipt inspection responsibilities being transferred will continue to be performed by ANSI N45.2.6 qualified personnel independent from the organizations being inspected. The inspection functions will be performed by the same personnel. The qualification function will continue to be administered by the Nuclear Assurance Department's Nuclear Safety & Inspection Section to maintain independence in inspector training and qualification. USAR 17.2.10.1 inspection requirements that "individuals performing inspections are other than those who performed or directly supervised the activity being inspected" will continue to be satisfied as individuals performing receipt/source inspections will be other than those who performed or directly supervised the vendor products and documentation being inspected.

In addition, Design Basis Engineering receipt/source inspectors will not be subjected to the same operational pressures as those engineers involved with daily plant operation (e.g., system engineers) since they will be part of the design control function ensuring that purchased material and equipment conform to design/procurement specifications. Also, procurement engineers will continue to perform self-sponsored peer reviews for checking procurement engineering products and services.

Modifications #13 and #19 change the applicable USAR references to the inspection "Accept Tag" as the only means for physical identification of inspection status. These modifications will allow status indication to be accomplished by other suitable physical indicators such as location, tags, markings/bar coding, work travelers, stamps, or inspection records, or other means provided under the requirements of USAR 17.2.14.2, "Inspection Status".

The proposed changes discussed above (modifications 1 through 19) are reductions to existing commitments under 10 CFR 50.54(a) in regards to procurement-related oversight performed during receipt inspection by the Nuclear Assurance Department. However, none of the proposed changes will reduce the effectiveness of any program or add any non-quality assurance functions to a Quality Assurance group.

In conclusion, all requirements of 10 CFR 50 Appendix B, the DBNPS NQAPD-committed NRC Regulatory Guides and ANSI Standards, the Operating License and Technical Specifications, and associated systematic activities and functional responsibilities, will continue to be satisfied by the DBNPS Nuclear Quality Assurance Program as described in USAR Chapter 17.2 following NRC approval of the above proposed changes.

### REFERENCES

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- 10CFR50.54(a) (Changes to the Quality Assurance Program)
- 10CFR50 Appendix B Criterion I (Organization)
- 10CFR50 Appendix B, Criterion IV (Procurement Document Control)
- 10CFR50 Appendix B, Criterion VII (Control of Purchased Material, Equipment, and Services)
- 10CFR50 Appendix B, Criterion X (Inspection)
- 10CFR50 Appendix B, Criterion XIV (Inspection, Test, and Operating Status)
- ANSI/ANS-3.2-1982 (Administrative Controls and Quality Assurance for Operational Phase)
- ANSI N45.2.2-1972 (Packaging, Shipping, Receiving, Storage and Handling of Items)
- USAR Chapter 17.2 (Quality Assurance During the Operations Phase)
- ANSI N45.2.6-1978 (Qualifications of Inspection, Examination and Testing Personnel)
- Technical Specifications Section 6.0 (Administrative Controls)
- Regulatory Guide 1.58, Rev 1, 1980 (Qualification of Inspection, Examination and Testing Personnel)