OFFICE OF SECURE TRANSPORTATION

POLICY NUMBER: 1.03C

TITLE: Concept to Capability (C2C)

EFFECTIVE DATE: 30 June 2006

PURPOSE: To ensure a systematic method is used to review policy changes, revise work processes, develop new capabilities, enhance systems, and revise controls from initial recommendation through to retirement. The Office of Secure Transportation (OST) C2C Process is an essential part of the Transportation Safeguards System Configuration Management Program (CMP).

SCOPE: All Offices, Commands/Divisions and Branches

PROPONENT: Office of Support (OS)

REFERENCES:
- 10 CFR 830, *Nuclear Safety Management*, Paragraph 830.203, Unreviewed Safety Question Process
- DOE O 420.1B, *Facility Safety*, dated 12-22-05
- DOE G 424.1-1, *Implementation Guide for Use in Addressing Unreviewed Safety Question Requirements,* dated 10-24-01
- DOE G 450.4-1B, Volume 1 & 2, *Integrated Safety Management System Guide*, dated 3-1-01
- DOE O 452.2B, *Safety of Nuclear Explosive Operations*, dated 8-7-01
- DOE O 461.1A, *Packaging and Transfer or Transportation of Materials of National Security Interest*, dated 4-26-04
- OST Directive 46XA, OTSM Ch. 2.2, *Transportation Operations Unreviewed Safety Questions*, dated 2-25-05
- SSEMD Process 7.6.17, *Security Review Process for Atypical Missions and Changes to Convoy Operations*, dated 9-16-05
- Graded Approach and C2C Guidelines

Revision Notes: Updated policy to include safety requirements, references and identified additional responsibilities in the following paragraphs: 2d(2), 2d(3), 2f(3), and 3a(2)-(6). This policy supercedes 1.03B, dated 27 April 2005.

POLICY

1. **General Information**
   a. C2C applies to any work process, capability, system, control and new policy that requires the expenditure of resources or has an impact on regulatory or directive compliance, safety basis, engineering revisions (e.g., implemented to correct an identified deficiency), operations and/or training.
   b. Vehicles, equipment, and procedural updates tracked through the Engineering Change Control System, that are validated within the OST Safety Basis screening criteria, do not need to be submitted through the C2C process.
   c. Federal employees, contractors, or committees who propose a new policy or change to a policy, capability, system, work process, or control shall initiate the C2C process by submitting an idea, a question, a recommendation, etc. to their Director, using the C2C Change Request Form according to their office's internal procedures.
   d. All approved C2C change requests are submitted to the C2C database coordinator, to monitor and track until resolved.

e. The Grade Level for each potential change will be determined by applying the Graded Approach and C2C Guidelines (see link in **References** section). The Graded Approach and C2C Guidelines will determine the requirements that should be addressed for each phase of the work process, procedure, or system revision.

f. The Grade Level will be documented as part of the Change Request and routed to the Division Directors who will coordinate the level of impact with other organizations.
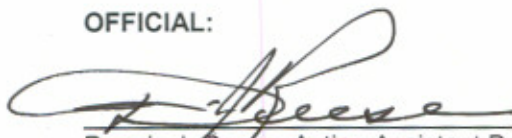
2. **Responsibilities**
   a. The OST Assistant Deputy Administrator is the approving authority for this policy.
   b. The SLC is the approval authority for Grade Level 1 activities.
   c. The OST Managers are responsible for:
      (1) Implementation of this policy.
      (2) Development of internal procedures to support C2C, as needed.
      (3) Coordination between OST Divisions in support of C2C action closure.
   d. The Division Directors shall:
      (1) Assume responsibility to identify, analyze and understand the impacts of proposed changes and develop plans to manage improvement.
      (2) By working with various subject matter advisors, create a master list of requirements and specifications for the Transportation Safeguards System (TSS). These requirements shall be prioritized consistent with the Graded Approach and C2C Guidelines (see link in **References** section) and Transportation Safety Requirements. The Division Directors are responsible for keeping the list current and re-visiting prioritization at least annually.
      (3) For Grade Level 1 and 2 C2C activities, request budget review and assign a product realization team to develop and deploy the revised work process, upgrade, system, procedure, control, or policy for:
         (a) Test and Evaluation
         (b) Safety Programs or Compliance Initiative
         (c) Security Enhancement or Compliance Initiative
         (d) Engineering System Upgrades
         (e) Operational Changes (including required training)
      (4) For all projects, provide the appropriate resources to support timely execution of project. This includes, but is not limited to, providing personnel to support Product Realization Teams, assuring issues are resolved between organizations, and tracking progress of all projects and intervening when projects are off-track.
      (5) Ensuring timely responses to status updates/requests.
   e. The Product Realization Team is a multi-disciplinary team that is used as a mechanism to implement and advise OST management on resolution of C2C initiative.
   f. The Product Realization Team Leader shall be accountable to the responsible Division Director for:
      (1) Assuring requirements identified in the Graded Approach and C2C Guidelines (see link in **References** section) are followed.
      (2) Briefing appropriate level of management based on Graded Approach and C2C Guidelines.
      (3) Documenting recommended actions for resolution so that the corrective action is tracked to closure within the C2C database.
   g. The OST, Program Office of Independent Oversight is responsible for maintaining the OST Graded Approach for quality.
   h. The C2C Coordinator shall:
      (1) Support the various OST organizations with implementing the C2C process.
      (2) Maintain the C2C databases.
      (3) Provide bi-monthly status information on all projects to the Division Directors.
      (4) Provide monthly status information on all Level 1 projects to the SLC.

3. **Requirements**
    a. The project lead will ensure the following basic steps are performed, as applicable, to assure a successful implementation of the C2C process.
        (1) **Requirement Definitions:** Requirements shall be defined based on a need that has been established through various analysis, regulations, or change of scope in the mission. Subject-matter advisors define the requirements. Potential impacts are reviewed by Division Directors. The initial safety and security review is required in this phase.
        (2) **Technology, Process and Control Evaluation (optional):** This phase may include market research as well as detailed evaluation of candidate products, analysis of system upgrades, and/or delineation of enhanced controls. Once requirements have been established, research may be conducted to find a product, develop a work process, enhance a system, or implement a control, to satisfy the requirement. This step is not required for changes to procedures or policies.
        (3) **Proof of Concept:** This step may require the procurement or manufacturing of the product for approval. This step may also require testing or evaluating for conformity. If a custom design is required, the product will be taken through proof of concept. For a procedure, policy, or identification of a control, this stage consists of developing a draft for consideration by the Product Realization Team.
        (4) **Development/Integration:** Developmental steps may consist of procurement of an approved product to manufacture a unique capability. An activity to integrate the product into the subsystem assures it meets existing requirements. Final safety and security approvals are required during this phase. For a procedure, policy, or implementation of a control, this stage consists of finalizing appropriate documents.
        (5) **Production/Procurement:** In addition to producing or procuring a product, an implementation plan will be created during this phase. This plan will establish how and when the product will be merged into the existing mission, what training may be required, maintenance that should be accomplished, stock levels that should be maintained, how the item will be retired, etc. For a procedure, policy, or implementation of a control, this stage consists of making copies of appropriate documents or briefing/training impacted organizations as needed.
        (6) **Deployment:** Deployment is not limited to delivery of a product but includes all required procedures, training, etc., needed to assure a capability is implemented successfully and efficiently. This stage consists of fielding the enhancement, implementing the system, work process, or control and documenting resolution to the C2C Coordinator. For a procedure or policy, this stage consists of releasing the document.
        (7) **Maintenance:** This phase includes maintenance, calibration and/or inspection. It also may include periodic procedural review, enhancement to improve needed training, and otherwise upgrading capabilities and systems already in service.
        (8) **Retirement:** Retirement ensures the removal of a product or capability from service, including the proper disposal and/or destruction.
    b. Detailed information for each step including the responsible agency, expected activities, required documentation, and C2C process flow can be found in the Graded Approach and C2C Guidelines (see link in **References** section).

OFFICIAL:

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