



POLICY ISSUE (Information)

December 27, 1989

SECY-89-382

For: The Commissioners

From: James M. Taylor
Executive Director
for Operations

Subject: INTERIM PROGRESS REPORT ON THE ACCIDENT STUDY FOR
PLUTONIUM AIR-TRANSPORT PACKAGES

Purpose: To respond to the Commission's request to provide periodic program reports following the May 15, 1989 staff briefing on efforts to implement Section 5062, Public Law 100-203 (Murkowski Amendment)

Background: The Murkowski Amendment requires testing of containers used to transport plutonium by aircraft from a foreign nation to another, through U.S. airspace, and NRC certification to Congress that the containers are safe. Four previous Commission Papers have addressed: the amendment's requirements (SECY-88-302); the Agreement with the Power Reactor and Nuclear Fuel Development Corporation of Japan (PNC) on the testing and administrative program for certifying packages (SECY-88-329); the selection of a worst-case aircraft crash for test criteria development purposes (SECY-88-344); and draft package test criteria (SECY-89-208).

The most recent paper (SECY-89-208 dated July 12, 1989) described draft criteria for a package drop test from a cargo aircraft's maximum cruise altitude (or equivalent), and for a crash test of an aircraft loaded with packages. The technical basis for the test criteria is described in the Interim Report, "Draft Criteria for Package Drop and Packages," which was prepared by NRC's technical support contractor, Lawrence Livermore National Laboratory (LLNL). On July 14, 1989, with Commission approval, staff provided PNC a copy of the Interim Report, as well as a copy of the Cost and Schedule Estimates for the testing and administrative program. The NRC program was initiated at PNC request, and the cost and schedule estimates were developed in the context of PNC's stated 1992 "need-date" for plutonium. From August 1 through 3, 1989, NRC and LLNL staff met with PNC representatives to discuss and respond to questions about the reports.

CONTACT:
John R. Cook, NMSS
49-20458

Discussion:

Recent developments concern package testing and the schedule for the air-transport program. First, with regard to package testing, PNC has arranged with DOE and Sandia National Laboratories (SNL) to conduct developmental tests of two package designs to the air crash criteria of NUREG-0360. The staff has no involvement in these tests. Staff is aware, however, that, in one of the tests at SNL, the developmental package did not perform as expected. PNC's package-development effort would be set back if the test results show that neither package design can satisfy NUREG-0360 criteria. If, however, the results show that one of the designs satisfies, or could be modified to satisfy, NUREG-0360 criteria, then a candidate package would have been identified for subsequent testing to satisfy the more severe Murkowski testing requirements.

With regard to the schedule for the air-transport program, Phase One of the testing and administrative program (discussed in SECY-88-329) is on schedule with a September 30, 1990 completion date. For corollary plutonium shipment mode information, please consult classified Commission Paper, Subject: Sea Shipment of Plutonium (U).

In a recent meeting, PNC stated that they would continue to pursue the development of an air transport package.

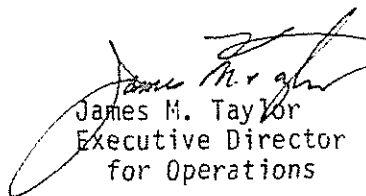
Scheduling:

Phase One of the testing and administrative program with LLNL will conclude with a final report on test criteria by September 30, 1990. Staff anticipates negotiating terms with PNC for Phase Two (request public comment on test criteria) of the program in early 1990.

Coordination:

This paper has been coordinated with the Office of the General Counsel, and it has no legal objection. The Office of Governmental and Public Affairs has also reviewed this document and concurred.

DISTRIBUTION:
Commissioners
OGC
OIG
LSS
GPA
REGIONAL OFFICES
EDO
ACRS
ACNW
ASLBP
ASLAP
SECY


James M. Taylor
Executive Director
for Operations