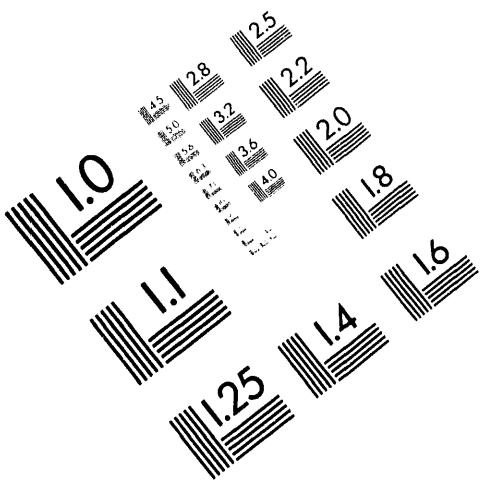

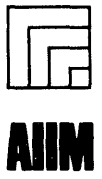

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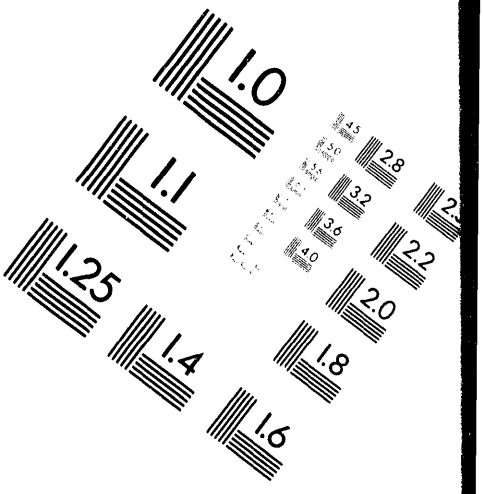

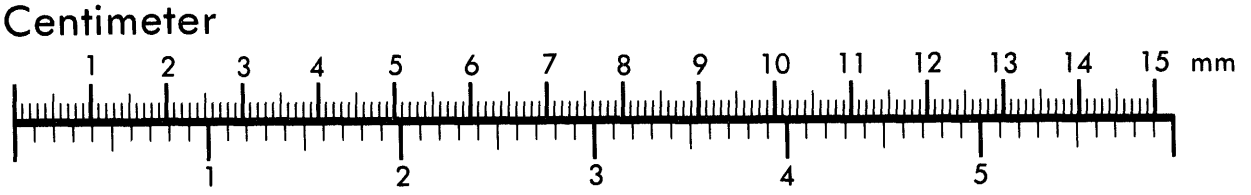

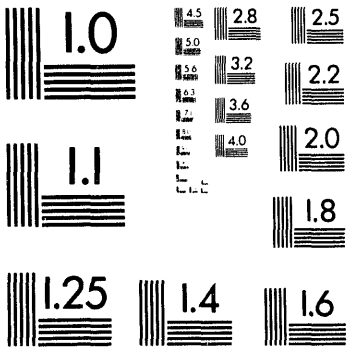

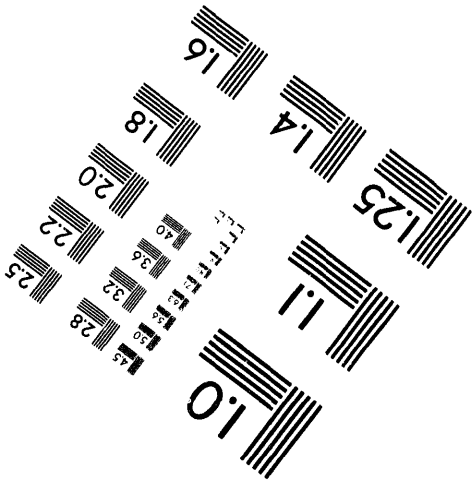

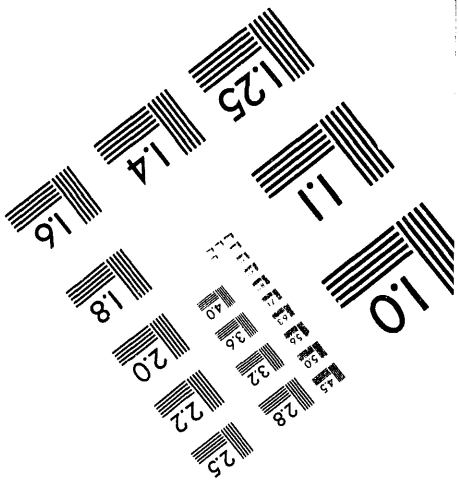

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SPECIAL BULLETIN
AUGUST 1994

OCRWM BULLETIN

A Report from the U.S. Department of Energy's Office of Civilian Radioactive Waste Management

MULTI-PURPOSE CANISTER PROCUREMENT: A SIGNIFICANT STEP FOR THE DEPARTMENT OF ENERGY'S CIVILIAN RADIOACTIVE WASTE MANAGEMENT PROGRAM

Background

The Civilian Radioactive Waste Management Program undertook a major initiative on June 3, 1994, by requesting proposals for a multi-purpose canister (MPC) system (see Figure 1 on page 2). The purpose of the system is to provide a standardized system for storage, transportation, and disposal of spent nuclear fuel. Among the advantages of the MPC concept two stand out. First, and most important, the system reduces handling of individual spent fuel assemblies. Second, it promotes standardization and compatibility among storage technologies used at civilian reactor storage sites and Department of Energy facilities. If used by the majority of reactors, the MPC will reduce the total number of shipments and the overall waste management system costs for nuclear energy utilities and the Federal Government.

The MPC concept calls for a sealed metal canister that can hold many spent fuel assemblies from a nuclear powerplant. The MPC system will be designed to provide criticality control, heat transfer, and structural support during storage and transportation of spent nuclear fuel. The canister will be placed inside separate units or "overpacks" for shipment, storage, and disposal. Nuclear Regulatory Commission (NRC) certificates of compliance are required for the MPC systems for storage and transportation. Ultimately, the waste package, which includes the MPC, must be licensed by the NRC for disposal in a repository.

The MPC could be used for at-reactor storage if transport to a Federal facility were not feasible immediately after loading (see Figure 2 on page 3). Alternatively, it could be transported to a Federal storage facility, stored temporarily, and shipped to a geologic repository for final disposal (see Figure 3 on page 4). Thus, the canister system can also play a key role in any interim storage strategy that may evolve. If a final decision is made to use the MPCs for the entire program, the MPC could represent one of the largest hardware procurements to date for the Department of Energy's Office of Civilian Radioactive Waste Management.

The MPC concept has been encouraged or endorsed by the NRC, the Nuclear Waste Technical Review Board, the Electric Power Research Institute, the Edison Electric Institute, and other oversight and industry groups.

Multi-Purpose Canister Procurement

In order to procure the MPC system, a Request for Proposal (RFP) was issued by the Program's Management and Operating contractor, TRW Environmental Safety Systems Inc. (TESS). Before preparing the RFP, TESS conducted a feasibility study and developed a conceptual design for an MPC system.

The procurement strategy to be employed for the MPC seeks to ensure competition and secure the best value for the Government. Procurement will be in three phases, with the last two phases being optional:

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- Phase 1 requires the design of two complete MPC systems—one up to 75 tons, and the other up to 125 tons—for both pressurized-water and boiling-water reactors. It also requires preparation of Preliminary Design and Safety Analysis Reports for submittal to NRC.

- Phase 2 calls for fabricating and testing scale models and constructing prototypes, and receiving certificates of compliance from NRC.

- Phase 3 calls for fabricating the initial two-year supply of MPCs.

Through the procurement strategy, one or more fixed price contracts for each of the first two phases, and one contract for Phase 3 will be awarded. As the design effort progresses in Phase 1, TESS will review the design documentation and accept revised proposals for Phase 2. The Department of Energy plans to approve the award of Phase 2 contracts within a year of the Phase 1 awards.

As Phase 2 nears completion, TESS will review progress on scale-model fabrication, NRC certification, and prototype development and will accept revised proposals for Phase 3. Award of the Phase 3 contract is expected about 30 months after the Phase 1 awards. The goal of the program is to deliver MPCs in 1998. The MPC system components that the Department plans to procure during fabrication are the large and small MPC canisters, a prototype transportation cask for each, and MPC welding equipment. The Department does not plan to procure any additional on-site components as part of this procurement.

The MPC RFP was released on June 3, 1994, and Technical and Price Proposals were originally requested by August 3, 1994. In response to comments received at a bidder's conference

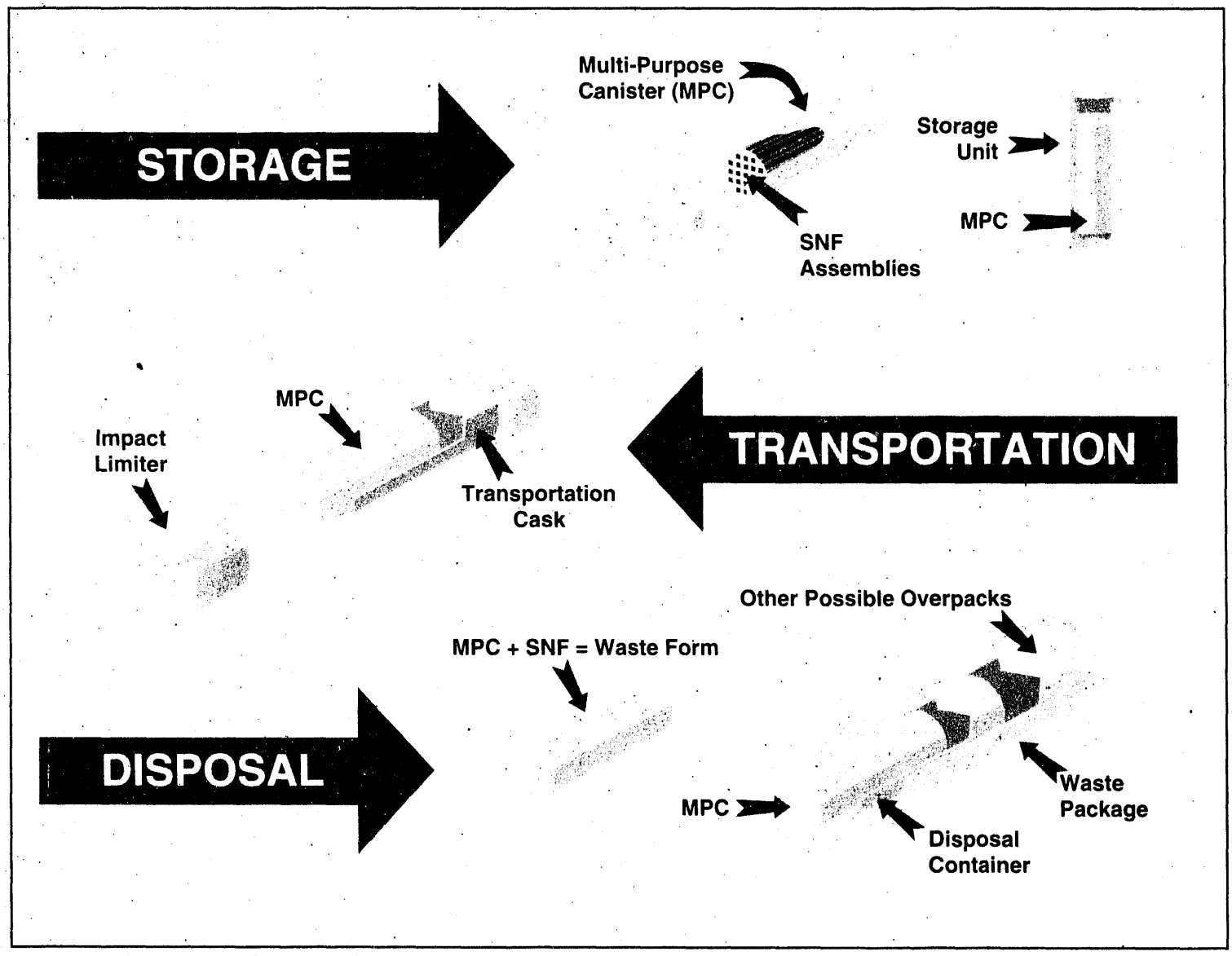

Figure 1. Multi-Purpose Canister (MPC) System

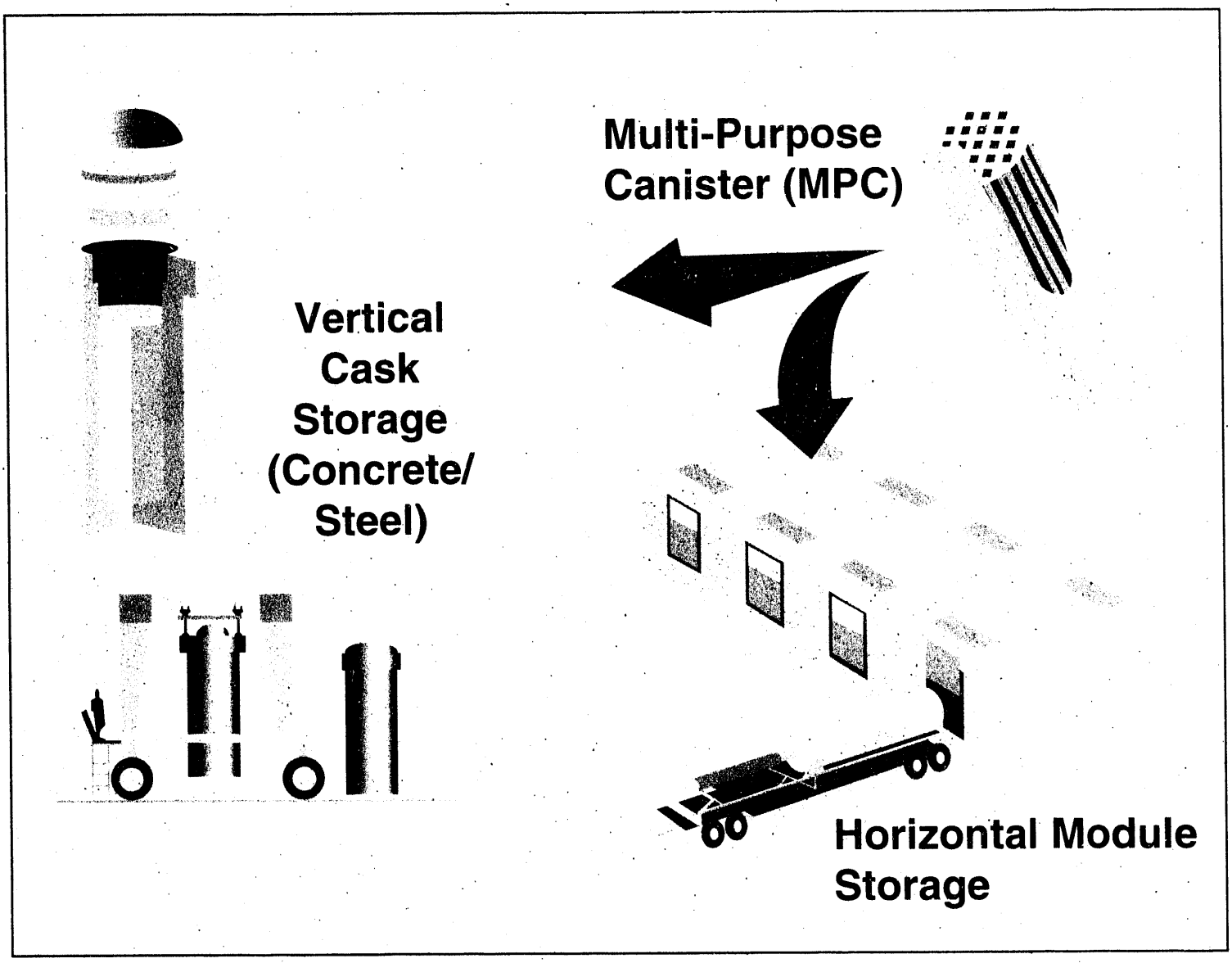

Figure 2. Multi-Purpose Canister (MPC) Storage

after the RFP was issued, and in order to enhance competition and improve the quality and overall timeliness of the procurement, extensions of the proposal preparation period have been authorized for the Technical Proposals to October 3, 1994, and for the Price Proposals to October 17, 1994. Related to this change, contract award(s) are now scheduled to occur in March 1995.

TESS will review and evaluate all proposals received in terms of the degree to which they satisfy the MPC system requirements described in the RFP. TESS will then award a contract(s) to the offeror(s) whose proposal meets all of the MPC system requirements and is judged to represent the best value to the Government using the evaluation criteria stated in the RFP. These evaluation criteria include technical factors, business and management factors, and price evaluations.

Public Communications

A Public Reading Room is available to provide potential offerors and members of the public with information deemed relevant to the solicitation. The Public Reading Room materials include, but are not limited to, Department of Energy reference documents, applicable industry and military standards, buyer reference documents, and information on a patent search regarding related technology, etc. The Public Reading Room is located at the TESS Technical Information Center (Room 1300), 2650 Park Tower Drive, Vienna, Virginia 22180.

The Office of Civilian Radioactive Waste Management is firmly committed to involving stakeholders in the MPC initiative including utilities, affected State and local governments, State legislators, potential volunteer hosts for a Monitored Retrievable Storage Facility, public interest

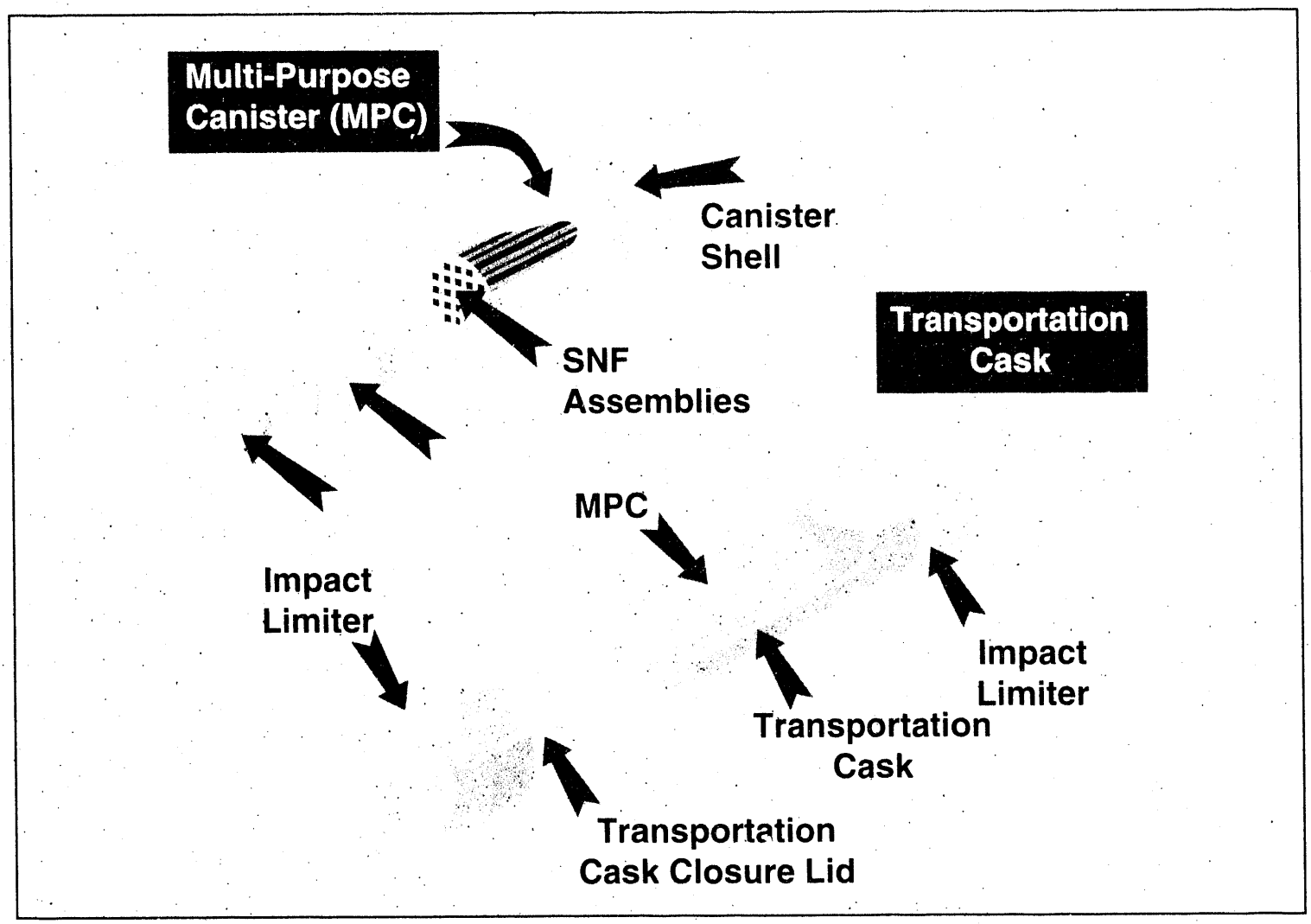

Figure 3. Multi-Purpose Canister and Transportation Cask

groups, manufacturers of equipment (multi-purpose canisters, transportation casks, etc.), industry and utility organizations, regulators, and public utility commissioners.

To provide a mechanism for effective two-way communication with these stakeholders, the Office of Civilian Radioactive Waste Management has held two stakeholder workshops in July and November 1993 specifically devoted to the MPC. In addition, the MPC was discussed at general stakeholder meetings in August 1993 and May 1994, and at numerous other meetings during the past 2 years. An information package relating to the RFP was released to the public in November 1993. Formal notice of the procurement of MPCs was made in the *Commerce Business Daily* on May 11 and June 3, 1994, prior to and just after the issuance of the RFP. The MPC program and issuance of the RFP was mentioned to attendees at the June 7-8, 1994 Transportation Coordination Group meeting.

By the end of June 1994, more than 100 requests had been made for copies of the RFP. This number includes not only potential bidders and the news media, but also local government officials, cognizant government agencies, and industry consultants. On June 16, 1994, a bidder's conference was held in Fairfax, Virginia to present information on the RFP and to answer questions from potential bidders. Copies of the RFP may still be secured by fax (703-204-8855) or by writing TRW Environmental Safety Systems Inc., 2650 Park Tower Drive, Vienna, Virginia 22180, Attention: W. L. Schneider.

The Department of Energy will prepare an Environmental Impact Statement to aid in the decision making concerning deployment of MPCs. The Environmental Impact Statement will be an important input before any decision is made regarding Phase 3 deployment of the MPCs. The process of preparing and issuing an Environmental Impact Statement requires extensive public involvement during scoping of the document and commenting on the draft document. The Office of Civilian Radioactive Waste Management also plans to continue stakeholder and public involvement in MPC activities through public meetings and other forums.

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