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This document was reviewed following the procedures described in WHC-CM-3-4 and is:

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WHC Information Release Administration Specialist:

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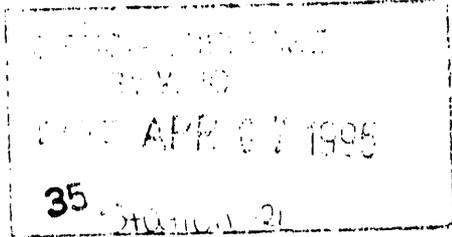
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<b>SUPPORTING DOCUMENT</b>		1. Total Pages <b>9</b>
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7. Abstract This document describes the Acquire Commercial Technology for Retrieval program activities. The objective of the program is to determine from industry their best approaches to retrieving waste from the Single Shell Tanks.		

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Technical Task Plan  
for  
Acquire Commercial Technology for Retrieval

March 1995

Westinghouse Hanford Company  
Richland, Washington

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Technical Task Plan  
for  
Acquire Commercial Technology for Retrieval

1.0 OBJECTIVE

Determine from industry their best approaches to retrieving waste from single-shell tanks (SST). A full range of systems/concepts/services/acquisition approaches will be considered.

This task plan describes the first 18 months of work. The task will be further defined as the work progresses.

2.0 END ITEM DELIVERABLES

- A. Commerce Business Daily (CBD) announcement - 4/7/95
- B. Trade Publication (TP) announcements - 7/1/95
- C. Solicitation Package - 5/22/95

The solicitation package consists of the following.

- SST retrieval problem description.
- SST descriptions identifying waste/tank conditions, composite tank descriptions categorized by tank conditions, waste types and retrieval need.
- Response guidance for interested parties.

- D. Reports and recommendations

Interim reports will document industry responses in progress and provide evaluations with recommendations for application as shown in Figure 1.

3.0 BACKGROUND

Past-practice sluicing (PPS) is the baseline approach to retrieval of the waste from the Hanford Site SSTs. PPS may not be sufficient or appropriate to retrieve all the waste from all the tanks, specifically in such areas as severely leaking tanks, hard waste forms, and discrete radioactive sources. Additional retrieval capability is required for an adequate baseline.

# ACTR Acquired Commercial Technology for Retrieval (ACTR)

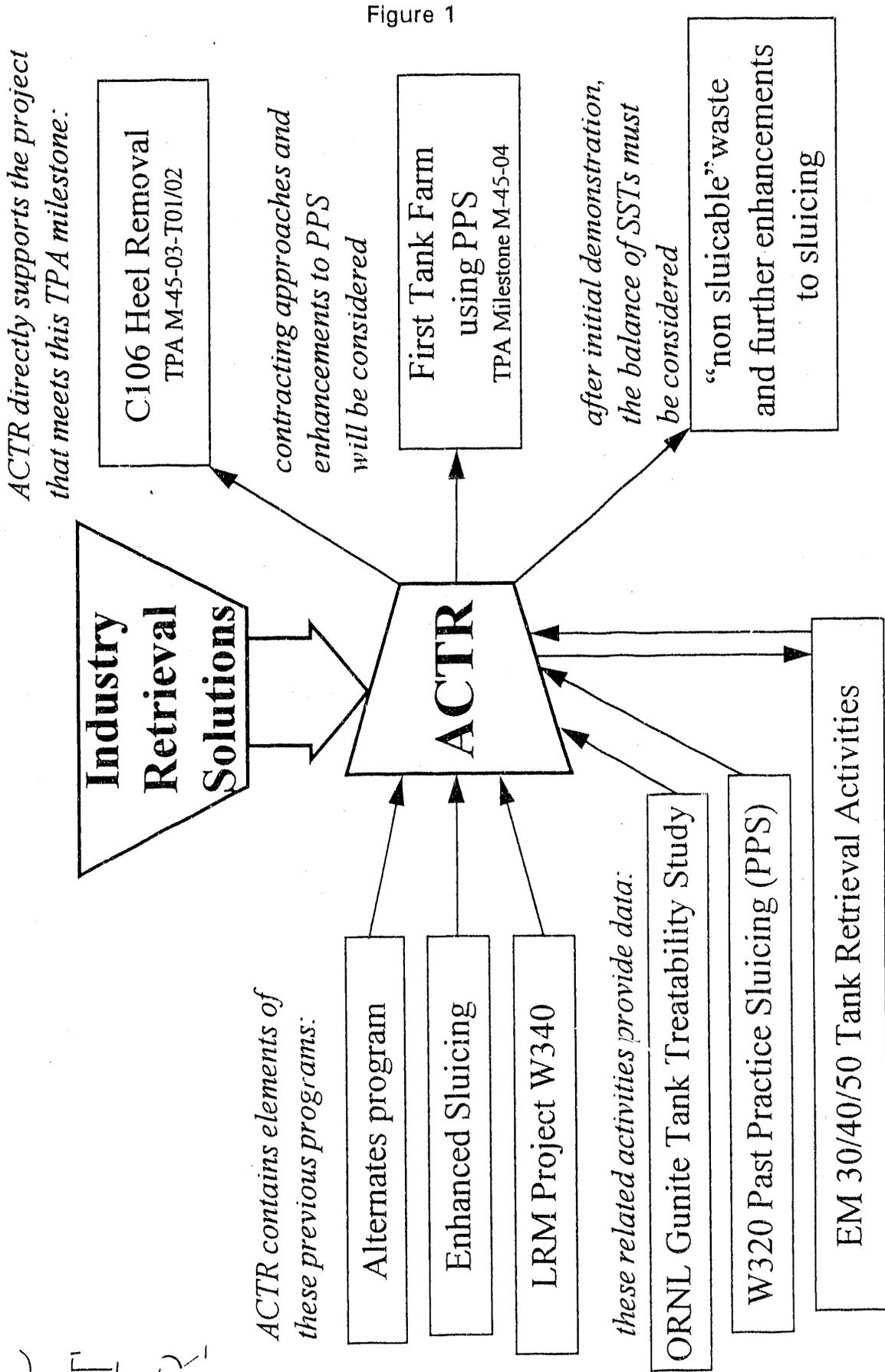


Figure 1

The retrieval baseline consisted of a reference approach, PPS and 3 parallel technology approaches; alternates, enhancements, and demonstration of a long-reach manipulator (LRM). Alternates included the identification, evaluation and demonstration of retrieval systems to challenge the reference approach in a competitive development process. Enhancements included improvements to sluicing retrieval performance, reduction in cost, and reduction in leak potential during sluicing. The LRM, Project W-340, Tank 241-C-106 Manipulator Retrieval System, was formerly a candidate FY 1998 Line Item to demonstrate a retrieval system with capabilities that complement PPS. The mission of that project was to develop, procure, and deploy a LRM waste retrieval system to provide an alternate method to completing the in-tank demonstration of SST waste retrieval technology as specified by TPA Milestone M-45-03-T01. The retrieval system was to be demonstrated on tank 241-C-106.

The baseline assumptions, system requirements, and budget and schedule considerations have demanded a change to the original approach. This effort consolidates the 3 parallel technology approaches into a single task.

#### 4.0 SCOPE

Acquire Commercial Technology for Retrieval (ACTR) comprises the previously designated tasks associated with evaluation and demonstration of SST alternates/enhancements, but with the added scope of compliance with TPA Milestone M-45-03-T01/02 to provide retrieval system(s) for the final 106-C waste retrieval demonstration. Additionally, results of this work may feed the first tank farm retrieval project by describing industry defined retrieval solutions appropriate for those objectives. This work will also provide needed information for retrieving non-sluicable waste and further enhancements to sluicing after the first tank farm retrieval project (see Figure 1).

This effort will require cognizance and close coordination with other Department of Energy (DOE) retrieval-related activities such as the EM-40 gunite tank retrieval at ORNL Savannah River, INEL Idaho Falls, and EM-50 technology development activities.

Near term (FY 1995) activities include:

- Develop and issue a CBD announcement.
- Develop and publish TP announcements.

Develop a solicitation package which consists of the following.

A retrieval problem description which will describe the retrieval effort at the Hanford Site and the goals of the retrieval program.

The package will also include descriptions of the SSTs, the waste, in tank hardware, and typical riser configurations. This information will be provided as a basis for proposal preparation by the vendors. Composite tank descriptions, categorized by tank conditions, waste types, and retrieval need, will provide vendors a range of opportunities within the SSTs. These composites will be selected to ensure opportunity for vendors to propose niche solutions, if they so elect.

A response guidance will be included to assist interested parties in providing information about their systems/concepts/services/acquisition approaches.

The following describes the process that will be used to acquire commercially available technology for retrieval (see Figure 2).

Solicit industry for the full range of systems/concepts/services/acquisition approaches that could be applied to SST retrieval. Industry will be solicited through the Commerce Business Daily and other sources. The solicitation package will be sent out to those parties who express interest to assist them in providing a description of their retrieval solutions. The objective is to evaluate commercially available solutions that perform all or some of the retrieval functions.

The approaches proposed by industry will be reviewed, and those that are determined to be promising viable solutions will be further explored. This will be accomplished by evaluating solutions through simulations, modeling, feasibility studies, or demonstration testing.

The results of the evaluations and recommendations will be documented and used to support retrieval decisions. These evaluations will allow the Program Office and DOE to make cost- and risk-sensitive decisions for systems/concepts/services/acquisitions to supplement PPS retrieval of the Hanford Site SSTs.

This task is currently the only work ongoing which will provide the information necessary to support meeting the final retrieval of tank 241-C-106 as stipulated in TPA Milestone M-45-03-T01 and T02. Upon completion of the initial evaluation of vendor responses for system/concepts/services/acquisition approaches the information will be used to develop a program strategy plan for the final retrieval of tank 241-C-106. The plan will be based upon the most viable solutions.

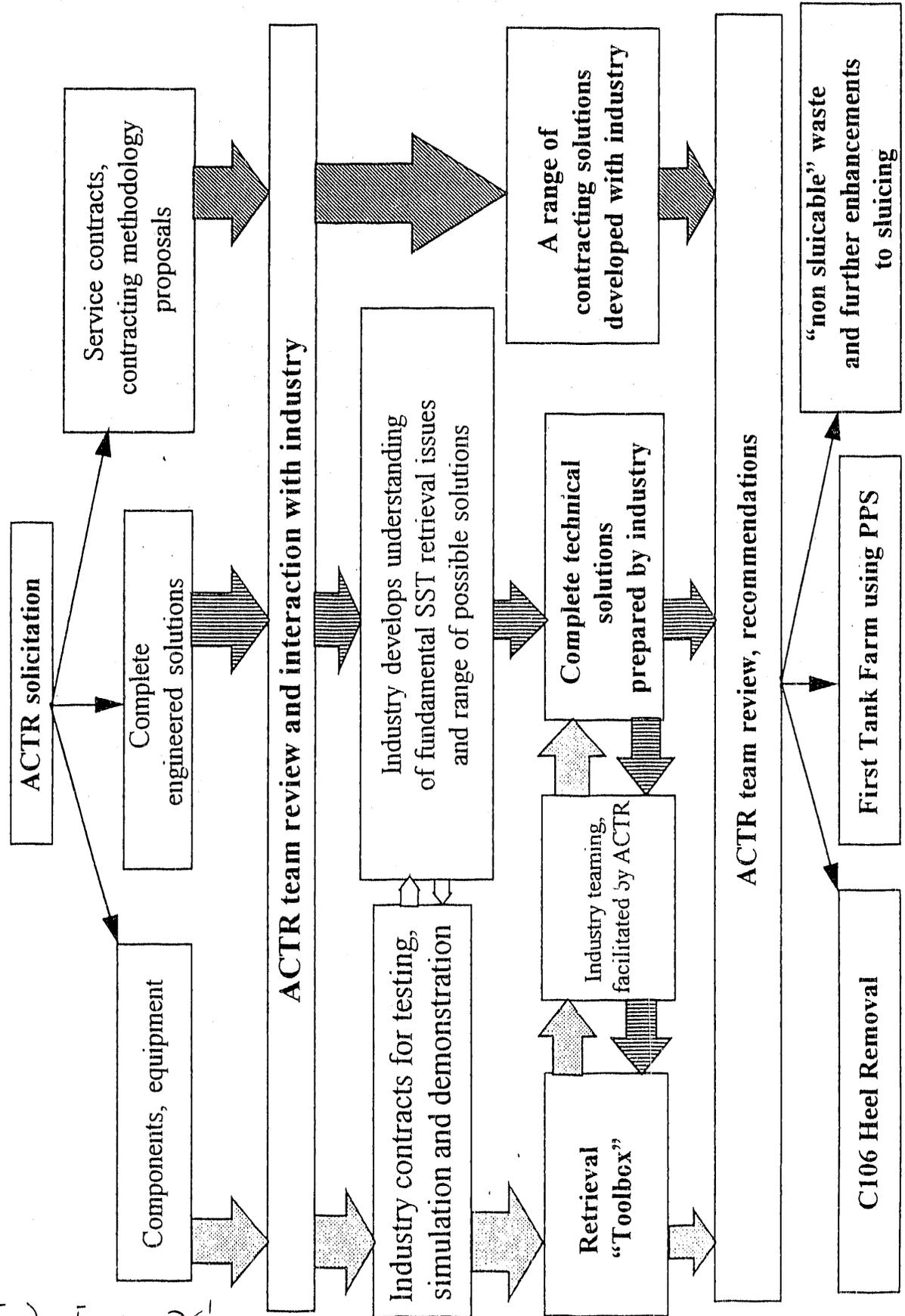
## 5.0 SCHEDULE

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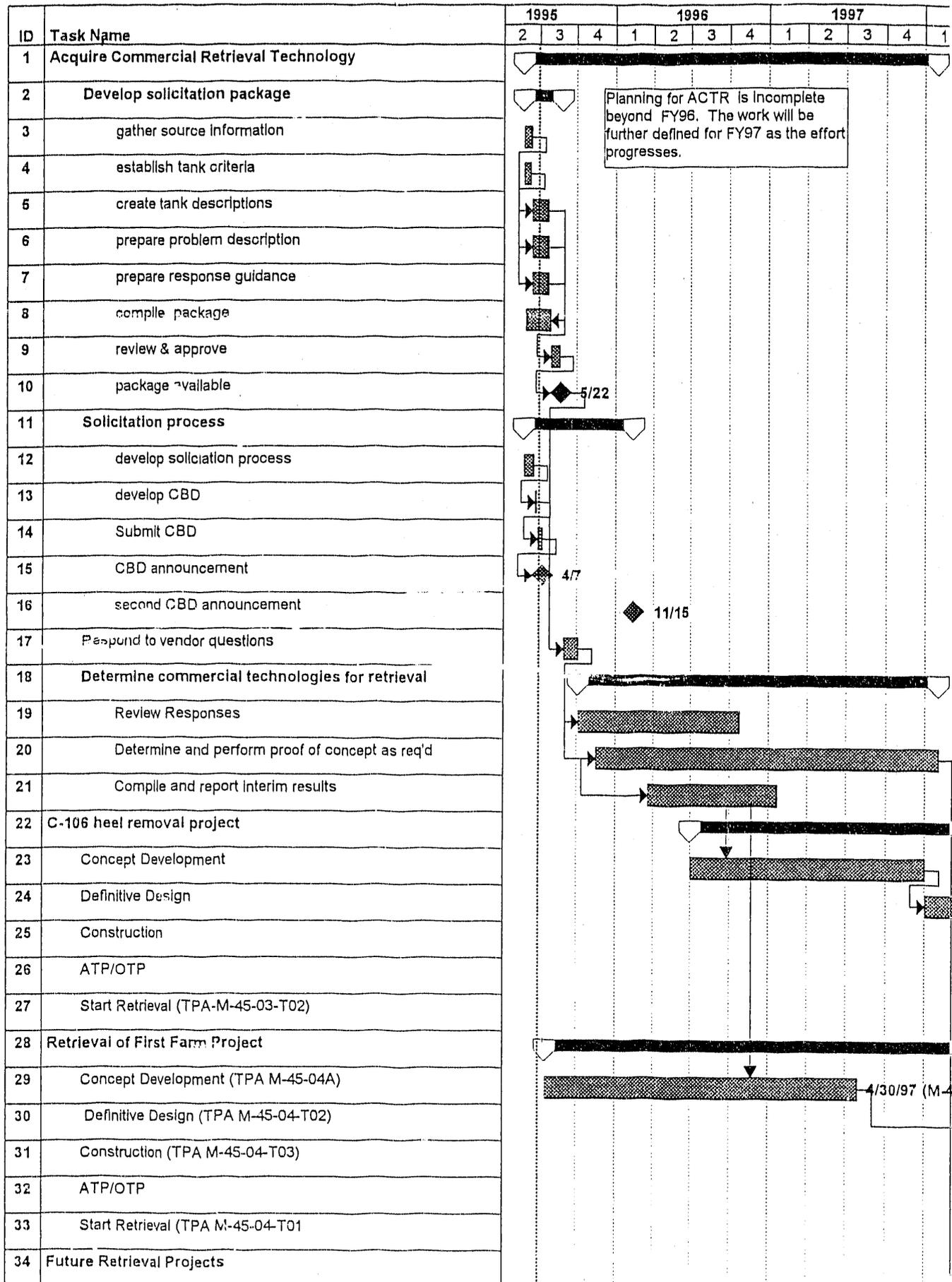
Figure 2

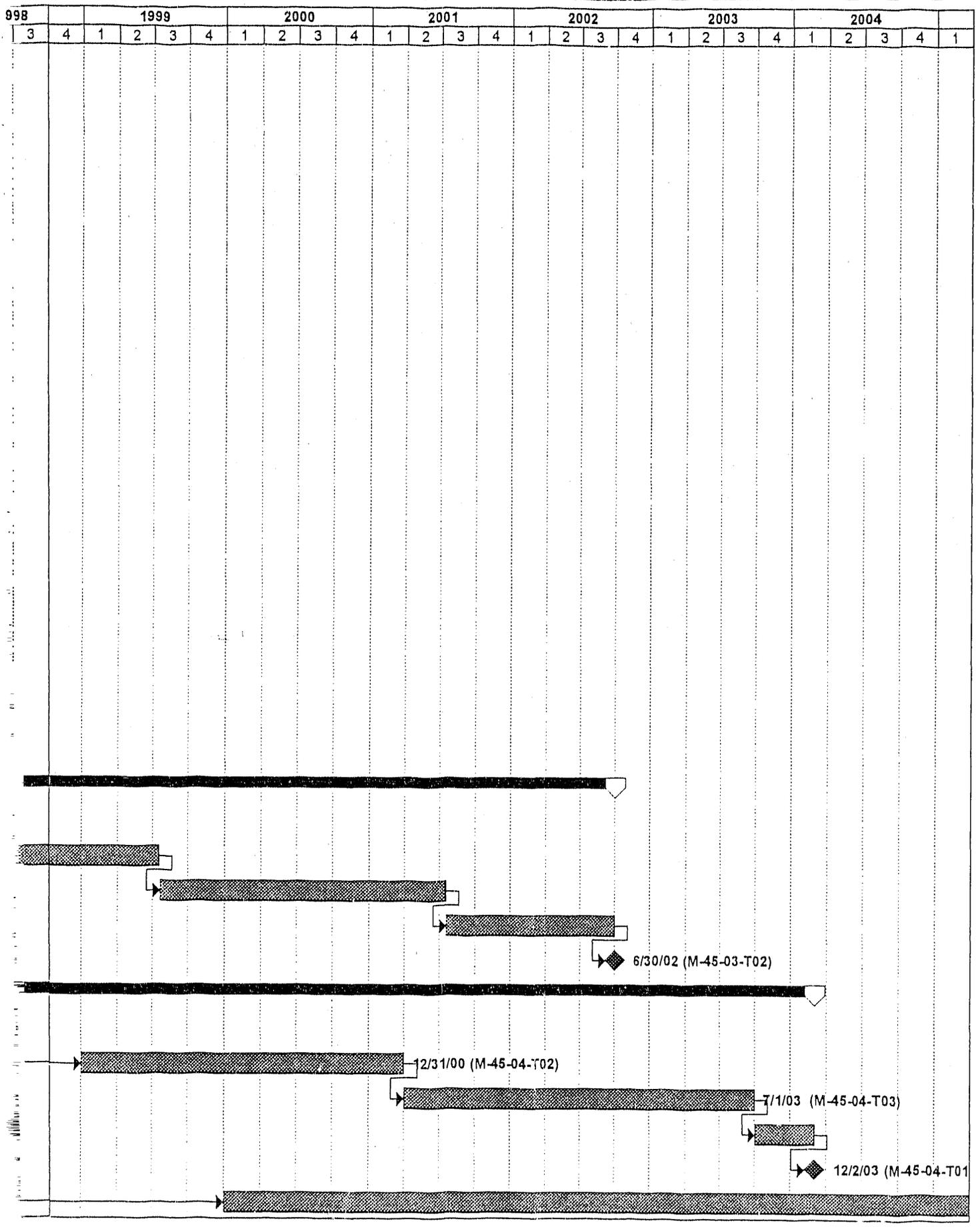
# ACTR Concept Selection Process

A  
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R



## Acquire Commercial Technology for Retrieval (ACTR) Shown in Fiscal Years



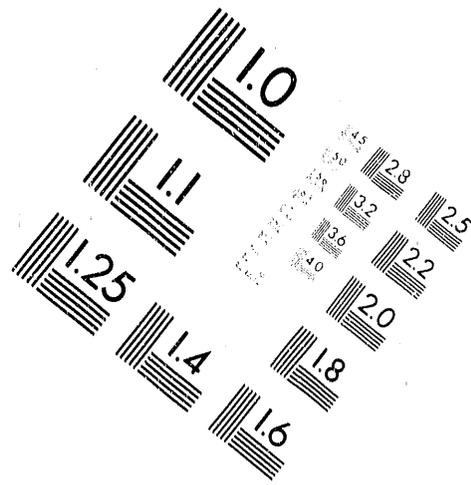
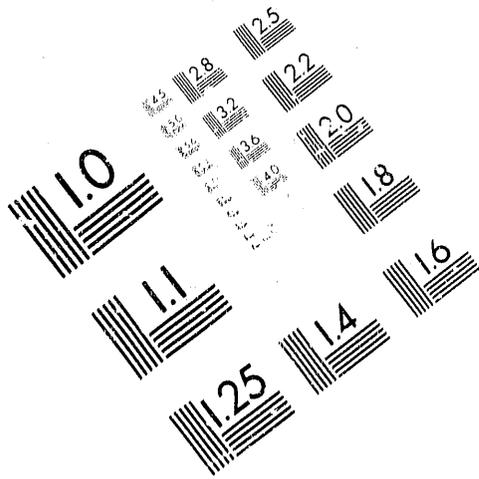




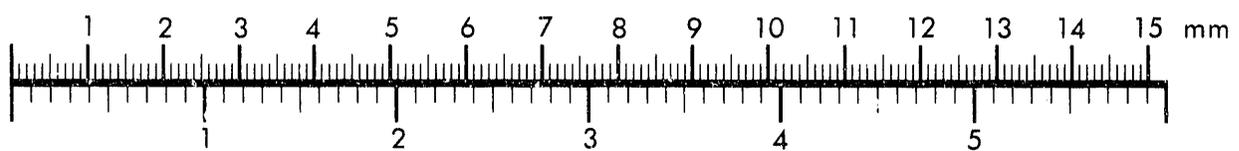
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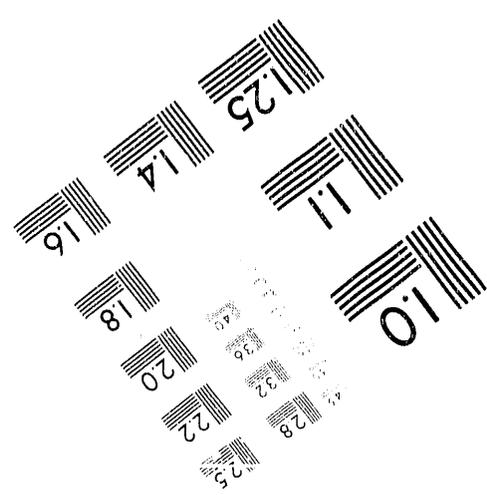
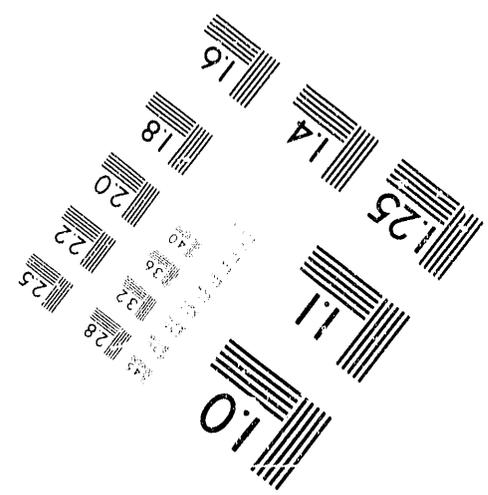
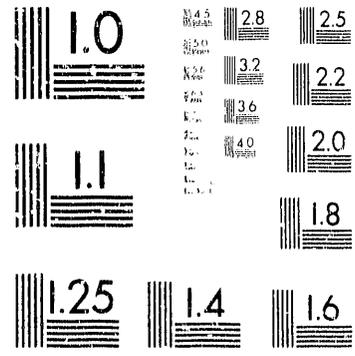
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