U.S. ARMY ABERDEEN TEST CENTER

MPPEH PROGRAM

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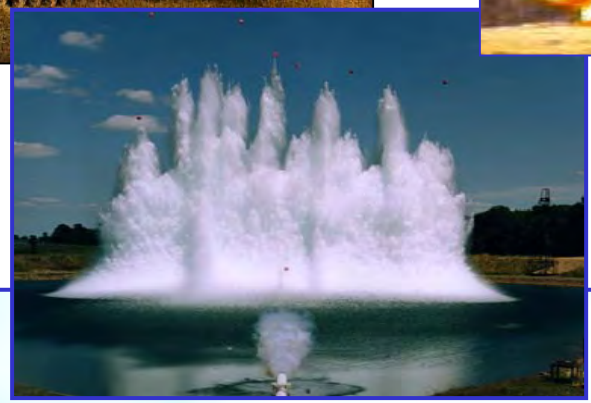
FACILITIES AND ACTIVITIES

- Primary mission – plan, conduct, analyze and report on projects supporting all phases of weapons development and acquisition including surveillance and operational tests for DoD, other government agencies and private sector.

FACILITIES AND ACTIVITIES

- ATC subjects test items to a full range of tests from automotive endurance and full weapons performance with environmental extremes, to full-scale live fire vulnerability/survivability/ lethality testing an extensive array of test ranges/facilities, simulators and models.
- In addition to testing domestic systems, ATC tests foreign systems.

FACILITIES AND ACTIVITIES



FACILITIES AND ACTIVITIES

- Facilities include automotive test courses, stationary vehicle/stationary targets, moving vehicle/moving targets for direct fire weapon systems, depleted uranium containment facility, fire safety test enclosure, and underwater explosions test facility
- Specialized facilities include the accelerated corrosion facility, bridge crossing simulator and the roadway simulator.

GENERATION OF MPPEH

- **Primary producers of MPPEH are:**
  - Proof firing large caliber cannon assemblies
  - Large caliber and mortar ammunition testing
  - R & D for armor and anti-armor development
  - Small arms weapons testing
  - Small arms ammunition testing

GENERATION OF MPPEH

- **MPPEH is grouped into 4 major groups:**
  - **Hard targets** (steel, aluminum and/or titanium)
  - **Soft targets** (Kevlar, fiberglass, polypropylene, ceramic, wood and cloth products)
  - **Ammunition and containers** (20 mm and up cartridge case and stub bases, small arms ammunition chests to artillery propellant cans)
  - **Small arms cartridge case** (5.56 mm to .50 caliber)

GENERATION OF MPPEH

Hard Targets (steel)

GENERATION OF MPPEH

Hard Targets (armor steel)

GENERATION OF MPPEH

Hard Targets (aluminum)

GENERATION OF MPPEH

Hard Targets (aluminum)

GENERATION OF MPPEH

Hard Targets (titanium)

GENERATION OF MPPEH

Soft targets (Kevlar, fiberglass, polypropylene, ceramic, wood and cloth products)

GENERATION OF MPPEH

Ammunition (120mm Stub bases)

GENERATION OF MPPEH

Ammunition (containers)

GENERATION OF MPPEH

Small arms cartridge case (5.56 mm to .50 caliber)

GENERATION OF MPPEH

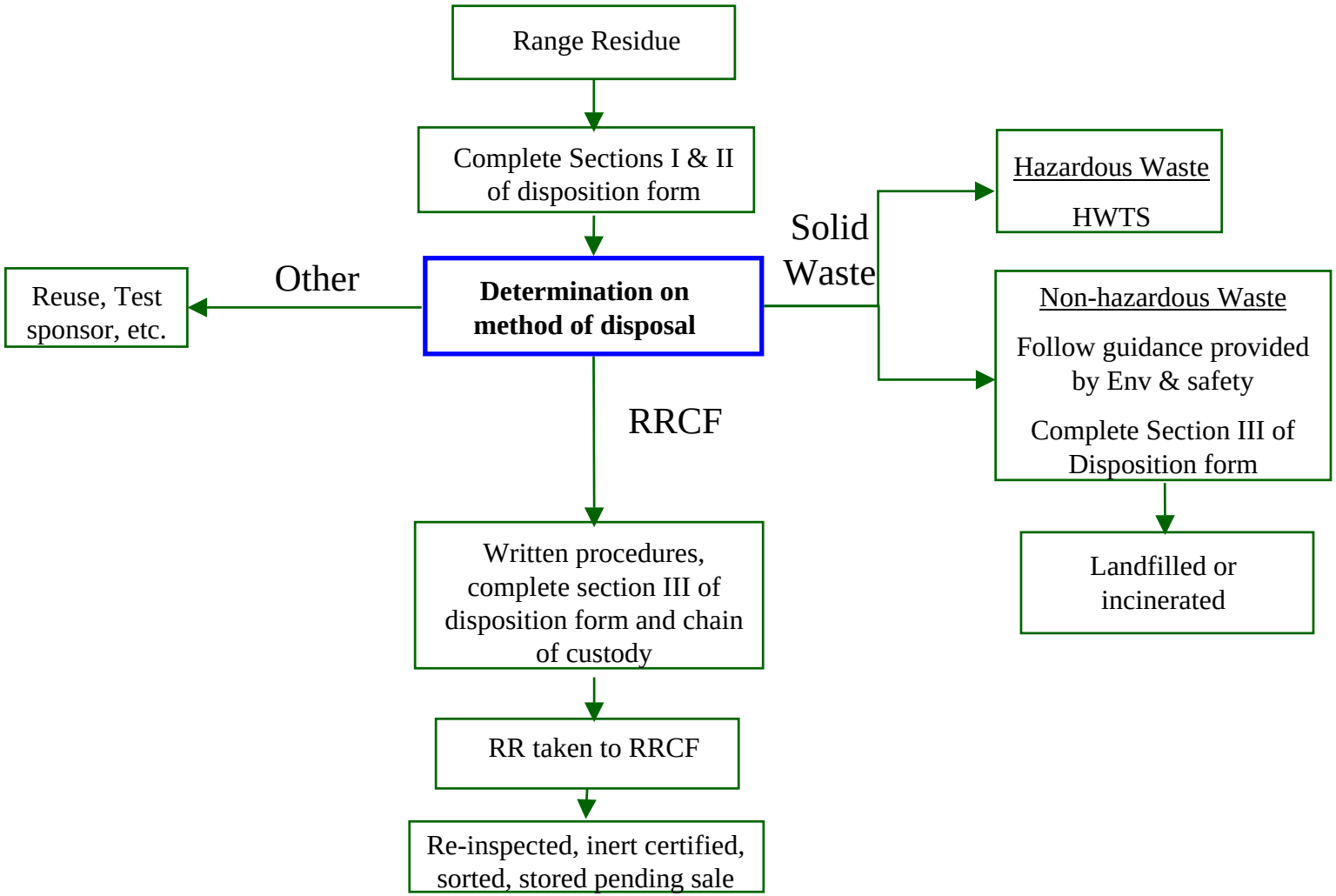
Amounts and Rates of Generation

Type of MPPEH	Tons/year (average)	Data Period
Hard target	3000	2001-2005
Soft Target	30	2001-2005
Ammunition solid waste	107	2003-2005
Ammunition (non-waste)	9000 (items)	2003-2005
Small Arms cartridge cases (5.56mm -.50 cal)	25	2003-2005

MPPEH MANAGEMENT

- **Three management processes**
  - Range Residue
  - AEDA
  - Recycle for scrap sale

Range Residue



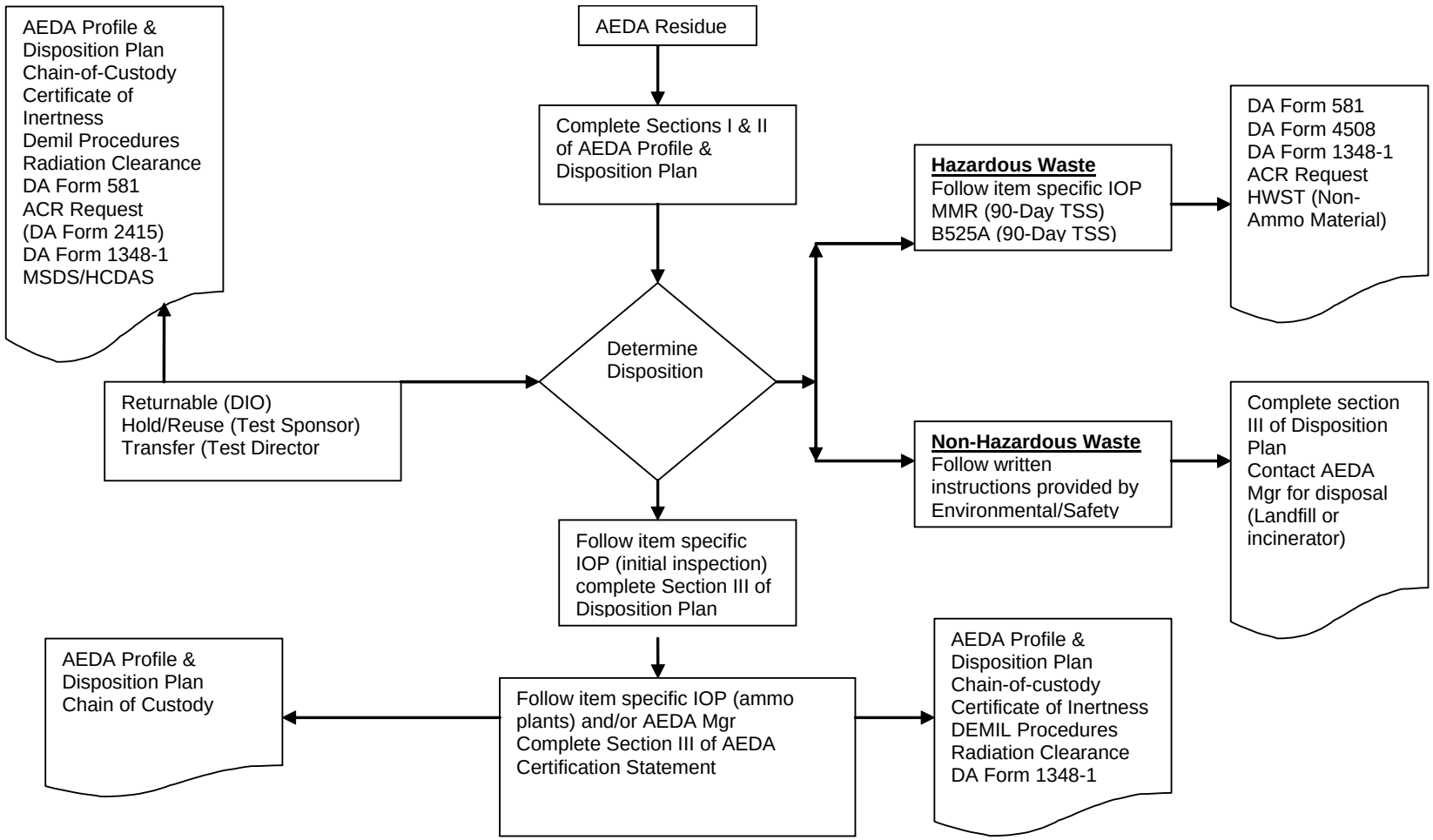
RANGE RESIDUE

- Range Residue is inspected by initial hazard removal person using IOP guidance.
- IOP establishes size, weight and condition of residue before transport to consolidation facility.
- Profile and disposition form is generated and accompanies residue to consolidation facility.
- At consolidation facility, residue is inspected twice and segregated by type for disposal

RANGE RESIDUE

- A Bulk Material Certification Statement- items requiring flat bed trailer
- A Container Certification Statement- items small enough to go in roll-off container
- Radiation Free Certification Statement
- Chain of Custody Record

AEDA


AEDA Profile & Disposition Plan
Chain-of-Custody
Certificate of Inertness
Demil Procedures
Radiation Clearance
DA Form 581
ACR Request (DA Form 2415)
DA Form 1348-1
MSDS/HCDAS
AEDA Residue
Complete Sections I & II of AEDA Profile & Disposition Plan
Determine Disposition
Returnable (DIO)
Hold/Reuse (Test Sponsor)
Transfer (Test Director
Hazardous Waste
Follow item specific IOP
MMR (90-Day TSS)
B525A (90-Day TSS)
DA Form 581
DA Form 4508
DA Form 1348-1
ACR Request
HWST (Non-Ammo Material)
Non-Hazardous Waste
Follow written instructions provided by Environmental/Safety
Complete section III of Disposition Plan
Contact AEDA Mgr for disposal (Landfill or incinerator)
Follow item specific IOP (initial inspection) complete Section III of Disposition Plan
AEDA Profile & Disposition Plan
Chain of Custody
Follow item specific IOP (ammo plants) and/or AEDA Mgr Complete Section III of AEDA Certification Statement
AEDA Profile & Disposition Plan
Chain-of-custody
Certificate of Inertness
DEMIL Procedures
Radiation Clearance
DA Form 1348-1

AEDA RESIDUE

- AEDA residue is returned to ASP and processed using IOP.
- Solid waste is consolidated at ASP for weekly disposal
- Ammunition containers are inspected by Initial Hazard Removal Person.
- Profile and Disposition form is generated and accompanies items to next step in process.

AEDA RESIDUE

- Ammo cans are categorized as follows:
  - **Returnable** (items listed as Field Service Returns)
  - **Resaleable** (items not listed, but can be sold by DRMO)
  - **Scrap** (only value is scrap content)
- No matter the category, an item is required to be inspected a minimum of two times
- AEDA cartridge cases have initial inspection at ASP, a profile and disposition form generated.

RECYCLE FOR SCRAP

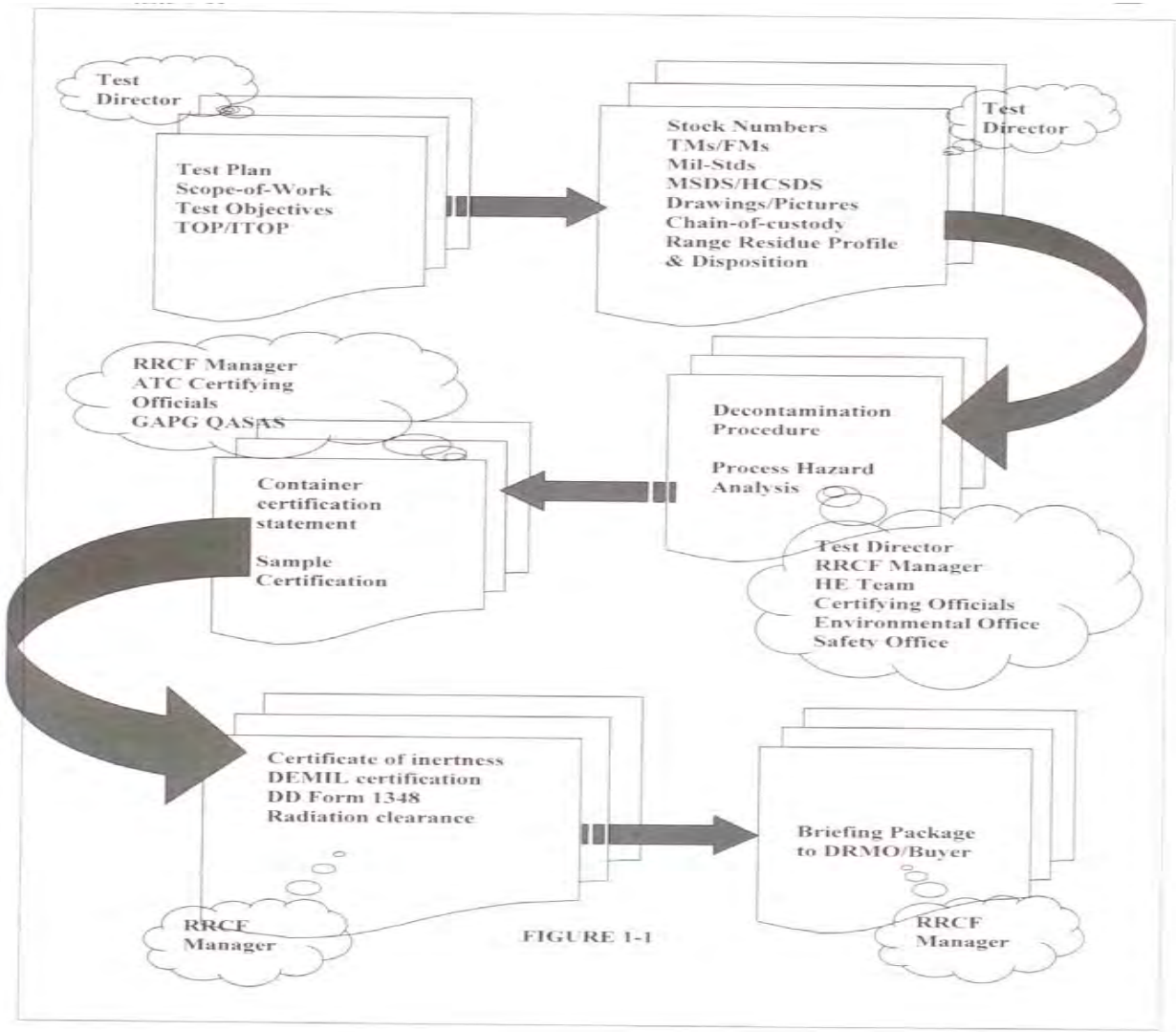


FIGURE 1-1

MPPEH MANAGEMENT

- Staffed with 1 Government Engineering Technician and 4 contract Engineering Technicians.
- Contract Engineer Techs have signature authority to certify
- Government Engineering Tech has signature authority to certify and verify
- Government and contractor personnel have a variety of material handling equipment licenses
- Job duties are contingent upon training received and time on the job

MPPEH MANAGEMENT

- Personnel are responsible for inspecting and clearing for removal all “inert” ammunition residues from ASP, to include ammo cans for return, recycle or scrap.
- Responsible for all Range Residue certified safe for disposal
- Clear items for return to test sponsors

MPPEH MANAGEMENT

- All MPPEH is consolidated at a facility comprised of approximately 4 acres of usable land space with a secured perimeter fence line.
- Concrete bays allow for protection from inclement weather where applicable
- 40 yard, 30 yard and 20 yard roll-off dumpsters are utilized to complement garrison support
- Tip dumpsters can be transported to range areas to pick up MPPEH and to hold and process brass at the consolidation facility
- Material handling equipment includes:
  - Forklifts (6K and 15K)
  - Skid loader
  - 5 Ton tactical truck w/flat bed
  - Roll-off trailer
  - Crane with magnet
- Processing Equipment includes:
  - Deformer
  - Shredder

MPPEH MANAGEMENT

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POLICIES AND REGULATIONS

- ATC Commander's Policy
- Range Residue SOP
- AEDA Residue SOP
- Memorandums of Agreements with DRMO and the US Army Aberdeen Proving Ground Garrison

CONTRACT REQUIREMENTS

- Contracts are solicited through DRMO
- Steel Contracts
  - Best value is based on grade, quality and size
  - Load must be at maximum weight for pick up
- Aluminum Contracts
  - Can not have contaminants
  - Typically requires additionally packaging methods such as palletizing or boxing prior to shipping
- Contracts for demil, cutting and removal offset the cost of having to buy additional equipment and provide additional manpower (e.g., boats, planes, vehicle hulls)

MPPEH MANAGEMENT COSTS

- MPPEH Program is funded through overhead.
- Budget is based annually on core personnel requirements, anticipated equipment needs, previous FY expenditures.
- Budget does not forecast expected MPPEH requirements for FY. Budget may not support tests that produce large volumes of MPPEH or unexpected volume of testing.
- Responsible generators may have additional funding to support MPPEH, however, implementation of NDAA 2003 has limited the ability of test programs to assist with the MPPEH program beyond ‘typical’ test requirements.

CHALLENGES

- Processing materials that are outside ‘normal’ processing methods.
- Processing material with multiple waste streams.

INNOVATIVE APPROACHES TO MPPEH MANAGEMENT

- Established relationships with Environmental, High Explosive and Safety Teams
- Streamlined processes to ensure compliance with program.
- Established, effective procedures to ensure adequate inspection of projectiles using linear charges and torch cutting