TECHNICAL MANUAL

OPERATOR AND ORGANZATIONAL MAINTENANANCE MANUAL

POWER PLANT, UTILITY, (MUST) GAS TURBINE ENGINE DRIVEN

(AMERTECH CORPORATION MODEL NO. APP-1)

NSN 6115-00-937-929 (NON-WINTERIZED)

AND

NSN 6115-00-134-0825 (WINTERIZED)

This copy is a reprint which includes current pages from Changes 1 through 10.

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Operator's and Organizational Maintenance Manual

POWER PLANT, UTILITY (MUST) GAS TURBINE ENGINE DRIVEN (AIRESEARCH COMPANY MODEL NO. PPU85-5), (LIBBY WELDING COMPANY MODEL NO. LPU-71), (AIRERTECH CORPORATION MODEL NO. APP-1), AND (HOLLINGSWORTH COMPANY MODEL NO. JHTWX10/96) NSN 6115-00-937-0929 (WINTERIZED) AND NSN 6115-00-134-0825 (WINTERIZED) AND REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistake or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, U.S. Army Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. A reply will be furnished directly to you.

LIST OF ILLUSTRATIONS

CHAPTER 1

INTRODUCTION

Section I. General

1-1. Scope

This manual is for your use in operating and maintaining the Power Plant, Utility, (Medical Unit, Self-Contained, Transportable), Gas Turbine Engine Driven, AiResearch Model PPU85-6, Libby Welding Model LPU-71, Amertech Model APP-1, and Hollingsworth Model JHTWX10/96.

1-2. Maintenance Forms and Records

a. The maintenance forms and records required to maintain this equipment includes DA Form 2402 (Exchange Tag), DA Form 2404 (Equipment Inspection and Maintenance Work Sheet), and DD Form 314 (Preventive Maintenance Schedule and Record).

b. Any additional forms that are required are listed and explained in TM 38-750 (Army Maintenance Management System).

1-3. Destruction of Army Material to Prevent Enemy Use

a. Improper Operation. Pour water, sand or dirt into oil tank and run engine until failure occurs. Cut electrical cables, oil and fuel lines and hoses.

b. Fire. Use fire to destroy equipment when quantities of fuel and flammable materials are at hand. Burn assemblies and components on a priority basis if possible. Proper concentration of equipment to be burned will produce a hotter more destructive fire. Fires should be lit after mechanical destruction has been accomplished.

c. Mechanical Destruction. Use sledge hammers, crowbars, picks, axes or any other heavy tools to destroy all vital elements such as fuel and oil tanks, filters, pumps, starter, generators, battery, upper and lower electrical racks, fuel atomizer, combustion assembly, accessory gearcase, compressor and turbine assembly, control panels, condensers, evaporators, and any other major assembly or components.

d. Gunfire. Fire on the equipment with the heaviest weapons available, aiming at the major assemblies and controls.

WARNING

Point blank firing on equipment with weapons should not be attempted unless the safety of all personnel in the area is assured.

NOTE

For further instructions on destruction of equipment to prevent enemy use, refer to TM 750-244-3.

1-4. Administrative Storage

a. Preparation of the Power Plant for Limited Storage.

(1) *Inspection.* The power plant will be inspected for any unusual conditions such as damage, rusting, accumulation of water and pilferage. Inspection of the individual components and assemblies will be outlined on the "Preventive Maintenance Service Quarterly" in this manual.

(2) *Cleaning and Drying.* All contamination shall be removed from the power unit by an approved method. Approved methods of cleaning and drying are described in TM 38-230.

(3) *Painting.* Paint all surfaces where the paint has been removed or damaged. Refer to TM 43-0139 for detail cleaning and painting instructions.

(4) *Depreservation Guide.* Record depreservation instructions on DA Form 2258 (Preservation and Depreservation Guide for Vehicles and Equipment).

(5) *Lubrication System.* Lubricate the item in accordance with LO 5-6115-590-12, lubrication order. Make sure that the crankcase is filled to the proper level. Operate the engine long enough to bring it up to its operating temperature and insure complete lubrication of bearings, gears, etc. Leave the oil in the crankcase.

(6) *Sealing of Openings*. Openings that will permit the direct entry of water into the interior of the engine, electric motors, compressors, etc., shall be sealed with tape conforming to Specification PPT-T-60, Type IV.

(7) *Fuel Tank.* Drain the fuel tank after engine preservation.

(8) *Exterior Surfaces.* Coat exposed machined ferrous metal surfaces with Type P-6 preservative (CL) conforming to Specification MIL-C-11796 Class3. If the preservative is not available, use Automotive and Artillery Grease (GAA) as specified in the lubrication order.

(9) Batteries and Cables. Disconnect cables and secure to battery support or carrier with tape conforming to Specification PPP-T-60, Type IV. (10) Marking. Marking shall conform to MIL-STD-129.

b. Inspection and Maintenance of Equipment in Storage. When the item has been placed in limited