Kennedy Space Center
APOLLO PROGRAM DIRECTIVE

File

Date: February 2, 1966

KSC APOLLO PROGRAM DIRECTIVE NO. 3

TO: Distribution K

FROM: Rocco A Petrone
Director, Plans, Programs and Resources

SUBJECT: KSC APOLLO/SATURN SPECIFICATION REQUIREMENTS

1. PURPOSE

The purpose of this Directive is to establish the KSC Top Level Specification Tree K-AM-030/1 as the key document for the identification and control of specifications at KSC. This Directive also establishes KSC Design Division responsibilities for the identification and preparation of lower tier specifications in accordance with NPC 500-1 and KSC policy.

11. SCOPE

The scope of this Directive shall include all KSC NASA/Contractor elements responsible for preparing specifications for equipment for which KSC has design responsibility.

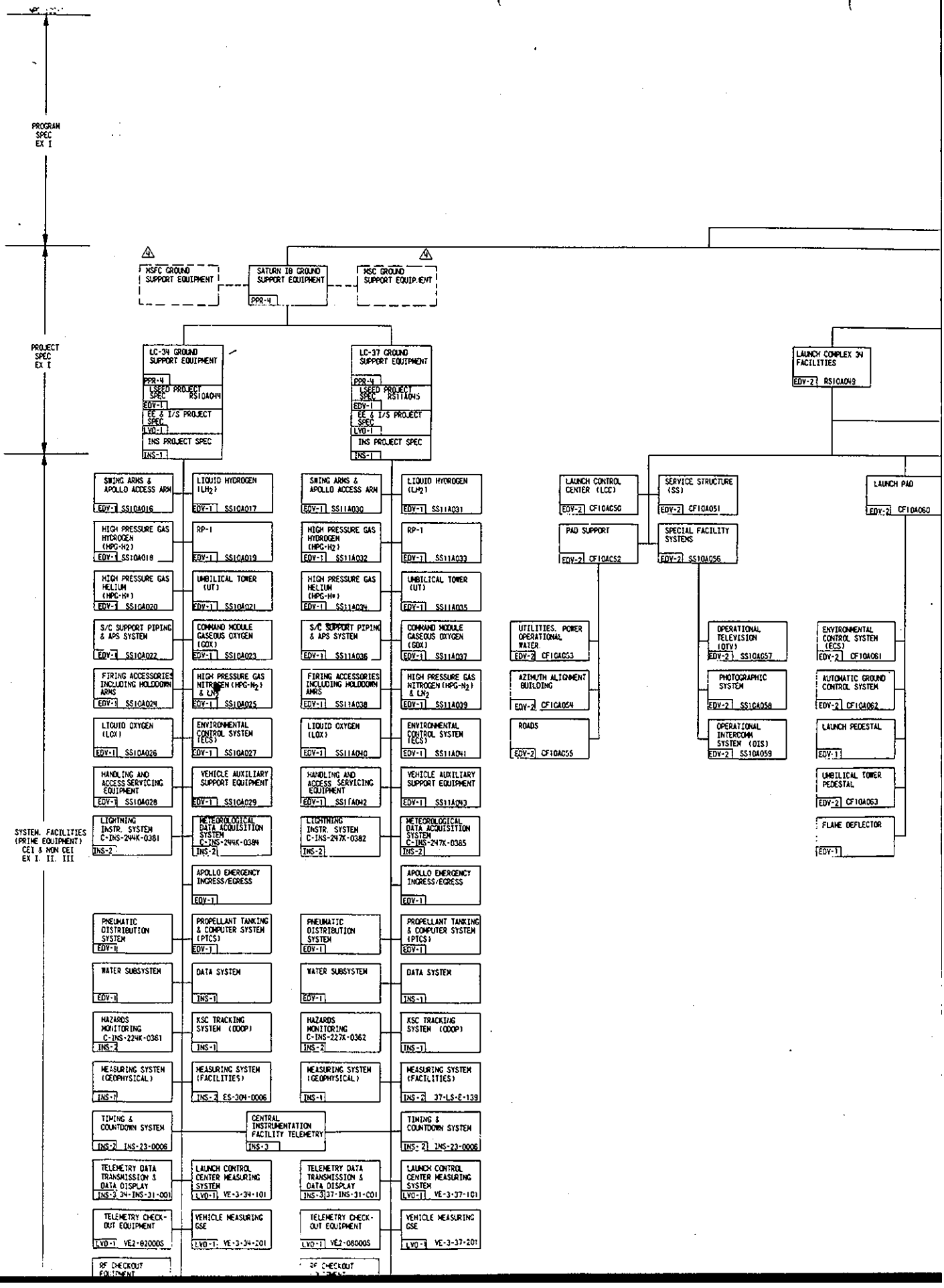
111. REQUIREMENTS

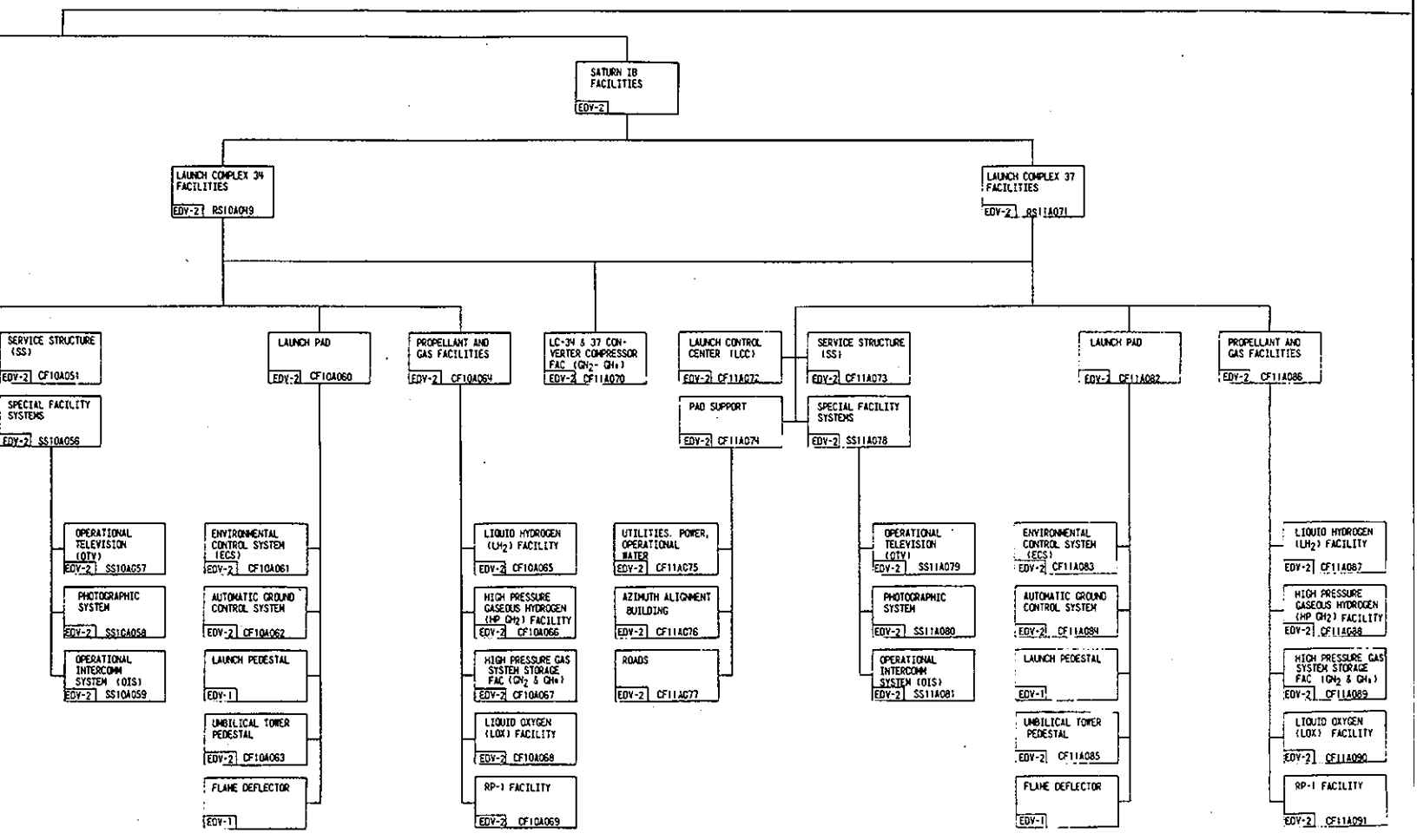
1. KSC Top Level Specification Tree K-AM-030/1, dated January 5, 1966, (attached) identifies the Apollo/Saturn Systems for which KSC has design responsibility. Specification Tree K-AM-030/1 is a compilation of Launch Complexes 34, 37 and 39 specification trees K-IB-0111, K-IB-0112 and K-V-0121, respectively.

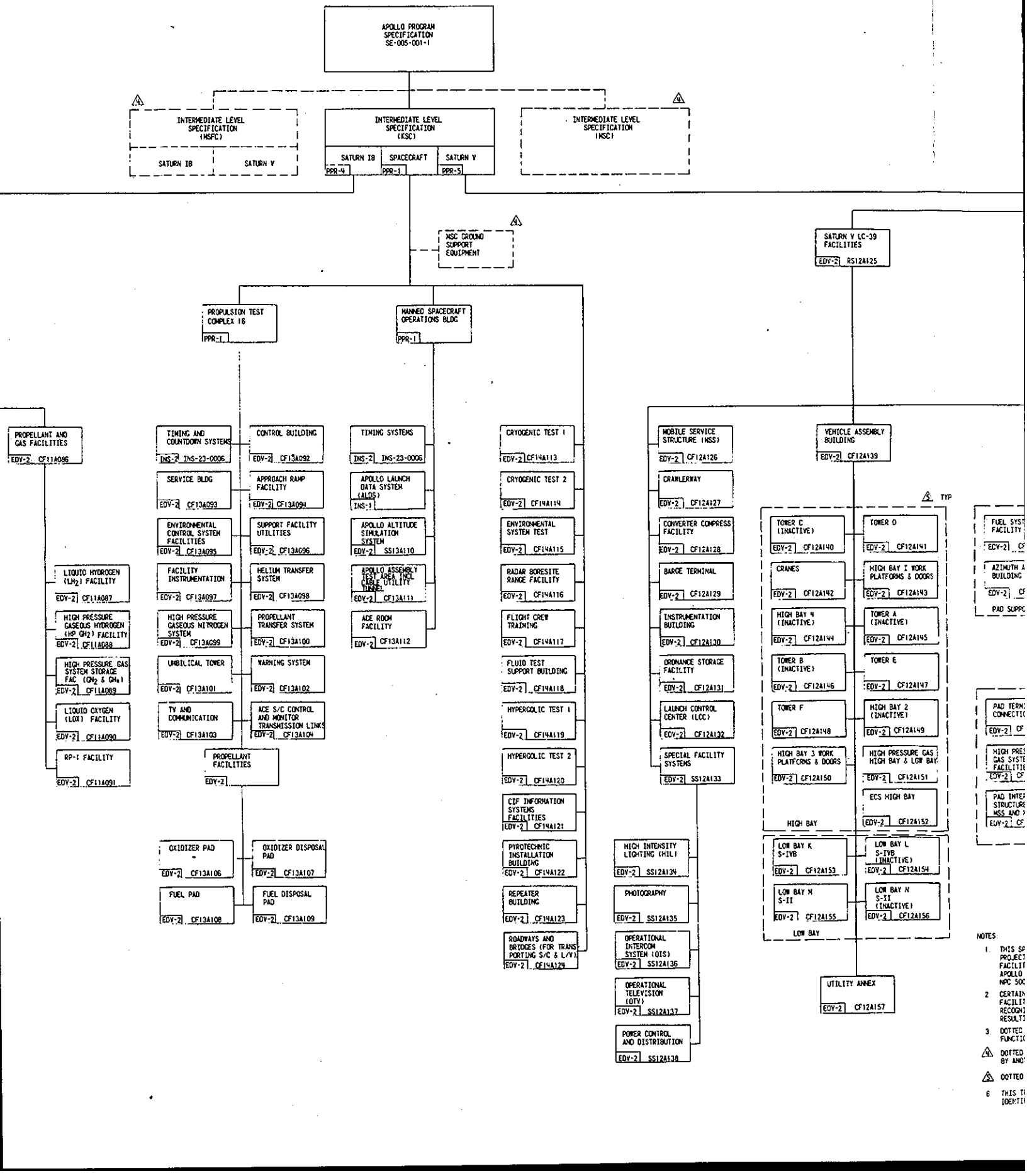
2. Design Responsible Divisions are directed to prepare specifications for each system identified by the Specification Tree, and to identify lower tier Contract End Items (CEI's). Lower tier CEI specifications shall be prepared in accordance with Exhibits II through VI of NPC 500-1, and shall be coordinated with PPR-36 for compliance therewith.

3. Where specifications already exist, or where there is technical documentation which can be assembled to establish a specification, these specifications shall be identified and coordinated with PPR-36.

Enclosure: (1) Specification Tree, K-AM-030/1


PROGRAM SPEC EX I
PROJECT SPEC EX I
SYSTEM. FACILITIES (PRIME EQUIPMENT) CEI & NON CEI EX I. II. III
MSFC GROUND SUPPORT EQUIPMENT
SATURN IB GROUND SUPPORT EQUIPMENT
PPR-4
MSC GROUND SUPPORT EQUIPMENT
LC-34 GROUND SUPPORT EQUIPMENT
PPR-4
LSEED PROJECT SPEC RS10A044
EDV-1
EE & I/S PROJECT SPEC
LVO-1
INS PROJECT SPEC
INS-1
LC-37 GROUND SUPPORT EQUIPMENT
PPR-4
LSEED PROJECT SPEC RS11A045
EDV-1
EE & I/S PROJECT SPEC
LVO-1
INS PROJECT SPEC
INS-1
LAUNCH COMPLEX 34 FACILITIES
EDV-2 RS10A049
SWING ARMS & APOLLO ACCESS ARM
EDV-1 SS10A016
LIQUID HYDROGEN (LH2)
EDV-1 SS10A017
HIGH PRESSURE GAS HYDROGEN (HPG-H2)
EDV-1 SS10A018
RP-1
EDV-1 SS10A019
HIGH PRESSURE GAS HELIUM (HPG-He)
EDV-1 SS10A020
UMBILICAL TOWER (UT)
EDV-1 SS10A021
S/C SUPPORT PIPING & APS SYSTEM
EDV-1 SS10A022
COMMAND MODULE GASEOUS OXYGEN (GOX)
EDV-1 SS10A023
FIRING ACCESSORIES INCLUDING HOLDDOWN ARMS
EDV-1 SS10A024
HIGH PRESSURE GAS NITROGEN (HPG-N2) & LN2
EDV-1 SS10A025
LIQUID OXYGEN (LOX)
EDV-1 SS10A026
ENVIRONMENTAL CONTROL SYSTEM (ECS)
EDV-1 SS10A027
HANDLING AND ACCESS SERVICING EQUIPMENT
EDV-1 SS10A028
VEHICLE AUXILIARY SUPPORT EQUIPMENT
EDV-1 SS10A029
LIGHTNING INSTR. SYSTEM C-INS-244K-0381
INS-2
METEOROLOGICAL DATA ACQUISITION SYSTEM C-INS-244K-0384
INS-2
APOLLO EMERGENCY INGRESS/EGRESS
EDV-1
PNEUMATIC DISTRIBUTION SYSTEM
EDV-1
PROPELLANT TANKING & COMPUTER SYSTEM (PTCS)
EDV-1
WATER SUBSYSTEM
EDV-1
DATA SYSTEM
INS-1
HAZARDS MONITORING C-INS-224K-0381
INS-2
KSC TRACKING SYSTEM (CDOP)
INS-1
MEASURING SYSTEM (GEOPHYSICAL)
INS-1
MEASURING SYSTEM (FACILITIES)
INS-2 ES-304-0006
TIMING & COUNTDOWN SYSTEM
INS-2 INS-23-0006
CENTRAL INSTRUMENTATION FACILITY TELEMETRY
INS-3
TELEMETRY DATA TRANSMISSION & DATA DISPLAY
INS-3 34-INS-31-001
LAUNCH CONTROL CENTER MEASURING SYSTEM
LVO-1 VE-3-34-101
TELEMETRY CHECK-OUT EQUIPMENT
LVO-1 VE2-82000S
VEHICLE MEASURING GSE
LVO-1 VE-3-34-201
RF CHECKOUT EQUIPMENT
SWING ARMS & APOLLO ACCESS ARM
EDV-1 SS11A030
LIQUID HYDROGEN (LH2)
EDV-1 SS11A031
HIGH PRESSURE GAS HYDROGEN (HPG-H2)
EDV-1 SS11A032
RP-1
EDV-1 SS11A033
HIGH PRESSURE GAS HELIUM (HPG-He)
EDV-1 SS11A034
UMBILICAL TOWER (UT)
EDV-1 SS11A035
S/C SUPPORT PIPING & APS SYSTEM
EDV-1 SS11A036
COMMAND MODULE GASEOUS OXYGEN (GOX)
EDV-1 SS11A037
FIRING ACCESSORIES INCLUDING HOLDDOWN ARMS
EDV-1 SS11A038
HIGH PRESSURE GAS NITROGEN (HPG-N2) & LN2
EDV-1 SS11A039
LIQUID OXYGEN (LOX)
EDV-1 SS11A040
ENVIRONMENTAL CONTROL SYSTEM (ECS)
EDV-1 SS11A041
HANDLING AND ACCESS SERVICING EQUIPMENT
EDV-1 SS11A042
VEHICLE AUXILIARY SUPPORT EQUIPMENT
EDV-1 SS11A043
LIGHTNING INSTR. SYSTEM C-INS-247K-0382
INS-2
METEOROLOGICAL DATA ACQUISITION SYSTEM C-INS-247K-0385
INS-2
APOLLO EMERGENCY INGRESS/EGRESS
EDV-1
PNEUMATIC DISTRIBUTION SYSTEM
EDV-1
PROPELLANT TANKING & COMPUTER SYSTEM (PTCS)
EDV-1
WATER SUBSYSTEM
EDV-1
DATA SYSTEM
INS-1
HAZARDS MONITORING C-INS-227K-0362
INS-2
KSC TRACKING SYSTEM (CDOP)
INS-1
MEASURING SYSTEM (GEOPHYSICAL)
INS-1
MEASURING SYSTEM (FACILITIES)
INS-2 37-LS-E-139
TIMING & COUNTDOWN SYSTEM
INS-2 INS-23-0006
TELEMETRY DATA TRANSMISSION & DATA DISPLAY
INS-3 37-INS-31-001
LAUNCH CONTROL CENTER MEASURING SYSTEM
LVO-1 VE-3-37-101
TELEMETRY CHECK-OUT EQUIPMENT
LVO-1 VE2-86000S
VEHICLE MEASURING GSE
LVO-1 VE-3-37-201
RF CHECKOUT EQUIPMENT
LAUNCH CONTROL CENTER (LCC)
EDV-2 CF10A050
PAD SUPPORT
EDV-2 CF10A052
SERVICE STRUCTURE (SS)
EDV-2 CF10A051
SPECIAL FACILITY SYSTEMS
EDV-2 SS10A056
LAUNCH PAD
EDV-2 CF10A060
UTILITIES. POWER OPERATIONAL WATER
EDV-2 CF10A053
AZIMUTH ALIGNMENT BUILDING
EDV-2 CF10A054
ROADS
EDV-2 CF10A055
OPERATIONAL TELEVISION (OTV)
EDV-2 SS10A057
PHOTOGRAPHIC SYSTEM
EDV-2 SS10A058
OPERATIONAL INTERCOMM SYSTEM (OIS)
EDV-2 SS10A059
ENVIRONMENTAL CONTROL SYSTEM (ECS)
EDV-2 CF10A061
AUTOMATIC GROUND CONTROL SYSTEM
EDV-2 CF10A062
LAUNCH PEDESTAL
EDV-1
UMBILICAL TOWER PEDESTAL
EDV-2 CF10A063
FLAME DEFLECTOR
EDV-1


SATURN IB FACILITIES
EDV-2
LAUNCH COMPLEX 34 FACILITIES
EDV-2 RS10A049
LAUNCH COMPLEX 37 FACILITIES
EDV-2 RS11A071
SERVICE STRUCTURE (SS)
EDV-2 CF10A051
SPECIAL FACILITY SYSTEMS
EDV-2 SS10A056
OPERATIONAL TELEVISION (OTV)
EDV-2 SS10A057
PHOTOGRAPHIC SYSTEM
EDV-2 SS10A058
OPERATIONAL INTERCOMM SYSTEM (OIS)
EDV-2 SS10A059
LAUNCH PAD
EDV-2 CF10A060
ENVIRONMENTAL CONTROL SYSTEM (ECS)
EDV-2 CF10A061
AUTOMATIC GROUND CONTROL SYSTEM
EDV-2 CF10A062
LAUNCH PEDESTAL
EDV-1
UMBILICAL TOWER PEDESTAL
EDV-2 CF10A063
FLAME DEFLECTOR
EDV-1
PROPELLANT AND GAS FACILITIES
EDV-2 CF10A064
LIQUID HYDROGEN (LH_2) FACILITY
EDV-2 CF10A065
HIGH PRESSURE GASEOUS HYDROGEN (HP GH_2) FACILITY
EDV-2 CF10A066
HIGH PRESSURE GAS SYSTEM STORAGE FAC (GN_2 & GH_4)
EDV-2 CF10A067
LIQUID OXYGEN (LOX) FACILITY
EDV-2 CF10A068
RP-1 FACILITY
EDV-2 CF10A069
LC-34 & 37 CONVERTER COMPRESSOR FAC (GN_2- GH_4)
EDV-2 CF11A070
LAUNCH CONTROL CENTER (LCC)
EDV-2 CF11A072
PAD SUPPORT
EDV-2 CF11A074
UTILITIES. POWER, OPERATIONAL WATER
EDV-2 CF11A075
AZIMUTH ALIGNMENT BUILDING
EDV-2 CF11A076
ROADS
EDV-2 CF11A077
SERVICE STRUCTURE (SS)
EDV-2 CF11A073
SPECIAL FACILITY SYSTEMS
EDV-2 SS11A078
OPERATIONAL TELEVISION (OTV)
EDV-2 SS11A079
PHOTOGRAPHIC SYSTEM
EDV-2 SS11A080
OPERATIONAL INTERCOMM SYSTEM (OIS)
EDV-2 SS11A081
LAUNCH PAD
EDV-2 CF11A082
ENVIRONMENTAL CONTROL SYSTEM (ECS)
EDV-2 CF11A083
AUTOMATIC GROUND CONTROL SYSTEM
EDV-2 CF11A084
LAUNCH PEDESTAL
EDV-1
UMBILICAL TOWER PEDESTAL
EDV-2 CF11A085
FLAME DEFLECTOR
EDV-1
PROPELLANT AND GAS FACILITIES
EDV-2 CF11A086
LIQUID HYDROGEN (LH_2) FACILITY
EDV-2 CF11A087
HIGH PRESSURE GASEOUS HYDROGEN (HP GH_2) FACILITY
EDV-2 CF11A088
HIGH PRESSURE GAS SYSTEM STORAGE FAC (GN_2 & GH_4)
EDV-2 CF11A089
LIQUID OXYGEN (LOX) FACILITY
EDV-2 CF11A090
RP-1 FACILITY
EDV-2 CF11A091


APOLLO PROGRAM SPECIFICATION SE-005-001-1
INTERMEDIATE LEVEL SPECIFICATION (MSFC)
SATURN IB
SATURN V
INTERMEDIATE LEVEL SPECIFICATION (KSC)
SATURN IB
SPACECRAFT
SATURN V
PPR-4
PPR-1
PPR-5
INTERMEDIATE LEVEL SPECIFICATION (MSC)
KSC GROUND SUPPORT EQUIPMENT
SATURN V LC-39 FACILITIES
EDV-2 RS12A125
PROPULSION TEST COMPLEX 16
PPR-1
MANNED SPACECRAFT OPERATIONS BLDG
PPR-1
PROPELLANT AND GAS FACILITIES
EDV-2 CF11A086
LIQUID HYDROGEN (LH2) FACILITY
EDV-2 CF11A087
HIGH PRESSURE GASEOUS HYDROGEN (HP GH2) FACILITY
EDV-2 CF11A088
HIGH PRESSURE GAS SYSTEM STORAGE FAC (GN2 & GHe)
EDV-2 CF11A089
LIQUID OXYGEN (LOX) FACILITY
EDV-2 CF11A090
RP-1 FACILITY
EDV-2 CF11A091
TIMING AND COUNTDOWN SYSTEMS
INS-2 INS-23-0006
SERVICE BLDG
EDV-2 CF13A093
ENVIRONMENTAL CONTROL SYSTEM FACILITIES
EDV-2 CF13A095
FACILITY INSTRUMENTATION
EDV-2 CF13A097
HIGH PRESSURE GASEOUS NITROGEN SYSTEM
EDV-2 CF13A099
UMBILICAL TOWER
EDV-2 CF13A101
TV AND COMMUNICATION
EDV-2 CF13A103
CONTROL BUILDING
EDV-2 CF13A092
APPROACH RAMP FACILITY
EDV-2 CF13A094
SUPPORT FACILITY UTILITIES
EDV-2 CF13A096
HELIUM TRANSFER SYSTEM
EDV-2 CF13A098
PROPELLANT TRANSFER SYSTEM
EDV-2 CF13A100
WARNING SYSTEM
EDV-2 CF13A102
ACE S/C CONTROL AND MONITOR TRANSMISSION LINKS
EDV-2 CF13A104
PROPELLANT FACILITIES
EDV-2
OXIDIZER PAD
EDV-2 CF13A106
FUEL PAD
EDV-2 CF13A108
OXIDIZER DISPOSAL PAD
EDV-2 CF13A107
FUEL DISPOSAL PAD
EDV-2 CF13A109
TIMING SYSTEMS
INS-2 INS-23-0006
APOLLO LAUNCH DATA SYSTEM (ALDS)
INS-1
APOLLO ALTITUDE SIMULATION SYSTEM
EDV-2 SS13A110
APOLLO ASSEMBLY TEST AREA INCL CABLE UTILITY TUNNEL
EDV-2 CF13A111
ACE ROOM FACILITY
EDV-2 CF13A112
CRYOGENIC TEST 1
EDV-2 CF14A113
CRYOGENIC TEST 2
EDV-2 CF14A114
ENVIRONMENTAL SYSTEM TEST
EDV-2 CF14A115
RADAR BORESITE RANGE FACILITY
EDV-2 CF14A116
FLIGHT CREW TRAINING
EDV-2 CF14A117
FLUID TEST SUPPORT BUILDING
EDV-2 CF14A118
HYPERGOLIC TEST 1
EDV-2 CF14A119
HYPERGOLIC TEST 2
EDV-2 CF14A120
CIF INFORMATION SYSTEMS FACILITIES
EDV-2 CF14A121
PYROTECHNIC INSTALLATION BUILDING
EDV-2 CF14A122
REPEATER BUILDING
EDV-2 CF14A123
ROADWAYS AND BRIDGES (FOR TRANSPORTING S/C & L/V)
EDV-2 CF14A124
MOBILE SERVICE STRUCTURE (MSS)
EDV-2 CF12A126
CRAWLERWAY
EDV-2 CF12A127
CONVERTER COMPRESS FACILITY
EDV-2 CF12A128
BARGE TERMINAL
EDV-2 CF12A129
INSTRUMENTATION BUILDING
EDV-2 CF12A130
ORDNANCE STORAGE FACILITY
EDV-2 CF12A131
LAUNCH CONTROL CENTER (LCC)
EDV-2 CF12A132
SPECIAL FACILITY SYSTEMS
EDV-2 SS12A133
HIGH INTENSITY LIGHTING (HIL)
EDV-2 SS12A134
PHOTOGRAPHY
EDV-2 SS12A135
OPERATIONAL INTERCOM SYSTEM (OIS)
EDV-2 SS12A136
OPERATIONAL TELEVISION (OTV)
EDV-2 SS12A137
POWER CONTROL AND DISTRIBUTION
EDV-2 SS12A138
VEHICLE ASSEMBLY BUILDING
EDV-2 CF12A139
TYP
TOWER C (INACTIVE)
EDV-2 CF12A140
CRANES
EDV-2 CF12A142
HIGH BAY 4 (INACTIVE)
EDV-2 CF12A144
TOWER B (INACTIVE)
EDV-2 CF12A146
TOWER F
EDV-2 CF12A148
HIGH BAY 3 WORK PLATFORMS & DOORS
EDV-2 CF12A150
TOWER D
EDV-2 CF12A141
HIGH BAY 1 WORK PLATFORMS & DOORS
EDV-2 CF12A143
TOWER A (INACTIVE)
EDV-2 CF12A145
TOWER E
EDV-2 CF12A147
HIGH BAY 2 (INACTIVE)
EDV-2 CF12A149
HIGH PRESSURE GAS HIGH BAY & LOW BAY
EDV-2 CF12A151
ECS HIGH BAY
EDV-2 CF12A152
HIGH BAY
LOW BAY K S-IVB
EDV-2 CF12A153
LOW BAY M S-II
EDV-2 CF12A155
LOW BAY L S-IVB (INACTIVE)
EDV-2 CF12A154
LOW BAY N S-II (INACTIVE)
EDV-2 CF12A156
LOW BAY
UTILITY ANNEX
EDV-2 CF12A157
NOTES:
1. THIS SP PROJECT FACILIT APOLLO NPC 500
2. CERTAIN FACILIT RECOGNI RESULTI
3. DOTTED FUNCTIO
DOTTED BY AND
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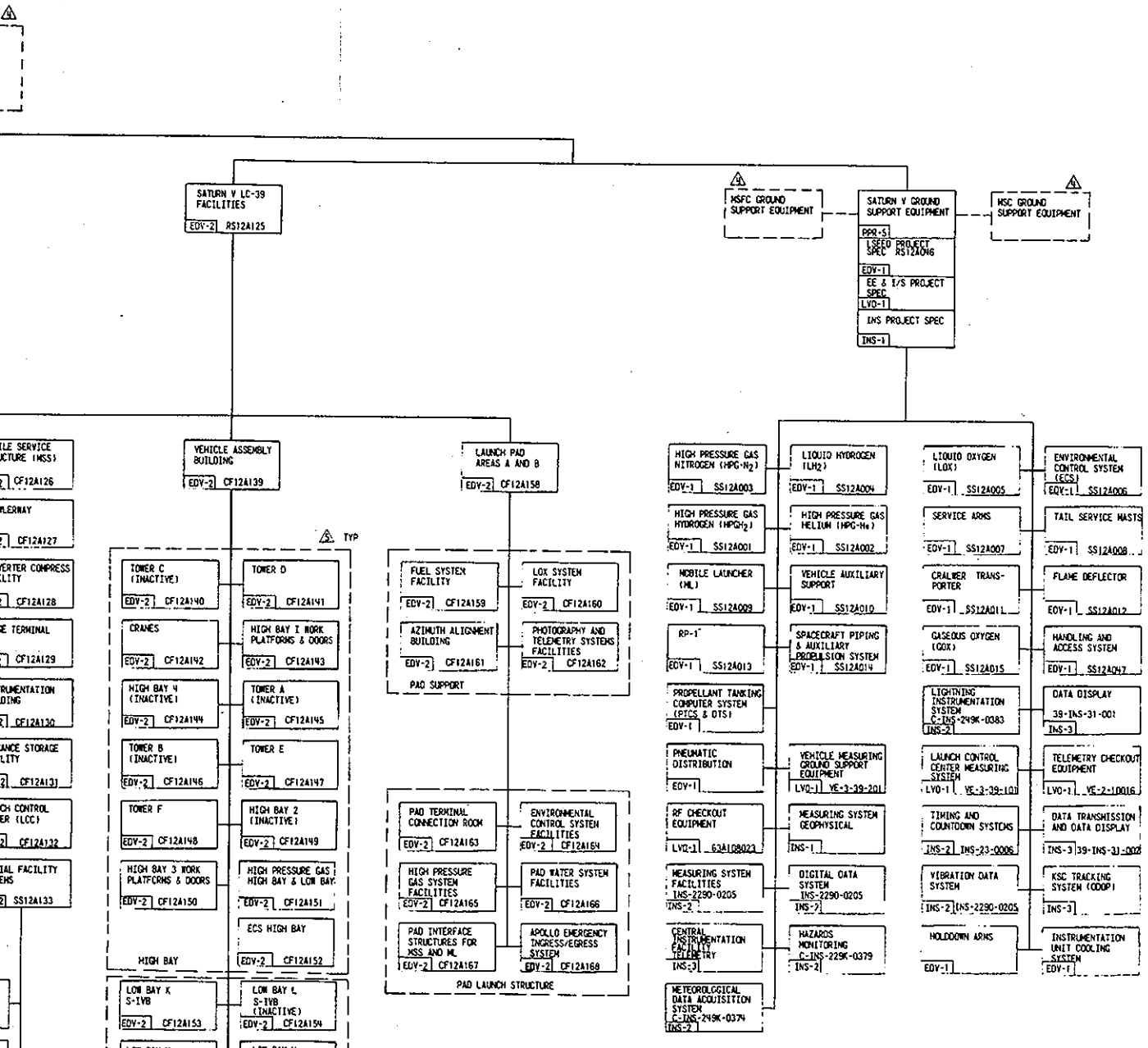
6. THIS T IDENTIF



NOTES:

1. THIS SPECIFICATION TREE INCLUDES PROGRAM, PROJECT, SYSTEM, PRIME EQUIPMENT, AND FACILITY SPECIFICATIONS IN ACCORDANCE WITH APOLLO CONFIGURATION MANAGEMENT MANUAL NPC 500-1, EXHIBITS I, II, AND III.
2. CERTAIN ITEMS (LOX, RP-1, ETC.) ARE LISTED UNDER FACILITIES AND GROUND SUPPORT EQUIPMENT IN RECOGNITION OF PROBABLE SEPARATE SPECIFICATIONS RESULTING FROM DIVISION OF DESIGN RESPONSIBILITIES.
3. DOTTED LINE BETWEEN BLOCKS INDICATES A FUNCTIONAL RELATIONSHIP.

△4 DOTTED BLOCK INDICATES SPECIFICATION IS WRITTEN BY ANOTHER CENTER.

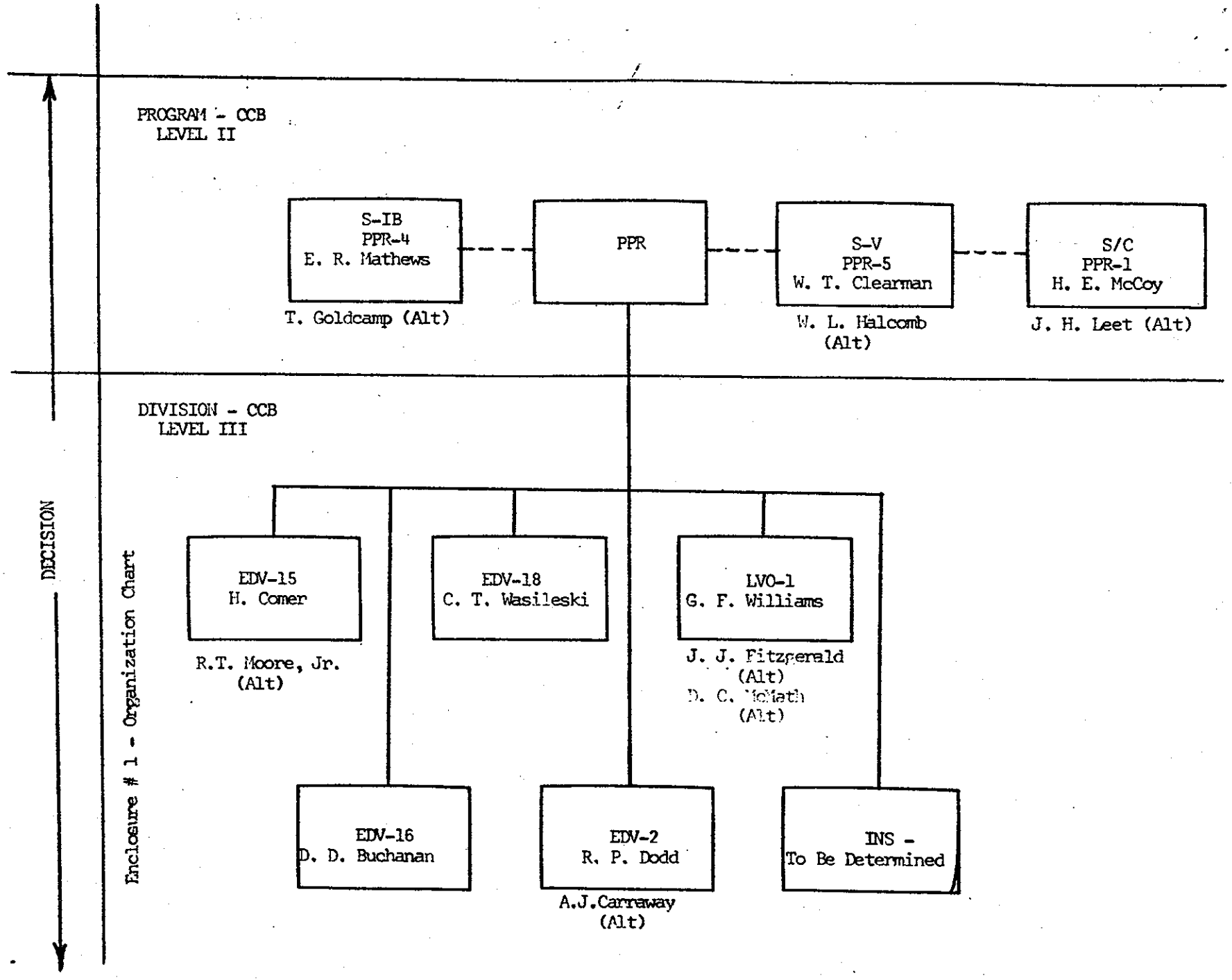
△5 DOTTED ENCLOSURE INDICATES PHYSICAL AREA.

6 THIS TREE IS A COMPILATION OF SPECIFICATION TREES IDENTIFIED AS K-IB-0111, K-IB-0112, AND K-V-0121.

KSC APOLLO/SATURN
TOP SPECIFICATION TREE
(K-AN-030/1)

JANUARY 5, 1966 (NEW)

APPROVED BY: Rocco A. Petrone
ROCCO A. PETRONE
DIRECTOR PLANS, PROGRAMS & RESOURCES



Enclosure # 1 - Organization Chart

ENCLOSURE: 2

GUIDE FOR LEVEL III CCB OPERATION

I. General

1. Reference (a) states that KSC will implement the Apollo Configuration Management Manual, NPC 500-1,[reference (c)]. The intent of NPC 500-1 is to establish Configuration Management of the Apollo/Saturn Program in three (3) distinct areas, namely:

(a) Identification
(b) Control
(c) Accounting

2. The Configuration Management Office (CMO), PPR-36, has been assigned the responsibility for interpreting and implementing NPC 500-1 requirements. The Level III CCB's are to establish with KSC-CMO, (PPR-36) divisional procedures for identification, control and accounting.

II. Definitions

The definitions contained in Apollo Configuration Management Manual NPC 500-1 Exhibit XVII apply as written, however, for use of this guideline additional definitions are included herein:

Baseline Configuration

The documented and approved design concept or arrangement of components as established at a given point in the procurement cycle for systems or equipment.

Change Request (CR)

A document used by KSC organizations to request changes to drawings/equipments, prepared and processed in accordance with KSC Procedure 130-40-0016 (K-AM-031/8 ref. B).

Engineering Change Proposal (ECP)

A means of proposing Class I changes to equipment or systems, prepared and submitted in accordance with KSC Configuration Management Procedures 130-40-0010 (K-AM-031/2),and 130-40-0012 (K-AM-031/4).

Engineering Order (E.O.)

A document used by KSC organizations to change released engineering drawings, or the documents referenced therein, that are approved or authorized for applicable articles under NASA contract.

Interface Control Drawing (ICD)

The engineering drawing which graphically or descriptively displays the conditions of the interface which exists between assemblies.

Interface Revision Notice (IRN)

A change document used to identify changes pertaining to an approved Interface Control Document (ICD).

Specification Change Notice (SCN)

A change control document used to record exact changes to an approved specification. An SCN is submitted with a proposed ECP. By definition, all Class I changes require an SCN and vice-versa.

Support Request (SR)

A KSC Form (KSC-19-15) used to request support from either internal KSC organizations or contractors.

III. Identification

1. Contract End Items (CEI's) shall be selected for each system. These CEI's shall be incorporated in a Specification Tree which shall become an integral part of the KSC Apollo/Saturn Top Level Specification Tree, 130-50-0003.

2. Specifications (Part I and II) for the CEI's will be prepared in accordance with Exhibits II through VI, NPC 500-1.

3. Where a Part I of the specification cannot be prepared due to timing or other reasons, a Part II must be prepared. Where technical documentation is available which meets the requirements of a Part II Contract End Item Specification, this technical documentation shall be assembled and identified as the Part II Specification.

IV. Baselines

1. Baselines will be established for all CEI's in accordance with the requirements of Exhibit XIV, NPC 500-1.

2. Baselines defining KSC Facility and Equipment layout will be established by a Drawing Release Authorization (DRA).

3. Changes to the established Baseline will be controlled by the CCB's.

V. Control

1. Control documentation (i.e., specifications and drawings) which establish a baseline must be changed by either approved CR's,ECP/SCN's, or IRN's for Interface Control Documents (ICD).

2. ECP's should be used by contractors to request changes to contractually established baselines.

3. CR's should be used within KSC to request changes to baselines established at KSC.

4. Proposed changes will be processed by the Level II or Level III CCB's within the limitations established by reference (b).

(a) Approved ECP's will authorize contractors to make engineering changes in accordance with established change procedures.

(b) Documentation (i.e., ECP's, SR's, or equivalent documentation) generated as a result of an approved CR will reference the CR,and will be processed and approved in accordance with KSC procedures.

VI. CCB Level III

1. Each chairman will appoint an alternate chairman and appropriate members.

2. It will be the responsibility of each member to provide any information which may be required by the chairman.

3. A decision by the Level III CCB chairman will be by a documented Configuration Control Board Directive (CCBD). CCBD's shall be numbered sequentially by CCB (e.g., EDV-18-0001, PPR-4-0001). This directive will be binding upon all affected organizations and will authorize PRO to issue, amend or modify a contract within the intent and limitations of paragraph 2.3.1 of ref. (a).

4. The jurisdiction of Level III CCB's is limited to Level C interface (Intra-Divisional). Level A (Inter-Center) and Level B (Inter-Divisional) are under the jurisdiction of the Level II CCB.

5. It is suggested that Level III CCB meetings be held at regular intervals.

6. It is the responsibility of CCB chairmen to ascertain that appropriate contractual requirements be included for any task and that these contractual requirements be enforced for form and procedure.

7. It shall be the responsibility of each Design Division to establish a Configuration Management organization. The CCB Secretariat shall be responsible to keep and maintain adequate records; e.g., logs for CR's, E.O.'s, ECP's and IRN's. The Secretariat shall assign sequential numbers to CR's. (see paragraph 5.2 of reference (e).

8. It is imperative that flexibility be included in any Divisional CCB procedure to cope with special or emergency situations.

9. All CR's must be processed through PPR-36, in accordance with KSC Procedure 130-40-0016 (K-AM-031/8 rev. B).

10. Copies of all ECP's CCBD's and IRN's must be forwarded to PPR-36 to provide for adequate coordination, reporting and accounting.

11. PPR-36, shall assist in every possible way for a smooth and efficient Level III CCB operations.

VII. Reporting

1. For the purpose of maintaining adequate accounting records, the Level III CCB Chairman shall forward to PPR-36 on a weekly basis, a listing of all changes. This listing shall state the Drawing No., the Assembly Drawing No. and/or CEI, the correct revision, the effectivity of the change and the authority for the change. (CR No., E.O. No., ECP No. or IRN No.)

VIII. List of References

(a) KSC Apollo/Saturn Configuration Management Program Directive No. 130-40-0001 (K-AM-03/1), dated September 29, 1965.

(b) NPC 500-1 Apollo Configuration Management Manual.

(c) Apollo Program Directive No. 6 - No. MA 1400.006, dated August 12, 1965.

(d) CR Procedure No. (K-AM-031/8 rev. B).

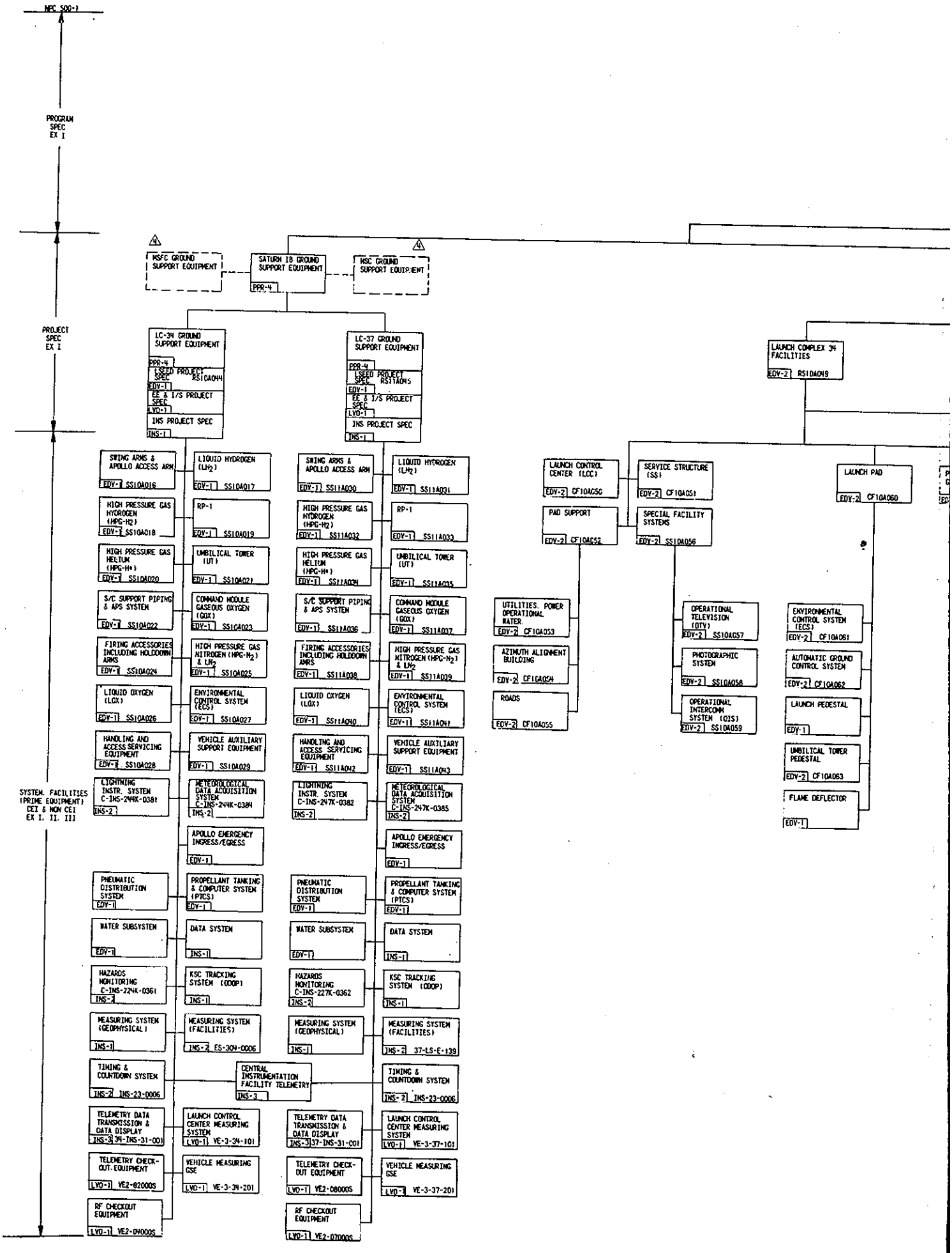
(e) MSFC/KSC Relations-Configuration Management, dated Spetember 15, 1965.

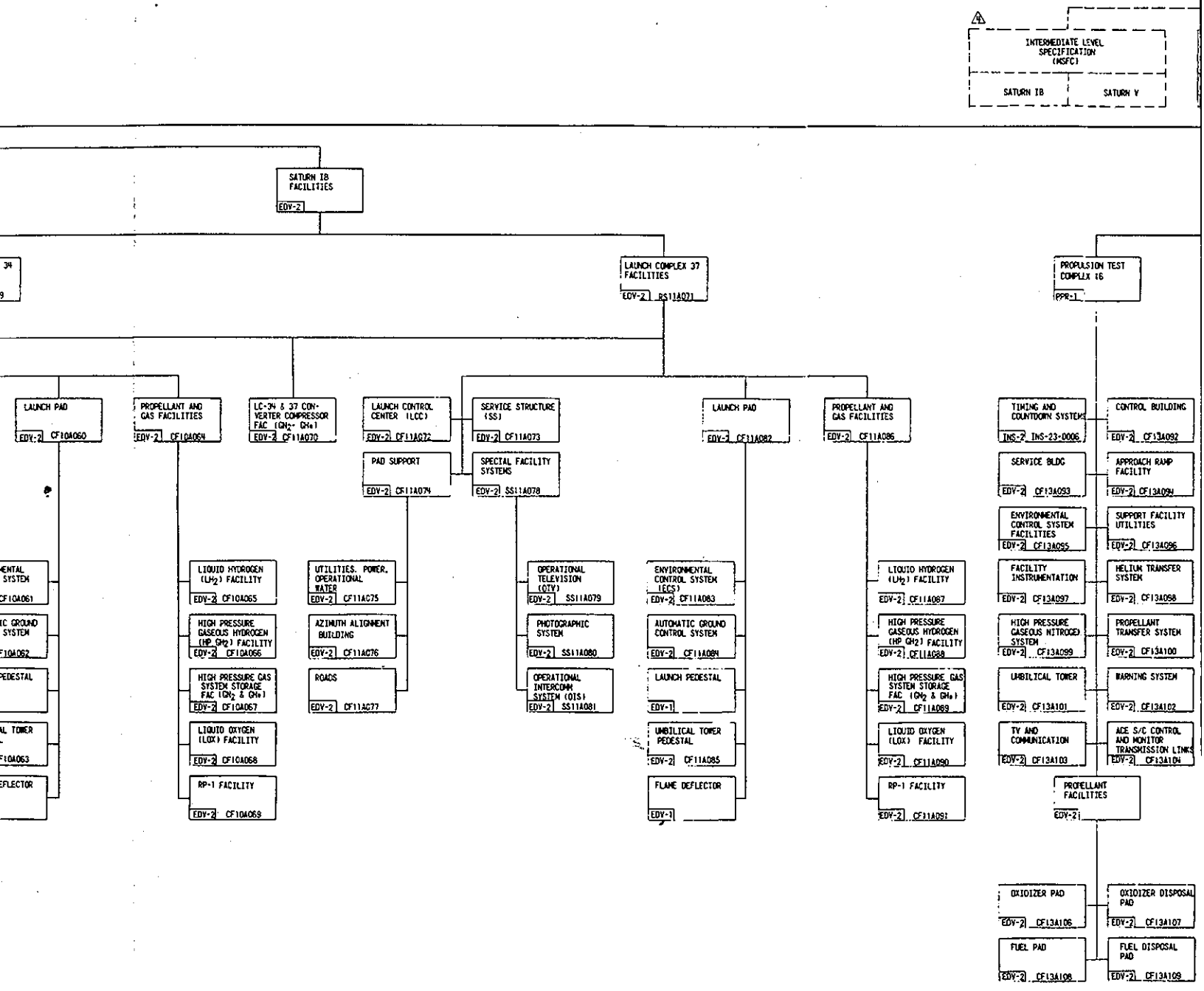
(f) Apollo/Saturn Specification Maintenance Procedure No. 130-40-0009, dated August 27, 1965.

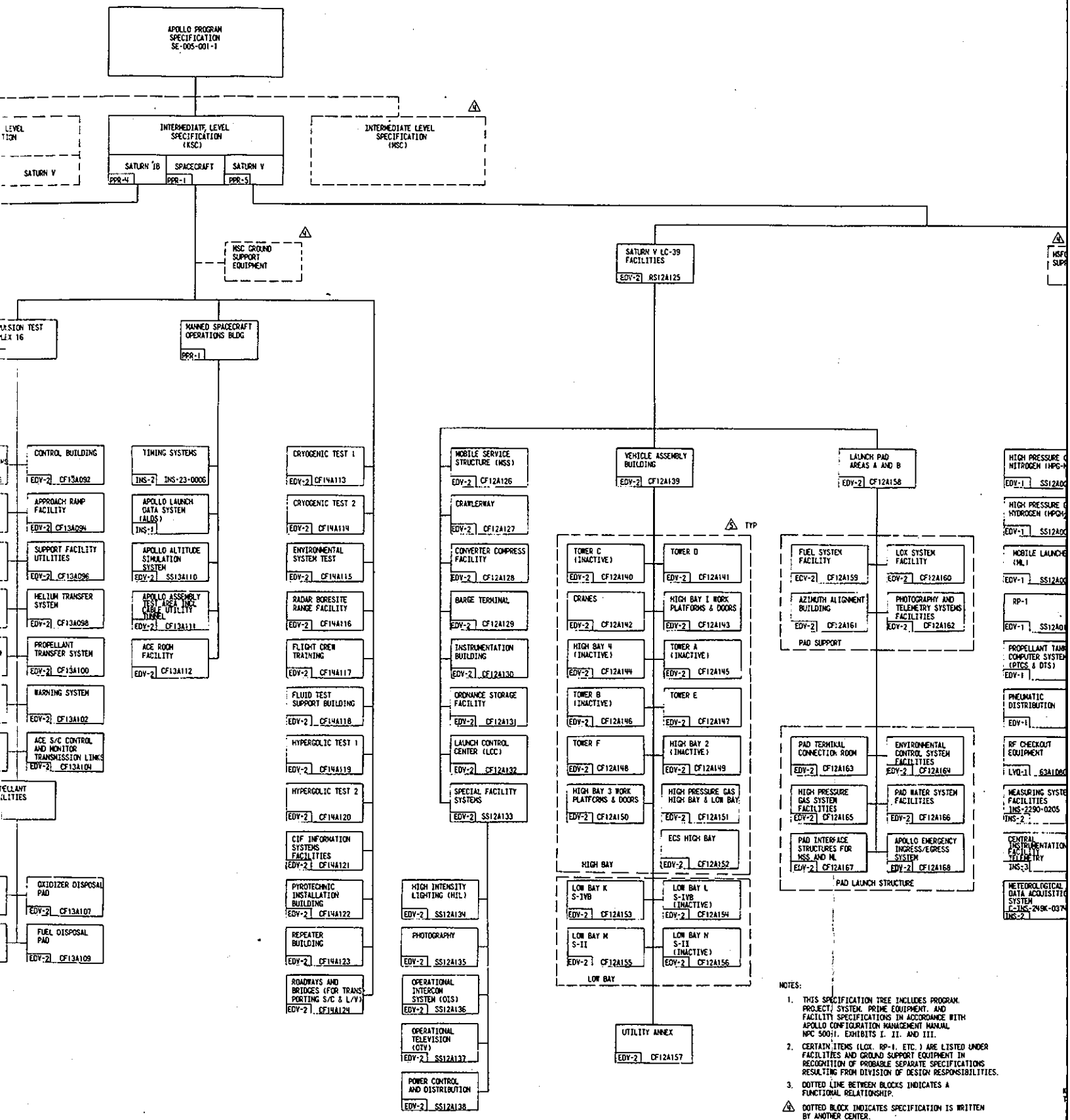
(g) Apollo/Saturn Requirements for Engineering Change Proposals to End Items, No. 130-40-0010 (K-AM-031/2), dated August 27, 1965.

(h) Apollo/Saturn Preparation of Engineering Change Proposals No. 130-40-0011 (K-AM-031/3).

(i) Apollo/Saturn KSC Processing of Engineering Change Proposals No. 130-40-0012 (K-AM-031/4), issued August 27, 1965.


NPC 500-1
PROGRAM SPEC EX I
PROJECT SPEC EX I
SYSTEM. FACILITIES (PRIME EQUIPMENT) CEI & NON CEI EX I. II. III
MSFC GROUND SUPPORT EQUIPMENT
SATURN IB GROUND SUPPORT EQUIPMENT PPR-4
MSC GROUND SUPPORT EQUIPMENT
LC-34 GROUND SUPPORT EQUIPMENT PPR-4
LSEED PROJECT SPEC RS10A044 EDV-1
EE & I/S PROJECT SPEC LVO-1
INS PROJECT SPEC INS-1
LC-37 GROUND SUPPORT EQUIPMENT PPR-4
LSEED PROJECT SPEC RS11A045 EDV-1
EE & I/S PROJECT SPEC LVO-1
INS PROJECT SPEC INS-1
LAUNCH COMPLEX 34 FACILITIES EDV-2 RS10A048
SWING ARMS & APOLLO ACCESS ARM EDV-1 SS10A016
LIQUID HYDROGEN (LH2) EDV-1 SS10A017
HIGH PRESSURE GAS HYDROGEN (HPG-H2) EDV-1 SS10A018
RP-1 EDV-1 SS10A019
HIGH PRESSURE GAS HELIUM (HPG-He) EDV-1 SS10A020
UMBILICAL TOWER (UT) EDV-1 SS10A021
S/C SUPPORT PIPING & APS SYSTEM EDV-1 SS10A022
COMMAND MODULE GASEOUS OXYGEN (GOX) EDV-1 SS10A023
FIRING ACCESSORIES INCLUDING HOLDDOWN ARMS EDV-1 SS10A024
HIGH PRESSURE GAS NITROGEN (HPG-N2) & LN2 EDV-1 SS10A025
LIQUID OXYGEN (LOX) EDV-1 SS10A026
ENVIRONMENTAL CONTROL SYSTEM (ECS) EDV-1 SS10A027
HANDLING AND ACCESS SERVICING EQUIPMENT EDV-1 SS10A028
VEHICLE AUXILIARY SUPPORT EQUIPMENT EDV-1 SS10A029
LIGHTNING INSTR. SYSTEM C-INS-244K-0381 INS-2
METEOROLOGICAL DATA ACQUISITION SYSTEM C-INS-244K-0384 INS-2
APOLLO EMERGENCY INGRESS/EGRESS EDV-1
PNEUMATIC DISTRIBUTION SYSTEM EDV-1
PROPELLANT TANKING & COMPUTER SYSTEM (PTCS) EDV-1
WATER SUBSYSTEM EDV-1
DATA SYSTEM INS-1
HAZARDS MONITORING C-INS-224K-0361 INS-2
KSC TRACKING SYSTEM (CDOP) INS-1
MEASURING SYSTEM (GEOPHYSICAL) INS-1
MEASURING SYSTEM (FACILITIES) INS-2 ES-304-0006
TIMING & COUNTDOWN SYSTEM INS-2 INS-23-0006
CENTRAL INSTRUMENTATION FACILITY TELEMETRY INS-3
TELEMETRY DATA TRANSMISSION & DATA DISPLAY INS-3 34-INS-31-001
LAUNCH CONTROL CENTER MEASURING SYSTEM LVO-1 VE-3-34-101
TELEMETRY CHECK-OUT EQUIPMENT LVO-1 VE2-82000S
VEHICLE MEASURING GSE LVO-1 VE-3-34-201
RF CHECKOUT EQUIPMENT LVO-1 VE2-04000S
SWING ARMS & APOLLO ACCESS ARM EDV-1 SS11A030
LIQUID HYDROGEN (LH2) EDV-1 SS11A031
HIGH PRESSURE GAS HYDROGEN (HPG-H2) EDV-1 SS11A032
RP-1 EDV-1 SS11A033
HIGH PRESSURE GAS HELIUM (HPG-He) EDV-1 SS11A034
UMBILICAL TOWER (UT) EDV-1 SS11A035
S/C SUPPORT PIPING & APS SYSTEM EDV-1 SS11A036
COMMAND MODULE GASEOUS OXYGEN (GOX) EDV-1 SS11A037
FIRING ACCESSORIES INCLUDING HOLDDOWN ARMS EDV-1 SS11A038
HIGH PRESSURE GAS NITROGEN (HPG-N2) & LN2 EDV-1 SS11A039
LIQUID OXYGEN (LOX) EDV-1 SS11A040
ENVIRONMENTAL CONTROL SYSTEM (ECS) EDV-1 SS11A041
HANDLING AND ACCESS SERVICING EQUIPMENT EDV-1 SS11A042
VEHICLE AUXILIARY SUPPORT EQUIPMENT EDV-1 SS11A043
LIGHTNING INSTR. SYSTEM C-INS-247K-0382 INS-2
METEOROLOGICAL DATA ACQUISITION SYSTEM C-INS-247K-0385 INS-2
APOLLO EMERGENCY INGRESS/EGRESS EDV-1
PNEUMATIC DISTRIBUTION SYSTEM EDV-1
PROPELLANT TANKING & COMPUTER SYSTEM (PTCS) EDV-1
WATER SUBSYSTEM EDV-1
DATA SYSTEM INS-1
HAZARDS MONITORING C-INS-227K-0362 INS-2
KSC TRACKING SYSTEM (CDOP) INS-1
MEASURING SYSTEM (GEOPHYSICAL) INS-1
MEASURING SYSTEM (FACILITIES) INS-2 37-LS-E-139
TIMING & COUNTDOWN SYSTEM INS-2 INS-23-0006
TELEMETRY DATA TRANSMISSION & DATA DISPLAY INS-3 37-INS-31-001
LAUNCH CONTROL CENTER MEASURING SYSTEM LVO-1 VE-3-37-101
TELEMETRY CHECK-OUT EQUIPMENT LVO-1 VE2-08000S
VEHICLE MEASURING GSE LVO-1 VE-3-37-201
RF CHECKOUT EQUIPMENT LVO-1 VE2-07000S
LAUNCH CONTROL CENTER (LCC) EDV-2 CF10A050
SERVICE STRUCTURE (SS) EDV-2 CF10A051
LAUNCH PAD EDV-2 CF10A060
PAD SUPPORT EDV-2 CF10A052
SPECIAL FACILITY SYSTEMS EDV-2 SS10A056
UTILITIES. POWER OPERATIONAL WATER. EDV-2 CF10A053
OPERATIONAL TELEVISION (OTV) EDV-2 SS10A057
ENVIRONMENTAL CONTROL SYSTEM (ECS) EDV-2 CF10A061
AZIMUTH ALIGNMENT BUILDING EDV-2 CF10A054
PHOTOGRAPHIC SYSTEM EDV-2 SS10A058
AUTOMATIC GROUND CONTROL SYSTEM EDV-2 CF10A062
ROADS EDV-2 CF10A055
OPERATIONAL INTERCOMM SYSTEM (OIS) EDV-2 SS10A059
LAUNCH PEDESTAL EDV-1
UMBILICAL TOWER PEDESTAL EDV-2 CF10A063
FLAME DEFLECTOR EDV-1


INTERMEDIATE LEVEL SPECIFICATION (MSFC)
SATURN IB
SATURN V
SATURN IB FACILITIES
EDV-2
LAUNCH COMPLEX 37 FACILITIES
EDV-2 RS11A071
PROPULSION TEST COMPLEX 16
PPR-1
LAUNCH PAD
EDV-2 CF10A060
PROPELLANT AND GAS FACILITIES
EDV-2 CF10A064
LC-34 & 37 CONVERTER COMPRESSOR FAC (GN2- GHe)
EDV-2 CF11A070
LAUNCH CONTROL CENTER (LCC)
EDV-2 CF11A072
SERVICE STRUCTURE (SS)
EDV-2 CF11A073
PAD SUPPORT
EDV-2 CF11A074
SPECIAL FACILITY SYSTEMS
EDV-2 SS11A078
LAUNCH PAD
EDV-2 CF11A082
PROPELLANT AND GAS FACILITIES
EDV-2 CF11A086
TIMING AND COUNTDOWN SYSTEMS
INS-2 INS-23-0006
CONTROL BUILDING
EDV-2 CF13A092
SERVICE BLDG
EDV-2 CF13A093
APPROACH RAMP FACILITY
EDV-2 CF13A094
ENVIRONMENTAL CONTROL SYSTEM FACILITIES
EDV-2 CF13A095
SUPPORT FACILITY UTILITIES
EDV-2 CF13A096
FACILITY INSTRUMENTATION
EDV-2 CF13A097
HELIUM TRANSFER SYSTEM
EDV-2 CF13A098
HIGH PRESSURE GASEOUS NITROGEN SYSTEM
EDV-2 CF13A099
PROPELLANT TRANSFER SYSTEM
EDV-2 CF13A100
UMBILICAL TOWER
EDV-2 CF13A101
WARNING SYSTEM
EDV-2 CF13A102
TV AND COMMUNICATION
EDV-2 CF13A103
ACE S/C CONTROL AND MONITOR TRANSMISSION LINKS
EDV-2 CF13A104
PROPELLANT FACILITIES
EDV-2
OXIDIZER PAD
EDV-2 CF13A106
OXIDIZER DISPOSAL PAD
EDV-2 CF13A107
FUEL PAD
EDV-2 CF13A108
FUEL DISPOSAL PAD
EDV-2 CF13A109
LIQUID HYDROGEN (LH2) FACILITY
EDV-2 CF10A065
HIGH PRESSURE GASEOUS HYDROGEN (HP GH2) FACILITY
EDV-2 CF10A066
HIGH PRESSURE GAS SYSTEM STORAGE FAC (GN2 & GHe)
EDV-2 CF10A067
LIQUID OXYGEN (LOX) FACILITY
EDV-2 CF10A068
RP-1 FACILITY
EDV-2 CF10A069
UTILITIES, POWER, OPERATIONAL WATER
EDV-2 CF11A075
AZIMUTH ALIGNMENT BUILDING
EDV-2 CF11A076
ROADS
EDV-2 CF11A077
OPERATIONAL TELEVISION (OTV)
EDV-2 SS11A079
PHOTOGRAPHIC SYSTEM
EDV-2 SS11A080
OPERATIONAL INTERCOMM SYSTEM (OIS)
EDV-2 SS11A081
ENVIRONMENTAL CONTROL SYSTEM (ECS)
EDV-2 CF11A083
AUTOMATIC GROUND CONTROL SYSTEM
EDV-2 CF11A084
LAUNCH PEDESTAL
EDV-1
UMBILICAL TOWER PEDESTAL
EDV-2 CF11A085
FLAME DEFLECTOR
EDV-1
LIQUID HYDROGEN (LH2) FACILITY
EDV-2 CF11A087
HIGH PRESSURE GASEOUS HYDROGEN (HP GH2) FACILITY
EDV-2 CF11A088
HIGH PRESSURE GAS SYSTEM STORAGE FAC (GN2 & GHe)
EDV-2 CF11A089
LIQUID OXYGEN (LOX) FACILITY
EDV-2 CF11A090
RP-1 FACILITY
EDV-2 CF11A091



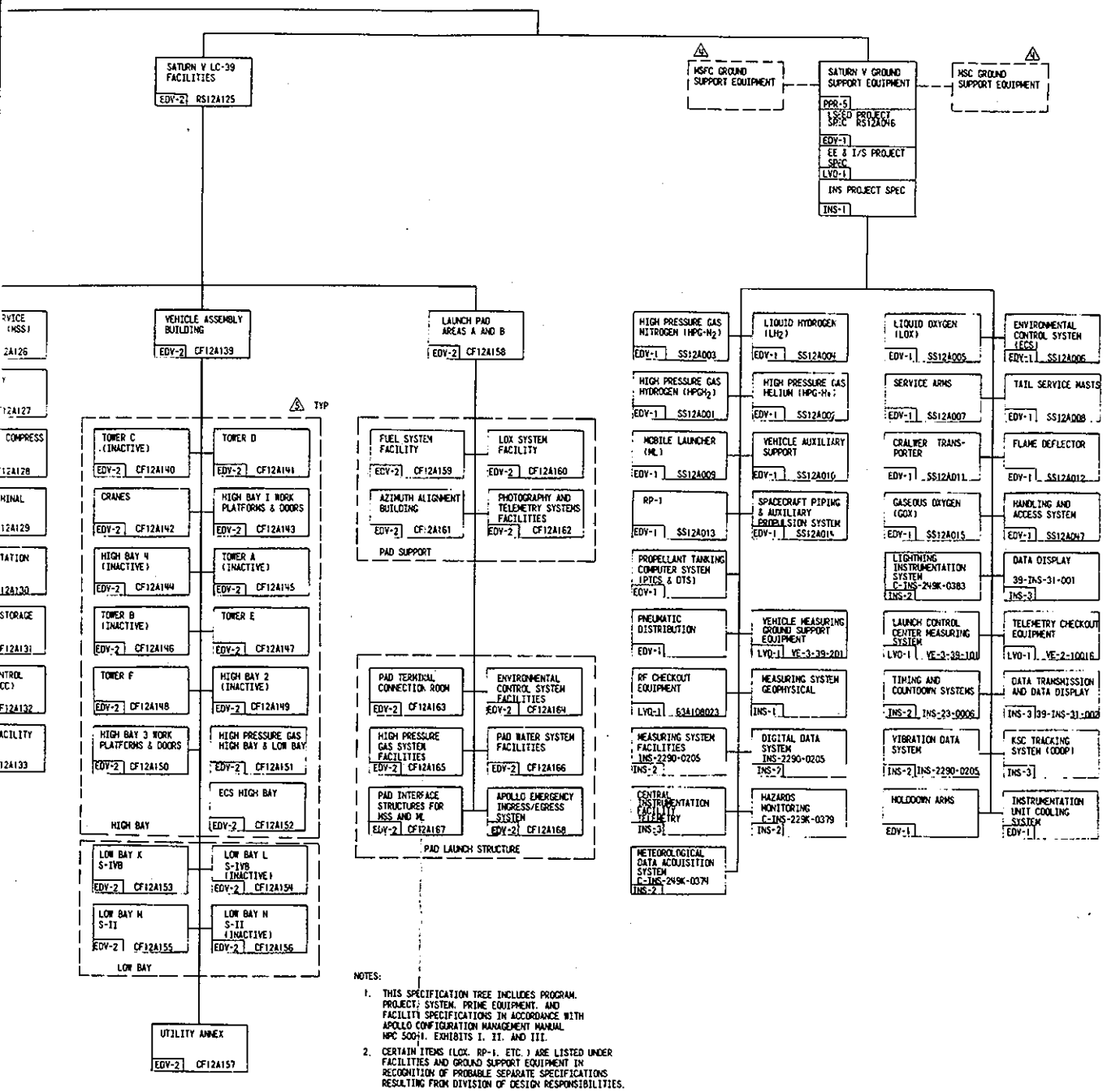
NOTES:

1. THIS SPECIFICATION TREE INCLUDES PROGRAM, PROJECT, SYSTEM, PRIME EQUIPMENT, AND FACILITY SPECIFICATIONS IN ACCORDANCE WITH APOLLO CONFIGURATION MANAGEMENT MANUAL NPC 500-1, EXHIBITS I, II, AND III.
2. CERTAIN ITEMS (LOX, RP-1, ETC.) ARE LISTED UNDER FACILITIES AND GROUND SUPPORT EQUIPMENT IN RECOGNITION OF PROBABLE SEPARATE SPECIFICATIONS RESULTING FROM DIVISION OF DESIGN RESPONSIBILITIES.
3. DOTTED LINE BETWEEN BLOCKS INDICATES A FUNCTIONAL RELATIONSHIP.

4 DOTTED BLOCK INDICATES SPECIFICATION IS WRITTEN BY ANOTHER CENTER.

5 DOTTED ENCLOSURE INDICATES PHYSICAL AREA.

6 THIS TREE IS A COMPILATION OF SPECIFICATION TREES IDENTIFIED AS K-1B-0111, K-1B-0112, AND K-V-0121.



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KSC APOLLO/SATURN
TOP SPECIFICATION TREE
(K-AM-030/1)

JANUARY 5, 1966 (NEW)

APPROVED BY: Rocco A. Petrone
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