11.1 CIVIL STRUCTURAL SYSTEMS

11.1.1 Function

The safety functions of the principal SSCs associated with the civil structural systems are discussed in Chapter 5. Civil structural systems provide the following functions:

- Support principal structures, systems, and components (SSCs) and other SSCs during normal, severe, and extreme loading conditions
- Provide confinement functions as part of secondary and tertiary confinement systems
- Protect principal SSCs from the effects of normal, severe, and extreme environmental loads
- Protect principal SSCs from the effects of design basis internal and external fires by providing fire barriers.

11.1.2 Description

The civil structural systems for the Mixed Oxide (MOX) Fuel Fabrication Facility (MFFF) include the buildings, support structures, and facilities that house, support, confine, or contain various plant systems, components, and equipment associated with licensed nuclear materials, or hazardous chemicals associated with licensed nuclear materials, as well as support buildings.

The buildings and structures of the MFFF are arranged as shown in Figure 11.1-1. They provide for safe, secure, and efficient performance of all MFFF functions. In particular, the site layout and facility features satisfy stringent security criteria for safeguarding the special nuclear material utilized at the MFFF.

The entire MFFF site comprises an area of approximately 41 ac (16.6 ha). Approximately 17 ac (6.9 ha) of the site are developed with buildings, facilities, or paving. The remaining 24 ac (9.7 ha) are landscaped in either grass or gravel. No highways, railroads, or waterways traverse the MFFF site, and the movement of material and personnel to and from the MFFF site takes place via the Savannah River Site (SRS) internal road system.

A double perimeter intrusion detection and surveillance (PIDAS) fence surrounds the Protected Area (PA) of the MFFF. The PA occupies approximately 14 ac (5.7 ha) and is roughly square in shape. The MFFF Administration Building and the Gas Storage Facility are located outside the PA. The Secured Warehouse Building, which is located adjacent to the site access road, is an integral part of the outer PIDAS security barrier. All other buildings and facilities of the MFFF lie within the PA.

Three categories of structural design requirements are defined. The categories, loadings, and structures are defined in detail in subsequent sections and are summarized as follows:

• Seismic Category I (SC-I) – Normal, severe, and extreme environmental loads, including the design basis earthquake and tornado, which are applied to principal SSCs.

- Seismic Category II (SC-II) Normal, severe, and extreme loading with extreme loads limited to the design basis earthquake. These loads are applied to structures whose failure could adversely impact principal SSCs (i.e., secondary seismic interaction).
- **Conventional Seismic (CS)** Normal, severe, and extreme loads with extreme loads limited to conventional seismic loads as specified by the Uniform Building Code.

Table 11.1-1 identifies the structures located at the MFFF site and defines the seismic category classification of each. The following section briefly describes the MFFF buildings and structures and includes conceptual general arrangement drawings.

11.1.3 Major Components

11.1.3.1 MOX Fuel Fabrication Building (BMF, SC-I) (Figures 11.1-2 through 11.1-32)

The MOX Fuel Fabrication Building consists of three areas: the MOX Processing Area (BMP), the Aqueous Polishing Area (BAP), and the Shipping and Receiving Area (BSR). The MOX Processing Area is approximately 300 ft (91 m) by 300 ft (91 m) by 64 ft (20 m) high, with three basic floor levels and numerous, smaller, intermediate platforms to accommodate the various process equipment and operations. The Aqueous Polishing Area is approximately 120 ft (37 m) by 140 ft (43 m) by 80 ft (24 m) high with seven basic floor levels. The Shipping and Receiving Area is approximately 120 ft (37 m) by 165 ft (50 m) by 64 ft (20 m) high with three floor levels, except in the Truck Bay Area where there are two levels. All three building areas have a common roof level. The base levels of the MOX Processing Area and the Shipping and Receiving Area are at grade (finished floor elevation of 273 ft [83 m]), and the base level of the Aqueous Polishing Area is approximately 17 ft (5.2 m) below grade (elevation 256 ft [78 m]).

The overall basic structural framing system for the MOX Processing Area and the Shipping and Receiving Area consists of reinforced concrete frames of columns and beams with concrete shear walls, floor, and roof slabs. The basic structural framing system for the Aqueous Polishing Area is reinforced concrete walls, floor, and roof slabs. Interior partitions are constructed of reinforced concrete. The roof structure is a flat reinforced concrete slab (details discussed below) with a membrane top. All personnel doors are hollow metal in metal frames. There are a number of special doors for security or function, such as rolling (roll-up) doors, as well as a number of removable wall panels for removal or replacement of processing equipment.

The base mat of the entire MOX Fuel Fabrication Building is a minimum 4 ft (1.2 m) thick reinforced concrete. Exterior walls of the MOX Fuel Fabrication Building are reinforced concrete with an additional outer reinforced concrete retaining wall. This wall, which is part of the outer security barrier, is approximately 3 ft (0.9 m) away from the exterior wall of the MOX Fuel Fabrication Building, and the space between the two walls is filled with an engineered fill material that provides security functions.

The structural roof slab of the MOX Fuel Fabrication Building is reinforced concrete with engineered fill material atop the roof slab, which is covered by an additional concrete slab. This roof system also provides a security function.

11.1.3.2 Emergency Diesel Generator Building (BEG, SC-I) (Figure 11.1-33)

The Emergency Diesel Generator Building is a single-story (24 ft [7.3 m] inside ceiling height), slab-on-grade reinforced concrete building with a footprint of approximately 44 ft (13 m) by 143 ft (44 m) or 6,300 ft² (585 m²). Heating, ventilation, and air conditioning (HVAC) equipment for the Emergency Diesel Generator Building is located on an elevated, structural-steel-framed, concrete deck located above the switchgear rooms. Air intake and exhaust vents for the diesel generators themselves are in the individual diesel rooms and are geometrically configured to preclude entry of the design basis tornado missile.

11.1.3.3 Safe Haven Buildings (BSH, SC-II) (Included in Figures 11.1-3, -11, -16, and -24)

The five Safe Haven Buildings are located at grade and at the emergency exits from the MOX Fuel Fabrication Building. The safe havens are single-story (8 ft [2.5 m] inside ceiling height) buildings with a footprint of approximately 46 ft (14.0 m) by 50 ft (15.2 m) or 2,300 ft² (214m²). The same outer security barrier that protects the exterior walls and roof of the MOX Fuel Fabrication Building also protects the exterior walls and roof of the Safe Haven Buildings.

11.1.3.4 Reagent Process Building (BRP, CS) (Figure 11.1-34)

The Reagent Process Building is a single-story (12 ft [3.7 m] inside roof/ceiling height) building of approximately 10,000 ft² (929 m²). The floor is reinforced concrete slab on grade with a perimeter strip footing adequate for the building loads and soil conditions. The exterior walls and roof are constructed of concrete.

11.1.3.5 Administration Building (BAD, CS) (Figures 11.1-35 and 11.1-36)

The Administration Building is a two-story, steel-framed structure. The first story is slab on grade, and the second story is lightweight concrete on metal decking and bar joist framing. The exterior walls consist of masonry or metal veneer.

11.1.3.6 Secured Warehouse Building (BSW, CS) (Figure 11.1-37)

The Secured Warehouse Building is a single-story (24 ft [7.3 m] eave height), slab-on-grade, metal building of approximately 8,000 ft² (743 m²) with metal roofing and siding. The Secured Warehouse Building receives and stores the materials, supplies, and equipment received in the PA that are stored onsite for future use. The Fresh Fuel Shipping Package Storage/Maintenance Area provides storage and space for incidental periodic maintenance of these shipping packages.

11.1.3.7 Technical Support Building (BTS, CS) (Figures 11.1-38 and 11.1-39)

The Technical Support Building is a steel-framed building supported on spread footings. The floor covers an area of approximately $43,000 \text{ ft}^2 (3,995 \text{ m}^2)$ and is slab on grade. The Technical Support Building is located between the Administration Building and the MOX Fuel Fabrication Building. It provides the main support facilities for MOX Fuel Fabrication Building personnel. It serves as the sole personnel access into and out of the PA access (except for vehicle drivers escorted in and out of the Vehicle Access Portal). Such activities as badging, photo identification, search, and pass-through take place in the personnel access portal in the Access

MFFF Construction Authorization Request Docket No. 070-03098

Control Area. The Technical Support Building is not directly involved in the principal processing functions of the MFFF. Supporting activities and facilities located in this building include health physics facilities, an electronics maintenance lab, a mechanical maintenance shop, personnel locker rooms, and a first aid station.

11.1.3.8 Standby Diesel Generator Building (BSG, CS) (Figure 11.1-40)

The Standby Diesel Generator Building is a single-story (18 ft [5.5 m] eave height), slab-ongrade, metal building, with metal roofing and siding. The building has a footprint of approximately 5,500 ft² (511 m²). The building contains two standby diesel generators. Supporting electrical equipment is located adjacent to the diesel generator rooms and is separated by firewalls.

11.1.3.9 Miscellaneous Site Structures (CS)

The miscellaneous site structures include a bulk gas storage pad, HVAC and process chiller pads, diesel fuel filling station, electric transformer pads, and other minor structures.

11.1.4 Control Concepts

This section is not applicable to buildings and structures.

11.1.5 System Interfaces

Civil structural systems interface with the site and all plant systems because they provide protection and support for SSCs.

11.1.6 Assurance Measures for Non-Principal SSCs

11.1.6.1 Seismic Category II (SC-II) Structures

11.1.6.1.1 Functions of SC-II Structures

SC-II structures must maintain integrity during the design basis earthquake to avoid adverse impact on principal SSCs.

11.1.6.1.2 Requirements for SC-II Structures

11.1.6.1.2.1 Structural Analysis Requirements for SC-II Structures

SC-II structures are analyzed for the loads and loading combinations identified in Section 11.1.6.1.4.1. Appropriate consideration is given to the load distribution on the structure (e.g., point loads, uniformly distributed loads, or varying distribution of loads) and the end restraint conditions applicable for the structural component being considered.

Analyses may be performed using equivalent static loads, with appropriate consideration of impact effects for moving loads as specified for the particular loads described in Section 11.1.7.4.1.

11.1.6.1.2.2 Seismic Analysis Requirements for SC-II Structures

The seismic analysis requirements for SC-II structures are the same as specified in Section 11.1.7.4.1.3 (under "Seismic Loads") for SC-I structures.

11.1.6.1.2.3 Structural Design Requirements for SC-II Structures

Design of SC-II Concrete Structures

The design of SC-II concrete structures uses the ultimate strength design methods in accordance with the requirements of ACI-318, *Building Code Requirements for Reinforced Concrete Structures*.

All structural concrete used in construction of SC-II structures has a minimum compressive strength of 4,000 psi. All reinforcing steel used in SC-II structures has a minimum yield strength of 60,000 psi.

Concrete expansion anchors for SC-II structural applications are of the undercut or wedge type design.

Design of SC-II Steel Structures

SC-II steel structures are designed in accordance with AISC ASD, *Manual of Steel Construction, Allowable Stress Design.* Elastic design methods are generally used for steel design. However, under extreme loading conditions, plastic design methods may be used.

11.1.6.1.2.4 Foundation Design Requirements for SC-II Structures

The maximum allowable static and dynamic/seismic soil-bearing pressures are presented in Table 11.1-2. Foundations for SC-II structures are designed in accordance with the appropriate requirements of Section 11.1.6.1.2.3.

11.1.6.1.3 Codes and Standards for SC-II Structures

Codes and standards applied to the MFFF SC-II structures are the same as those specified in Section 11.1.7.3, except the following are not applicable:

- ACI-349-97, Code Requirements for Nuclear Safety-Related Concrete Structures & Commentary
- ACI-349.1R-91, Reinforced Concrete Design for Thermal Effects on Nuclear Power Plant Structures, Reapproved 1996
- ACI-349.2R-97, Embedment Design Examples
- ANSI/AISC N690-1994, Specification for the Design, Fabrication, and Erection of Steel Safety-Related Structures for Nuclear Facilities.

11.1.6.1.4 Values for SC-II Structures

11.1.6.1.4.1 Structural Design Loads for SC-II Structures

Design loads are based upon anticipated building loads (i.e., dead loads, live loads, operating and transient loads, and natural phenomena hazard loads). These loads are divided into three classifications (normal loads, severe environmental loads, and extreme environmental loads) as specified in Section 11.1.7.4, except the only extreme environmental load considered is the design basis earthquake (E'). The MFFF site design criteria are summarized in Table 11.1-2. The structures located at the MFFF site, along with their seismic category classification, are provided in Table 11.1-1.

11.1.6.1.4.2 Loading Combinations for SC-II Structures

Loading combinations for the design of SC-II structures and facilities are the same as the loading combinations for SC-I structures, as specified in Section 11.1.7.4, except the only extreme environmental load considered is the design earthquake (E').

11.1.6.1.4.3 Applicability of Loads for SC-II Structures

The following criteria are considered when determining applicable loading combinations for the design of the MFFF structures:

- Live loads are applied fully, partially, totally removed from the members, or shifted in location and pattern as necessary to obtain the worst-case loading conditions for maximizing internal forces and moments for all loading combinations. Impact forces caused by moving loads are applied where appropriate.
- Appropriate construction loads are considered in the service loading combinations. Construction methods and sequence are considered, and appropriate loading conditions are applied to ensure the structural integrity of partially erected or open structures.

11.1.6.2 Conventional Seismic (CS) Structures

11.1.6.2.1 Functions of CS Structures

CS structures protect and support conventional quality SSCs.

11.1.6.2.2 Requirements for CS Structures

Structural analysis and design of CS structures are in accordance with the Uniform Building Code.

11.1.6.2.3 Codes and Standards for CS Structures

The following are the codes and standards for CS structures:

- International Conference of Building Officials (ICBO)
- Uniform Building Code, 1997.

MFFF Construction Authorization Request Docket No. 070-03098

11.1.6.2.4 Values for CS Structures

Design loads for CS structures are normal, severe, and extreme loads with extreme loads limited to conventional seismic loads as specified by the Uniform Building Code.

11.1.7 Design Basis for Principal SSCs

11.1.7.1 Functions of SC-I Structures

SC-I structures provide the following functions:

- Support principal SSCs during normal, severe, and extreme loading conditions
- Provide confinement functions as part of secondary and tertiary confinement systems
- Protect principal SSCs from the effects of normal, severe, and extreme environmental loads
- Protect principal SSCs from the effects of temperature extremes, including design basis internal and external fires, by providing fire barriers
- Protect principal SSCs from the effects of design basis man-induced events, including potential load drops.

11.1.7.2 Requirements for SC-I Structures

11.1.7.2.1 General Structural Analysis Requirements

SC-I structures are designed for the loads and loading combinations specified in Section 11.1.7.4. Appropriate consideration is given to the load distribution on the structure (e.g., point loads, uniformly distributed loads, or varying distribution of loads) and the end restraint conditions applicable for the structural component being considered.

Analyses may be performed using equivalent static loads, with appropriate consideration of impact effects for moving loads as specified for the particular loads described in Section 11.1.7.4. The special provisions outlined in Section 11.1.7.4.1.3 (under "Seismic Loads" and "Tornado Loads for SC-I Structures") are used for performing analyses for seismic loads and tornado missile impact loads, respectively.

11.1.7.2.1.1 Seismic Analysis Requirements for SC-I Structures

The design basis earthquake free-field acceleration, defined in Table 11.1-2 and Section 11.1.7.4.1.3 (under "Seismic Loads"), is applied at grade.

Analysis methods for converting the design basis earthquake acceleration into seismic loads on SC-I structures are as defined in Section 11.1.7.4.1.3 (under "Seismic Loads"). Seismic loads are applied simultaneously to structures in the three orthogonal directions, and the threedimensional effects of each of these inputs are considered. Seismic load forces and moments may be combined using the "square root of the sum of the squares" (SRSS) method or the 100-40-40 Percent Rule described in American Society of Civil Engineers (ASCE) Standard 4 to determine the resultant design basis earthquake loads on structural components.

When designing structures for seismic loads, consideration is given to the additional seismic loads resulting from accidental torsion, indicated in NUREG-0800, Section 3.7.2, Subsection II.11. This additional seismic loading accounts for variations in material densities, member sizes, architectural features, equipment loads, etc. At each level under consideration (floor levels or roof), the accidental torsion is equal to the applicable lateral seismic inertia force times 5% of the maximum building dimension at the level being considered.

11.1.7.2.1.2 Tornado Missile Impact Analysis Requirements

The SC-I structures are analyzed for the effects of tornado-generated missiles. This analysis has been performed in accordance with the guidance provided in NUREG-0800, Section 3.5.3, Subsection II with the tornado-generated missile spectrum as defined in Table 11.1-2. The response of a structure to missile impact depends largely on the location of impact on the structure, on the material properties of the structure, on the dynamic properties of the missile, and on the kinetic energy of the missile. Both the local and overall effects of missile impact are examined, with appropriate consideration given to impact effects of the loading. Some localized overstressing, deformation, and damage are permissible for structures subjected to missile impact. It is acceptable to allow inelastic or plastic structural response when examining the effects of missile impact.

The modified National Defense Research Committee formula, as specified in ASCE 58, *Structural Analysis and Design of Nuclear Plant Facilities*, is used to estimate missile penetration. The missile barrier thickness is selected to preclude perforation through the concrete barrier and to avoid generation of secondary missiles as a result of scabbing.

The overall effects of missile impact on a structural system are investigated to ensure that the structure retains its integrity and functionality subsequent to a missile strike. One missile impacting a structure at any given time is considered.

11.1.7.2.2 Structural Design Requirements for SC-I Structures

11.1.7.2.2.1 Structural Design Requirements for SC-I Concrete Structures

The design of SC-I concrete structures uses the "ultimate strength design methods" in accordance with ACI-349, *Code Requirements for Nuclear Safety-Related Concrete Structures*.

All structural concrete used in construction of SC-I structures has a minimum compressive strength of 4,000 psi. All reinforcing steel used in SC-I structures has a minimum yield strength of 60,000 psi.

The design of SC-I embedded plates and concrete expansion anchors is in accordance with the requirements of ACI-349, ACI-349.2R, *Embedment Design Examples*, and ACI-355.1R, *State-of-the-art Report on Anchorage to Concrete*, as appropriate. Concrete expansion anchors for SC-I structural applications are of the undercut or wedge type design.

The requirements of ACI-349 are supplemented by the following provisions:

- Special consideration is given to the anchorage pull-out capacity (i.e., reduced concrete failure cone) especially when the anchor is near the free edge of the concrete, and/or anchors are closely spaced, and/or the anchor(s) are placed in the tension zone of the slab.
- Baseplate flexibility is taken into account when calculating anchor bolt loads.
- The failure cone angle used is consistent with industry data for the specific application.
- The embedment length of ductile anchors is chosen such that the ratio of the nominal anchor pull-out capacity (concrete) to the anchor minimum tensile capacity (steel) is greater than or equal to 1.50.
- Expansion anchor bolts are designed to have the following minimum factor of safety between the bolt design load and the bolt ultimate capacity determined from static tests:
 - Four (4.0) for wedge and sleeve anchor bolts
 - Three (3.0) for undercut anchors.

The ultimate capacity of the anchor bolt accounts for the shear-tension interaction, minimum edge distance, and proper bolt spacing.

- The energy absorption capability (deformation capability after yield) is considered for the anchor material.
- The effects of cyclic loading are considered in the anchor bolt design.

11.1.7.2.2.2 Structural Design Requirements for SC-I Steel Structures

SC-I steel structures are designed in accordance with AISC N690, Specification for the Design, Fabrication and Erection of Steel Safety-Related Structures for Nuclear Facilities. Elastic design methods are generally used for steel design. However, under the extreme loading conditions of seismic or missile impact loading, plastic design methods and use of ultimate steel strength may be used.

Structural steel connections can be designed as either friction or bearing type bolted connections or welded connections. Bolted connections are designed in accordance with AISC N690, *Specification for Structural Joints Using ASTM A325 or A490 Bolts*. Welded connections are designed in accordance with AISC N690 and AWS D1.1, *Structural Welding Code*.

The requirements of AISC N690 are supplemented by the following provisions:

- In Section Q1.0.2, the definition of secondary stress applies to stresses developed by temperature loading only.
- The following notes are added to Section Q1.3:

"When any load reduces the effect of other loads, the corresponding coefficient for the load shall be taken as 0.9, if it can be demonstrated that the load is always present or occurs simultaneously with other loads. Otherwise, the coefficient for that load shall be taken as zero." "Where the structural effects of differential settlement are present, they shall be included with the dead load 'D'."

- The stress limit coefficients for compression in Table Q1.5.7.1 are as follows:
 - 1.3 instead of 1.5, stated in footnote (C), in loading combinations 2, 5, and 6
 - 1.4 instead of 1.6 in loading combinations 7, 8, and 9
 - 1.6 instead of 1.7 in loading combination 11.
- The following note is added to Section Q1.5.8:

"For constrained (rotation and/or displacement) members supporting safety related structures, systems, or components, the stresses under loading combinations 9, 10, and 11 shall be limited to those allowed in Table Q1.5.7.1 as modified by provision above. Ductility factors of Table Q1.5.8.1 (or the provision below) shall not be used in these cases."

- For ductility factors 'μ' in Sections Q1.5.7.2 and Q1.5.8, the provisions of NUREG-0800, Section 3.5.3, "Barrier Design Procedures," Subsection II.2, Appendix A, are substituted in lieu of Table Q1.5.8.1.
- In loading combination 9 of Section Q2.1, the load factor applied to load P_a is 1.5/1.1 = 1.37, instead of 1.25.
- Sections Q1.24 and Q1.25.10 are supplemented with the following requirements regarding painting of structural steel:
 - Shop painting will be in accordance with Section M3 of AISC ASD, 9th Edition.
 - All exposed areas after installation are field painted (or coated) in accordance with the applicable Section M3 of AISC ASD, 9th Edition.
 - The quality assurance requirements for painting (or coating) of structural steel are in accordance with ANSI N101.4 as endorsed by Regulatory Guide 1.54, *Quality Assurance Requirements for Protective Coatings Applied to Water-Cooled Nuclear Power Plants*.

Welding activities associated with SC-I structural steel components and their connections are accomplished in accordance with written procedures and meet the requirements of AWS D1.1. The visual acceptance criteria are as defined in NCIG-01.

11.1.7.2.2.3 Foundation Design Requirements for SC-I Structures

The maximum allowable static and dynamic/seismic soil-bearing pressures are presented in Table 11.1-2. The design of foundations for SC-I structures meets the appropriate requirements of Section 11.1.7.2.2.1.

For evaluation of subsurface conditions, to include liquefaction and dynamic settlements, bedrock motions based upon a 2,000-year recurrence frequency bedrock spectrum are used, scaled so that when amplified through the site soil profile, the resulting surface ground motion will have 0.20g peak ground acceleration. A settlement monitoring program is implemented for SC-I structures. Settlement monuments are provided to track total and differential settlement. Actual versus predicted settlement is evaluated.

11.1.7.3 Codes and Standards for SC-I Structures

Codes and standards applied to the MFFF include the following:

American Concrete Institute (ACI)

- ACI-224R-90, Control of Concrete Cracking in Concrete Structures
- ACI-301-99, Standard Specifications for Structural Concrete
- ACI-315-99, Details and Detailing of Concrete Reinforcement
- ACI-336.2R-88, Suggested Analysis and Design Procedures for Combined Footings and Mats
- ACI-349-97, Code Requirements for Nuclear Safety-Related Concrete Structures & Commentary
- ACI-349.1R-91, Reinforced Concrete Design for Thermal Effects on Nuclear Power Plant Structures, Reapproved 1996
- ACI-349.2R-97, Embedment Design Examples
- ACI-351.1R-99, Grouting for Support of Equipment & Machinery
- ACI-352R-91, Recommendations for Design of Beam-Column Joints in Monolithic Reinforced Concrete Structures, Reapproved 1997
- ACI-352.1R-89, Recommendations for Design of Slab-Column Connections in Monolithic Reinforced Concrete Structures, Reapproved 1997
- ACI-355.1R-91, State-of-the-art Report on Anchorage to Concrete, Reapproved 1997
- ACI-360R-92, Design of Slabs on Grade, Reapproved 1997
- ACI-351.2R-94, Foundations for Static Equipment
- ACI-439.3R-91, Mechanical Connections of Reinforcing Bars
- ACI-SP-152-95, Design and Performance of Mat Foundations
- ACI-503R-93, Use of Epoxy Compounds with Concrete.

American Institute of Steel Construction (AISC)

- AISC ASD, Manual of Steel Construction, Allowable Stress Design, 9th Edition, 1989
- ANSI/AISC N690-1994, Specification for the Design, Fabrication, and Erection of Steel Safety-Related Structures for Nuclear Facilities
- AISC, Seismic Provisions for Structural Steel Buildings, April 1997.

MFFF Construction Authorization Request Docket No. 070-03098

American Society of Civil Engineers (ASCE)

- ASCE Standard 4-98, Seismic Analysis of Safety Related Nuclear Structures
- ASCE Standard 7-98, Minimum Design Loads for Buildings and Other Structures
- ASCE Standard 8-91, Specification for the Design of Cold-Formed Stainless Steel Structural Members
- ASCE Standard 58-80, Structural Analysis and Design of Nuclear Plant Facilities.

American Welding Society (AWS)

- AWS-D1.1-98, Structural Welding Code Steel, 1998
- NCIG-01, Visual Weld Acceptance Criteria for Structural Welding of Nuclear Power Plants, Revision 2, EPRI NP-5380.

American Association of State Highway and Transportation Officials (AASHTO)

• Standard Specifications for Highway Bridges, Sixteenth Edition, 1996.

American National Standards Institute (ANSI)

• ANSI N101.4, Quality Assurance for Protective Coatings Applied to Nuclear Facilities, 1972.

American Iron and Steel Institute (AISI)

• AISI, Specifications for the Design of Cold-Formed Steel Structural Members, 1986.

American Society for Testing and Materials (ASTM)

• Research Council on Structural Connections, Specification for Structural Joints Using ASTM A325 and A490 Bolts, 1985.

Code of Federal Regulations (CFR)

- 10 CFR Part 70, Domestic Licensing of Special Nuclear Material
- 10 CFR Part 73, Physical Protection of Plants and Materials.

SRS Engineering Standards Manual (WSRC-TM-95-1)

- Engineering Standard No. 01060, *Structural Design Criteria*, Revision 4, dated September 1999
- Engineering Standard No. 01110, *Civil Site Design Criteria*, Revision 3, dated April 11, 2000.

11.1.7.4 Values for SC-I Structures

11.1.7.4.1 Structural Design Loads for SC-I Structures

Design loads are based upon anticipated building loads (i.e., dead loads, live loads, operating and transient loads, and natural phenomena hazard loads). These loads are divided into three classifications (normal loads, severe environmental loads, and extreme environmental loads) consistent with the guidance provided in NUREG-0800, Section 3.8.4, "Other Seismic Category I Structures." MFFF site design criteria are summarized in Table11.1-2. The structures located at the MFFF site, along with the seismic category classification, are provided in Table 11.1-1.

11.1.7.4.1.1 Normal Loads

Normal loads are those loads associated with normal operation of the MFFF. Normal loads include the following: dead loads (D); live loads (L); hydrostatic fluid pressure loads (F); lateral soil pressure loads (H); thermal loads (T_o); and pipe, HVAC duct, conduit, and cable tray reaction loads (R_o). These loads are defined in the following subsections.

Dead Loads

Dead loads (D) are gravity loads and are defined as any loads, including related internal moments and forces, that are constant in magnitude, orientation, and point of application. Dead loads include the mass of the structure, any permanent equipment loads, and any permanent hydrostatic loads that have constant fluid levels. The weight of permanent items (e.g., roofing materials, wall materials, equipment, cable trays, mechanical piping, and HVAC equipment and ducts) is included in the dead load.

Live Loads

Live loads (L) are defined as any normal loads, including related internal moments and forces, that may vary with intensity, orientation, and/or location of application. Movable equipment loads, loads caused by vibration, any support movement effects, and operating loads are types of live loads. The following subsections provide design requirements for the various types of live loads.

Floor Live Loads

Minimum uniformly distributed live loads are in accordance with ASCE Standard 7 and are applied as follows:

Platform and Work Area	125 psf
Light Storage	125 psf
Heavy Storage	250 psf
Heavy Operation	250 psf
Office	100 psf
Computer Room	150 psf
Dining/Meeting Rooms	100 psf

MFFF Construction Authorization Request Docket No. 070-03098

Laboratory	200 psf
Toilet Areas	100 psf
Mechanical (Utility) Rooms	150 psf
Electrical Rooms	150 psf
Stairs, Fire Escapes, and Corridors	100 psf
Transportation Vehicle Loads	300 psf or forklift truck, 6 kip capacity (HS20-44 capacity in designated areas)
Roof	25 psf

Rain Loads

Rain loads (R) are determined in accordance with the requirements of ASCE Standard 7, Section 8. The roof system for SC-I structures is designed for a minimum rain load of 50 psf. The design load of 50 psf is equal to more than 9.6 in. (24.4 cm) in equivalent weight of standing water and is adequate to account for any effects that may result from ponding of rainwater due to deflection of the supporting roof or the blockage of primary roof drains.

Snow and Ice Loads

Snow (S) and ice (I) loads are determined in accordance with the requirements of ASCE Standard 7, Sections 7 and 10. An exposure factor of $C_e = 1.0$ is used to consider wind effects for analysis and design of roof structures resisting snow and ice loads. An importance factor of I = 1.2 is used for SC-I structures.

Transportation Vehicle Loads and Heavy Floor Loads

Loads caused by transportation vehicular truck traffic in designated building areas are in accordance with standard loadings defined by AASHTO. The minimum truck loading of HS 20-44 is used for wheel loading design. Special heavy-loading conditions resulting from transport of finished fuel assemblies and storage casks on trucks are considered. Heavy floor loading of 300 psf or forklift truck (6 kip capacity) in areas used for transportation, transfer, and storage of finished fuel assemblies is considered.

Crane, Elevator, and Hoist Loads

These loads apply to structural members and components required to support permanently installed cranes, hoists, and elevators. Design loads for crane and hoist supports envelop, as a minimum, the full-rated capacity of the crane, hoist, and elevator including impact loads, as well as test load requirements. The effects of crane load drop are also evaluated in accordance with guidance provided in NUREG-0612, *Control of Heavy Loads at Nuclear Plants*, for SC-I structures.

Hydrostatic Fluid Pressure Loads

Hydrostatic fluid pressure loads (F) are due to fluids held in internal building compartments. No fluid pressure loads are currently identified for the MFFF.

Lateral Soil Pressure Loads

Lateral soil pressure loads (H) on structures and/or elements of structures retaining soil are based on the density of the soil and any surcharge load, plus the hydrostatic pressure caused by the groundwater or soil saturation. The minimum lateral soil pressure loads on structures and/or elements of structures retaining soil are as defined in ASCE Standard 7, Section 5. The soil pressure caused by earthquakes based on ASCE Standard 4 is included.

Thermal Loads

Thermal loads (T_o) consist of thermally induced forces and moments resulting from operation and environmental conditions affecting the building structure. Thermal loads are based on the most critical transient or steady-state condition. Thermal expansion loads caused by axial restraint, as well as loads resulting from thermal gradients, are considered. Thermal loads considered include the ambient temperature gradient imposed on the structure by process equipment.

Pipe, HVAC Duct, Conduit, and Cable Tray Reaction Loads

Pipe, HVAC duct, conduit, and cable tray reaction loads (R_0) are those loads applied by distribution system supports during normal operating conditions, based on the most critical transient or steady-state condition. Loads are tracked to ensure that the final design envelops actual loads.

11.1.7.4.1.2 Severe Environmental Loads

Severe environmental loads are those loads that are encountered infrequently during the life of the MFFF. They include wind loads (W) and flood loads (F'). These loads are defined in the following subsections.

Wind Loads

Wind loads (W) are those pressure loads generated by the design basis wind and are determined by procedures in ASCE Standard 7, Section 6. The severe wind speed, defined in Table 11.1-2, is used in the design of SC-I buildings, structures, and facilities.

Flood Loads

Flood loads (F') are caused by exterior flood waters from the design basis flood exerting forces and moments on exterior building structures or entering a building and exerting loads on interior building structures. Flood loads on building, structures, and facilities are determined in accordance with ASCE Standard 7, Section 5.3. Guidance for determining the design basis flood is provided in Regulatory Guide 3.40, *Design Basis Floods for Fuel Reprocessing Plants and for Plutonium Processing and Fuel Fabrication Plants*. As shown in Table 11.1-2, the design basis flood and probable maximum flood elevations are well below the MFFF site elevation. Thus, flood loads are not applicable to the MFFF.

MFFF Construction Authorization Request Docket No. 070-03098

11.1.7.4.1.3 Extreme Environmental Loads

Extreme environmental loads are those loads that are credible but are not expected to occur during the life of the MFFF. They include seismic loads (E'), tornado loads (W_t), and explosive loads. These loads are defined in the following subsections. (Note: As described in Section 5.5.1, the possibility of aircraft impact is not a credible event; thus, aircraft impact is not a design basis event.)

Seismic Loads

Design Basis Earthquake Loads for SC-I Structures

In accordance with the guidance of Regulatory Guide 3.14, Seismic Design Classification for *Plutonium Processing and Fuel Fabrication Plants*, and DOE-STD-1020-94, *NPH Design and Evaluation Criteria for DOE Facilities*, all SC-I buildings, structures, and facilities at the MFFF are designed to accommodate a design basis earthquake.

The design basis earthquake for the MFFF is defined in Section 1.3.6 and summarized in Table 11.1-2. Design basis earthquake loads (E') for SC-I and SC-II buildings, structures, and facilities are determined based upon a horizontal component at the ground surface characterized by a horizontal spectrum shape from Regulatory Guide 1.60, *Design Response Spectra for Seismic Design of Nuclear Power Plants*, scaled to 0.20g peak ground acceleration. The vertical component is two-thirds of the horizontal component for all frequencies. Methods used for the soil-structure interaction (SSI) determining seismic responses from these acceleration input criteria conform to NUREG-0800, Sections 3.7.1 and 3.7.2 and the requirements of ASCE Standard 4.

Total seismic loads affecting a structure are determined by simultaneously applying the design basis earthquake accelerations in the three orthogonal directions (two horizontal and one vertical). Appropriate consideration of SSI, torsional effects, structural frequency, stiffness, and displacement is factored into structure-specific seismic load analyses. The SSI analyses for the SC-I MOX Fuel Fabrication Building and Emergency Diesel Generator Building are performed on simplified stick models representing the building characteristics (e.g., mass, rigidity, center of mass, and center of rigidity) using the computer code SASSI (Duke Engineering & Services version). From the SSI analysis, the response spectra at the foundation and each floor and roof level are obtained for building and equipment design and acceleration profile for building design.

Synthetic Time History of Free-Field Seismic Motion

Three components of the synthetic time histories for the design basis earthquake seismic motion are generated to closely match the design basis earthquake. The three components of the synthetic time histories are statistically independent of each other. The response spectrum of each component of time history motion envelops the design spectrum in accordance with the enveloping criteria in NUREG-0800, Section 3.7.1, "Seismic System Analysis." In addition, each component of time history meets the minimum power spectral density requirement specified in NUREG-0800, Section 3.7.1, Appendix A.

MFFF Construction Authorization Request Docket No. 070-03098

Soil Model

In the SSI analysis, the soil model consists of a sufficient number of idealized soil layers from the ground surface to the bedrock. The thickness of each soil layer is small enough to allow vertical propagation of shear waves having frequencies up to the desired cutoff frequencies. The properties of the idealized soil layers are developed based upon the information provided by the soil exploration report and site response analysis. Variations in soil properties are considered.

Structure Models

A 3D finite element model using standard computer structural modeling codes (e.g., ANSYS) is first generated based on the structural drawings. In addition to all applicable dead weights and equipment weights, the finite element model includes appropriate parts of the live loads (25% of the applicable live loads, which are verified during design) in the mass properties of the model.

A 3D lumped mass stick model is generated assuming the roofs and floors are rigid diaphragms. The 3D stick model is used for the SSI analysis of the MOX Fuel Fabrication Building. The 3D stick model is "tuned" such that the fundamental mode frequency in each of the three directions closely matches the corresponding modal frequency of the finite element model.

Damping Values for Structures

The following structural damping values, which are in accordance with Regulatory Guide 1.61, *Damping Values for Seismic Design of Nuclear Power Plants*, for a safe shutdown earthquake (design earthquake, E'), are used to determine seismic loading:

Structure Type	% of Critical Damping
Welded Steel	4
Bolted Steel	7
Reinforced Concrete	7

In-Structure Response Spectrum Envelope with Peak Broadening

In each of the three directions (north-south, east-west, and vertical) and at each given structural location, the in-structure response spectra from the 3D SSI analysis of the stick model for the lower-bound, best-estimate, and upper-bound soil conditions are first enveloped. A broadening of the spectrum peak(s) by 15% is then applied to the spectrum envelope. Floor flexibility, where applicable, is accounted for in the generation of the vertical in-structure response spectra.

Acceleration Profile Envelope for Static Analysis of 3D Finite Element Model of Structure

An acceleration profile in each of the north-south, east-west, and vertical directions is developed from the 3D SSI analysis of the stick model. In each given direction, the acceleration profiles from the lower-bound, best-estimate, and upper-bound soil conditions are enveloped. The acceleration profile envelope is applied as a static load to the 3D finite element model of the individual buildings for the design of structural elements.

Combination of Seismic Response Components

Two approaches may be used to combine seismic loads in the three orthogonal directions for the building analysis and design. The first approach applies the equivalent accelerations for each level from the SSI analysis to the building finite element model statically for each direction. This approach is used for the MOX Fuel Fabrication Building and Emergency Diesel Generator Building. In this approach, the equivalent accelerations are determined to ensure that the resulting global structural forces (shear and axial forces) at each level match those from the SSI analysis of the stick model of the structure. The results from the equivalent static analyses due to the equivalent accelerations applied in the three directions may be combined using the 100-40-40 Percent Rule, described in Section 3.2.7.1.2 of ASCE Standard 4, to determine the resultant design basis earthquake loads on structural components. When combining forces and moments using the 100-40-40 Percent Rule, participation factors of 100% in the primary load direction and 40% in the other two directions are applied to the individual loads, as permitted by ASCE Standard 4.

The second approach applies the applicable seismic response spectrum to the base of the structural model. This approach may be used for miscellaneous structures. Each of the three directional components of the design basis earthquake are produced responses in a structure in all three directions (i.e., three responses in the x direction, three in the y direction, and three in the z direction). Guidance provided by Regulatory Guide 1.92, Combining Modal Responses and Spatial Components in Seismic Response Analysis, and ASCE Standard 4 is used for combining modal responses and collinear responses from the three individual earthquake components. Modal responses due to each of the three individual earthquake components may be combined using the SRSS method. Any responses from modes that are clustered within a 10% frequency range may be combined by the absolute sum method in accordance with Regulatory Guide 1.92, and then the remaining responses can be combined by the SRSS method. A sufficient number of modes are considered such that the accumulated modal mass exceeds 90% of the mass of the component. After modal responses are combined to obtain one set in each of the three orthogonal directions, the collinear responses due to contributions from all three earthquake components are combined by the SRSS method.

The following examples show formulas for determining the seismic load force in the x direction using the two methods:

100-40-40 Percent Rule

$$\Sigma F_{x} = \Sigma 100\% F_{x \text{ due to } Ex'} + \Sigma 40\% F_{x \text{ due to } Ey'} + \Sigma 40\% F_{x \text{ due to } Ez'}$$
(11.1-1)

SRSS Method

$$\Sigma F_{\rm x} = (\Sigma F_{\rm x \ due \ to \ Ex},^2 + \Sigma F_{\rm x \ due \ to \ Ey},^2 + \Sigma F_{\rm x \ due \ to \ Ez},^2)^{\frac{1}{2}}$$
(11.1-2)

Dynamic Lateral Soil Pressure for Embedded Wall Design

The dynamic lateral soil pressures are determined based on the guidelines of ASCE Standard 4.

MFFF Construction Authorization Request	
Docket No. 070-03098	

Tornado Loads for SC-I Structures

Tornado loads (W_t) are those loads generated by the design basis tornado specified for the MFFF. They include tornado wind pressure loads (W_w) , tornado-created differential pressure loads (W_p) , and tornado-generated missile loads (W_m) . The tornado loads are defined in Section 1.3.3 and summarized in Table 11.1-2. The three types of tornado loads on MFFF structures and facilities are defined in the following subsections.

Tornado Wind Pressure Loads

Tornado wind pressure loads (W_w) are those pressure loads generated by the tornado wind velocity, which is the combined translational and rotational wind speed, as defined in Table 11.1-2. ASCE Standard 7, Section 6 is used to convert tornado wind velocity into effective structural pressure loads.

Tornado-Created Differential Pressure Loads

Tornado-created differential pressure loads (W_p) are those loads acting as an internal pressure loading on structures caused by the negative pressure created by the tornado. The design pressure drop and the rate of pressure drop are defined in Table 11.1-2. This internal pressure is applied to the interior surfaces of all exterior building walls and roofs of structures requiring design against the effects of a tornado. Some reduction in this pressure differential may be allowed for structures that are vented, as permitted by NUREG-0800, Section 3.3.2, "Tornado Loadings."

Tornado-Generated Missile Loads

Tornado-generated missile loads (W_m) are impact loads applied to structures caused by strikes by the missile spectra criteria specified in Table 11.1-2. The provisions of NUREG-0800, Section 3.5.3, Subsection II are considered for determining the missile loading on various types of structures.

Explosive Loads for SC-I Structures

The MFFF site is located such that explosive loads generated from nearby buildings or facilities are not a significant concern. The worst-case postulated explosive load is defined in Section 5.5.1 and summarized in Table 11.1-2.

11.1.7.4.2 Structural Design Loading Combinations for SC-I Structures

The following loads are addressed in the loading combinations used for the design of SC-I structures at the MFFF.

- D = dead load
- L = live load
- F = hydrostatic fluid pressure load
- H = lateral soil pressure load
- $T_o =$ thermal load

MFFF Construction Authorization Request Docket No. 070-03098

 $R_o = pipe$, HVAC duct, conduit, and cable tray reaction load

- W = wind load
- E' = design basis earthquake seismic load
- W_t = tornado loads including:
 - W_w = tornado wind pressure load
 - W_p = tornado-created differential pressure load
 - W_m = tornado-generated missile load
- T_a = thermal load (due to postulated break and including T_o)
- R_a = pipe reaction (due to postulated break under thermal condition and including R_o).

Loading combinations for the design of SC-I structures are determined using NUREG-0800, Section 3.8.4, "Other Seismic Category I Structures," as a guide. Since there are no operating basis earthquake loads (E), flood loads (F'), compartmental pressure loads (P_a), or pipe break accident loads (Y_r , Y_j , or Y_m) applicable to the MFFF, these loads, although specified in NUREG-0800, Section 3.8.4, are not included in above list of loads or the loading combinations that follow.

The following definitions apply to terms used in the loading combinations specified in this section:

- For concrete structures, "U" is the section strength required to resist design loads based upon the ultimate strength design methods described in ACI 349, *Code Requirements for Nuclear Safety-Related Concrete Structure* (SC-I).
- For steel structures, "S" is the required section strength based on elastic design methods and the allowable stresses defined in Part 1 of AISC N690, Specification for the Design, Fabrication, and Erection of Steel Safety-Related Structures for Nuclear Facilities (SC-I).
- For steel structures, "Y" is the section strength required to resist design loads based on the plastic design methods defined in Part 2 of AISC N690 (SC-I).

11.1.7.4.2.1 Loading Combinations for SC-I Concrete Structures

The following loading combinations are used for the design of SC-I concrete structures. These loading combinations are used in conjunction with the ultimate strength design method for concrete design. Two conditions of structural loading are considered: (1) service loading conditions including severe wind, and (2) extreme loading conditions including flood.

Service Loading Combinations for SC-I Concrete Structures

Service loading combinations represent the loading conditions that SC-I structures are expected to experience during normal facility operations and during severe environmental conditions. Loads included in the service loading combinations are dead loads, live loads, hydrostatic fluid pressure loads, lateral soil pressure loads, design wind loads, flood loads, thermal loads, and reaction loads (pipe, HVAC, and/or cable tray). No seismic loads are included in the MFFF service loading combinations.

SC-I concrete structures are designed for the following service loading combinations:

$$U = 1.4D + 1.4F + 1.7L + 1.7H$$
$$U = 1.4D + 1.4F + 1.7L + 1.7H + 1.7W$$
$$U = 1.2D + 1.2F + 1.7W$$

If thermal stresses caused by T_o and/or R_o are present on the structure, the following loading combinations are also considered:

 $U = 1.05D + 1.05F + 1.275L + 1.275H + 1.275T_{o} + 1.275R_{o}$ $U = 1.05D + 1.05F + 1.275L + 1.275H + 1.275W + 1.275T_{o} + 1.275R_{o}$

Extreme Loading Combinations for SC-I Concrete Structures

Extreme loading combinations represent the loading conditions that SC-I structures could experience under extreme environmental conditions. Loads included in the extreme loading combinations are dead loads, live loads, thermal loads, reaction loads (pipe, HVAC, and cable tray), design basis earthquake seismic loads, tornado loads, and flood loads. Extreme environmental loads (i.e., seismic and tornado loadings) are not considered to act simultaneously.

SC-I concrete structures are designed for the following extreme loading combinations:

 $U = D + F + L + H + T_o + R_o + E'$ $U = D + F + L + H + T_o + R_o + W_t \text{ (see Note 1 below)}$

$$U = D + F + L + H + E' + T_a + R_a$$
 (see Note 2 below)

Note 1: In accordance with NUREG-0800, Section 3.3.2, Subsection II.3.d, the following combinations of W_t are considered:

 $W_t = W_w$ $W_t = W_p$ $W_t = W_m$ $W_t = W_w + 0.5W_p$ $W_t = W_w + W_m$ $W_t = W_w + 0.5W_p + W_m$

Note 2: $T_a = T_o$ and $R_a = R_o$, since pipe break accident loads are not applicable.

11.1.7.4.2.2 Loading Combinations for SC-I Steel Structures

The following loading combinations are used for the design of SC-I steel structures. Applicable combinations are given for designs that utilize either elastic working stress design methods or plastic design methods. In each case, loading combinations are provided for service loading conditions and for extreme loading conditions.

MFFF Construction Authorization Request Docket No. 070-03098

Service Loading Combinations for SC-I Steel Structures

Service loading combinations for SC-I steel structures encompass the same type loads as included for service loading combinations for SC-I concrete structures in Section 11.1.7.4.2.1.

Service Loading Combinations for Elastic Working Stress Design

If elastic working stress design methods are used, SC-I steel structures are designed for the following service loading combinations:

$$S = D + F + L + H$$
$$S = D + F + L + H + W$$

If thermal stresses due to T_o and/or R_o are present on the structure, the following loading combinations are also considered:

$$(1.5)S = D + F + L + H + T_o + R_o \text{ (tension members)}$$
$$(1.3)S = D + F + L + H + T_o + R_o \text{ (compression members)}$$
$$(1.5)S = D + F + L + H + T_o + R_o + W \text{ (tension members)}$$
$$(1.3)S = D + F + L + H + T_o + R_o + W \text{ (compression members)}$$

Service Loading Combinations for Plastic Design

If plastic design methods are used, SC-I steel structures are designed for the following service loading combinations:

$$Y = 1.7D + 1.7F + 1.7L + 1.7H$$
$$Y = 1.7D + 1.7F + 1.7L + 1.7H + 1.7W$$

If thermal stresses due to T_o and/or R_o are present on the structure, the following loading combinations are also considered:

 $Y = 1.3D + 1.3F + 1.3L + 1.3 H + 1.3T_o + 1.3R_o$

 $Y = 1.3D + 1.3F + 1.3L + 1.3H + 1.3T_o + 1.3R_o + 1.3W$

Extreme Loading Combinations for SC-I Steel Structures

Extreme loading combinations for SC-I steel structures encompass the same type loads as included for extreme loading combinations for SC-I concrete structures in Section 11.1.7.4.2.1.

Extreme Loading Combinations for Elastic Working Stress Design

If elastic working stress design methods are used, SC-I steel structures are designed for the following extreme loading combinations:

$$(1.6)S = D + F + L + H + T_{o} + R_{o} + E' \text{ (tension members)}$$

$$(1.4)S = D + F + L + H + T_{o} + R_{o} + E' \text{ (compression members)}$$

$$(1.6)S = D + F + L + H + T_{o} + R_{o} + W_{t} \text{ (tension members)} \text{ (see note below)}$$

$$(1.4)S = D + F + L + H + T_{o} + R_{o} + W_{t} \text{ (compression members)} \text{ (see note below)}$$

$$(1.7)S = D + F + L + H + E' + T_{a} + R_{a} (T_{a} = T_{o} \text{ and } R_{a} = R_{o}) \text{ (tension members)}$$

$$(1.6)S = D + F + L + H + E' + T_{a} + R_{a} (T_{a} = T_{o} \text{ and } R_{a} = R_{o}) \text{ (tension members)}$$

Note: All six subloading combinations for tornado loads W_t that are specified in Section 11.1.7.4.2.1 are also considered in this loading combination.

Extreme Loading Combinations for Plastic Design

If plastic design methods are used, SC-I steel structures are designed for the following extreme loading combinations, as defined in NUREG-0800, Section 3.8.4, Subsection II.5:

 $Y = D + F + L + H + T_o + R_o + E'$

 $Y = D + F + L + H + T_o + R_o + W_t$ (consider all subloading combinations of W_t)

 $Y = D + F + L + H + E' + T_a + R_a (T_a = T_o \text{ and } R_a = R_o)$

11.1.7.4.3 Loading Combinations for SC-I Structures for Overturning, Sliding, and Flotation

In addition to the loading combinations specified in Sections 11.1.7.4.2.1 and 11.1.7.4.2.2, the loading combinations defined in Table 11.1-3 are checked to ensure the overall stability of structures against the effects of overturning, sliding, and flotation. These loading combinations are determined using NUREG-0800, Section 3.8.5, Subsections II.3 and II.5, as guides. The minimum factors of safety listed in Table 11.1-3 are satisfied for each stability condition considered.

11.1.7.4.4 Applicability of Loads

The following requirements are considered when determining applicable loading combinations for the design of the MFFF structures:

• Live loads are applied fully, partially, totally removed from the members, or shifted in location and pattern as necessary to obtain the worst-case loading conditions for

MFFF Construction Authorization Request Docket No. 070-03098

maximizing internal forces and moments for all loading combinations. Impact forces caused by moving loads are applied where appropriate.

- Appropriate construction loads are considered in the service loading combinations. Construction methods and sequence are also considered and appropriate loading conditions are applied to ensure the structural integrity of partially erected or open structures.
- Where any load reduces the overall loading on a structural member, a load coefficient of 0.9 is applied to that load component in the loading combination. The reducing coefficient is only used for loads that are always present or that always occur simultaneously with other loads. The 0.9 reducing coefficient is used in lieu of the code-specified coefficient.
- Tornado loads are applied to roofs and all exterior walls of SC-I structures. Where the exterior walls do not establish the tornado pressure boundary, appropriate interior walls are designed as the tornado pressure boundary.

Tables

MFFF Construction Authorization Request Docket No. 070-03098

.

This page intentionally left blank.

MFFF Construction Authorization Request Docket No. 070-03098

Buildings	Abbreviation	Seismic Category
MOX Fuel Fabrication Building	BMF	SC-I
- MOX Processing Area ^a	BMP	SC-I
- Aqueous Polishing Area ^a	BAP	SC-I
- Shipping and Receiving Area ^a	BSR	SC-I
Emergency Diesel Generator Building	BEG	SC-I
Safe Haven Buildings	BSH	SC-II
Reagent Process Building	BRP	CS
Administration Building	BAD	CS
Secured Warehouse Building	BSW	CS
Technical Support Building	BTS	CS
Standby Diesel Generator Building	BSG	CS

Table 11.1-1. Building Seismic Classifications

Facilities, Structures, and Areas	Abbreviation	Seismic Category
Gas Storage Facility	UGS	CS
Switchyard	ESW	CS
Main Access	WMA	CS
Service Access	WSA	CS
Vehicle Access Portal	WVA	CS
HVAC Chiller Pads	VCX,Y, or Z	CS

^a These areas are part of the MOX Fuel Fabrication Building.

MFFF Construction Authorization Request Docket No. 070-03098

Value
Three-second wind speed: 130 mph
Missile criteria: 2- by 4-inch timber plank, 15 lb at 50 mph (horizontal); max. height
50 ft (see Note 1)
Three-second wind speed: 240 mph
Atmospheric pressure change: 150 psf
Rate of pressure drop: 55 psf/sec
(see Note 1)
2- by 4-inch timber plank
Mass: 15 lb
Horizontal Impact Speed: 150 mph
Vertical Impact Speed: 100 mph
Maximum Height: 200 ft
3-inch diameter standard steel pipe
Mass: 75 lb
Horizontal impact speed: 75 mph
Vertical impact speed: 50 mph
Maximum height: 100 ft
3000-lb automobile
Horizontal impact speed: 25 mph, rolls and tumble
Basic winds: 107 mph (Note 1)
Design basis flood level: 207.9 ft above msl
Probable maximum flood level: 224.5 ft above msl
Site grade level ≈ 272 ft above msl
Rain loading: 50 lb/ft ²
Accumulative precipitation:
Fifteen minutes: 3.9 inches
One hour: 7.4 inches
Three hours: 14.1 inches
Six hours: 16.7 inches
Twenty-four hours: 22.7 inches
Snow/ice loading: 10 lb/ft ²
Free field: 0.2g (horizontal); 0.13g (vertical)
(Under evaluation; laboratory testing is in progress)
(Cheer eventuation, aboratory testing is in progress)
190 ft to 220 ft shove mel
190 ft to 220 ft above msl (Under evoluation, review of credible events in progress)
190 ft to 220 ft above msl (Under evaluation; review of credible events in progress) Not applicable

Table 11.1-2. Summary of MFFF Site Design Criteria

Note 1: For determining wind and tornado loads using the ASCE 7 procedure, the following definitions apply: I = 1.0; Exposure Category = C; $K_{zt} = 1.0$; and $K_d = 1.0$.

Loading Combination	Overturning	Sliding	Flotation
D + F + H + W	1.5	1.5	-
D + F + H + E'	1.1	1.1	-
$D + F + H + W_t$ (Note 1)	1.1	1.1	
D + F + F'	-	-	1.1

Table 11.1-3. Minimum Factors of Safety

Note 1: When checking for overall structural stability, only the tornado load case of $W_t = W_w$ is considered.

This page intentionally left blank.

MFFF Construction Authorization Request Docket No. 070-03098

Figures

MFFF Construction Authorization Request Docket No. 070-03098

.

This page intentionally left blank.

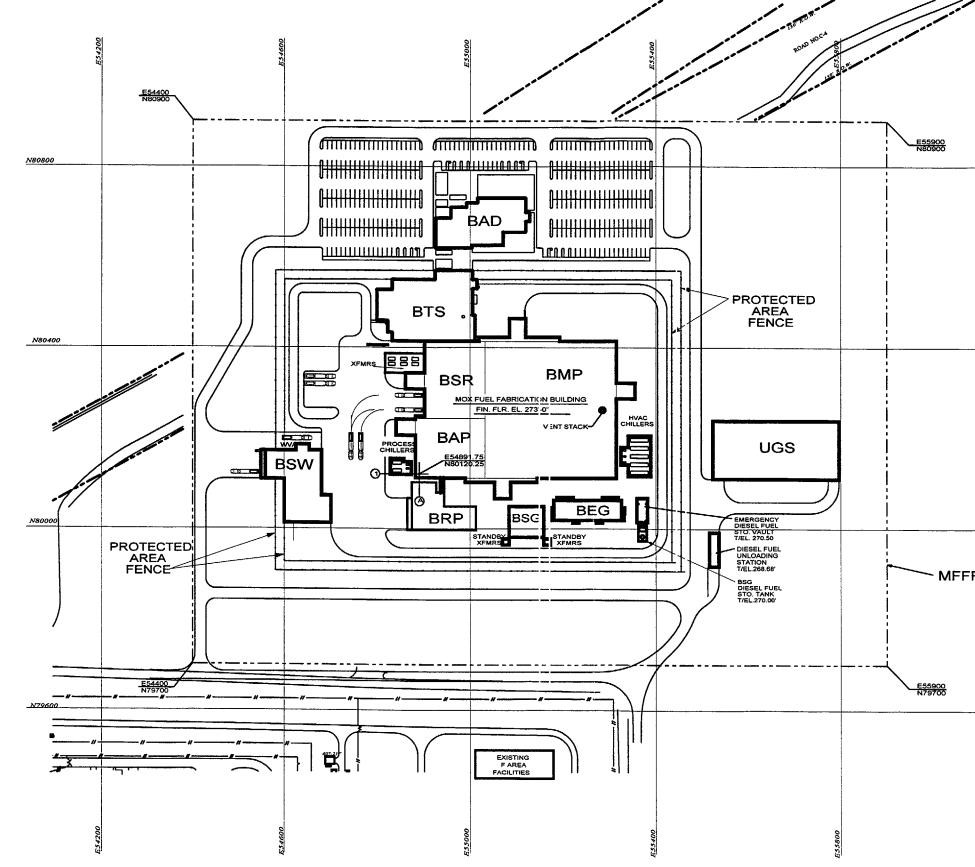


Figure 11.1-1. MFFF Site Plan

MFFF Construction Authorization Request Docket No. 070-03098

	E56200			
		<u>N80800</u>		
		N80400		BUILDING
			BMP MOX FUEL FABRICA BAP AQUEOUS POLISHI BSR SHIPPING AND REC SUPPORT BUILDINGS/STF BTS TECHNICAL SUPPO BAD ADMINISTATION BUS BSW SECURED WAREHC BRP REAGENTS PROCE BSG STANDBY DIESEL G BEG EMERGENCY DIESEL G BEG EMERGENCY DIESEL G BEG EMERGENCY DIESEL G BEG STANDBY DIESEL G BEG STANDBY DIESEL G BEG STANDBY DIESEL G	RUCTURES
	1	N80000	AREAS: SITE BOUNDARY AREA INSIDE FENCE AREA OUTSIDE FENCE AREA	41.32 ACRES 13.29 ACRES 28.03 ACRES
FF SI	TE			
		<u>N7960</u> 0		
	E56200			

.

.

3

MFFF Construction Authorization Request Docket No. 070-03098

This page intentionally left blank.

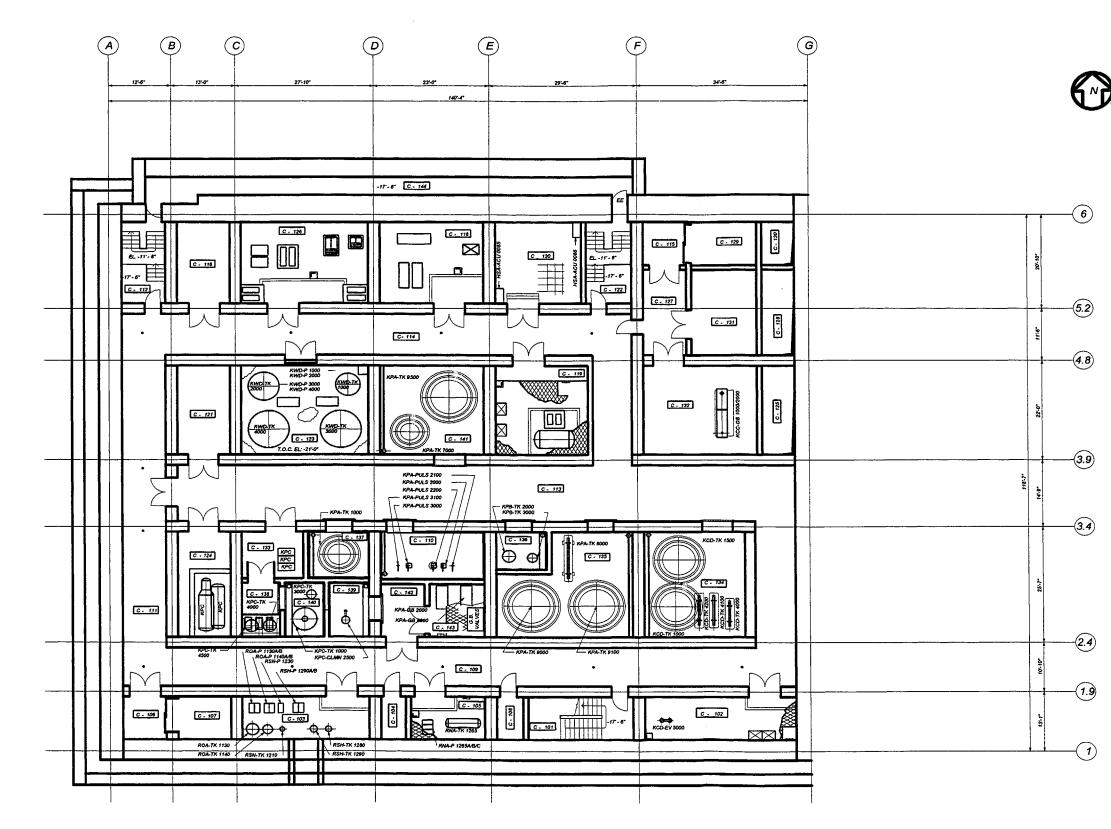


Figure 11.1-2. Aqueous Polishing Area - Process Conceptual Layout - Level 1 (Elevation -17'-6")

MFFF Construction Authorization Request Docket No. 070-03098

	ROOMIDENTIFICATION		
NUMBER	DESIGNATION	CONFINEMENT Zome	ROOI LOCAT
C - 101	STAIRS	C2	F.
C - 102	KCD VAPORIZER ROOM	C2	G
C - 103	DECANTING ROOM	C2	D
C - 104	TECHNICAL ROOM	C2	D
C - 105	VESSELS ROOM, REAGENTS	C2	E
C - 106	ELEVATOR LOBBY	C2	B
C - 107	SERVICE ELEVATOR	¢2	-
C - 108	TECHNICAL ROOM	C2	E
C . 109	PERSONNEL AND MATERIAL CORRIDOR	C2	E-
C . 110	PULSED COLUMN ROOM KPA	PC	<u>ہ</u>
C. 111	PERSONNEL AND MATERIAL CORRIDOR	C2	-
C - 112	STAIRS	C2	8
C . 113	PERSONNEL AND MATERIAL CORRIDOR	C2	E.
C. 114	PERSONNEL AND MATERIAL CORRIDOR	C2	<u>~</u>
C - 115	ELEVATOR LOBBY	C2	- '
C - 116	UTILITY ROOM	C2	B
C- 118	PUMP ROOM REAGENTS	C2	E
C - 119	KPC ROOM	C2	E
C . 120	ELECTRONICS ROOM	C2	E
C - 121	LIQUID WASTE	¢2	8
C - 122	STAIRS	C2	F
C . 123	VESSELS ROOM,KWD	C2	6
C - 124	LIQUID WASTE	C2	B
C - 125	UTILITY CHASE	C2	G
C . 126	PUMP ROOM, REAGENTS	C2	6
C - 127	AIRLOCK	C3b	F.
C - 128	UTILITY CHASE	C2	9
C . 129	SERVICE ELEVATOR	C2	
C - 130	UTILITY CHASE	C2	
C - 131	FILTER ROOM	C36	_ P
C . 132	CANNING DEVICE ROOM,KCB	C3b	F
C . 133	PUMPS ROOM,KPC	C2	0
C - 134	VESSELS ROOM,KCD	PC	F
C - 135	VESSELS ROOM, KPA	PC	- F
C - 136	VESSELS ROOM, KPB	PC	E
C . 137	VESSELS ROOM,KPA	PC	
C . 138	VESSELS ROOM, KPC	C2 PC	<u>ہ</u>
C - 139	VESSELS ROOM, KPC		-
C 140	VESSELS ROOM, KPC	PC	1-
C- 141	VESSELS ROOM,KPA	PC C3b	1 6
C - 142	AIR LOCK		
C - 143	GLOVE BOX ROOM, KPA	<u>C36</u>	-
C . 144	EMERGENCY EGRESS TUNNEL		+
			+
			1

PC - PROCESS CELL

This page intentionally left blank.

.

į

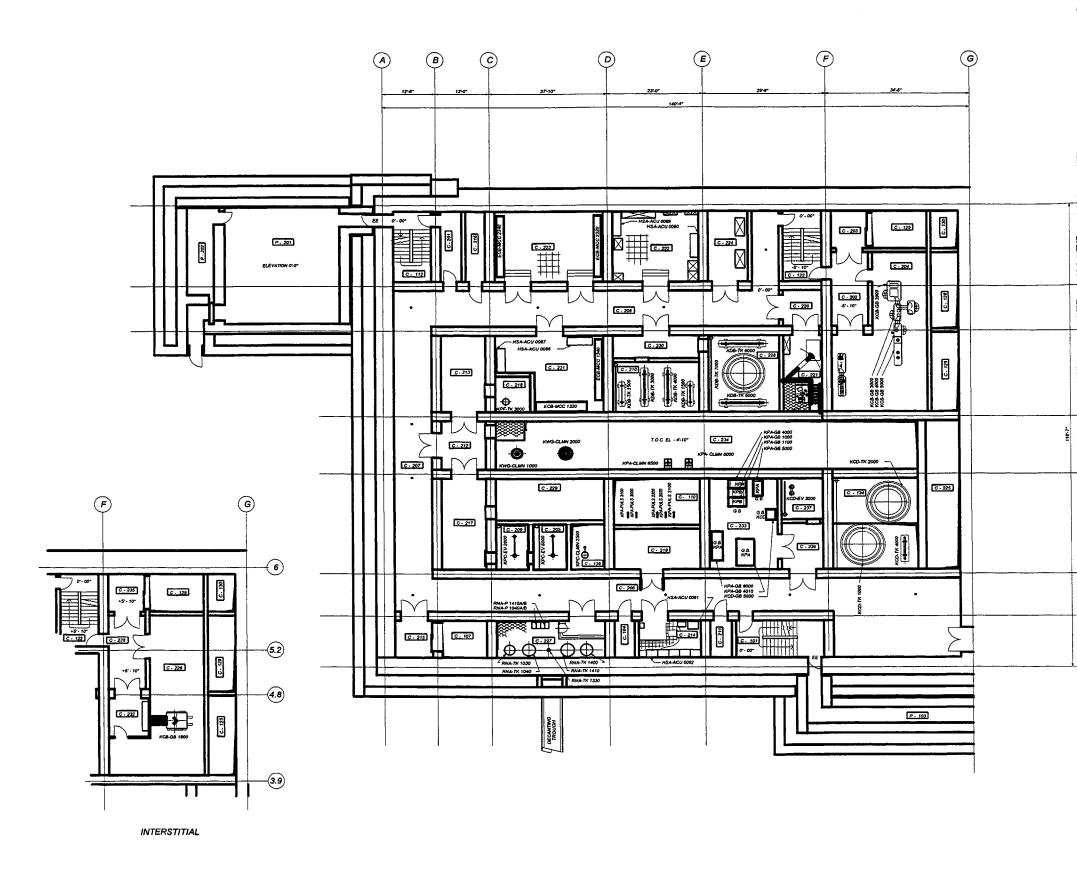


Figure 11.1-3. Aqueous Polishing Area - Process Conceptual Layout - Level 2 (Elevation 0'-0")

	ROOM IDENTIFICATION		
NUMBER	DESIGNATION	cowinement zone	ŝa
C 201	ACCESS TO C-112	C2	8
C-202	AIR LOCK	C30	F-
Ç. 203	ELEVATOR LOBBY	C2	<u>^</u>
C 204	POWDER SAMPLING ROOM	C36	1
C-205	EVAPORATOR ROOM.KPC	PC	0
C . 206	PERSONNEL AND MATERIAL CORRIDOR	C2	- 4
Ç. 207	PERSONNEL AND MATERIAL CORRIDOR	C2	
C-208	PERSONNEL AND MATERIAL CORRIDOR	C2	- 4
C 2050	EVAPORATOR ROOM KPC	PC	- 4
C 210	VESSELS ROOM.KDB	PC C2	- 4
C- 211	TECHNICAL ROOM		-
C. 212	ARLOCK	620	-
G - 213	UQUID WASTE		
C . 214	ELECTRONICS ROOM	62	
C . 215	ELEVATOR LOBBY		
C . 216	UTILITY CHASE		4
C - 217	LIQUID WASTE		-
C-218	VESSELS ROOM, KPF		-
C . 219	NEUTRON COUNTING ROOM	64	- 7
C 220	ARLOCK		t
G . 221	SAMPLING ROOM	C2	
C . 222	ELECTRONICS ROOM ELECTRICAL ROOM	62	
C - 223	AR CONDITIONER	C2	
C . 225	UTUTY CHASE	C2	1
C - 226	TUMBLING MIXER ROOM	636	
C . 227	VESSELS ROOM, REAGENTS	62	• ••
C 228	VESSELS ROOM KDB	PC	
C . 229	KWG ROOM	PC	1
C-230	ARLOCK	C2	17
C . 231	RAD ROOM	C2	
C.230	MOTORS ROOM	C30	1
C . 233	GLOVE BOX ROOM KPA.KPB	C36	T
C-234	ACTIVE GALLERY	PC	Г
C-235	ELEVATOR LOBBY	63	
C-236	AIR LOCK	C30	
C-237	EVAPORATOR ROOM KCD	PC	
C-238	AR LOCK	C36	
	SAFE HAVEN	C1	╋
P. 201 P. 202	SALLY PORT MAINTANENCE	C1	+
P . 200	SALLIFONT MANTANENAL		-
			+-
			+
			1
1	1		Т
<u> </u>			1
			T
			T
			1
			Ľ
F			. Г

Revision: 2/28/01 Page: 11.1-37

i

-2.4

-(1.9)

 $(\mathbf{1})$

..... :

MFFF Construction Authorization Request Docket No. 070-03098

This page intentionally left blank.

Revision: 2/28/01 Page: 11.1-38

.

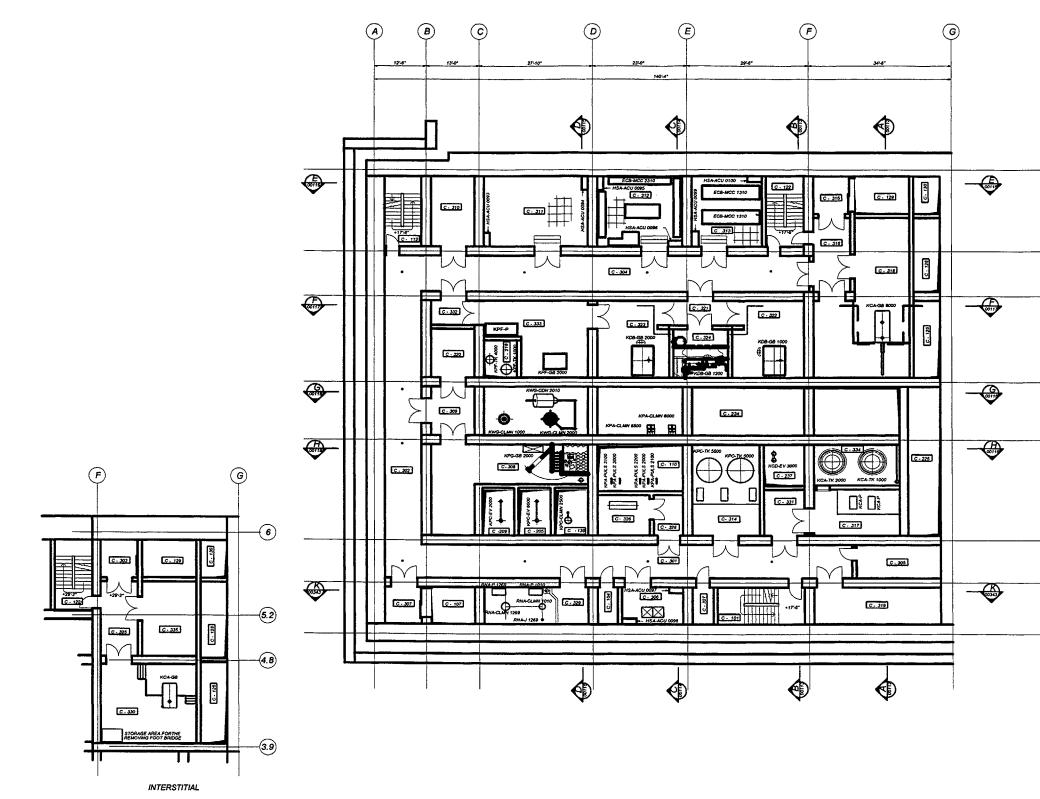


Figure 11.1-4. Aqueous Polishing Area - Process Conceptual Layout - Level 3 (Elevation 17'-6")

	-01-02	
	11-6-	5.2
_		4.8
	22:0.	
118:7-	14:9-	3.9
	26:7-	3.4
	10:10	
	12.1	1.9
	•	

INCOM LEXTIFICATION Conference Multiple NUMBER DE SIGNATION Conference Multiple C - 3001 PERSONNEL AND MATERIAL CORRECOR C2 E-321 C - 3001 PERSONNEL AND MATERIAL CORRECOR C2 E-321 C - 3001 ELEVATOR LOBAY C2 F-4 C - 3001 ELEVATOR LOBAY C2 F-4 C - 3001 ELEVATOR LOBAY C2 F-6 C - 3001 ELEVATOR LOBAY C2 F-7 C - 3001 ELEVATOR LOBAY C2 F-7 C - 3001 ELEVATOR LOBAY C2 F-6 C - 3001 ELEVATOR LOBAY C2 F-6 C - 3001 ELEVATOR LOBAY C2 F-6 C - 3001 AR LOBAY C2 F-6 C - 3012 ELECTROWCE ROOM C2 F-6 C - 3112 ELECTROWCE ROOM C2 F-6 C - 3112 ELEVATOR LOBAY C3 F-6 C - 312 ELEVATOR LOBAY C3 F-6						
NUMBER CONTINUE <	ROOM IDENTIFICATION					
C.320 PERSONNEL AND LATERAL CORRECP C2 8-34 C.330 ELEVITOR LOBEY C2 F-4 C.330 PERSONNEL AND LATERAL CORRECP C2 F-4 C.330 ELEVITOR LOBEY C2 F-4 C.330 ELEVITOR LOBEY C2 F-1 C.330 ELEVITOR LOBEY C2 F-1 C.330 ELEVITOR LOBEY C2 F-1 C.330 STEVENCEL ROOM C2 F-1 C.330 STEVELINITOR LOBEY C2 F-3 C.330 STEVENCEL ROOM C2 C4-3 C.330 STEVENCEL ROOM C2 C4-3 C.331 ELECTRONCE ROOM C2 F-43 C.331 ELECTRONCE ROOM C3 F-44 C.331	NUMBER	DESIGNATION		ACCIN LOCATION		
C.320 PERSONNEL AND MATERIAL CORRIDOR C2 8-34 C.330 FELEVATOR LOBEY C2 F-4 C.330 PERSONNEL AND MATERIAL CORRIDOR C2 6-43 C.330 FELEVATOR LOBEY C2 6-43 C.330 FELEVATOR LOBEY C2 6-13 C.330 FELEVATOR LOBEY C2 6-13 C.320 FELEVATOR LOBEY C2 6-13 C.320 SAMPLWG ROOM C2 6-34 C.330 SECENCEL ROOM C2 6-34 C.330 SELECTRONCE ROOM C2 6-34 C.330 SELECTRONCE ROOM C2 6-32 C.3310 ELECTRONCE ROOM C2 6-34 C.3310 ELECTRONCE ROOM C2 6-34	C . 307	PERSONNEL AND MATERIAL CORRIDOR	C2	E-2.4		
C-333 ELEVATOR LOBAY C2 F-4 C-334 FERNARCAL ROD ANTERNAL CORRECOR C2 D-53 C-335 TECHNECAL RODM C2 D-61 C-336 FERNARCAL RODM C2 D-61 C-336 FERNARCAL RODM C2 D-61 C-336 ELEVATORI LOBAY C2 D-61 C-336 ELEVATORI LOBAY C2 D-61 C-337 ELEVATORI LOBAY C2 D-61 C-330 ELEVATORI LOBAY C2 D-62 C-330 ARLOCK C30 D-61 C-330 ELECTRONUES ROOM C2 D-62 C-3310 ELECTRONUE ROOM C2 E-62 C-3311 ELECTRONUE ROOM C2 E-62 C-3311 ELEVATORI LOBAY C3 F-43 C-3311 ELEVATORI LOBAY C30 F-64 C-3311 ELEVATORI LOBAY C30 F-64 C-3311 FLEVATORI LOBAY C30 F-64 C-3311 <				8.34		
G.301 PERSONNEL, MOL MATERAL, CORRIGOR C7 D-32 G.302 TECHNONES, ROQU C7 D-13 G.302 ELECTRONCES, ROQU C7 E-13 G.302 SAMPLING ROQU C2 D-13 G.303 SELECTRONCES, ROQU C2 D-34 G.303 ELECTRONCES, ROQU C2 D-34 G.311 ELECTRONCE, ROQU C7 D-35 G.312 ELECTRONCE, ROQU C7 E-64 G.313 ELECTRONCE, ROQU C7 E-64 G.312 ELECTRONCE, ROQU C7 F-4 G.313 ELECTRONCE, ROQU C3 E-64 G.314 ARLOOK C30 F-54 G.313 ELECTRONCE, ROQU C30 F-43 G.314 ARLOOK C30 F-43 G.317			C2	F-6		
C:303 TECHNOCA ROOM C2 0-13 C:302 ELEVATOR LOBAY C2 0-13 C:302 ELEVATOR LOBAY C2 0-19 C:302 ELEVATOR LOBAY C2 0-19 C:303 ELEVATOR LOBAY C2 0-19 C:304 SAMEWAR ROOM C2 0-24 C:302 MALOCK C20 0-34 C:302 MALOCK C2 0-52 C:301 ELECTROCH ROOM C2 0-52 C:303 ELECTROCH ROOM C2 0-52 C:303 ELECTROCH ROOM C2 6-52 C:303 ELECTROCH ROOM C2 6-52 C:303 ELEVATOR LOBAY C3 6-54 C:303 ELEVATOR LOBAY C30 6-54 C:303 ELEVATOR LOBAY C30 6-54 C:304 F.31 F.44 6-35 C:304 F.41 F.44 6-35 C:304 F.44 C30 6-54 <th></th> <td></td> <td>C2</td> <td>D-5.2</td>			C2	D-5.2		
0.323 ELECTRONCE ROOM C7 EF IS 0.323 ELECTRONCE ROOM C3 E-IS 0.327 ELEVATOR LOBEY C7 E-IS 0.327 ELEVATOR LOBEY C3 E-IS 0.327 ELEVATOR LOBEY C3 E-IS 0.328 ARI LOCK C3 E-IS 0.410 ILLITY CHASE C2 C42 0.411 ELECTRONCE ROOM C2 E-IS 0.411 ELEVATOR LOBEY C7 F-I 0.411 ELEVATOR LOBEY C3 F-I 0.411 FLISTRON KCA C30			67	G-1.9		
G. 207 LEE VATOR LOBAY C2 8-13 G. 208 SAMEWAR ROOM C20 C-34 G. 208 SAMEWAR ROOM C20 C-34 G. 2010 UTUPY CHASE C2 C-43 G. 2010 DELETROWIG ROOM C2 D-52 G. 2011 ELECTROWIG ROOM C2 D-52 G. 2012 ELECTROWIG ROOM C3 E-63 G. 2013 ELECTROWIG ROOM C3 E-63 G. 2013 ELECTROWIG ROOM C3 E-64 G. 2013 ELECTROWIG ROOM C3 E-64 G. 2013 ELECTROWIG ROOM C3 E-64 G. 2013 ELEVATOR LOBAY C3 F-64 G. 2013 ELECTROWIG ROOM C30 F-64 G. 2014 HULTY ROOM C4 G-64 G. 2015 LIDUAD WARTE C30 E-64 G. 2014 LIDUAD WARTE C30 E-64 G. 2014 LIDUAD ROOM KCA C30 E-64 G. 2014			62	E-1.9		
0.303 SUMPLING ROOM C29 CO.14 0.503 SUMPLING ROOM C29 CO.14 0.503 MILLITY CHARE C2 C6.32 0.117 LELETINGKES ROOM C2 C6.32 0.117 ELECTINGKES ROOM C2 C6.32 0.118 ELECTINGKES ROOM C2 C6.32 0.118 ELEVITION LOBEY C2 F6.42 0.118 ELEVITION LOBEY C3 F6.42 0.117 PUIR ROOM KCA C36 F6.42 0.117 PUIR ROOM KCA C36 C6.30 0.117 PUIR ROOM KCA C36 C6.30 0.117 PUIR ROOM KCA C36 C6.30 0.117 RUBR ROOM KCB C36 C4.41 0.117 RUBR ROOM KCB C36 C4.41 0.117 <t< td=""><th></th><td></td><td>8</td><td>8-1.9</td></t<>			8	8-1.9		
0530 AR LOCK CD 0-34 05300 AR LOCK C2 0-34 05300 ELECTRONK ROOM C2 0-52 05301 ELECTRONK ROOM C2 0-52 05302 ELECTRONK ROOM C2 0-52 05302 ELECTRONK ROOM C2 0-52 05302 ELECTRONK ROOM C2 6-52 05302 ELECTRONK ROOM C3 6-54 05303 ELECTRONK ROOM C3 6-54 05301 FUNDR ROOM ROOM C3 6-54 05301 FUNDR ROOM ROOM C3 6-54 05301 FUNDR ROOM ROOM C3 6-35 05301 FUNDR ROOM ROOM C3 6-43 05301 FUNDR ROOM ROOM C3 6-43 05301 FUNDR ROOM ROOM C3 <th></th> <td></td> <td></td> <td></td>						
Control UTUTY ONASE C2 C6.22 Control ELECTRONCS ROOM C2 C6.23 Control ELECTRONCS ROOM C2 E6.24 Control ELEVITOR LOOM C2 E6.24 Control ELEVITOR LOOR C2 F.24 Control C3 F.24 C3 F.24 Control C3 C3 F.24 C3 C3 Control C3 C3 C.25 C4.24 C3 Control Casto C.34 C3 C.35 C4.4 Control Casto Casto C.35 C4.4 C3 Control Casto Casto C4.4 C3 C4.4 Contro Casto Casto <t< td=""><th></th><td></td><td></td><td></td></t<>						
G. 313 ELECTRONICS ROOM C2 D-52 G. 313 ELECTRONIC ROOM C2 E42 G. 314 RESS ROOM/ROC C2 E44 G. 315 ELEVATORI LOBBY C3 E44 G. 314 AN LOOK C3 F44 G. 315 AN LOOK C3 F54 G. 317 FUMP ROOM RCA C30 F54 G. 317 FUMP ROOM RCA C30 F54 G. 317 FUMP ROOM RCA C30 F54 G. 311 FUMP ROOM RCA C30 F54 G. 311 FUMP ROOM RCA C30 F44 G. 311 FUMP ROOM RCA C30 F44 G. 3272 ELECTROLYZER ROOM ROB C30 F44 G. 3272 FUM ROOM ROARDB C30 F44 G. 3272 FUM ROOM ROARDB						
G-312 ELECTIVICAL ROOM G2 E43 G-315 ELECTIVICAL ROOM G2 E43 G-316 ELECTIVICAL ROOM G2 E54 G-3110 ELEVITICAL ROOM G2 E54 G-3110 ELEVITICAL ROOM G2 E54 G-3110 ELEVITICAL ROOM G2 E74 G-3110 ELEVITICAL ROOM G3 F74 G-3111 PUMP ROOM XGA G36 F74 G-3111 PUMP ROOM XGA G36 F74 G-3121 UTLITY ROOM G7 F74 G-3221 UTLITY ROOM G7 F74 G-3221 ARLOOK G36 F44 G-3221 ARLOOK G36 F44 G-3221 ARLOOK G36 F43 G-3221 ELECTINOLYZER ROOM KOB C30 F44 G-3221 ARLOOK G30 F44 G-3221 ELECTINOLYZER ROOM KOB C30 F44 G-3222 FECHROLYZER ROOM KOB <t< td=""><th></th><td></td><td></td><td></td></t<>						
Control ELECTRICAL ROOM C2 E431 Control VESSES ROOM MOC C3 E441 Control VESSES ROOM MOSTE C3 C451 Control VESSES ROOM MOSTE C3 E441 Control VESSES ROOM MOSTE C3 E441 <						
Color VESSES ROOM/RC C2 E34 Coll EEXANTOR LOBBY C7 F.4 Coll EEXANTOR LOBBY C3 F.42 Coll ARLOOK C30 F.42 Coll F.44 C30 F.42 Coll Coll C.20 F.42 Coll F.41 C30 F.42 Coll Coll C.20 F.42 Coll Coll C.20 F.42 Coll Coll C.20 F.42 Coll Coll Coll C.20 Coll Coll Coll Coll						
Construction C2 F.4 Construction C3 C3 Construction C3 F.4 Construction C3						
0.110 ARLOCK C50 F-52 0.117 PURHOE ROOM C50 F-54 0.117 PURHOE ROOM C50 F-52 0.117 PURHOE ROOM C7 F-18 0.117 PURHOE ROOM K08 C38 F-44 0.117 PURE ROOM K08 C38 F-42 0.117 PURE ROOM K08 C38 F-42 0.117 PURE ROOM K04 C38 F-42 0.117 PURE ROOM K04 C38 F-43 0.117 PURE ROOM K04 C38 <						
Col12 PULIER PRODUKCA Cab F-24 Col12 FUNIER PRODUKCA Cab F-34 Col12 UTUTY PRODU C3 F-34 Col12 UTUTY PRODU C3 F-35 Col12 UTUTY PRODU C3 F-44 Col12 ARLOOK Cab F-35 Col12 ARLOOK Cab F-44 Col12 SARE						
0-310 FURMEE ROOM C30 F-42 C0-317 FURMEE ROOM C7 F-18 C0-327 LEUDEN ROOM C7 F-18 C0-327 LECTROLVER ROM/K08 C38 F-48 C0-327 ELECTROLVER ROM/K08 C38 F-48 C0-327 ELECTROLVER ROM/K08 C38 F-48 C0-327 FLER GLOVE BOOM/K08 C38 F-48 C0-327 AR LOCK C30 F-52 C0-327 AR LOCK C30 F-52 C0-328 TEVENECAL ROOM C7 E-53 C0-329 TAWE ROOM ROM K0A C30 F-54 C0-339 AR LOOK C30 F-54 C0-339 AR LOOK C30 F-64 C0-339 AR LOOK C30 F-64 C0-339 AR LOOK <						
0:332 UDLTY ROOM C7 F-19 0:320 LOUDY WASTE C30 E-44 0:320 LEUDY XER ROOM K08 C30 E-44 0:320 LEUDY XER ROOM K08 C30 F-44 0:320 LEUDY XER ROOM K08 C30 F-44 0:320 LEUDY XER ROOM K08 C30 F-45 0:321 LEUTY XER ROOM K08 C30 F-45 0:321 LEUTY XER ROOM K08 C30 F-45 0:321 LEUTY XER ROOM K08 C30 F-43 0:327 LEUTY XER ROOM K08 C30 F-43 0:327 JAR LOOK C30 F-43 0:327 JAR LOOK C30 F-43 0:328 JAR LOOK C30 F-43 0:329 JAR LOOK C30						
G-320 JOURD WASTE C.36 C-39 G-371 AR LOOK C.36 E-44 G-3721 LELECTROLYZER RODW KDB C.36 E-44 G-3721 LELECTROLYZER RODW KDB C.36 E-44 G-3721 AR LOCK C.36 E-45 G-3721 AR LOCK C.36 E-46 G-3721 AR LOCK C.36 E-47 G-3721 AR LOCK C.36 E-47 G-3721 AR LOCK C.36 E-47 G-3721 AR LOCK C.30 E-52 G-3721 AR LOCK C.30 F-54 G-3221 AR LOCK C.30 F-54 G-3231 AR LOCK C.30 F-44 </td <th></th> <td></td> <td></td> <td></td>						
0.322 LEILOOK Cab E-44 0.322 LEILOTTOK YER ROW KOB Cab F-44 0.322 LEILOTTOK YER ROW KOB Cab F-44 0.323 LEILOTTOK YER ROW KOB Cab F-44 0.324 LEILOTTOK YER ROW KOB Cab F-43 0.324 LEILOTTOK YER ROW KOB Cab F-43 0.327 JAR LOOK Cab F-43 0.377 TRCHMCAL ROOM Ca E-13 0.377 JAR LOOK Cab F-32 0.377 JAR LOOK Cab F-34 0.377 JAR LOOK Cab F-34 0.377 JAR LOOK Cab F-34 0.331 AR LOOK Cab F-44 0.332 JAR LOOK Cab F-44 0.333 AR LOOK Cab F-44 0.333 JAR LOOK Cab F-44 0.333 JAR LOOK Cab F-44 0.333 JAR LOOK Cab						
0-323 ELECTROLYZER RODUKOB C35 F-4 C-323 FLICTROLYZER RODUKOB C35 O-4 C-324 FLITR OLOVE BOK RODUKOB C35 O-4 C-324 FLITR OLOVE BOK RODUKOB C35 C-4 C-324 FLITR OLOVE BOK RODUKOB C35 C-4 C-324 FLITR OLOVE BOK RODUKOB C35 C-4 C-325 FARE C35 C-4 C-327 ARLOCK C35 D-4 C-327 TRUCK C35 D-4 C-328 TAME ROOM C7 E-19 C-327 TRUCK C35 D-4 C-329 TAME ROOM ROA C35 F-34 C-330 MELOCK C35 D-4 C-3231 ARLOCK C35 D-44 C-3232 ELECTROLYZER ROM KOA C35 D-44 C-3231 ARLOCK C35 D-44 C-3232 ELECTROLYZER ROM KOA D5 D-44 C-3334 VISSELS ROOM KOA						
05221 ELECTROLVEDR RODURDE Cbs 0-48 052721 FLER GLOVE BOX RODURDE Cbs 0-58 052721 ARLOCK Cbs 7-43 052721 ARLOCK Cbs 7-43 052321 ELECTROLVER ROOM/KCA Cbs 7-44 052332 ELECTROLVER ROOM/KCA PC 7-34 052332 VESSELS ROOM/KCA PC 7-34 0						
0:323 FILTER GLOVE BOX ROOM/XOB C3b E.39 0:323 ARL DOX C3b F.42 0:321 SPARE C3b F.42 0:322 SPARE C3b F.42 0:322 TECHMERAL ROOM C3 E.19 0:322 TECHMERAL ROOM C3 E.19 0:323 TARL ROCK C3b E.42 0:330 PRECENTATION ROM KCA C3b F.34 0:323 ARLOCK C3b B.44 0:323 ARLOCK C3b B.44 0:323 ELECTROLVER ROM KCA C3b B.44 0:323 ELECTROLVER ROM KCA C3b F.42 0:332 FLER ROM KCA C3b F.42 0	C . 322	ELECTROLYZER ROOM,KDB		F-48		
0.723 ARLOCK C50 F-54 C0.728 SPARE C50 D-24 C0.727 RECONCULADOM C7 E-15 C0.727 RECONCULADOM C7 E-16 C0.727 RALEOK C50 E-24 C0.727 TAME ROOM REGRETS C7 D-15 C0.727 TAME ROOM REGRETS C70 F-13 C0.727 TAME ROOM REGRETS C70 F-13 C0.727 TAME ROOM REGRETS C70 F-14 C0.727 TAME ROOM REGRETS C70 F-14 C0.727 TAME ROOM REGRETS C30 F-43 C0.727 TAME ROOM REGRETS C30 F-43 C0.728 AR LOCK C30 F-43 C0.7233 HELEOROLZER ROOM REGRETS C30 D-44 C0.7234 VESSELS ROOM REGRETS C30 D-44 C0.7234 VESSELS ROOM REGRETS C30 D-44 D C30 F-34 C30 F-34 C0.72	C . 323			D-4.8		
C.177 SPARE C30 D-24 C.1771 TRCHRCAL ROOM C1 E1-19 C.1771 AR LOCK C30 E7-41 C.1772 TAW ROOM READENTS C1 D-19 C.1771 AR LOCK C30 E7-41 C.1771 AR LOCK C30 F-34 C.1772 AR LOCK C30 F-34 C.1771 AR LOCK C30 F-34 C.1772 AR LOCK C30 F-34 C.1772 AR LOCK C30 F-34 C.1772 AR LOCK C30 F-34 C.1774 C100 KCA PC F-34 C.1774 C100 C100 F-34 C.1774 C100 C100 F-34 C.1775 C100 C100 F-34	C . 124			E-J.9		
G-3722 FECHNECK, HOOM C7 F-18 G-3721 ARK HOOK C3 F-24 G-3721 TANK HOOK INGLARKTS C7 D-19 G-3527 FERENCIAL HOOK INGLARKTS C7 D-19 G-3520 FREEDRITATION ROM/KCA C36 F-32 G-3521 AR LOCK C36 F-32 G-3321 AR LOCK C36 G-48 G-3321 AR LOCK C36 D-48 G-3321 AR LOCK PC F-34 G-3321 VESSELS ROOM/KCA PC F-34 G-3332 AR LER ROOM C36 F-32 D S	C . 325	AIR LOCK				
G.272 ARLOCK Cb E24 G.2972 TAWR ROOM REAGENTS G2 D1.9 G.2979 PRECMTATION ROOM KCA Cb F.31 G.2971 ARLOCK Cb F.34 G.2972 FARLOCK Cb F.34 G.2973 ARLOCK Cb F.34 G.2973 ARLOCK Cb F.34 G.2974 RELOCK Cb F.44 G.2975 F.84 Cb F.45 G.2974 F.852 ROOM KCA PC F.54 G.2975 F.84 Cb F.52 F.52	C.328	SPARE	C.10	0-2.4		
G-323 TANK ROOM REARDITS GT D-19 G-323 FREENTATION ROOM/KCA C50 F-34 G-323 AR LOOK C30 F-34 G-323 AR LOOK C30 F-34 G-323 AR LOOK C30 F-34 G-333 AR LOOK C30 G-48 G-333 HERTROLYZER ROOM/KCA PC F-34 G-333 HARTR ROOM C30 F-32 D G S42 S52	C 3277E	TECHNICAL ROOM	C7	E-1.9		
C.330 PRECRITATION ROOM,KCA C36 F-38 C.331 AR LOCK C36 F-24 C.332 AR LOCK C36 8-4 C.332 AR LOCK C36 8-4 C.332 AR LOCK C30 8-4 C.333 ELECTROLYZER ROOM,KPF C30 0-44 C.335 FALTER ROOM,KCA PC F-3.4 C.335 FALTER ROOM,KCA PC F-3.2 D	C . 120	AIR LOCK	636	E-2.4		
G 333 AR LOCK Case F-24 G -370 AR LOCK Case 8-48 G -2301 ELECTROL YZER ROOM KOP Case 0-48 G -3304 VESSELS ROOM KOP Case 0-48 G -3304 VESSELS ROOM KOA PC F-3.4 G -3335 FATER ROOM Case F-32	C 329	TANK ROOM, REAGENTS	23	D-1.9		
C.332 AR LOCK C36 8-4.8 C.332 ELECTROL VZER ROOM KOF C36 D-4.8 C.334 MESELS ROOM KCA PC F-3.4 C.335 FALTER ROOM C36 F-5.3 D	C . 330	PRECIPITATION ROOM, KCA	C.30	F-3.9		
0:333 ELECTROLYZER ROBAKKIP C3b D=4 8 0:334 VESSELS ROOM KCA PC F-34 0:335 FATER ROOM C3b F-42	C 331	AIR LOCK	C.30	F-2.4		
C:330 ELECTROLYZER RODM/KOF C30 D-48 C:330 FESELS RODM/KCA PC F-34 C:335 FALTER RODM C30 F-32 D	C-332	AIR LOCK	636	8-4.8		
C.335 FLTER ROOM C36 F-52		ELECTROLYZER ROOM.KPF	636	048		
(<u>C.335</u>) FLTER ROOM C30 F-5.2 D	C. 334	VESSELS ROOM,KCA	PC	F-3.4		
<u> </u>			630	F-5.2		
			· · · ·			
	0					
			1			
			1			
	· · · · · ·	l				
			1			
		· · · · · · · · · · · · · · · · · · ·	i			
			T	1		
		· · · · · · · · · · · · · · · · · · ·				
		·	1	t		
		······································				
			t	·····		
		┠┈╺╍╸─────────────────────────────	1	1		

-

PC - PROCESS CELL

MFFF Construction Authorization Request Docket No. 070-03098

This page intentionally left blank.

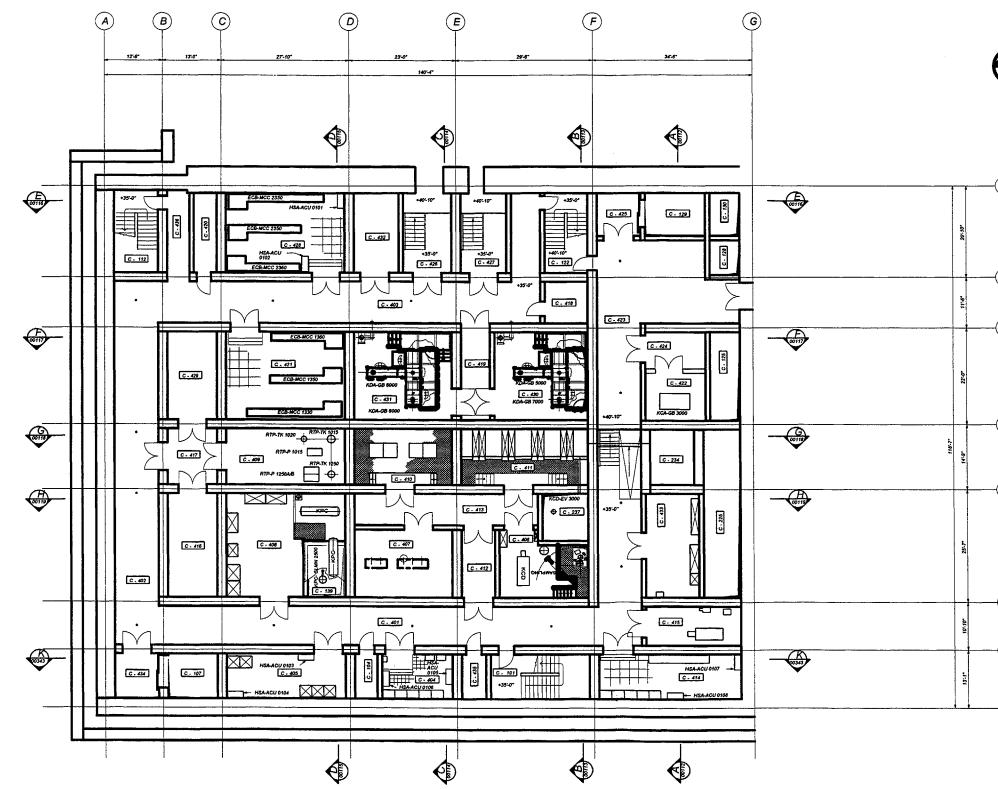
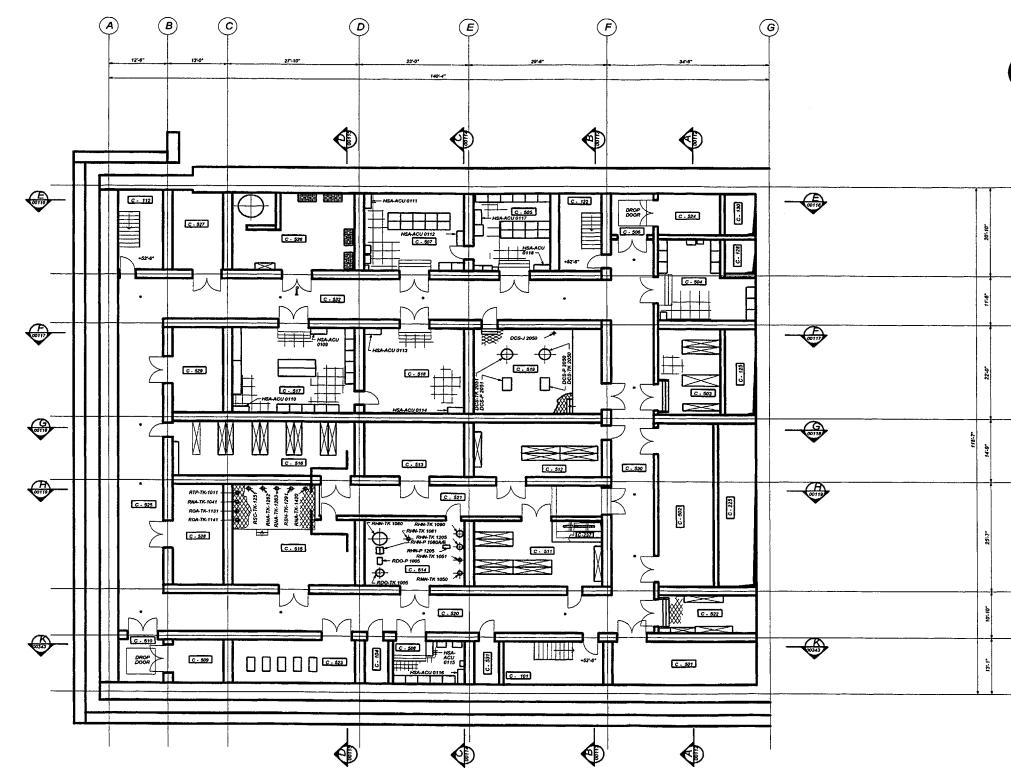


Figure 11.1-5. Aqueous Polishing Area - Process Conceptual Layout - Level 4 (Elevation 35'-0")

NUMBER LESIMPLIAN ZORE LOC C. 407 PERSONNEL AND MATERUL CORRIDOR C2 D C. 402 ELECTRONCS ROOM C2 D C. 403 RAD CONTROL ROOM C3 E C. 403 RAD CONTROL ROOM C3 E C. 407 PULSATION VALVES G.ROOM C3 E C. 407 PULSATION VALVES G.ROOM C3 E C. 407 PULSATION VALVES G.ROOM C3 E C. 407 PULSATION INSTRUCTION ROOM C3 E C. 401 DECONTAMINATION DISTRUCTION ROOM C3 E C. 413 A.C. AR & IDSTRBUTION ROOM C3 E C. 413 JOURDOR C3 E C. 413 JOURDOR C3 E C. 414 LECTRONCS ROOM C2 <td< th=""><th>NUMBER LESOUNTION 2006 LOCK C. 401 PERSONNEL AND MATERAL CORRIDOR C2 D-1 C. 402 PERSONNEL AND MATERAL CORRIDOR C2 A-2 C. 403 PERSONNEL AND MATERAL CORRIDOR C2 A-3 C. 402 PERSONNEL AND MATERAL CORRIDOR C2 A-3 C. 403 ELECTRONGS ROOM C2 E-5 C. 403 ELECTRONGS ROOM C2 E-5 C. 403 ON LIKE ANUX ISS ROOM C3 E-3 C. 402 PULSATION VALVES ROOM C3 E-3 C. 403 ISTEM DISTIBUTION ROOM C3 E-3 C. 401 DECONTAMINATION DISTBUTION ROOM C3 E-3 C. 413 AR LOCK C3 E-3 C. 413 LOCKATAMINATION DISTBUTION ROOM C3 E-3 C.</th><th>NUMBER LESIMATION TOME LOG C. 401 PERSONNEL AND MATERIAL CORRIDOR C2 C C. 402 ELECTRONCS ROOM C2 E C. 403 ELECTRONCS ROOM C2 E C. 404 ELECTRONCS ROOM C2 E C. 405 PULSATION VALVES G. ROOM MCA C3b E C. 407 PULSATION VALVES G. ROOM MCA C3b E C. 407 PULSATION VALVES G. ROOM MCA C3b E C. 407 DECONTAMINATION DISTRBUTION ROOM C3b E C. 410 DECONTAMINATION DISTRBUTION ROOM C3b E C. 411 ELECTRONCS ROOM C2 F C. 411 ELECTRONCS ROOM C2 F C. 411 ELECTRONCS ROOM C2 F C. 411 ELECTRONCS ROOM<th>┣──</th><th>ROOM IDENTIFICATION</th><th></th><th>r –</th></th></td<>	NUMBER LESOUNTION 2006 LOCK C. 401 PERSONNEL AND MATERAL CORRIDOR C2 D-1 C. 402 PERSONNEL AND MATERAL CORRIDOR C2 A-2 C. 403 PERSONNEL AND MATERAL CORRIDOR C2 A-3 C. 402 PERSONNEL AND MATERAL CORRIDOR C2 A-3 C. 403 ELECTRONGS ROOM C2 E-5 C. 403 ELECTRONGS ROOM C2 E-5 C. 403 ON LIKE ANUX ISS ROOM C3 E-3 C. 402 PULSATION VALVES ROOM C3 E-3 C. 403 ISTEM DISTIBUTION ROOM C3 E-3 C. 401 DECONTAMINATION DISTBUTION ROOM C3 E-3 C. 413 AR LOCK C3 E-3 C. 413 LOCKATAMINATION DISTBUTION ROOM C3 E-3 C.	NUMBER LESIMATION TOME LOG C. 401 PERSONNEL AND MATERIAL CORRIDOR C2 C C. 402 ELECTRONCS ROOM C2 E C. 403 ELECTRONCS ROOM C2 E C. 404 ELECTRONCS ROOM C2 E C. 405 PULSATION VALVES G. ROOM MCA C3b E C. 407 PULSATION VALVES G. ROOM MCA C3b E C. 407 PULSATION VALVES G. ROOM MCA C3b E C. 407 DECONTAMINATION DISTRBUTION ROOM C3b E C. 410 DECONTAMINATION DISTRBUTION ROOM C3b E C. 411 ELECTRONCS ROOM C2 F C. 411 ELECTRONCS ROOM C2 F C. 411 ELECTRONCS ROOM C2 F C. 411 ELECTRONCS ROOM <th>┣──</th> <th>ROOM IDENTIFICATION</th> <th></th> <th>r –</th>	┣──	ROOM IDENTIFICATION		r –
L1201 PERSONNEL AND MITERAL CORROOM C2 A C. 402 PERSONNEL AND MITERAL CORROOM C2 A C. 402 PERSONNEL AND MITERAL CORROOM C2 A C. 402 PERSONNEL AND MITERAL CORROOM C2 A C. 403 PERSONNEL AND MITERAL CORROOM C2 D C. 403 ELECTRONGE ROOM C2 D C. 403 PALSATION VALVES G.B. ROOM C2 D C. 403 STEAM DISTIBUTION AND VESSELS ROOM C3 E C. 403 STEAM DISTIBUTION AND VESSELS ROOM C3 E C. 403 REAGENTS DISTIBUTION ROOM C36 E C. 410 DECONTAMINATON DISTIBUTION ROOM C36 E C. 411 AL AC AR AL DISTIBUTION ROOM C36 E C. 412 ARI LOCK C36 E C. 413 DECONTAMINATION DISTIBUTION ROOM C36 E C. 413 DORDOR C2 F C C. 413 DELECTRONICS ROOM C2 F <td< th=""><th>1.1001 PERSONNEL AND MITPUL CORPORA C2 A-2 C. 4021 PERSONNEL AND MITPUL CORPORA C2 A-3 C. 4031 PERSONNEL AND MITPUL CORPORA C2 A-3 C. 4031 PERSONNEL AND MITPUL CORPORA C2 A-3 C. 4031 PERSONNEL AND MITPUL CORPORA C2 A-4 C. 4031 RAD CONTROL ROOM C2 D-4 C. 4031 RAD CONTROL ROOM C2 D-4 C. 403 STEMI DISTIBUTION AND VESSELS ROOM C3 C3 C. 403 STEMIDION AND VESSELS ROOM C3 C3 C. 403 STEMIDION NOOM C3 D-3 C. 413 DECONTAMINATION DISTRBUTION ROOM C3 D-3 C. 413 A. CAR & TOSTRBUTION ROOM C3 D-3 C. 413 A. COR C3 E-3 C. 413 AL OOK C3 E-3 C. 413 AL OOK C3 E-3 C. 413 JACONTAMANDON DISTRBUTION ROOM C3 E-3 C. 413 JACONTA MAST</th><th>Q.: 600 PERSONNEL AND MATERIAL CORRIDOR C2 Q.: 601 PERSONNEL AND MATERIAL CORRIDOR C2 D Q.: 601 PERSONNEL AND MATERIAL CORRIDOR C2 D Q.: 601 PERSONNEL AND MATERIAL CORRIDOR C2 D Q.: 601 RAD CONTROL ROOM C2 D Q.: 601 RAD CONTROL ROOM C2 D Q.: 601 ON UNE ANALYSS ROOM C30 E Q.: 601 STEAM IDSTREUTION ROOM C30 E Q.: 601 STEAM IDSTREUTION ROOM C30 D Q.: 611 DECONTAMINATION IDSTREUTION ROOM C30 D Q.: 611 AR LOCK C30 E Q.: 611 ARE LOCTROMICS ROOM C30 E Q.: 611 ARE LOCK C30 E Q.: 612 ARE LOCK C30 E Q.: 613 ARE LOCK C30 E Q.: 614 ARE LOCK C30 E Q.: 617 ARE LOCK C30 E <</th><th>NUMBER</th><th>DESIGNATION</th><th>CONFINEMENT Zone</th><th>ROOM LOCATX</th></td<>	1.1001 PERSONNEL AND MITPUL CORPORA C2 A-2 C. 4021 PERSONNEL AND MITPUL CORPORA C2 A-3 C. 4031 PERSONNEL AND MITPUL CORPORA C2 A-3 C. 4031 PERSONNEL AND MITPUL CORPORA C2 A-3 C. 4031 PERSONNEL AND MITPUL CORPORA C2 A-4 C. 4031 RAD CONTROL ROOM C2 D-4 C. 4031 RAD CONTROL ROOM C2 D-4 C. 403 STEMI DISTIBUTION AND VESSELS ROOM C3 C3 C. 403 STEMIDION AND VESSELS ROOM C3 C3 C. 403 STEMIDION NOOM C3 D-3 C. 413 DECONTAMINATION DISTRBUTION ROOM C3 D-3 C. 413 A. CAR & TOSTRBUTION ROOM C3 D-3 C. 413 A. COR C3 E-3 C. 413 AL OOK C3 E-3 C. 413 AL OOK C3 E-3 C. 413 JACONTAMANDON DISTRBUTION ROOM C3 E-3 C. 413 JACONTA MAST	Q.: 600 PERSONNEL AND MATERIAL CORRIDOR C2 Q.: 601 PERSONNEL AND MATERIAL CORRIDOR C2 D Q.: 601 PERSONNEL AND MATERIAL CORRIDOR C2 D Q.: 601 PERSONNEL AND MATERIAL CORRIDOR C2 D Q.: 601 RAD CONTROL ROOM C2 D Q.: 601 RAD CONTROL ROOM C2 D Q.: 601 ON UNE ANALYSS ROOM C30 E Q.: 601 STEAM IDSTREUTION ROOM C30 E Q.: 601 STEAM IDSTREUTION ROOM C30 D Q.: 611 DECONTAMINATION IDSTREUTION ROOM C30 D Q.: 611 AR LOCK C30 E Q.: 611 ARE LOCTROMICS ROOM C30 E Q.: 611 ARE LOCK C30 E Q.: 612 ARE LOCK C30 E Q.: 613 ARE LOCK C30 E Q.: 614 ARE LOCK C30 E Q.: 617 ARE LOCK C30 E <	NUMBER	DESIGNATION	CONFINEMENT Zone	ROOM LOCATX
C. 603 PERSONNEL AND MATERIAL CORRIDOR C2 D C. 603 PERSONNEL AND MATERIAL CORRIDOR C2 D C. 604 ELECTRONES ROOM C2 D C. 605 NAD CONTROL ROOM C2 D C. 607 NAD CONTROL ROOM C2 D C. 607 PULSATION VIVES CA. ROOM C2b E C. 607 PULSATION VIVES CA. ROOMAPA C3b E C. 607 DECONTAMINATION DY ESSELS ROOM C2 C C. 609 STEAM DISTIBUTION ROOM C3b C C. 601 DECONTAMINATION DISTRIBUTION ROOM C3b E C. 611 A.C. AR. #T DISTIBUTION ROOM C3b E C. 611 AR LOCK C3b E C. 611 DECONTAMINATION ROOM C2 F C. 611 AR LOCK C3b E C. 611 DEVENTSTE C3b E C. 611 UTILITY ROOM C2 C C. 612 MR LOCK C3b E	G. 600 PERSONNEL AND MATERIAL CORRIDOR G2 D3 G. 601 ELECTRONCS ROOM C2 E.1 G. 602 ELECTRONCS ROOM C2 E.1 G. 602 RAD CONTROL ROOM C2 E.1 G. 602 ON LINE ANALYSIS ROOM C3 E.3 G. 607 PULSATON VALVES C.B. ROOM/PA C35 E.3 G. 607 STEAM DISTRBUTTON NAD VESSELS ROOM C2 C2 G. 607 REAGENTS DISTRBUTTON NOOM C35 C3 G. 601 DECONTAMINATION DISTRBUTTON ROOM C35 C3 G. 611 A. C. AR & ET DISTRBUTTON ROOM C35 E3 G. 611 A. C. AR & ET DISTRBUTTON ROOM C35 E3 G. 611 AR LOCK C35 E3 G. 611 AR LOCK C35 E3 G. 611 ALUCK C35 E3 G. 611 JURUK WASTE C35 E3 G. 612 JURUK WASTE C35 E3 G. 613 JURUK WASTE C35	C. 603 PERSONNEL AND MATERIAL CORRIDOR C2 D C. 603 PERSONNEL AND MATERIAL CORRIDOR C2 D C. 603 ELECTRONICS ROOM C2 E C. 603 C. 604 C2 E C. 605 CAD CONTROL ROOM C2 E C. 607 CAD CONTROL ROOM C3b E C. 607 PULSATION VILL'ES G.R. ROOMAPA C3b E C. 607 PERSORTS DOWINGES AROOM C2b C C. 607 PERADENTS DENTIFUTION ROOM C3b C C. 610 DECONTRAINATION DISTRIBUTION ROOM C3b E C. 611 AR LOCK C3b E C. 611 AR LOCK C3b E C. 611 DECONTRAINATION ROOM C2b F C. 611 AR LOCK C3b E C. 611 DECONTRAINATION ROOM C2 F C. 611 DECONTRAINATION ROOM C2 F C. 611 DECONTRAINATION ROOM C2 F <t< td=""><td>G. 401</td><td>PERSONNEL AND MATERIAL CORRIDOR</td><td>C2</td><td>D-1.</td></t<>	G. 401	PERSONNEL AND MATERIAL CORRIDOR	C2	D-1.
C. 2020 FLINDMELTATION CC2 E C. 2020 ELECTRONCE ROOM C2 E G. 403 RALD CONTROL ROOM C2 D G. 403 RALD CONTROL ROOM C2 D G. 403 RALD CONTROL ROOM C2 D G. 403 RALD CONTROL ROOM C3b E C. 403 PLLSATROW VALVES & ROOM ROOM C3b E G. 401 PLALSATROW VALVES & ROOM ROOM C3b C G. 401 DECONTRAINATION NOTBUTTON ROOM C3b E G. 401 DECONTRAINATION NOTBUTTON ROOM C3b E G. 411 ELECTRONCS ROOM C3b E C. 413 PMEUMATIC TRUMSPER ROOM ACCC C2 C G. 416 LUGOW NASTE C3b B G. 417 MALOCK C3b E G. 418 UTUTY ROOM C42 F G. 419 MALOCK C3b E G. 419 UTUTY CASE C2 C G. 419 <td>C. 2000 PULCONNECS ROOM C2 Ext C. 4001 RAD CONTROL ROOM C2 D-1 G. 4001 RAD CONTROL ROOM C2 D-1 G. 4001 ON LINE RANKLYSIS ROOM C3 D-2 C. 4071 PULSATION VALVES COM C3 D-2 G. 4011 DECONTAMINATION ROOM C3 D-3 G. 4101 DECONTAMINATION ROOM C3 D-3 G. 411 ELECTRONICS ROOM C3 D-3 G. 411 ELECTRONICS ROOM C2 F-4 G. 413 PINEUMATIC TRANSFER ROOM ACCC C2 G-47 G. 413 DIAUDINASTE C30 B-3 G. 411 ELECTROAL ROOM C2 C-4 G. 412 UTLITY ROOM C2 C-4 G. 421 ARLOCK C30 B-4 <</td> <td>C. 2020 FLICENDALE AREA C. 2020 ELECTRONCE ROOM C2 G. 403 RAL CONTROL ROOM C2 G. 403 RAL STRAW VALVES & ROOM ARA C3b C. 401 PLLSATROW VALVES & ROOM ARA C3b G. 401 PLLSATROW VALVES & ROOM ARA C3b G. 401 DECONTRAMENTON AND VESSELS FROOM C2b G. 401 DECONTRAMENTON AND VESSELS FROOM C3b G. 401 DECONTRAMENTON AND VESSELS FROOM C3b G. 401 DECONTRAMENTON AND VESSELS FROOM C3b G. 401 DECONTRAMENTON NOTAN ROOM C3b G. 401 ELECTRONES ROOM C2 G. 401 ELECTRONES ROOM C2</td> <td>C - 402</td> <td>PERSONNEL AND MATERIAL CORRIDOR</td> <td></td> <td>A-2.4</td>	C. 2000 PULCONNECS ROOM C2 Ext C. 4001 RAD CONTROL ROOM C2 D-1 G. 4001 RAD CONTROL ROOM C2 D-1 G. 4001 ON LINE RANKLYSIS ROOM C3 D-2 C. 4071 PULSATION VALVES COM C3 D-2 G. 4011 DECONTAMINATION ROOM C3 D-3 G. 4101 DECONTAMINATION ROOM C3 D-3 G. 411 ELECTRONICS ROOM C3 D-3 G. 411 ELECTRONICS ROOM C2 F-4 G. 413 PINEUMATIC TRANSFER ROOM ACCC C2 G-47 G. 413 DIAUDINASTE C30 B-3 G. 411 ELECTROAL ROOM C2 C-4 G. 412 UTLITY ROOM C2 C-4 G. 421 ARLOCK C30 B-4 <	C. 2020 FLICENDALE AREA C. 2020 ELECTRONCE ROOM C2 G. 403 RAL CONTROL ROOM C2 G. 403 RAL STRAW VALVES & ROOM ARA C3b C. 401 PLLSATROW VALVES & ROOM ARA C3b G. 401 PLLSATROW VALVES & ROOM ARA C3b G. 401 DECONTRAMENTON AND VESSELS FROOM C2b G. 401 DECONTRAMENTON AND VESSELS FROOM C3b G. 401 DECONTRAMENTON AND VESSELS FROOM C3b G. 401 DECONTRAMENTON AND VESSELS FROOM C3b G. 401 DECONTRAMENTON NOTAN ROOM C3b G. 401 ELECTRONES ROOM C2	C - 402	PERSONNEL AND MATERIAL CORRIDOR		A-2.4
C.403 MAD CONTROL ROOM C2 D C.403 ON LIKE AULL YSS ROOM C3b E C.407 PULSATION VALUES G. & ROOM APA C3b E C.407 PULSATION VALUES G. & ROOM APA C3b E C.407 PULSATION VALUES G. & ROOM APA C3b C C.407 PULSATION VALUES G. & ROOM APA C3b C C.403 STEAM DISTIBUTION AND VESSELS ROOM C2b C C.401 DECONTAMENATION DISTIBUTION ROOM C3b D C.4101 AC. AR & TOSTRBUTION ROOM C3b E C.4111 A.C. AR & TOSTRBUTION ROOM C3b E C.4131 CORROOR C3b E C.4131 LECETRINGES ROOM C2b E C.4131 LECETRINGES ROOM C2c C C.4131 LAURUD WASTE C3b B C.4132 LECETRONES ROOM C2c C C.4131 LOURU WASTE C3b E C.4132 LECETROCAL C3b	C.:402 RUD CONTROL ROOM C2 D- C.:403 OW LIKE ANALYSIS ROOM C30 E3. C.:407 PULSATION VALUES G.B. ROOMAPA C30 E3. C.:407 PULSATION VALUES G.B. ROOMAPA C30 E3. C.:401 STEAM DISTRBUTTON NOV DISSELS ROOM C2 C2. C.:402 STEAM DISTRBUTTON NOV DISSELS ROOM C30 C3. C.:401 DECONTAMINATON DISTRBUTTON ROOM C30 C3. C.:410 DECONTAMINATON DISTRBUTTON ROOM C30 C3. C.:411 AR LOCK C30 E3. C.:412 AR LOCK C30 E3. C.:413 DOUD WASTE C30 E3. C.:413 DOUD WASTE C30 E3. C.:413 UTILUTY ROOM C2 C4. C.:413 UTILUTY CALL CORMODOR C30 E3. C.:413 UTILUTY CALL CORMON C30 E4. C.:413 UTILUTY CALL CORMON C30 E4. <t< td=""><td>C.:402 MAD CONTROL ROOM C2 C C.:403 ON LIKE AVAL YSS ROOM C3b E C.:403 MULSATON MULYSS G.B. ROOMAPA C3b E C.:403 STEAM DISTIBUTION AND VESSEJ.S ROOM C2 C C.:403 STEAM DISTIBUTION AND VESSEJ.S ROOM C3b C C.:401 DECONTAMINATION DISTIBUTION ROOM C3b C C.:402 ARAGENT SSTRBUTION ROOM C3b C C.:411 A.C. AR & TOSTRBUTION ROOM C3b C C.:412 AR LOCK C3b E C.:413 CORROOR C3b E C.:413 RELECTRONICS ROOM C2b C C.:413 MREUMATIC TRANSFER ROOM/CCC C2b C C.:413 MREUGAN C3b E C.:413 MREUGANCE ROOM C2b E C.:413 MREUGANCE C2b C C.:413 MREUGANCE C3b E C.:413 MREUGANCOM C2 C <tr< td=""><td>C - 403</td><td>PERSONNEL AND MATERIAL CORRIDOR</td><td></td><td>0.5.</td></tr<></td></t<>	C.:402 MAD CONTROL ROOM C2 C C.:403 ON LIKE AVAL YSS ROOM C3b E C.:403 MULSATON MULYSS G.B. ROOMAPA C3b E C.:403 STEAM DISTIBUTION AND VESSEJ.S ROOM C2 C C.:403 STEAM DISTIBUTION AND VESSEJ.S ROOM C3b C C.:401 DECONTAMINATION DISTIBUTION ROOM C3b C C.:402 ARAGENT SSTRBUTION ROOM C3b C C.:411 A.C. AR & TOSTRBUTION ROOM C3b C C.:412 AR LOCK C3b E C.:413 CORROOR C3b E C.:413 RELECTRONICS ROOM C2b C C.:413 MREUMATIC TRANSFER ROOM/CCC C2b C C.:413 MREUGAN C3b E C.:413 MREUGANCE ROOM C2b E C.:413 MREUGANCE C2b C C.:413 MREUGANCE C3b E C.:413 MREUGANCOM C2 C <tr< td=""><td>C - 403</td><td>PERSONNEL AND MATERIAL CORRIDOR</td><td></td><td>0.5.</td></tr<>	C - 403	PERSONNEL AND MATERIAL CORRIDOR		0.5.
G. 408 ON LINE ANALYSIS ROOM C39 E G. 407 PULSATION VALVES G.B. ROOM/APA C58 E G. 407 PULSATION VALVES G.B. ROOM/APA C58 E G. 407 PULSATION VALVES G.B. ROOM/APA C58 E G. 401 REAGENTS DISTRBUTION AND VESSELS ROOM C28 C G. 401 A.C. AR JET DISTRBUTION ROOM C38 C G. 411 A.C. AR JET DISTRBUTION ROOM C38 C G. 411 A.C. AR JET DISTRBUTION ROOM C38 E G. 411 A.C. AR JET DISTRBUTION ROOM C38 E G. 411 A.C. AR JET DISTRBUTION ROOM C38 E G. 412 CORRIDOR C38 E C G. 413 LIQUE MASTE C38 B C C G. 411 LIQUE MASTE C38 B C C C G. 413 LIQUE MASTE C38 B C C C C G. 412 LIQUE MASTE C38 C <	C.400 ON LINE ANALYSIS ROOM C3b E-3 C.407 PULSTROW VALVES G.R. ROOM/KPA C3b E-3 C.407 PULSTROW VALVES G.R. ROOM/KPA C3b E-2 C.400 REAGENTS DISTRBUTION ROOM C3b C-3 C.401 DECONTAWANCH DISTRBUTION ROOM C3b C-3 C.401 DECONTAWANCH DISTRBUTION ROOM C3b C-3 C.401 DECONTAWANCH DISTRBUTION ROOM C3b C-3 C.411 DECONTAWANCH DISTRBUTION ROOM C3b C-3 C.411 A.C. AR #ET DISTRBUTION ROOM C3b C-3 C.411 DECONTAWANCH DISTRBUTION ROOM C2b E-3 C.411 ELECTRONCE ROOM C2 F-1 C.411 ELECTRONCE ROOM C2 F-1 C.411 DEUDATIC TRANSFER ROOM/KCC C3b B-3 C.411 UTUTY CASE C2 C-44 C.412 UTUTY CASE C2 C-44 C.421 UTUTY CASE C2 C-44 C.422 OK OOK<	G. 408 ON LINE ANALYSIS ROOM C39 E G. 407 PULSATION VALVES G.B. ROOM/APA C58 E G. 407 PULSATION VALVES G.B. ROOM/APA C58 E G. 407 PULSATION VALVES G.B. ROOM/APA C58 E G. 401 DESTAM DISTRBUTION AND VESSELS ROOM C28 C G. 401 A.C. AR JET DISTRBUTION ROOM C58 D G. 411 A.C. AR JET DISTRBUTION ROOM C38 D G. 411 A.C. AR JET DISTRBUTION ROOM C38 D G. 411 A.C. AR JET DISTRBUTION ROOM C38 D G. 411 A.C. AR JET DISTRBUTION ROOM C38 E G. 411 ELECTONICS ROOM C21 F G. 411 UDUM WASTE C38 B G. 411 UTUTTY ROOM C2 F G. 412 UTUTTY CAMSE C28 B G. 412 UTUTY CAMSE C20 F G. 422 UTUTY CAMSE C2 C G. 422 PERSIGNIEL AND MATERIAL CORRD	C.404	ELECTRONICS ROOM		E-1.
C.407 PULSATION VALVES G.B. RODM/KPA C39 E C.408 STEAM DISTIBUTION AND VESSELS ROOM C2 C C.409 STEAM DISTIBUTION AND VESSELS ROOM C2 C C.401 REACENTS DISTIBUTION AND VESSELS ROOM C38 C C.402 REACENTS DISTIBUTION ROOM C38 C C.401 DECONTAMINATION DISTIBUTION ROOM C38 E C.411 AR. LOCK C38 E C.412 AR. LOCK C38 E C.413 COMPEDOR C38 E C.413 ELECTRONICS ROOM C38 E C.413 ELECTRONICS ROOM C38 E C.414 ELECTRONICS ROOM //CC C2 C C.415 ELECTRONICS ROOM //CC C2 C C.416 ELECTRONICS ROOM //CC C2 C C.417 AR LOCK C38 E C.417 AR LOCK C38 E C.421 ELECTRONIC ANOM C2 C	C.407 PULSATION VALVES G.B. ROOM,VAA C30 E2 C.408 STEAM DISTIBUTION ADD VESSELS ROOM. C2 C3	C.407 PULSATION VALVES G. B. ROMK/PA C30 E C.408 STEAM DISTIBUTION AND VESSELS ROOM C2 C C.409 STEAM DISTIBUTION AND VESSELS ROOM C3 C C.401 REACENTS DISTIBUTION ROOM C36 C C.402 REACENTS DISTIBUTION ROOM C36 C C.401 DECONTAMINATION DISTIBUTION ROOM C36 C C.411 AR LOCK C36 E C.412 AR LOCK C36 E C.413 COMPOOR C36 E C.413 ELECTRONICS ROOM C36 E C.4141 ELECTRONICS ROOM KCC C2 C C.415 ELECTRONICS ROOM KCC C2 C C.416 ELECTRONICS ROOM KCC C2 C C.417 AR LOCK C36 B C.417 AR LOCK C36 E C.419 AR LOCK C36 E C.421 ELECTRONIC AND MATERIAL CORRIDOR C2 C <t< td=""><td>C 405</td><td>RAD CONTROL ROOM</td><td></td><td>D-1.</td></t<>	C 405	RAD CONTROL ROOM		D-1.
C-402 STEAM DISTRBUTION AND VESSELS ROOM C2 C C-402 REAGENTS DISTRBUTION ROOM C3b C C-402 DECONTAMINATION DISTRBUTION ROOM C3b D C-412 DECONTAMINATION DISTRBUTION ROOM C3b D C-412 DECONTAMINATION DISTRBUTION ROOM C3b D C-413 DECONTAMINATION DISTRBUTION ROOM C3b E C-413 CONBOOR C3b E C-413 CONBOOR C3b E C-413 PHEUMATIC TRANSFER ROOM KCC C2 F C-413 PHEUMATIC TRANSFER ROOM KCC C2 F C-413 PHEUMATIC TRANSFER ROOM KCC C3b B C-413 UTLUTY ROOM C2 F C-413 UTLUTY CAMASE C3b B C-414 UTLUTY CAMASE C3b F C-413 UTLUTY CAMASE C2 C C-421 UTLUTY CAMASE C2 C C-422 UTLUTY CAMASE C2 C	C.402 STEAM DISTRBUTION AND VESSELS ROOM C2 C.202 C.402 REAGENTS DISTRBUTION ROOM C33 C.302	C.402 STEAM DISTRBUTION AND VESSELS ROOM C2 C C.402 REAGENTS DISTRBUTION ROOM C3b C C.412 DECONTAUMTOR INSTRBUTION ROOM C3b C C.413 A.C.AR.ET DISTRBUTION ROOM C3b C C.413 A.C.AR.ET DISTRBUTION ROOM C3b E C.413 CORREDOR C3b E C.415 PREVENTIC TRANSFER ROOM.KCC C2 C C.415 MELLOCK C3b B C.415 MALLOCK C3b B C.413 UTILITY ROOM C2 F C.421 MELOCK C3b C C.422 PERSONMEL AND MATERAL CORDOR C2 C C.423 DECONTAL ROOM C2 C C.423 MELOCK C	C . 406	ON LINE ANALYSIS ROOM	C36	E-3.
C.402 REAGENTS DISTRUTION ROOM C36 C C.411 DECONTRAMATION DISTRUTION ROOM C38 D C.411 A. C.AR JET DISTRUTION ROOM C36 E C.411 A.C. AR JET DISTRUTION ROOM C36 E C.411 AR LOCK C36 E C.411 ELECTONICS ROOM C36 E C.412 ELECTONICS ROOM C36 E C.413 PIEUMATIC TRANSFER ROOM KCC C2 C C.411 UTUTTY COM C2 C C C.413 ARLOCK C36 B C C.421 ELECTRICAL ROOM C2 C C C.421 ELECTRICAL ROOM C2 C C C.422 VERSTB	C. 200 PEAGENTS DISTRBUTION ROOM C38 C3 C. 400 DECONTRBUTION ROOM C38 C3 C. 411 DECONTRBUTION ROOM C38 E3 C. 411 A. AR #C TRABUTION ROOM C38 E3 C. 411 COMBOOR C38 E3 C. 413 COMBOOR C38 E3 C. 413 COMBOOR C38 E3 C. 413 ELECTRONICS ROOM C2 F, F G. 415 PINEUMATIC TRANSFER ROOM, CC C2 G G. 417 ARLOCK C38 B3 C. 417 ARLOCK C38 E4 G. 421 ELECTRICAL ROOM C2 C4 G. 421 ELECTROCAL ROOM C2 C4 G. 422 G. 421 ELECTROCAL ROOM C2 E4 <t< td=""><td>C.402 REAGENTS DISTRUTION ROOM C36 C C.411 DECONTRAMA TON DISTRUTION ROOM C36 D C.411 A. C.AR JET DISTRUTION ROOM C36 D C.411 A.C. RA JET DISTRUTION ROOM C36 D C.411 AR LOCK C36 D C.413 AR LOCK C36 D C.413 DECONTRAMA TON DISTRUTION ROOM C36 E C.413 AR LOCK C36 E C.411 ELECTRONICS ROOM C2 F C.413 DIEUMINTC TRANSFER ROOM KCC C2 C C.413 DIGUND WASTE C36 B C.413 DITUTTY COM C4 F C.421 ELECTRICAL ROOM C2 C C.422 MERSTBULE (ACCESS POLISHING) C2 E C.422</td><td>C. 407</td><td>PULSATION VALVES G.B. ROOM,KPA</td><td>C36</td><td>E-2.</td></t<>	C.402 REAGENTS DISTRUTION ROOM C36 C C.411 DECONTRAMA TON DISTRUTION ROOM C36 D C.411 A. C.AR JET DISTRUTION ROOM C36 D C.411 A.C. RA JET DISTRUTION ROOM C36 D C.411 AR LOCK C36 D C.413 AR LOCK C36 D C.413 DECONTRAMA TON DISTRUTION ROOM C36 E C.413 AR LOCK C36 E C.411 ELECTRONICS ROOM C2 F C.413 DIEUMINTC TRANSFER ROOM KCC C2 C C.413 DIGUND WASTE C36 B C.413 DITUTTY COM C4 F C.421 ELECTRICAL ROOM C2 C C.422 MERSTBULE (ACCESS POLISHING) C2 E C.422	C. 407	PULSATION VALVES G.B. ROOM,KPA	C36	E-2.
C. 410 DECONTAMINATION DISTRBUTION ROOM C30 D C. 411 A. C. AR. & DISTRBUTION ROOM C30 D C. 412 AR LOCK C35 E C. 413 COMBROR C35 E C. 413 PANELMATIC TRANSFER ROOM KCC C2 C C. 413 PUNUTUNTO TATARSFER ROOM KCC C2 C C. 413 MAR LOCK C35 B C. 413 MAR LOCK C36 B C. 413 MAR LOCK C36 E C. 413 MAR LOCK C36 E C. 413 MAR LOCK C36 E C. 413 UTLITY ROOM C2 C C. 421 ELECTROCH ROM C2 C C. 422 DECONNOLANOM C2 C <td>1 1</td> <td>C. 410 DECONTABINATION DISTRBUTION ROOM C36 D C. 411 A. C. AR. & DISTRBUTION ROOM C36 D C. 412 AR LOCK C36 E C. 413 CORRECT C35 E C. 413 ELECTRONCE ROOM C2 C C. 413 INUDUD WASTE C35 B C. 413 UTILTY ROOM C2 C C. 413 MELOCK C36 E C. 413 MELOCK C36 E C. 413 UTILTY ROOM C2 C C. 413 UTILTY CARSE C36 F C. 413 LECTROCK LOOK C36 F C. 421 AR LOCK C36 F C. 422</td> <td>C - 408</td> <td>STEAM DISTRIBUTION AND VESSELS ROOM</td> <td>C2</td> <td>C-2</td>	1 1	C. 410 DECONTABINATION DISTRBUTION ROOM C36 D C. 411 A. C. AR. & DISTRBUTION ROOM C36 D C. 412 AR LOCK C36 E C. 413 CORRECT C35 E C. 413 ELECTRONCE ROOM C2 C C. 413 INUDUD WASTE C35 B C. 413 UTILTY ROOM C2 C C. 413 MELOCK C36 E C. 413 MELOCK C36 E C. 413 UTILTY ROOM C2 C C. 413 UTILTY CARSE C36 F C. 413 LECTROCK LOOK C36 F C. 421 AR LOCK C36 F C. 422	C - 408	STEAM DISTRIBUTION AND VESSELS ROOM	C2	C-2
C. 411 A.C. AR. ET DISTRBUTION ROOM C3b E C. 412 AR. LOCK C3b E C. 413 CORRECOR C3b E C. 413 CORRECOR C3b E C. 411 ELECTROMICS ROOM C2 F C. 411 ELECTROMICS ROOM C2 F C. 411 ELECTROMICS ROOM C2 F C. 415 LIQUID WASTE C3b B C. 415 LIQUID WASTE C3b B C. 415 LIQUID WASTE C3b B C. 417 MR LOCK C3b B C. 418 LIQUID WASTE C3b E C. 419 AR LOCK C3b E C. 421 ELECTROCL ROOM C2 C C. 422 GLOVE BOX ROOM KCA C3b F C. 422 GLOVE BOX ROOM KCA C3b F C. 422 ELEVATOR LOBEY C2b F C. 422 LEVATOR LOBEY C2b F	C. 411 A.C. AR. &E INSTRBUTTON ROOM C3b E.J. C. 411 A.C. AR. &E INSTRBUTTON ROOM C3b E.J. C. 412 AR LOCK C3b E.J. C. 413 COMPRIDOR C3b E.J. C. 413 EVENTMENT ROUM C2b E.J. C. 413 EVENTMEST ROOM C2 F.A. C. 413 EVENTMEST ROOM ACC C2 F.A. C. 413 EVENTMEST ROOM ACC C2 F.A. C. 413 LAURUM NASTE C2b B.J. C. 413 LAURUM NASTE C2b B.J. C. 413 LAURUM NASTE C3b F.A. C. 413 LAURUM NASTE C3b F.A. C. 413 LAURUM NASTE C3b F.A. C. 422 LOVE BOX ROOMACA C3b F.A. C. 422 LEVATOR LOOM C2 F.A. C. 422 LEVATOR LOOK C3b F.A. C. 423 LEVATOR LOBY C2 F.A. C. 423	C. 411 A.C. AR. ET DSTRBUTTON ACOM C3b E C. 412 AR. LOCK C3b E C. 413 CONRUCOR C3b E C. 413 CONRUCOR C3b E C. 411 ELECTRONUCS ROOM C2 F C. 411 ELECTRONUCS ROOM C2 F C. 411 ELECTRONUCS ROOM C2 F C. 415 URUNTY RONSFER ROOM KCC C2 F C. 415 URUNTY ROOM C2 F C. 415 URUNTY ROOM C2 F C. 412 ELECTROCL ROOM C2 F C. 413 URUNTY CASE C2 C C. 422 OLOVE BOX ROOM KCA C3b F C. 422 PERSONNEL AND MATERAL CONROOR C2 F C. 422 PERSONNEL AND MATERAL CONROOR C2b F C. 423 PERSONNEL AND MATERAL CONROOR C2b F C. 423 PERSONNEL AND MATERAL CONROOR C2b E C. 423	C. 409	REAGENTS DISTRIBUTION ROOM		C-3.
C. 413 ARLOCK C.3b E C. 413 CORREDOR Cb E C. 413 ELECTRONICS ROOM Cb E C. 414 ELECTRONICS ROOM C2 F C. 415 PMEUMATC TRANSPER ROOM KCC C2 C C. 415 PMEUMATC TRANSPER ROOM KCC C2 C C. 415 IAUDO WASTE C3b B C. 417 ARLOCK C3b B C. 417 MRLOCK C3b B C. 418 MRLOCK C3b B C. 419 MRLOCK C3b E C. 417 MRLOCK C3b E C. 421 ELECTROL ROOM C2 C C. 422 ULECTROLABOM C2 C C. 421 ELECTROLA ROOM C2 C C. 422 ELECTROLABOM C2 C C. 423 ELECTROLABOM C2 C C. 423 ELECTROLARDOM C2 C	C. 412 AR LOCK C3b E3 C. 413 COMPEOR C3b E3 C. 414 ELECTRONICS ROOM C2 Fri C. 415 PMEUMITIC TRANSPER ROOM ACC C2 Fri C. 415 PMEUMITIC TRANSPER ROOM ACC C2 Fri C. 415 PMEUMITIC TRANSPER ROOM ACC C2 Fri C. 418 BLOCK C3b B3 C. 417 AR LOCK C3b B3 C. 419 AR LOCK C3b E3 C. 419 AR LOCK C3b E4 C. 420 UTLITY ROOM C2 E4 C. 421 ELECTROCUL ROOM C2 C4 C. 422 ELECTROCULAROOM C2 C4 C. 422 ELECTROCULAROOM C2 Fri C. 421 ELECTROCULAROOM C2 Fri C. 422 ELECTROCULAROOM C2 E3 C. 423 ELECTROCULAROOM C2 E3 C. 423 ELECTROCULAROOM <td< td=""><td>C. 413 ARELOCK C3b E C. 413 CORREDOR C3b E C. 413 ELECTRONICS ROOM C2b F C. 413 ELECTRONICS ROOM C2 F C. 413 ELECTRONICS ROOM C2 F C. 413 ELECTRONICS ROOM C2 F C. 413 ARELOCK C2 G C. 417 ARELOCK C3b B C. 418 INUTUTY ROOM C2 C C. 419 ARELOCK C3b E C. 417 ARELOCK C3b E C. 418 ARELOCK C3b E C. 419 ELECTRON.INDOM C2 C C. 421 ELECTRON.INDOM C2 C C. 422 ELECTRON.IND MATERUL CORRIDOR C3b F C. 421 ELECTRON.IND MATERUL CORRIDOR C2 E C. 422 VESTBULE (ACCESS POLISHIO) C2 E C. 423 ELECTRON.VER RED ROOMARDA C3b</td><td>C . 410</td><td>DECONTAMINATION DISTRIBUTION ROOM</td><td>C36</td><td>D-3.</td></td<>	C. 413 ARELOCK C3b E C. 413 CORREDOR C3b E C. 413 ELECTRONICS ROOM C2b F C. 413 ELECTRONICS ROOM C2 F C. 413 ELECTRONICS ROOM C2 F C. 413 ELECTRONICS ROOM C2 F C. 413 ARELOCK C2 G C. 417 ARELOCK C3b B C. 418 INUTUTY ROOM C2 C C. 419 ARELOCK C3b E C. 417 ARELOCK C3b E C. 418 ARELOCK C3b E C. 419 ELECTRON.INDOM C2 C C. 421 ELECTRON.INDOM C2 C C. 422 ELECTRON.IND MATERUL CORRIDOR C3b F C. 421 ELECTRON.IND MATERUL CORRIDOR C2 E C. 422 VESTBULE (ACCESS POLISHIO) C2 E C. 423 ELECTRON.VER RED ROOMARDA C3b	C . 410	DECONTAMINATION DISTRIBUTION ROOM	C36	D-3.
C. 413 COMPRIZON C3b E C. 411 ELECTRONICS ROOM C2 P C. 413 ELECTRONICS ROOM KCC C2 P C. 413 ELECTRONICS ROOM KCC C2 P C. 413 ILGUID WASTE C3b B C. 413 MR LOCK C3b E C. 413 UTILITY CROM C2 F C. 421 ELECTROCAL ROOM C2 C C. 422 PERSONNEL AND MATERIAL CORRIDOR C2 F C. 421 PERSONNEL AND MATERIAL CORRIDOR C2 F C. 422 PERSONNEL AND MATERIAL CORRIDOR C2 F C. 423 PERSONNEL AND MATERIAL CORRIDOR C2 F C. 423 LECATOR COBSY POLISHING) C2 E C. 423 LELOT	C.413 COMBDOR C3 E3 C.413 ELECTRONCS ROOM C2 F.1 C.413 ELECTRONCS ROOM/CC C2 F.1 C.413 DEWLMATC TRANSFER ROOM/CC C2 F.1 C.413 DEWLMATC TRANSFER ROOM/CC C3 B3 C.413 JURUE VIASTE C30 B3 C.413 MALLOCK C3 B3 C.413 UTILITY ROOM C2 F.4 C.413 UTILITY ROOM C2 F.4 C.413 UTILITY ROOM C2 C4 C.413 UTILITY ROOM C2 F.4 C.413 LECTROAL ROOM C3 B4 C.421 ELECTROAL ROOM C3 F.4 C.422 PERSONNEL AND MATERAL CORRECOR C3 F.4 C.423 PERSONNEL AND MATERAL CORRECOR C3 F.4 C.423 PERSONNEL AND MATERAL CORRECOR C3 F.4 C.423 ELEVATOR LOBY C2 E.5 C.423 E	C. 413 CORRECOR C3b E C. 413 ELECTRONICS ROOM C2 7 C. 413 ELECTRONICS ROOM KCC C2 7 C. 413 ELECTRONICS ROOM KCC C2 7 C. 413 ILGUED WASTE C3b B C. 413 MR LOCK C3b B C. 413 UTILITY ROOM C2 F C. 413 UTILITY CAMSE C3b E C. 421 ELECTROCAL ROOM C2 C C. 422 PERSONNEL AND MATERIAL CORRIDOR C2 C C. 423 PERSONNEL AND MATERIAL CORRIDOR C2 F C. 423 PERSONNEL AND MATERIAL CORRIDOR C2 F C. 423 PERSONNEL AND MATERIAL CORRIDOR C2 F C. 423 VESTBULE (EXCESS POLISHING) C2 E C. 423 <td>C. 411</td> <td>A.C. AIR JET DISTRIBUTION ROOM</td> <td>C3b</td> <td>E-3.</td>	C. 411	A.C. AIR JET DISTRIBUTION ROOM	C3b	E-3.
C. 410 ELECTRONCS ROOM C2 F C. 411 ELECTRONCS ROOM C2 F G. 413 INMEUNITIC TRUNSFER ROOM KCC C2 C3 G. 413 IAUDID WASTE C36 B G. 417 ARLOCK C35 B G. 417 IAUDID WASTE C36 B G. 417 IAUDID WASTE C36 B G. 417 IARLOCK C35 B G. 418 UTLITY ROOM C2 F G. 412 UTLITY ROOM C2 C G. 422 UTLITY ROOM C2 C G. 423 UTLITY ROOM C2 C G. 421 GLOVE ROOM C2 C G. 422 UTLITY ROOM C2 C G. 423 UTLITY ROOM C2 C G. 421 ELECTRONCH ROOM C2 C G. 422 UTLITY ROMANCA C36 F G. 423 ELEVATOR LOBY C2 E	C. 411 ELECTRONICS ROOM C2 F.A. C. 413 PMEUMATIC TRANSFER ROOM, KCC C2 G. C. 413 PMEUMATIC TRANSFER ROOM, KCC C2 G. G. 413 LUUDD WASTE C30 B-3 C. 417 ARLOCK C30 B-4 G. 418 LUUDD WASTE C30 B-4 G. 413 MRLOCK C30 B-4 G. 413 MRLOCK C30 E-4 G. 413 MRLOCK C30 E-4 G. 422 UTLITY ROOM C2 C-4 G. 423 UTLITY ROME C2 C-4 G. 421 ELECTRICAL ROOM C2 C-4 G. 422 GLOVE BOX ROOM ACA C30 R-3 G. 421 ELECTRICAL ROOM C2 E-4 G. 422 MRLOCK C30 F-4 G. 423 LEVATOR LOBEY C2 E-4 G. 424 MESTBULE (ACCESS POLISHNO) C2 E-5 G. 421 LECTROLYZER FEED ROOM/ACA	C. 410 ELECTRONICS ROOM C2 F C. 413 ENERGINATIC TRUNSTER ROOM KCC C2 C C. 413 MARLIACK C35 B C. 413 LAUDID WASTE C36 B C. 417 ARLOCK C35 B C. 417 MARLOCK C35 B C. 417 MARLOCK C36 E C. 417 MARLOCK C36 E C. 421 ELECTROL ROOM C2 C C. 421 ELECTROL ROOM C2 C C. 422 MARLOCK C36 F C. 423 VESTBULE (ROOM ACCA C36 F C. 421 ELEVATOR LOBY C2 C C. 422 VESTBULE (ROCK C36 F C. 423 ELEVATOR LOBY C2 E C. 424	C - 412	AIRLOCK	C36	E-2.
C. 413 PMEUMATIC TRUNSFER ROOM KCC C2 C C. 413 LAUUD WASTE C3b B C. 417 AR LOCK C3b B C. 418 UTILITY ROOM C2 F C. 419 MR LOCK C3b B C. 419 UTILITY ROOM C2 C C. 421 ELECTRICKL ROOM C2 C C. 422 GUVE BDX ROOM KCA C3b F C. 423 ELEVATOR LOBBY C2 C	C. 413 PMEUMATIC TRANSFER ROOM,KCC C2 G- C. 413 LAUUD WASTE C3b B-3 C. 417 AR LOCK C3b B-3 G. 418 UTILITY ROOM C2 F-4 G. 419 MR LOCK C3b B-3 G. 419 UTILITY ROOM C2 F-4 G. 419 UTILITY ROOM C2 F-4 G. 420 UTILITY ROOM C2 F-4 G. 421 ELECTRICKL ROOM C2 C-42 G. 422 ELEVATOR LOBOM/CA C3b F-4 G. 422 ELEVATOR LOBOY C2 F-4 G. 423 PERSONNEL AND MATERAL CORRIDOR C2 F-4 G. 423 ELEVATOR LOBOY C2 F-4 G. 421 LECTROVIZER FEED ROOM/KDA C3b F-3 G. 431 ELE	C. 413 PINE UMARTE TRUNSPER ROOM KCC C2 C C. 413 LAUUD WASTE C3b B C. 417 AR LOCK C3b B C. 418 UTILITY ROOM C2 F C. 419 MR LOCK C3b B C. 419 UTILITY ROOM C2 C C. 421 ELECTROCAL ROOM C2 C C. 422 GLOVE BOX ROOM KCA C3b F C. 423 PERSONNEL MAD MATERIAL CORRIDOR C2 C C. 423 LEVATOR LOBBY C2 C C. 423 LEVATOR LOBBY C2 C C. 423 LEVATOR LOBBY C2 C C. 423 LECTROVIZER FEED ROOM KAD C3b F C. 421 LECTROVIZER FEED ROOM KAD C3b F C. 422 LECTROVIZER FEED ROOM KAD	C . 413	CORRIDOR		£-3.
G. 419 LGUD WASTE C3b B G. 411 LGUC MASTE C3b B G. 412 UTLITY ROOM C2 F G. 413 UTLITY ROOM C2 F G. 421 ELECTROL ROOM C2 C G. 422 GLOVE BOX ROOM KCA C3b F G. 423 PERSONNEL AND MATERAL CONDOR C2 F G. 423 PERSONNEL AND MATERAL CONDOR C2 F G. 423 PERSONNEL AND MATERAL CONDOR C2 F G. 423 ELEVATOR LOBY C2 E G. 427 VESTBULE (EXIT POLISHNO) C2 E G. 423 ELEOTROX LER RED ROOM KDA C3b F G. 431 ELEOTROX VER RED ROOM KDA C3b F G. 431 CLEOTROX VER RED ROOM KDA C3b F G. 431	C. 265 LBURD WASTE C25 B-3 C. 277 ARLOCK C3 B-3 G. 478 UTLITY ROOM C2 K-4 G. 479 ARLOCK C30 E4 G. 472 UTLITY CHASE C2 C-4 G. 422 GLOVE BOX ROOM KCA C30 FA G. 422 PERSONNEL AND MATERIAL CORROOR C2 F-4 G. 423 PERSONNEL AND MATERIAL CORROOR C2 F-4 G. 423 PERSONNEL AND MATERIAL CORROOR C2 F-4 G. 423 ELEVATOR LOBBY C2 F-4 G. 423 ELEVATOR LOBBY C2 F-5 G. 423 ELEVATOR LOBY C2 E-5 G. 423 ELEVATOR LOBY C2 E-5 G. 423 ELEVATOR LOBY C2 E-5 G. 423 ELECTROLYZ	G. 419 LGUD WASTE C.3b B G. 417 AR LOCK C.3b B G. 417 AR LOCK C.3b B G. 418 UTLITY ROOM C.2 F G. 419 AR LOCK C.3b B G. 413 UTLITY ROOM C.2 F G. 421 ELECTROL ROOM C2 C G. 422 GUVE BOX ROOM KCA C3b F G. 422 PERSONNEL AND MATERIAL CONRIDOR C2 F G. 422 PERSONNEL AND MATERIAL CONRIDOR C2b F G. 423 PERSONNEL AND MATERIAL CONRIDOR C2b F G. 427 VESTBULE (ACCESS POLISHING) C2 E G. 427 VESTBULE (EDT POLISHING) C2 E G. 427 ELECTROX VIER REED ROOM KDA C3b F G. 427 ELECTROX VIER REED ROOM KDA C3b F G. 421 ELECTROX VIER REED ROOM KDA C3b F G. 431 ELECTROX VIER REED ROOM KDA C3b F	C . 414	ELECTRONICS ROOM	C2	F.1.
C. 417 AR LOCK C1b B C. 418 UTILTY ROOM C2 FR C. 419 AR LOCK C36 E C. 420 AR LOCK C36 E C. 421 ELECTROCH ROM C2 C C. 422 DERSONNEL AND MATERUL CORPLOR C36 F C. 423 DELEVATOR LOBY C2 C C. 423 ELEVATOR LOBY C2 C C. 423 ELEVATOR LOBY C2 E C. 423 VESTBULE (EXT POLSHING) C2 E C. 423 VESTBULE (EXT POLSHING) C2 E C. 423 VESTBULE (EXT POLSHING) C2 E C. 429 LUCOTION VER FEED ROOM MCDA C3b B C. 421 ELECTRON VER FEED ROOM MCDA C3b C C. 421 CLECTRON VER FEED ROOM MCDA <td>C. 417 ARLOCK C3b B-3 C. 418 UTILTY ROOM C2 F-A G. 418 MRLOCK C3b E-4 G. 418 MRLOCK C3b E-4 G. 419 MRLOCK C3b E-4 G. 410 MRLOCK C3b E-4 G. 420 ELECTRICAL ROOM C2 C-44 G. 421 GLOVE BOX ROOMACA C3b F-3 G. 422 GLOVE BOX ROOMACA C3b F-4 G. 421 ARLOCK C3b F-4 G. 422 PERSONELL AND MATERAL CORRIDOR C2 F-4 G. 423 ELEVATOR LOBY C2 F-4 G. 423 VESTBULE (ACCESS POLISHINO) C2 E-3 G. 428 USUSTBULE (ACCESS POLISHINO) C2 E-3 G. 423 ELEVATOR LOBY C2 F-4 G. 431 ELECTROLYZER FED ROOM/CA C3b B-3 G. 431 ELECTROLYZER FED ROOM/CA C3b B-3 G. 431 <td< td=""><td>C. 417 AR LOCK C3b B C. 418 UTILITY ROOM C2 F G. 419 AR LOCK C3b E C. 421 AR LOCK C3b E C. 422 LECTROLI ROM C2 C C. 422 DECTROLI ROM C2 C C. 422 AR LOCK C3b F C. 423 DERSONNEL AND MATERAL COMPLOR C2b F C. 421 AR LOCK C3b F C. 422 VESTBULE (EXT POLSMAG) C2 E C. 423 LECHATOR LOBY C2 E C. 423 LECHATOR LOBY C2 E C. 421 LECHATOR LOBY C2 E C. 422 LECHATOR LOBY C2 E C. 423 LECHATOR LOBY C2 E C. 421</td><td>C. 415</td><td>PNEUMATIC TRANSFER ROOM, KCC</td><td>C2</td><td>G-1</td></td<></td>	C. 417 ARLOCK C3b B-3 C. 418 UTILTY ROOM C2 F-A G. 418 MRLOCK C3b E-4 G. 418 MRLOCK C3b E-4 G. 419 MRLOCK C3b E-4 G. 410 MRLOCK C3b E-4 G. 420 ELECTRICAL ROOM C2 C-44 G. 421 GLOVE BOX ROOMACA C3b F-3 G. 422 GLOVE BOX ROOMACA C3b F-4 G. 421 ARLOCK C3b F-4 G. 422 PERSONELL AND MATERAL CORRIDOR C2 F-4 G. 423 ELEVATOR LOBY C2 F-4 G. 423 VESTBULE (ACCESS POLISHINO) C2 E-3 G. 428 USUSTBULE (ACCESS POLISHINO) C2 E-3 G. 423 ELEVATOR LOBY C2 F-4 G. 431 ELECTROLYZER FED ROOM/CA C3b B-3 G. 431 ELECTROLYZER FED ROOM/CA C3b B-3 G. 431 <td< td=""><td>C. 417 AR LOCK C3b B C. 418 UTILITY ROOM C2 F G. 419 AR LOCK C3b E C. 421 AR LOCK C3b E C. 422 LECTROLI ROM C2 C C. 422 DECTROLI ROM C2 C C. 422 AR LOCK C3b F C. 423 DERSONNEL AND MATERAL COMPLOR C2b F C. 421 AR LOCK C3b F C. 422 VESTBULE (EXT POLSMAG) C2 E C. 423 LECHATOR LOBY C2 E C. 423 LECHATOR LOBY C2 E C. 421 LECHATOR LOBY C2 E C. 422 LECHATOR LOBY C2 E C. 423 LECHATOR LOBY C2 E C. 421</td><td>C. 415</td><td>PNEUMATIC TRANSFER ROOM, KCC</td><td>C2</td><td>G-1</td></td<>	C. 417 AR LOCK C3b B C. 418 UTILITY ROOM C2 F G. 419 AR LOCK C3b E C. 421 AR LOCK C3b E C. 422 LECTROLI ROM C2 C C. 422 DECTROLI ROM C2 C C. 422 AR LOCK C3b F C. 423 DERSONNEL AND MATERAL COMPLOR C2b F C. 421 AR LOCK C3b F C. 422 VESTBULE (EXT POLSMAG) C2 E C. 423 LECHATOR LOBY C2 E C. 423 LECHATOR LOBY C2 E C. 421 LECHATOR LOBY C2 E C. 422 LECHATOR LOBY C2 E C. 423 LECHATOR LOBY C2 E C. 421	C. 415	PNEUMATIC TRANSFER ROOM, KCC	C2	G-1
C. 419 UTLITY ROOM C2 F C. 419 AR LOCK C3b E C.420 UTLITY CHASE C2 E C.421 ELECTRCAL ROOM C2 C C.422 AR LOCK C3b E C.421 ELECTRCAL ROOM C2 C C.422 AR LOCK C3b F C.423 AR LOCK C3b F C.422 AR LOCK C3b F C.423 LEVATOR LOBY C2 F C.424 WESTBULE (ACCESS POLISHIG) C2 F C.425 USETRUE (ACCESS POLISHIG) C2 F C.425 USETRUE (ACCESS POLISHIG) C2 F C.425 USETRUE (ACCESS POLISHIG) C2 F C.421 ELECTROCK ROOM C2 D C.422 ELECTROCK REPOLISHIG) C2 D C.421 ELECTROCK REPOLISHIG C3b F C.423 COMPRESSED AR DISTRBUTION C2	G. 415 UTELTY ROOM C2 F-4 G. 415 UTELTY ROOM C2 F-4 G. 421 UTELTY ROOM C3 E-4 G. 422 UTELTY ROOM C2 C-4 G. 421 ELECTRICAL ROOM C2 C-4 G. 422 PERSONNEL AND IMTERAL CORRIDOR C2 F-4 G. 422 PERSONNEL AND IMTERAL CORRIDOR C2 F-4 G. 422 PERSONNEL AND IMTERAL CORRIDOR C2 F-4 G. 422 VESTBULE (ACCESS POLISHIG) C2 F-5 G. 421 ELECTRICAL ROOM C2 D-5 G. 421 ELECTRICAL ROOM C2 D-5 G. 421 ELECTRICAL ROOM C2 D-5 G. 431 ELECTRICAL ROOM C3b D-5 G. 431 ELECTRICAL REPORTAL C3b F-4 G. 431 COMPRESSED AR DISTRIBUTION C2 F-5 G. 432 COMPRESSED AR DISTRIBUTION C2 F-5 G. 432 COMPRESSED AR DISTRIBUTION C2	C. 419 UTLITY ROOM C2 F C. 419 AR LOCK C3b E C. 419 AR LOCK C3b E C. 419 UTLITY CHASE C2 C C. 421 ELECTROCAL ROOM C2 C C. 422 AR LOCK C3b E C. 421 ELECTROCAL ROOM C2 C C. 422 AR LOCK C3b F C. 422 AR LOCK C3b F C. 422 ELEVATOR LOBY C2 C C. 423 ELEVATOR LOBY C2 C C. 423 ELEVATOR LOBY C2 C C. 423 ELEVATOR LOBY C2 E C. 421 ELECTROCAL ROOM C2 C C. 422 ELECTROLYZER RED ROOMKDA C3b F C. 431 ELECTROLYZER RED ROOMKDA C3b F C. 432 COMPRESSED AR DISTRBUTION C2 F C. 432 COMPRESSED AR DISTRBUTION C2 F	C - 416	LIQUED WASTE	C36	B-3.
C. 100 AR LOCK C36 E C. 400 UTLIT/CHASE C2 C C. 421 ELECTROL ROM C35 F C. 422 ELECTROL ROM C35 F C. 423 ELEVATOR LOBY C2 E C. 423 LEVATOR LOBY C2 E C. 423 VESTBULE (EXT POLSHING) C2 E C. 423 LECTROL VER FED ROOM C2 E C. 423 LECTROL VER FED ROOM/LA C30 F C. 421 ELECTROL VER FED ROOM/LA C30 F C. 431 ELECTROL VER FED ROOM/LA C30 F C. 431 COMPRESSED AR DISTRBUTION C2 F C. 431 COMPRESSED AR DISTRBUTION C2 F C. 432 ELEVATOR LOBAY C2 F C. 432 ELEVATOR LOB	C:	C. 110 AR LOCK C36 E C. 421 UTLITY CHASE C2 C C. 421 ELECTROL ROM C2 C C. 421 ELECTROL ROM C2 C C. 422 ELECTROL ROM C2 C C. 423 PERSONNEL AND MATERIAL CORRIDOR C35 F C. 423 ELEVATOR LOBY C2 E C. 423 LEVATOR LOBY C2 E C. 423 LEVATOR LOBY C2 E C. 423 LECTROL AROM C2 E C. 424 LECTROL VER FED POUSHIO) C2 E C. 425 LECTROL VER FED ROOM C2 E C. 420 LECTROL VER FED ROOM/RDA C36 F C. 420 LECTROL VER FED ROOM/RDA C36 F C. 421 ELECTROL VER FED ROOM/RDA C36 F C. 423 COMPRESSED AR DISTRBUTION C2 F C. 431 ELECTROL ROM C2 F C. 432 ELEVA	C - 417	AIRLOCK	C36	8-3
C.420 UTLITY CHASE C2 C C.421 ELECTRICL ROOM C2 C C.422 ELECTRICL ROOM C2 C C.423 ELEVATOR LOBBY C2 C C.423 PERSONNEL AND MATERAL CORREDOR C2 F C.423 LEVATOR LOBBY C2 C C.423 ELEVATOR LOBBY C2 C C.423 LEVATOR LOBBY C2 C C.423 LEVATOR LOBBY C2 C C.424 VESTBULE (ACCESS POLISHIG) C2 E C.427 VESTBULE (ACCESS POLISHIG) C2 E C.421 ELECTROCLAROOM C2 E C.422 LECTROVER FEED ROOM/KDA C3b F C.431 ELECTROVER FEED ROOM/KDA C3b F C.432 COMPRESSED AR DISTRIBUTION C2 F C.433 ELEVAROR LOBOY C2 F C.432 COMPRESSED AR DISTRIBUTION C2 F C.433 <td< td=""><td>G.120 UTLITY CHASE G2 G.421 G.121 UTLITY CHASE G2 G.421 G.121 ELECTROL ROOM G2 G.423 G.122 ACM ED AN ROOM/CA G3b F.4 G.122 PERSONNEL AND MATERAL CORRIDOR G2 F.4 G.122 PERSONNEL AND MATERAL CORRIDOR G2 F.4 G.122 AR LOCK O2b F.4 G.122 ELEVATOR LOBBY C2 F.4 G.123 ELEVATOR LOBBY C2 F.4 G.123 ELEVATOR LOBBY G2 E.4 G.127 VESTBULE (100 FPAISHNO) G2 E.4 G.127 VESTBULE (100 FPAISHNO) G2 E.4 G.127 USTBULE (100 FPAISHNO) G2 E.4 G.127 LOUDD WASTE C2b B3 G.127 LIDUDD WASTE C2b B3 G.130 ELECTROLYZER FEED ROOM/XDA C3b C3b G.131 COMPRESSED AR DISTRBUTION C2 F.4</td><td>C.420 UTLITY CHASE C2 C C.421 ELECTRCK ROOM C2 C C.422 ELECTRCK ROOM KCA C3b F C.423 PERSONNEL AND MATERAL CORRIDOR C2 F C.423 ELEVATOR LOBBY C2 C C.421 ELEVATOR LOBBY C2 F C.422 VESTBULE (ACCESS POLISHIG) C2 E C.421 ELECTROV VER TPOLISHIG) C2 E C.422 ELECTROV VER FEED ROOM KDA C3b F C.431 ELECTROV VER FEED ROOM KDA C3b F C.432 COMPRESED AR DISTRIBUTION C2 F C.431 COMPRESED AR DISTRBUTION C2 F C.432 ELEVATOR LOBOM C2 F C.433 ELEVATOR LOBOM C2 F C.433</td><td>C. 418</td><td>UTILITY ROOM</td><td>C2</td><td>F-4.</td></td<>	G.120 UTLITY CHASE G2 G.421 G.121 UTLITY CHASE G2 G.421 G.121 ELECTROL ROOM G2 G.423 G.122 ACM ED AN ROOM/CA G3b F.4 G.122 PERSONNEL AND MATERAL CORRIDOR G2 F.4 G.122 PERSONNEL AND MATERAL CORRIDOR G2 F.4 G.122 AR LOCK O2b F.4 G.122 ELEVATOR LOBBY C2 F.4 G.123 ELEVATOR LOBBY C2 F.4 G.123 ELEVATOR LOBBY G2 E.4 G.127 VESTBULE (100 FPAISHNO) G2 E.4 G.127 VESTBULE (100 FPAISHNO) G2 E.4 G.127 USTBULE (100 FPAISHNO) G2 E.4 G.127 LOUDD WASTE C2b B3 G.127 LIDUDD WASTE C2b B3 G.130 ELECTROLYZER FEED ROOM/XDA C3b C3b G.131 COMPRESSED AR DISTRBUTION C2 F.4	C.420 UTLITY CHASE C2 C C.421 ELECTRCK ROOM C2 C C.422 ELECTRCK ROOM KCA C3b F C.423 PERSONNEL AND MATERAL CORRIDOR C2 F C.423 ELEVATOR LOBBY C2 C C.421 ELEVATOR LOBBY C2 F C.422 VESTBULE (ACCESS POLISHIG) C2 E C.421 ELECTROV VER TPOLISHIG) C2 E C.422 ELECTROV VER FEED ROOM KDA C3b F C.431 ELECTROV VER FEED ROOM KDA C3b F C.432 COMPRESED AR DISTRIBUTION C2 F C.431 COMPRESED AR DISTRBUTION C2 F C.432 ELEVATOR LOBOM C2 F C.433 ELEVATOR LOBOM C2 F C.433	C. 418	UTILITY ROOM	C2	F-4.
C.:421 ELECTROCAL ROOM C2 C C.:421 ELECTROCAL ROOM C3b F C.:421 GLOVE BOX ROOMXCA C3b F C.:421 PERSONNEL AND MATERIAL CONPRIDOR C2 F C.:421 ARLIOCK C3b F C.:421 LELEVATOR LOBBY C2 F C.:423 VESTBULE (ACCESS POLISHING) C2 E C.:423 LECTROCAL ROOM C2 E C.:421 LECTROCAL ROOM C2 C C.:421 LECTROCAL ROOM C2 C C.:421 LECTROCAL REPORT C3b F C.:421 LECTROCAL REPORT C3b F C.:421 ELECTROCAL REPORT C3b F C.:431 ELECTROCAL REPORT C3b F C.:431 COMPRESSED AR DISTRBUTION C2 F C.:431 ELEVATOR LOBBY C2 F C.:431 ELEVATOR LOBBY C2 F C.:431 ELE	C.:421 ELECTRICAL ROOM C2 C.:421 ELECTRICAL ROOM C3 C4	C.:421 ELECTROPIL ROOM C2 C C.:421 ELECTROPIL ROOM C3b F C.:421 GLOVE BOX ROOM/KCA C3b F C.:421 PERSONNEL AND MATERIAL CORRIDOR C2 F C.:421 ARLIOCK C3b F C.:421 ARLIOCK C3b F C.:421 LELEVATOR LOBBY C2 E C.:422 VESTBULE (ACCESS POLISHINO) C2 E C.:421 ELECTROPILAR ROOM C2 E C.:422 LUCUTO WASTE C3b F C.:431 ELECTROPY TER FEED ROOM/KDA C3b F C.:431 COMPRESSED AR DISTRBUTION C2 F C.:431 COMPRESSED AR DISTRBUTION C2 F C.:432 COMPRESSED AR DISTRBUTION C2 F C.:431 COMPRESSED AR DISTRBUTION C2 F C.:432 COMPRESSED ARD DISTRBUTION C2 F C.:433 COMPRESSED ARD DISTRBUTION C2 F <	Ç. 419	AIRLOCK		E-4.
C. 422 QLOVE BOX ROOM KCA C30 F C. 423 PERSONNEL AND MATERIAL CONDOR C2 F C. 424 AR LOCK C30 F C. 423 AR LOCK C30 F C. 424 AR LOCK C30 F C. 423 MESTBULE (ACESS POLISSING) C2 E C. 423 VESTBULE (ACESS POLISSING) C2 E C. 427 VESTBULE (ACESS POLISSING) C2 E C. 428 ELECTROLY REE C30 B C. 430 ELECTROLYZER FEED ROOM KDA C30 F C. 431 ELECTROLYZER REED ROOM KDA C30 F C. 432 CLEWATOR LOBSTRUTION C2 F C. 431 COMEMESSED AR DISTRUTION C2	C.422 OLOVE BOX ROOMACA C3b F.S. C.423 PERSONNEL AND MATERIAL CORREDOR C2 F.A. C.423 AR LOCK C3b F.A. C.423 AR LOCK C3b F.A. C.423 BELEVATOR LOBBY C2 F.A. C.425 VESTBULE (CST POLISHING) C2 F.A. C.425 VESTBULE (CST POLISHING) C2 E.A. C.427 VESTBULE (CST POLISHING) C2 E.A. C.428 LELECTROL (ROOM C2 C.4. C.429 LELECTROL VZER FEED ROOM KDA C3b F.S. C.430 ELECTROL VZER FEED ROOM KDA C3b F.S. C.431 ELECTROL VZER FEED ROOM KDA C3b F.S. C.432 COMPRESSED AR DISTRUTION C2 F.S. C.433 COMPRESSED AR DISTRUTION C2 F.S. C.433 TECHNICAL ROOM C2 B.S. C.433 TECHNICAL ROOM C2 B.S.	C. 422 GLOVE BOX ROOM KCA C3b F C. 423 PERSONNEL AND MATERIAL CORRIDOR C2 F C. 424 AR LOCK C3b F C. 423 MAR LOCK C3b F C. 424 AR LOCK C3b F C. 423 MAR LOCK C3b F C. 423 MESTBULE (ACCESS POLISSING) C2 E C. 427 VESTBULE (ACCESS POLISSING) C2 E C. 428 ELECTROLYZER FEED ROOM KDA C3b F C. 430 ELECTROLYZER FEED ROOM KDA C3b F C. 431 ELECTROLYZER RESOND ROSTRIBUTION C2 F C. 432 COMPRESSED AR DISTRIBUTION C2 F C. 431 ELEVATORILOBEY C2	G - 420	UTILITY CHASE	¢2	C-5
C. 42) PERSONNEL AND MATERIAL CORRIDOR C2 F C. 42) AR LOCK C3b F C. 42) ELEVATOR LOBY C3b F C. 42) ELEVATOR LOBY C2 F C. 42) ELEVATOR LOBY C2 F C. 42) VESTBULE (ACCESS POLISHIO) C2 F C. 421 VESTBULE (ACCESS POLISHIO) C2 E C. 421 ELECTRICAL ROOM C2 D C. 421 ELECTRICAL ROOM C2 D C. 431 ELECTRICAL ROOM ALCA C3b F C. 431 ELECTRICAL ROOM ALCA C3b D C. 431 ELECTRICAL ROOM ALCA C3b C C. 431 ELECTRICAL ROOM ALCA C3b C C. 431 ELECTRICAL RED ROOM ALCA C3b C C. 431 ELECTRICAL RED ROOM ALCA C2 F C. 431 ELECTRICAL ROM C2 F C. 432 ELEVATOR LOBSY C2 C C	C. 423 PERSONNEL AND INTERNAL CORRIDOR C2 Frail G. 424 ART.LOCK C3b Frail G. 422 ELEVATOR LOBBY C2 Frail G. 423 ELEVATOR LOBBY C2 Frail G. 424 VESTBULE (ACCESS POLISHING) C2 Frail G. 427 VESTBULE (ACCESS POLISHING) C2 E45 G. 427 VESTBULE (ATORISH POLISHING) C2 E45 G. 427 LECTOR VIEW FOLSHING) C2 D45 G. 429 LECTOR VIEW FEED ROOM ADA C3b E-5 G. 421 LECTOR VIEW FEED ROOM ADA C3b E-5 G. 421 ELECTRON VIEW FEED ROOM ADA C3b E-5 G. 423 COMPRESSED AR DISTRIBUTION C2 FA G. 423 COMPRESSED AR DISTRIBUTION C2 FA G. 423 ELEVATOR LOBBY C2 FA G. 424 ELEVATOR LOBBY C2 FA	C. 421 PERSONNEL AND MATERIAL COMPADOR C2 F C. 423 ARCIOK C3b F C. 423 ELEVATOR LOBY C2 F C. 423 ELEVATOR LOBY C2 F C. 423 VESTBULE (ACCESS POLISHIO) C2 E C. 423 VESTBULE (ACCESS POLISHIO) C2 E C. 421 ELECTROCA. ROOM C2 C C. 423 ELECTROCAR OOM C2 C C. 423 ELECTROCAR ROOM C3b F C. 423 ELECTROCAR ROOM C2 C C. 431 ELECTROCAR ROOM ACA C3b F C. 431 ELECTROCAR RED ROOMACA C3b C C. 431 ELECTROCAR RED ROOMACA C3b C C. 433 COMPRESSED AR DISTRBUTION C2 F C. 433 ELEVATOR LOBBY C2 F C. 433 ELEVATOR LOBBY C2 F C. 433 TECHHCAL NOOM C2 F	C - 421	ELECTRICAL ROOM		2
C.421 ARLOCK C3b F C.423 LELEVYTOR LOBBY C2 E C.423 LEEVYTOR LOBBY C2 E C.423 VESTBULE (EXT POLSHING) C2 E C.421 LECTROL ARDOM C2 E C.422 LECTROL ARDOM C2 E C.423 LUCUTO WASTE C3b B C.431 ELECTROL YER FEED ROOM ADA C3b F C.432 LECTROL YER FEED ROOM ADA C3b F C.433 ELECTROL YER FEED ROOM ADA C3b F C.431 ELECTROL YER FEED ROOM ADA C3b F C.432 ELECTROL YER FEED ROOM ADA C3b F C.433 COMPRESSED AR DISTRBUTION C2 F C.433 ELEVATOR LOBBY C2 F C.434 ELEVATOR LOBBY C2 F	C.124 ARCLOCK C3b F-4 C.423 ELEWYTOR LOBBY C2 F-4 C.423 ELEWYTOR LOBBY C2 E-4 C.423 VESTBULE (ACCESS PALISHNO) C2 E-5 C.423 LECTROCAL MODE C2 E-3 C.427 LECTROCAL MODM C2 D-3 C.427 LECTROCAL MODM C2 D-3 C.427 LECTROCAL VER FEED ROOM MOD C2 D-3 C.420 LECTROCAL VER FEED ROOM MOD C3b D-3 C.420 LECTROCAL VER FEED ROOM MOD C3b D-3 C.427 RESERVE C2 D-4 C.427 LECTROCAL VER FEED ROOM MOD C2 D-4 C.427 RESERVE C2 D-4 C.427 COMPRESSED AR DISTRIBUTION C2 F-4 C.423 ELEWATOR LOBBY C2 B C.423 ELEWATOR LOBBY C2 B C.423 ELEWATOR LOBBY C2 B	C.421 ARLOCK C3b F C.423 ELEVYTOR LOBBY C2 E C.423 LEEVYTOR LOBBY C2 E C.423 VESTBULE (EXT POLSHWG) C2 E C.423 LECTROL ARDOM C2 E C.421 LECTROL ARDOM C2 E C.422 LUCUTO WASTE C3b F C.431 ELECTROL YER RED ROOM ADA C3b F C.432 ELEVARON LOBBY C2 F C.432 ELEVARON LOBBY C2 F	C . 422	GLOVE BOX ROOM,KCA	C36	F-3.
C.423 ELEWIDR LOBBY C2 G.423 VESTBULE (ACESS POLISSING) C2 E G.427 VESTBULE (ACESS POLISSING) C2 E G.427 VESTBULE (INT POLISSING) C2 E G.427 VESTBULE (INT POLISSING) C2 D G.427 VESTBULE (INT POLISSING) C2 D G.427 LECTROL XER FEED ROOM KDA C3b B G.430 ELECTROL YZER FEED ROOM KDA C3b C G.431 ELECTROL YZER FEED ROOM KDA C3b C G.431 COMPRESSED AR DISTRIBUTION C2 C G.432 COMPRESSED AR DISTRBUTION C2 F G.433 ELEVAROL ROSM C2 F	C.423 ELEVATOR LOBBY C2 F. C.425 VESTBULE (ACCESS POLISHING) C2 E.4 C.427 VESTBULE (EXPENDIAL ROOM C2 D.4 C.428 ELECTROL ROOM C2 D.4 C.427 VESTBULE (EXPENDIAL ROOM C3 D.4 C.430 ELECTROL VIER FEED ROOM/KDA C3b D.5 C.431 ELECTROL VIER FEED ROOM/KDA C3b D.4 C.431 COMPRESSED AR DISTRBUTION C2 F.4 C.431 ELEVATOR LOBBY C2 F.4 C.431 COMPRESSED AR DISTRBUTION C2 F.4 C.433 TECHNICAL ROOM C2 E	C.423 ELEWIDR LOBBY C2 G.423 VESTBULE (ACESS POLISSING) C2 E G.427 VESTBULE (ACESS POLISSING) C2 E G.427 VESTBULE (ENT POLISSING) C2 E G.427 VESTBULE (ENT POLISSING) C2 E G.427 VESTBULE (ENT POLISSING) C2 E G.423 LECTROL 72R FEED ROOM (ADA C3b F G.430 ELECTROL 72R FEED ROOM (ADA C3b F G.431 ELECTROL 72R FEED ROOM (ADA C3b C G.431 COMPRESSED AR DISTRBUTION C2 C G.431 COMPRESSED AR DISTRBUTION C2 F G.431 TECHNICAL ROOM C2 F	C. 423	PERSONNEL AND MATERIAL CORRIDOR	C2	F4
C108 VESTBULE (ACCESS POLISIMIG) C2 E C127 VESTBULE (EXTPOLISIMIG) C2 E C127 VESTBULE (EXTPOLISIMIC) C2 E C128 LECTROLYZER FED ROOM (XDA C3b F C402 RESERVE C2 E C402 RESERVE C2 E C403 COMMRESSED AR DISTRIBUTION C2 F C403 COMMRESSED AR DISTRIBUTION C2 F C403 ELEVINOR LOBBY C2 F C403 ELEVINOR LOBBY C2 F	C.428 VESTBULE (ACCESS POLISHING) C2 E.4 C.428 VESTBULE (EXT POLISHING) C2 E.4 C.478 ELECTROL ROOM C2 D.4 C.478 ELECTROL ROOM C2 D.4 C.478 ELECTROL VESTBULE (EXT POLISHING) C2 D.4 C.478 ELECTROL VEST RED ROOM C2 D.4 C.400 ELECTROL VEST RED ROOM KDA C3b B-3 C.401 ELECTROL VEST RED ROOM KDA C3b D-3 C.401 ELECTROL VEST RED ROOM KDA C3b D-3 C.402 RESERVE C2 D-4 C.403 CAMPRESSED AR DISTRBUTION C2 F4 C.401 ELEVATOR LOBSY C2 B C.402 RECHWICH ROOM C2 F4	C105 VESTBULE (ACCESS POLISHNG) C2 E C125 VESTBULE (ECT POLISHNG) C2 E C127 VESTBULE (ECT POLISHNG) C2 E C120 LUCUTO WASTE C3b E C120 LECTROLYZER FEED ROOM/KDA C3b E C121 RESERVE C2 C C121 COMPRESSED AR DISTRBUTION C2 F C121 COMPRESSED AR DISTRBUTION C2 F C121 ELEVINOR LOBBY C2 C2 C121 ELEVINOR LOBOM C2 F	G . 424	AIRLOCK	C36	F-4
C. 427 VESTBULE (EXT POLISHNO) C2 E C. 427 ELECTROCAL ROOM C2 D C. 428 ELECTROCAL ROOM C3 D C. 427 LUOUD WASTE C30 F C. 430 ELECTROLYZER FEED ROOM ADA C30 F C. 431 ELECTROLYZER FEED ROOM ADA C30 F C. 431 COMPRESSED AR DISTRBUTION C2 E C. 432 ELEVATOR LOBERY C2 F C. 431 COMPRESSED AR DISTRBUTION C2 F C. 432 ELEVATOR LOBERY C2 C C. 432 TECHNICAL ROOM C2 F	C. (2) VESTBULE (EXT POLISHNO) C2 E3 C. (2) ELECTROL ROOM C2 D3 C. (2) ELECTROL ROOM C2 D3 C. (2) ELOUDD WASTE C36 D3 C. (3) ELECTROL YEER FEED ROOM KDA C36 C36 C. (3) ELECTROL YEER FEED ROOM KDA C36 C36 C. (3) ELECTROL YEER FEED ROOM KDA C36 C36 C. (3) COMPRESSED AR DISTRBUTION C2 FA C. (3) COMPRESSED AR DISTRBUTION C2 FA C. (3) ELEVATOR LOBBY C2 B4 C. (3) TECHNICAL ROOM C2 FA	C. (27) VESTBULE (EXT POLISHIG) C2 E C. (27) ELECTRCAL ROOM C2 E C. (27) LEUCTRCAL ROOM C2 E C. (27) LUCOD WASTE C30 F C. (37) ELECTRCA YEER FEED ROOM KDA C30 F C. (37) ELECTRCA YEER FEED ROOM KDA C30 F C. (37) ELECTRCA YEER FEED ROOM KDA C30 F C. (37) RESERVE C2 E C. (37) COMPRESSED AR DISTRBUTION C2 F C. (37) TECHWICAL ROOM C2 F C. (37) TECHWICAL ROOM C2 F	C - 425	ELEVATOR LOBBY	C2	F-I
C. 121 ELECTRICAL ROOM C2 E C. 421 LOUDI WASTE C36 B C. 403 ELECTROLYZER FEED ROOM KDA C36 B C. 403 ELECTROLYZER FEED ROOM KDA C36 B C. 403 ELECTROLYZER FEED ROOM KDA C36 C C. 403 C. 403 RESERVE C2 C C. 403 COMPRESSED AR DISTRIBUTION C2 F C. 403 ELEVATOR LOBOY C2 F C. 403 ELEVATOR LOBOY C2 C	G.421 ELECTRICAL ROOM G2 D-5 G.422 LOUDD WASTE C.3b B-3 G.400 ELECTROLYZER FEED ROOM KDA G3b F-5 G.401 ELECTROLYZER FEED ROOM KDA G3b F-3 G.403 ELECTROLYZER FEED ROOM KDA G3b F-3 G.403 ELECTROLYZER FEED ROOM KDA G3b F-3 G.403 COMPRESSED AR DISTRIBUTION G2 F-3 G.403 ELEVATOR LOBBY G2 R-3 G.403 ELEVATOR LOBO G2 F-3	C. 422 ELECTRICAL ROOM C2 ELECTRICAL ROOM C2 ELECTRICAL ROOM C3b E C. 403 ELECTRICATER FEED ROOM KDA C3b E C G<	C . 426	VESTIBULE (ACCESS POLISHING)	C2	E-5
C.423 LIQUID WASTE C.3b B C.430 ELECTROLYZER FEED ROOM/KDA C3b F C.431 ELECTROLYZER FEED ROOM/KDA C3b F C.437 ELECTROLYZER FEED ROOM/KDA C3b F C.437 RESERVE C2 C C.433 COMPRESSED AR DISTRBUTION C2 F C.432 ELEVATOR LOBBY C2 F C.432 TECHNICAL ROOM C2 F	C.427 LQUID WASTE C.36 B-3 C.430 ELECTROLYZER FEED ROOM/KDA C30 F-3 C.431 ELECTROLYZER FEED ROOM/KDA C30 F-3 C.432 RESERVE C2 D-3 C.433 COMPRESSED AR DISTRIBUTION C2 F-4 C.432 ELEVATOR LOBBY C2 B-4 C.433 TECHWARA ROOM C2 F-4	C.422 LIQUID WASTE C.3b E C.430 ELECTROLYZER FEED ROOM,KDA C3b F C.431 ELECTROLYZER FEED ROOM,KDA C3b F C.431 ELECTROLYZER FEED ROOM,KDA C3b F C.433 RESERVE C2 F C.433 COMPRESSED AR DISTRBUTION C2 F C.432 ELEVATOR LOBBY C2 F C.433 TECHWCAL ROOM C2 F	C. 427	VESTIBULE (EXIT POLISHING)	C2	E-5
G. 40. ELECTROLYZER FEED ROOM/KDA C3b F G. 40. ELECTROLYZER FEED ROOM/KDA C3b C G. 437 ELECTROLYZER FEED ROOM/KDA C3b C G. 437 RESERVE C2 C G. 431 COMPRESED AR DISTRIBUTION C2 F G. 431 ELEVATOR LOBBY C2 C G. 432 FECHWICH LINGOM C2 F	G. (b) ELECTROLYZER FEED ROOM/KDA C3b F.S [G. 40] ELECTROLYZER FEED ROOM/KDA C3b F.S [G. 43] ELECTROLYZER FEED ROOM/KDA C3b F.S [G. 43] G. 450 RSSR/E C2 D- [G. 43] COMPRESSED AR DISTRIBUTION C2 F.S [G. 43] ELEWATOR LOBEY C2 B [G. 43] TECHNICAL ROOM C2 E	C.400 ELECTROLVZER FEED ROOM KDA C3b F C.401 ELECTROLVZER FEED ROOM KDA C3b F C.431 ELECTROLVZER FEED ROOM KDA C3b F C.432 RESERVE C2 F C.432 COMPRESSED AR DISTRIBUTION C2 F C.432 ELEVATOR LOBSY C2 F C.432 TECHNICAL ROOM C2 F	Ç. 428	ELECTRICAL ROOM	C2	D-5
C. 431 ELECTROL/ZER FEED ROOM,KDA C3b D C. 432 RESERVE C2 E G. 433 COMPRESSED AR DISTRBUTION C2 F G. 433 ELEVATOR LOBBY C2 F G. 432 ELEVATOR LOBBY C2 C	C.431 ELECTROLYZER FEED ROOM.ADA C36 D-2 C.432 RESERVE C2 D-4 C.433 COMPRESSED AR DISTRIBUTION C2 FA C.431 ELEVATOR LOBBY C2 FB C.435 TECHWICAL ROOM C2 E	C. 431 ELECTROLYZER REED ROOM,KDA C3b LL C. 432 RESERVE C2 L G. 433 COMPRESSED AR DISTRBUTION C2 F G. 433 ELEVATOR LOBBY C2 F G. 435 TECHNICAL ROOM C2 F	C - 429			B-3
C.437 RESERVE C2 L [C.437] COMPRESED AR DISTRBUTION C2 F [C.437] COMPRESED AR DISTRBUTION C2 F [C.437] TECHNICAL DRBY C2 C	C.437 RESERVE C2 D4 C.437 COMPRESSED AR DISTRBUTION C2 FA C.432 ELEVATOR LOBBY C2 B C.435 TECHNICAL ROOM C2 FA	C.437 RESERVE C2 L C.437 COMPRESED AR DISTRBUTION C2 F C.437 ELEVATOR LOBBY C2 F C.437 TECHNICAL ROOM C2 F	C.430	ELECTROLYZER FEED ROOM,KDA		F-3
C.433 COMPRESED AR DISTRIBUTION C2 F C.433 ELEVATOR LOBBY C2 C2 </td <td>C.433 Commercial Robins C2 F-3 C.433 ELEVATOR LOBBY C2 B C.435 TECHNICAL ROOM C2 E-</td> <td>C.433 COMPRESSED AR DISTRIBUTION C2 F C.433 ELEVATOR LOBBY C2 C2<</td> <td>C . 431</td> <td>ELECTROLYZER FEED ROOM,KDA</td> <td></td> <td>0.3</td>	C.433 Commercial Robins C2 F-3 C.433 ELEVATOR LOBBY C2 B C.435 TECHNICAL ROOM C2 E-	C.433 COMPRESSED AR DISTRIBUTION C2 F C.433 ELEVATOR LOBBY C2 C2<	C . 431	ELECTROLYZER FEED ROOM,KDA		0.3
C.434 ELEVATOR LOBBY C2 C.435 TECHNICAL ROOM G2	C. 434 ELEVATOR LOBBY C2 B C. 435 TECHNICAL ROOM C2 E-	C. 634 ELEVATOR LOBBY C2 C. 435 TECHNICAL ROOM C2 I	C - 432	RESERVE		D-5
C. 435 TECHINICAL ROOM C2	C. 435 TECHNICAL ROOM C2 E-	C. 435 TECHNICAL ROOM C2	C - 433			F.3
						8
	C-136] PERSONNEL CORRIDOR C2 8-3					E-1
C-436 PERSONWEL CORRIDOR C2 8			C - 436	PERSONNEL CORRIDOR	C2	8-5
				·····		
			1			1

-3.4

-2.4 ----(1.9)



.

Figure 11.1-6. Aqueous Polishing Area - Process Conceptual Layout - Level 5 (Elevation 52'-6")

MFFF Construction Authorization Request Docket No. 070-03098

		ROOM IDENTIFICATION		
	NUMBER	DESIGNATION	CONFINEMENT ZOME	
	C . 601	RADIOPROTECTION LABORATORY	C2	
	C . 502	RADIOPROTECTION STORAGE	C2	
	C . 503	COMPRESSED AIR DISTRIBUTION	C2	
	C . 504	ELECTRONICS ROOM	C7	
	C 505	ELECTRONICS ROOM	C7	
	C - 508	ELEVATOR LOBBY	57	
	C - 507	ELECTRICAL ROOM	C2	
	C . 508	ELECTRONICS ROOM	C2	
	C . 509	SERVICE ELEVATOR MAINTENANCE	G2	
	C . 510	ELEVATOR LOBBY	C2	
\sim	C. 511	TRANSMITTER ROOM	C2	
(6)	C - 512	TRANSMITTER ROOM		
J	C - 513		<u>C2</u>	
	C - 515	STORAGE,REAGENTS REAGENTS ROOM		
	C - 516	TRANMITTER ROOM		
	C - 617	ELECTRONICS ROOM		
	C - 518	ELECTRICAL ROOM		
	C 519	DECONTAMINATION DISTRIBUTION	C2	
	C . 520	PERSONNEL AND MATERIAL CORRIDOR	62	· · · · ·
	C - 521	PERSONNEL AND MATERIAL CORRIDOR		
	C . 522	COMPRESSED AIR DISTRIBUTION		
	C - 523	EXPANSION TANKS	C2	
(E)	C - 524	SERVICE ELEVATOR MAINTENANCE	GZ	
(3.2)	C-525	PERSONNEL AND MATERIAL CORRIDOR	C2	
-	C - 526	EMERGENCY AIR ROOM	C2	
	C - 527	UTILITY CHASE	Ċ?	
	G - 528	LIQUID WASTE	C2	
	C . 529	LIQUID WASTE	C2	
	C - 530	PERSONNEL AND MATERIAL CORRIDOR	Ç2	
(4.8)	C . 531	TECHNICAL ROOM	3	
\sim	C . 532	PERSONNEL AND MATERIAL CORRIDOR	C2	
			_	
1				
1	L			
\sim				
(39)	-			
9				
_				
		· · · ·		

Revision: 2/28/01 Page: 11.1-43

-1.9

-2.4

-(3.4)

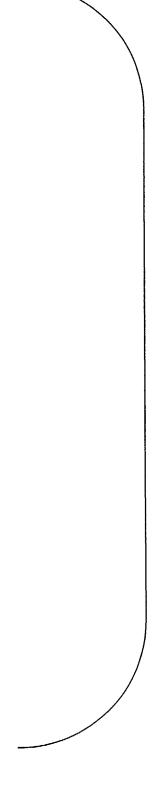
-(1)

.

.

Figure 11.1-7. Aqueous Polishing Area - Process Conceptual Layout – Section A-A

MFFF Construction Authorization Request Docket No. 070-03098

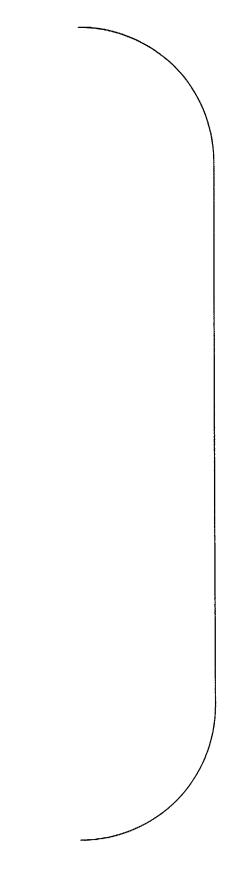


Revision: 2/28/01 Page: 11.1-46)



This page intentionally left blank.

Figure 11.1-9. Aqueous Polishing Area - Process Conceptual Layout – Section C-C



Revision: 2/28/01 Page: 11.1-50 1

Figure 11.1-10. Aqueous Polishing Area - Process Conceptual Layout - Section D-D

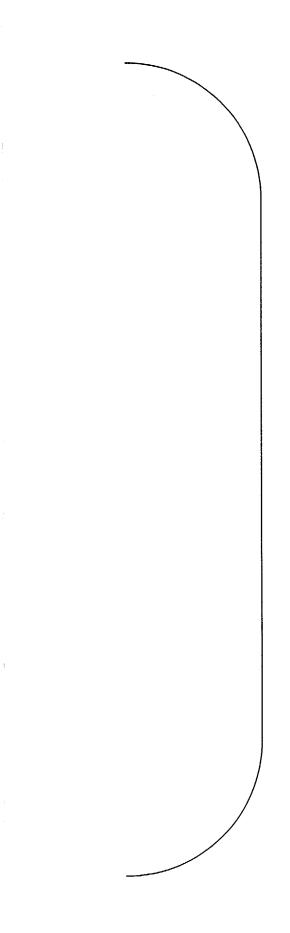
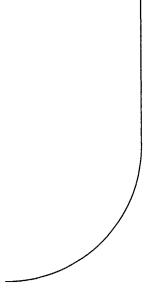


Figure 11.1-11. Aqueous Polishing Area - Process Conceptual Layout - Section E-E



•

.

Figure 11.1-12. Aqueous Polishing Area - Process ConceptualLayout - Section F-F

This page intentionally left blank.

,

Figure 11.1-13. Aqueous Polishing Area - Process Conceptual Layout - Section G-G

MFFF Construction Authorization Request Docket No. 070-03098

.

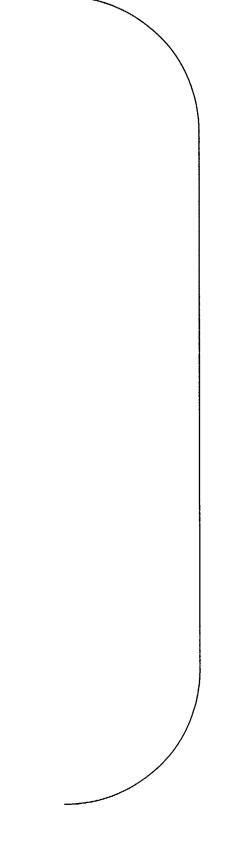
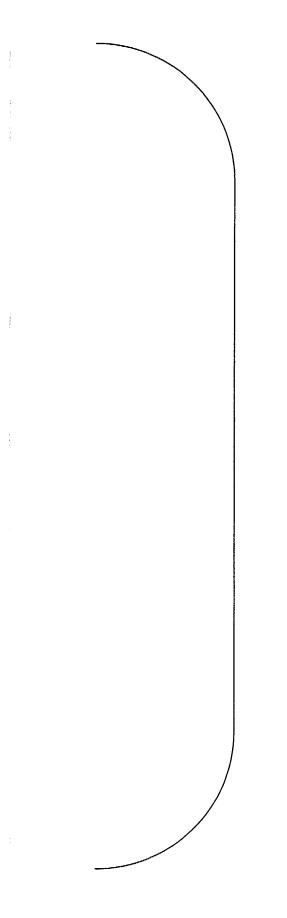
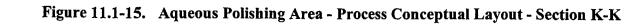
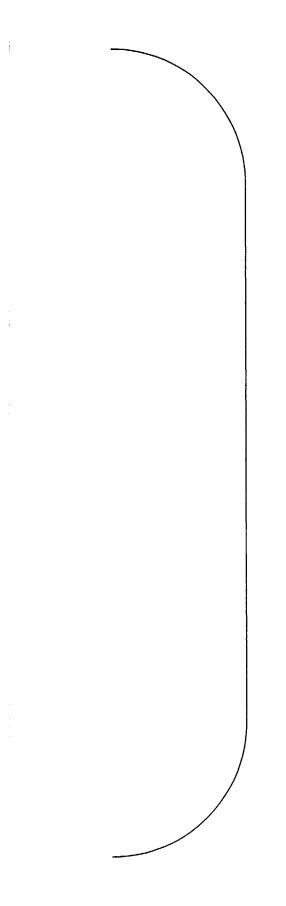


Figure 11.1-14. Aqueous Polishing Area - Process Conceptual Layout - Section H-H





.



Oversized Drawing – See Accompanying File

Figure 11.1-16. MFFF Processing Area - Process Conceptual Layout - Level 1 (Elevation 0'-0")

MFFF Construction Authorization Request Docket No. 070-03098

.

MFFF Construction Authorization Request Docket No. 070-03098

Oversized Drawing – See Accompanying File

Figure 11.1-17. MFFF Processing Area - Process Conceptual Layout - Level 2 (Elevation 23'-4")

MFFF Construction Authorization Request Docket No. 070-03098

Revision: 2/28/01 Page: 11.1-65

.

MFFF Construction Authorization Request Docket No. 070-03098

Oversized Drawing – See Accompanying File

.

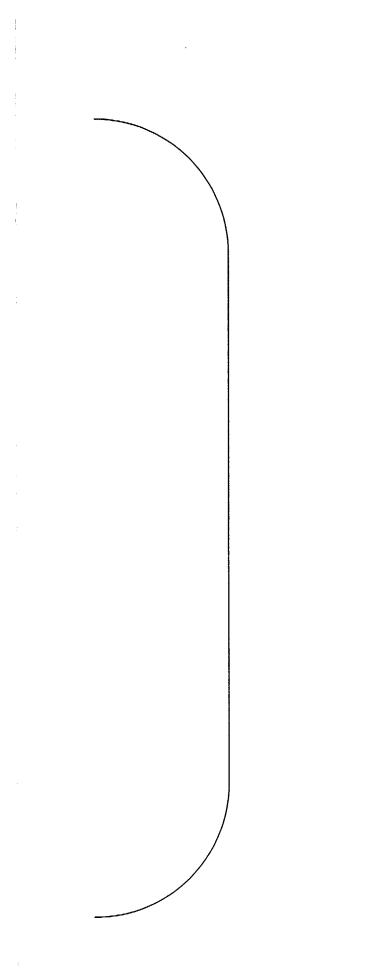
Figure 11.1-18. MFFF Processing Area - Process Conceptual Layout - Level 3 (Elevation 40'-10")

MFFF Construction Authorization Request Docket No. 070-03098

-

Figure 11.1-19. MOX Processing Area – Process Conceptual Layout – Section A-A Line 7 to 12

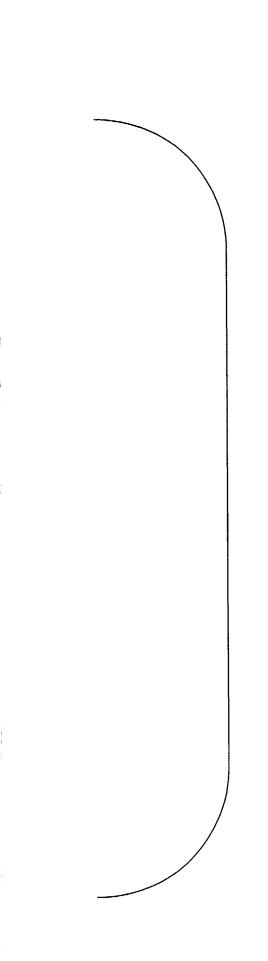
MFFF Construction Authorization Request Docket No. 070-03098





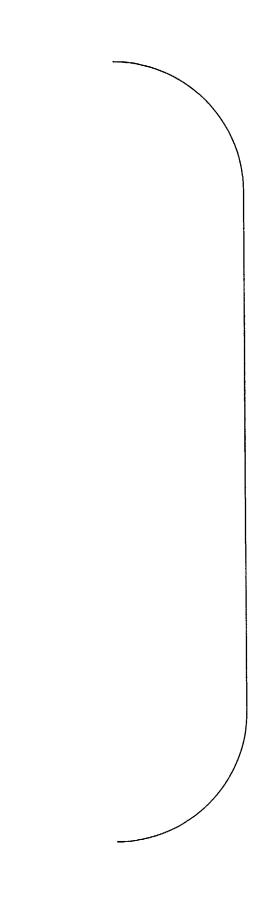
.

MFFF Construction Authorization Request Docket No. 070-03098



Revision: 2/28/01 Page: 11.1-72)

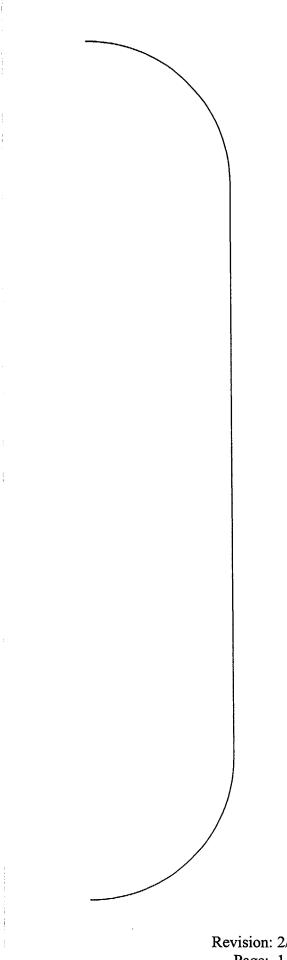
Figure 11.1-21. MOX Processing Area – Process Conceptual Layout – Section B-B Line 7 to 12



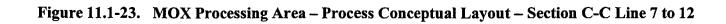
This page intentionally left blank.

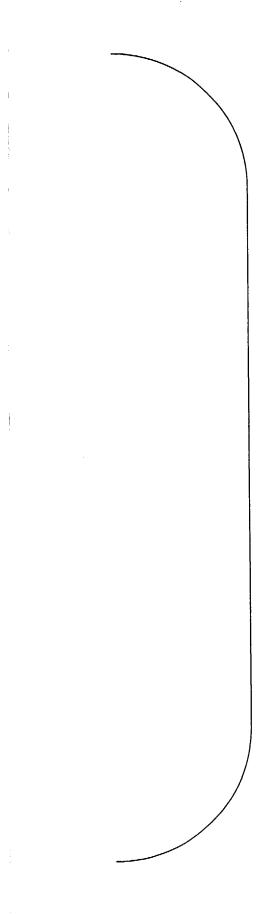
Revision: 2/28/01 Page: 11.1-74 Figure 11.1-22. MOX Processing Area – Process Conceptual Layout – Section B-B Line 1 to 7

MFFF Construction Authorization Request Docket No. 070-03098



This page intentionally left blank.





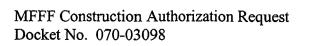
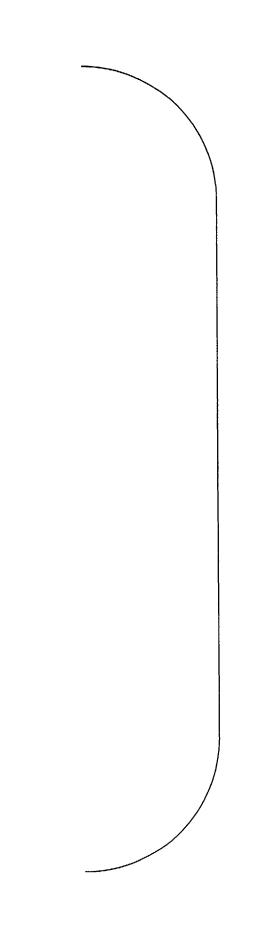


Figure 11.1-24. MOX Processing Area – Process Conceptual Layout – Section C-C Line 1 to 7



This page intentionally left blank.

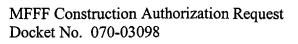


Figure 11.1-25. MOX Processing Area – Process Conceptual Layout – Section D-D Line M to W

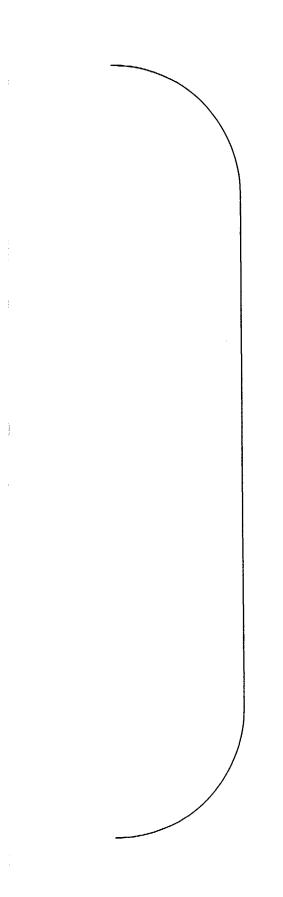
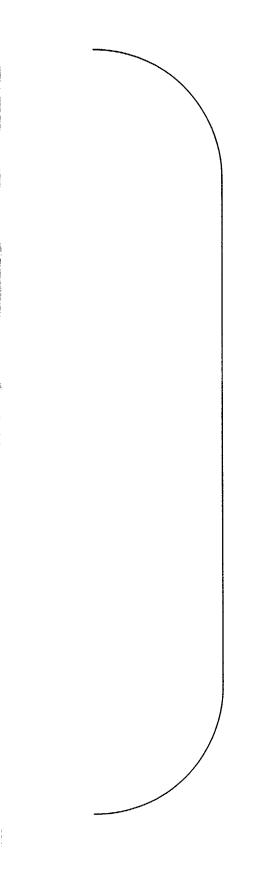
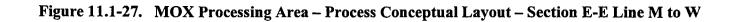


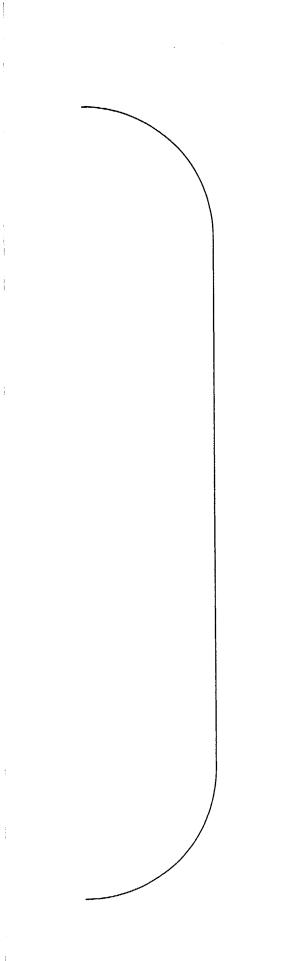
Figure 11.1-26. MOX Processing Area – Process Conceptual Layout – Section D-D Line G to M

.



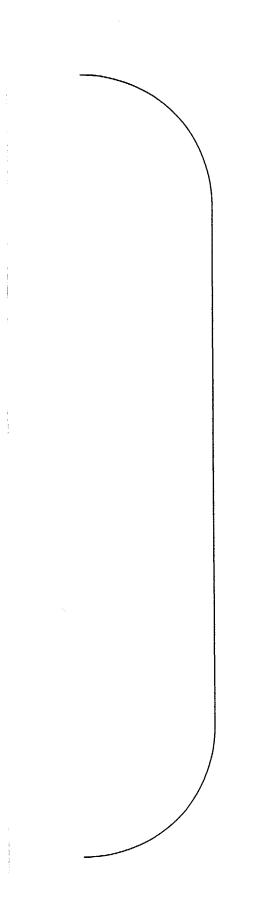
MFFF Construction Authorization Request Docket No. 070-03098

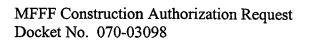




Revision: 2/28/01 Page: 11.1-86)







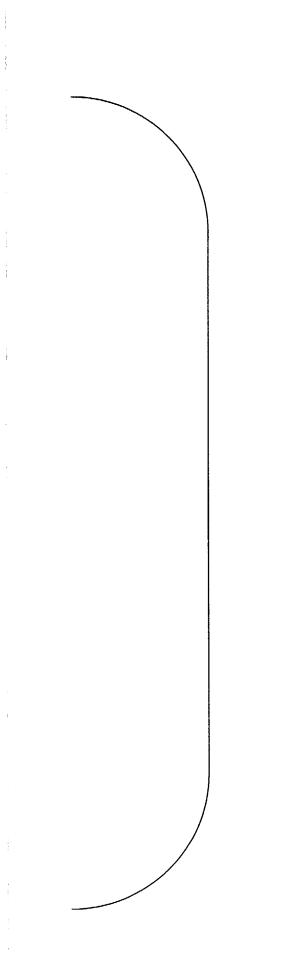
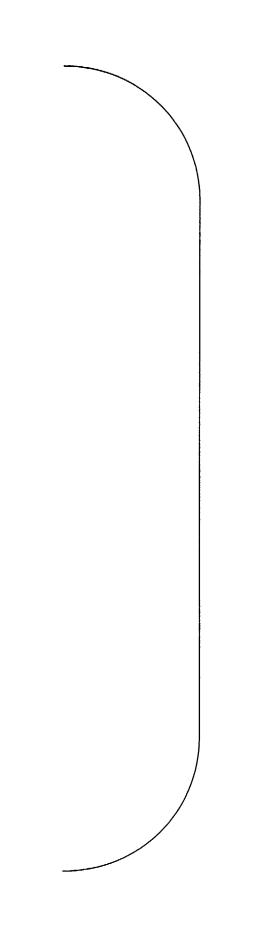


Figure 11.1-30. MOX Processing Area – Process Conceptual Layout – Section F-F Line G to M



This page intentionally left blank.

Oversized Drawing – See Accompanying File

Figure 11.1-31. MOX Processing Area - Conceptual Process Layout - Misc Plans and Sections

MFFF Construction Authorization Request Docket No. 070-03098

MFFF Construction Authorization Request Docket No. 070-03098

Oversized Drawing – See Accompanying File

Figure 11.1-32. MOX Processing Area - Conceptual Process Layout - Misc Plans and Sections

MFFF Construction Authorization Request Docket No. 070-03098

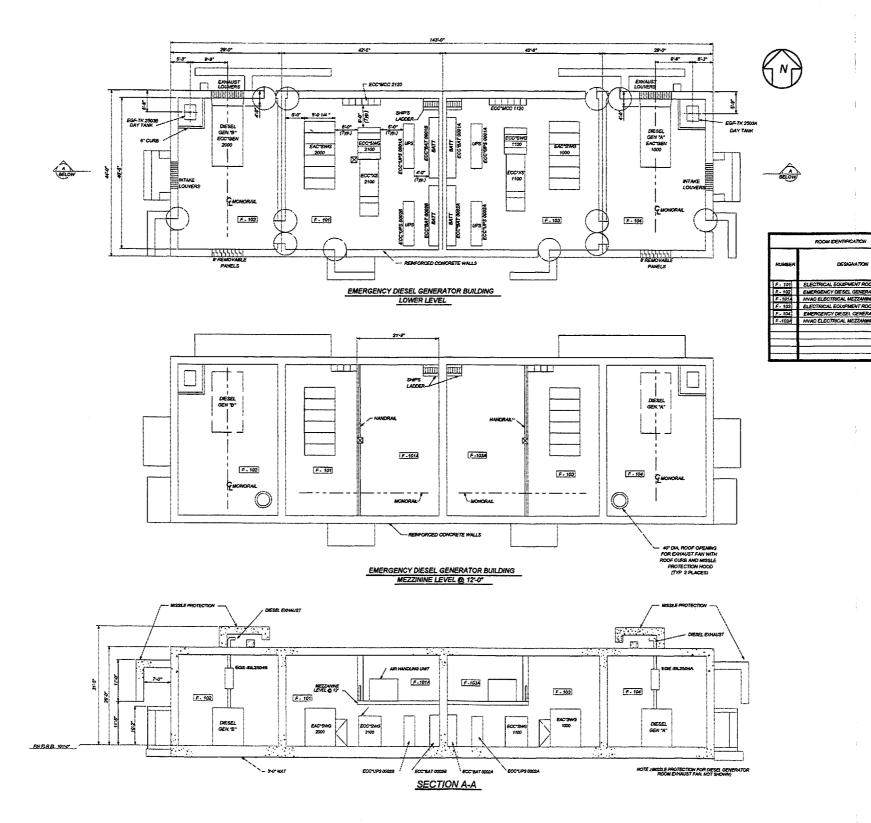


Figure 11.1-33. General Arrangement - Emergency Diesel Generator (BEG) - Conceptual Layout

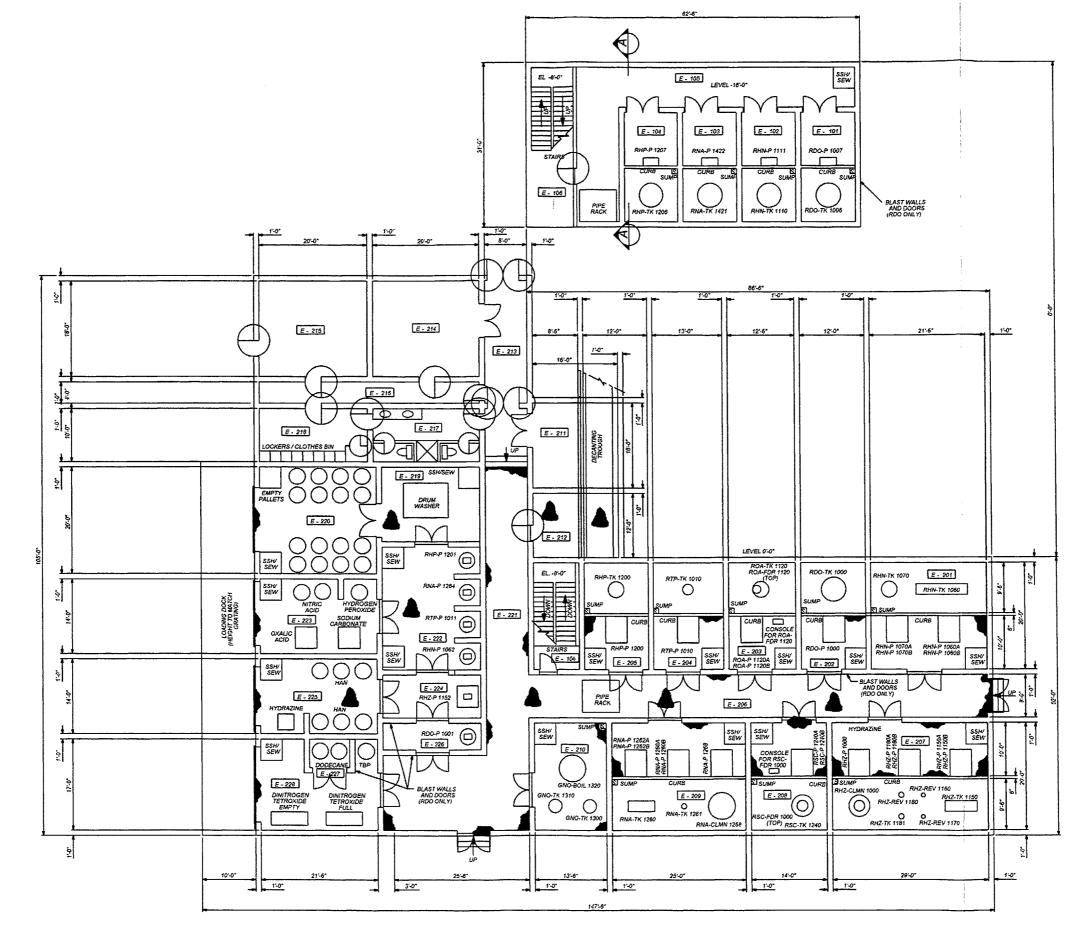
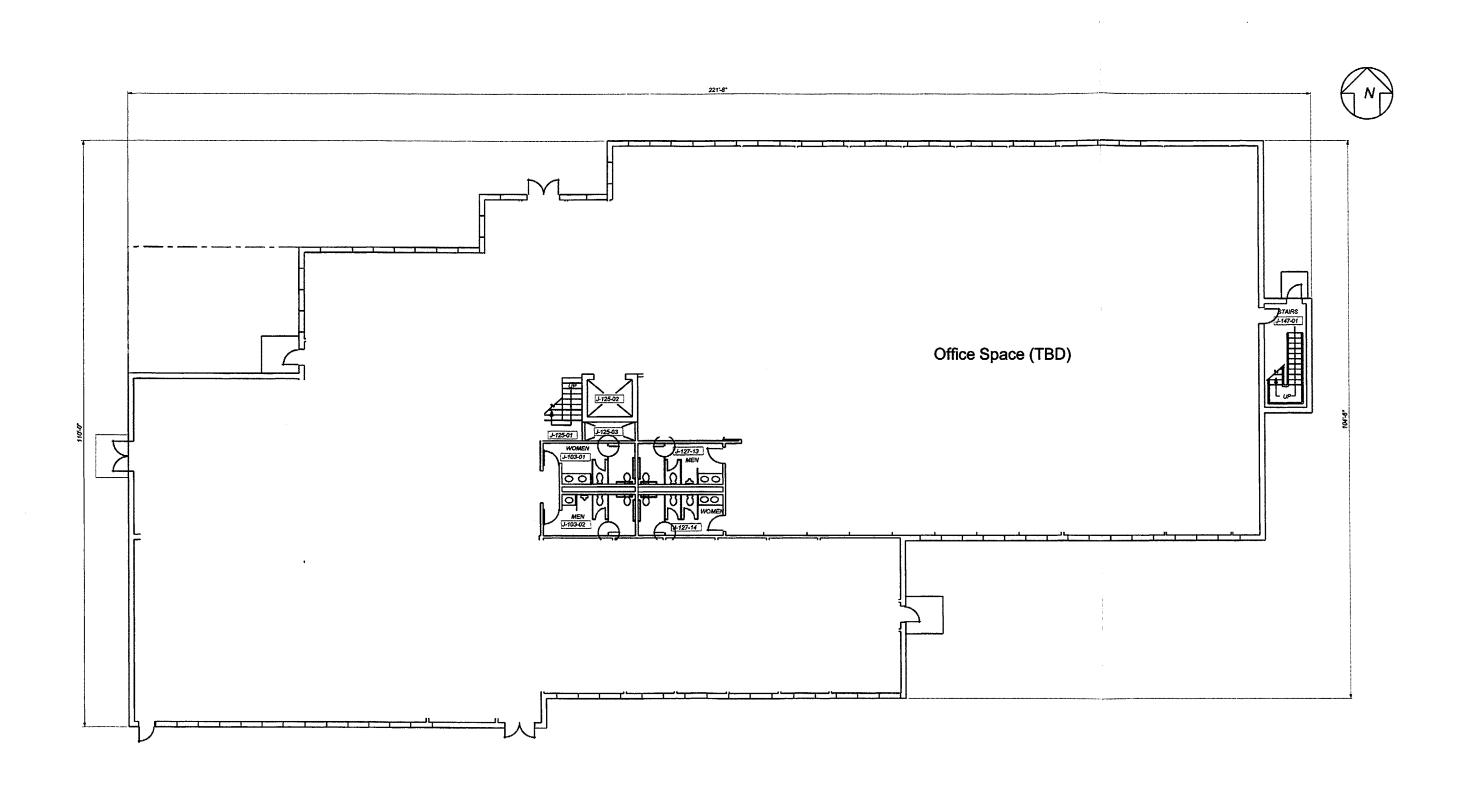


Figure 11.1-34. General Arrangement - Reagents Building (BRP) - Conceptual Layout

.

MFFF Construction Authorization Request Docket No. 070-03098

This page intentionally left blank.





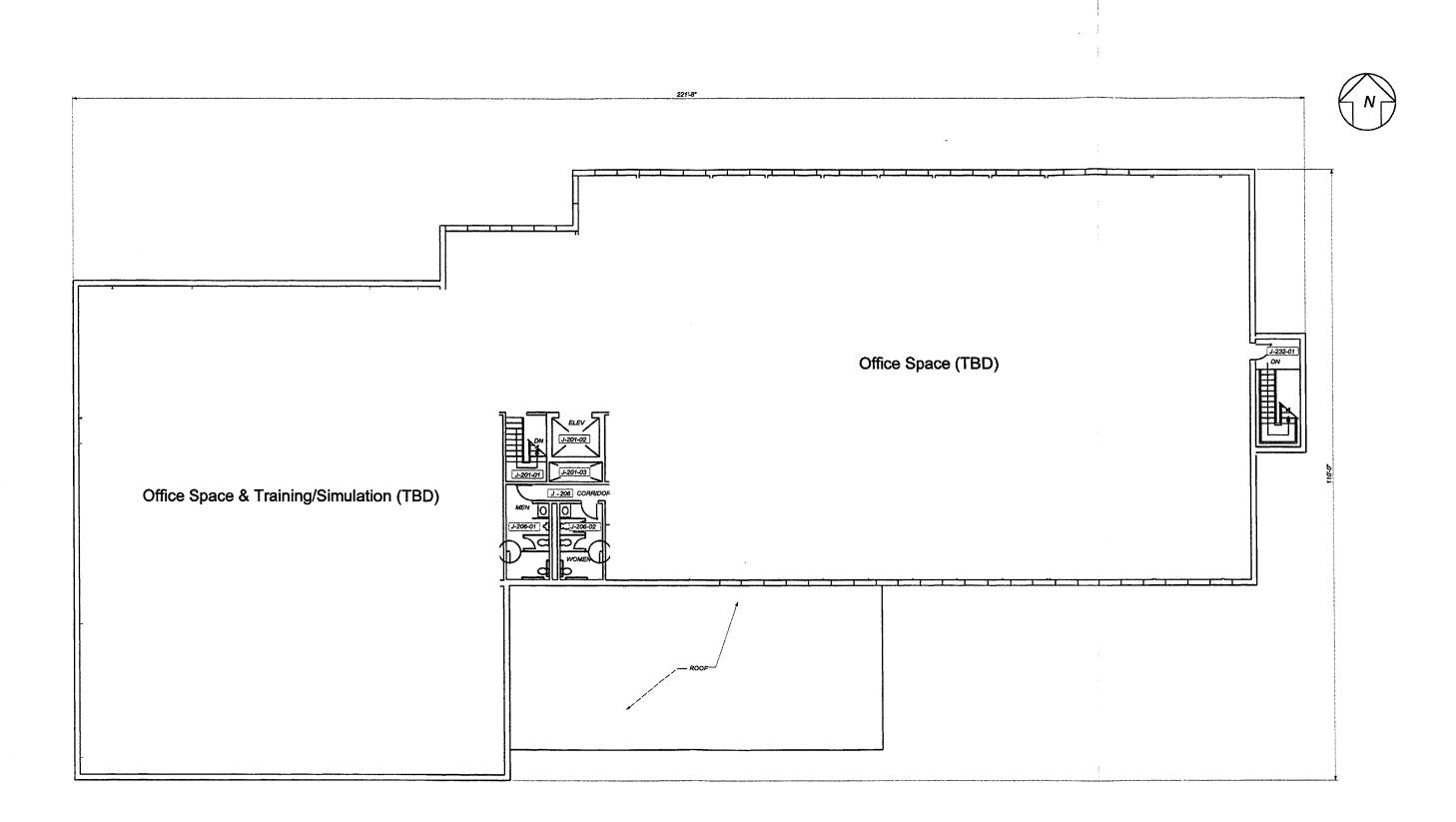


Figure 11.1-36. General Arrangement - Administration Building (BAD) - Conceptual Layout - Second Floor

MFFF Construction Authorization Request Docket No. 070-03098

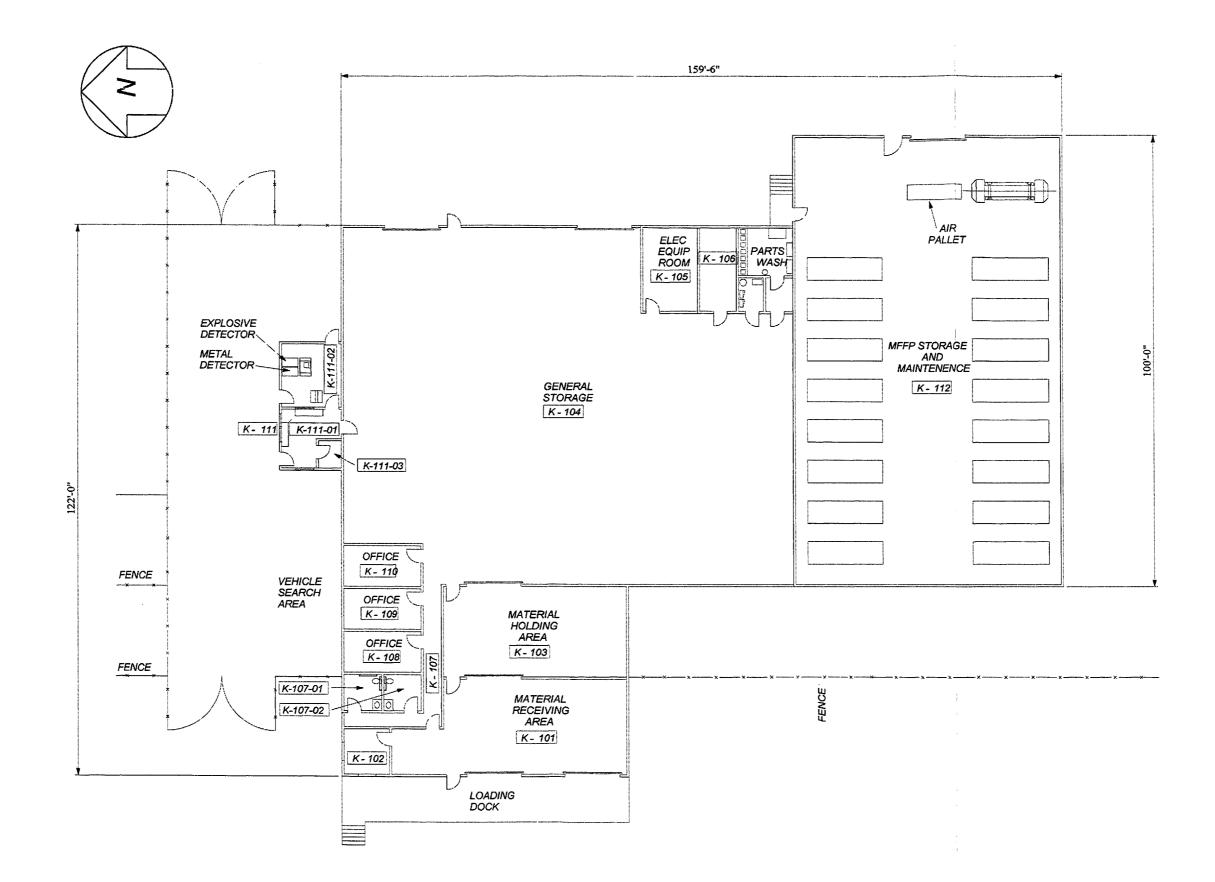
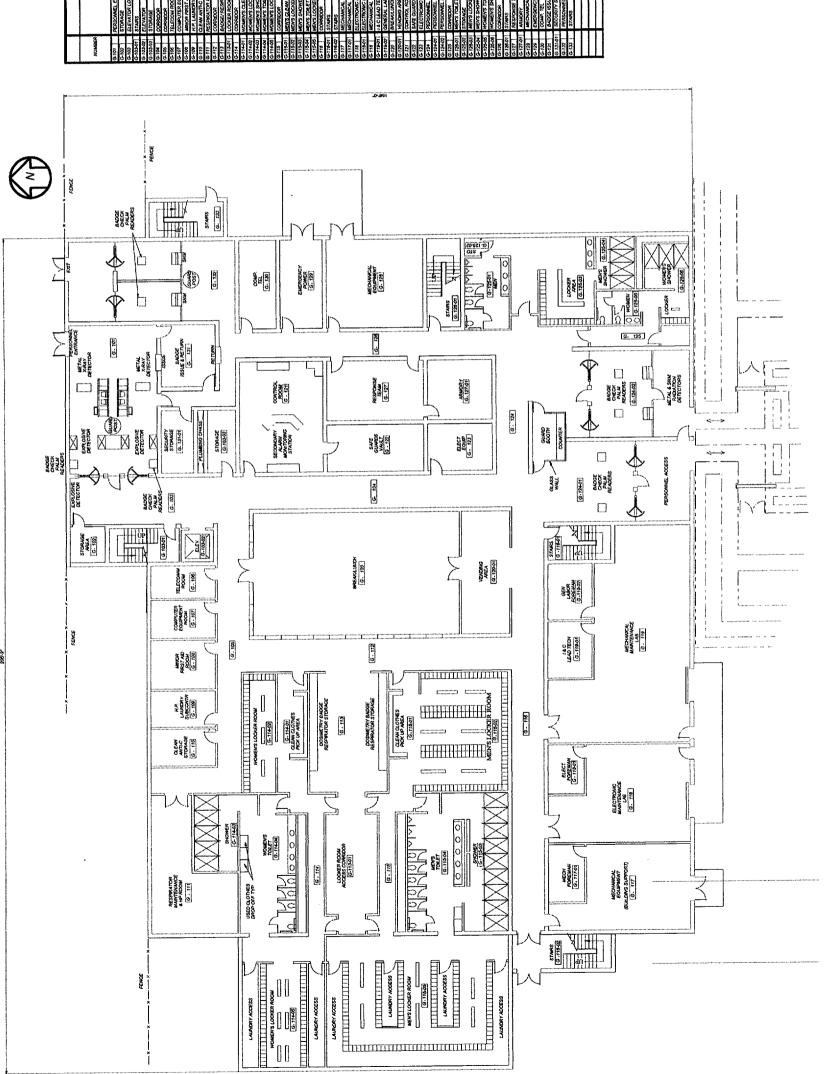
Revision: 2/28/01 Page: 11.1-104 

Figure 11.1-37. General Arrangement Secure Warehouse (BSW) - Conceptual Layout

This page intentionally left blank.



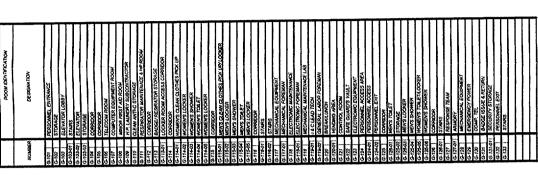


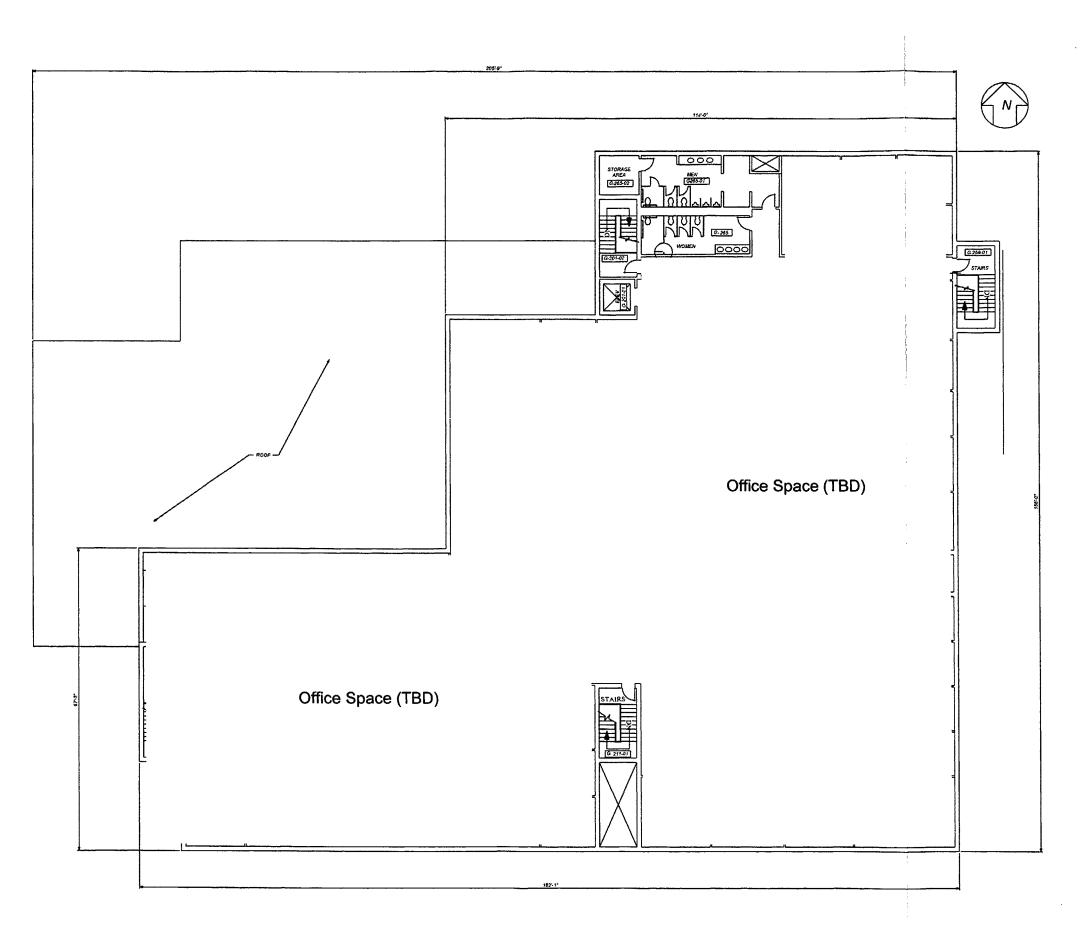


Figure 11.1-38. General Arrangement - Technical Support Building (BTS) Conceptual Layout - First Floor

MFFF Construction Authorization Request Docket No. 070-03098

Revision: 2/28/01 Page: 11.1-108 \cdot

)





MFFF Construction Authorization Request Docket No. 070-03098

This page intentionally left blank.

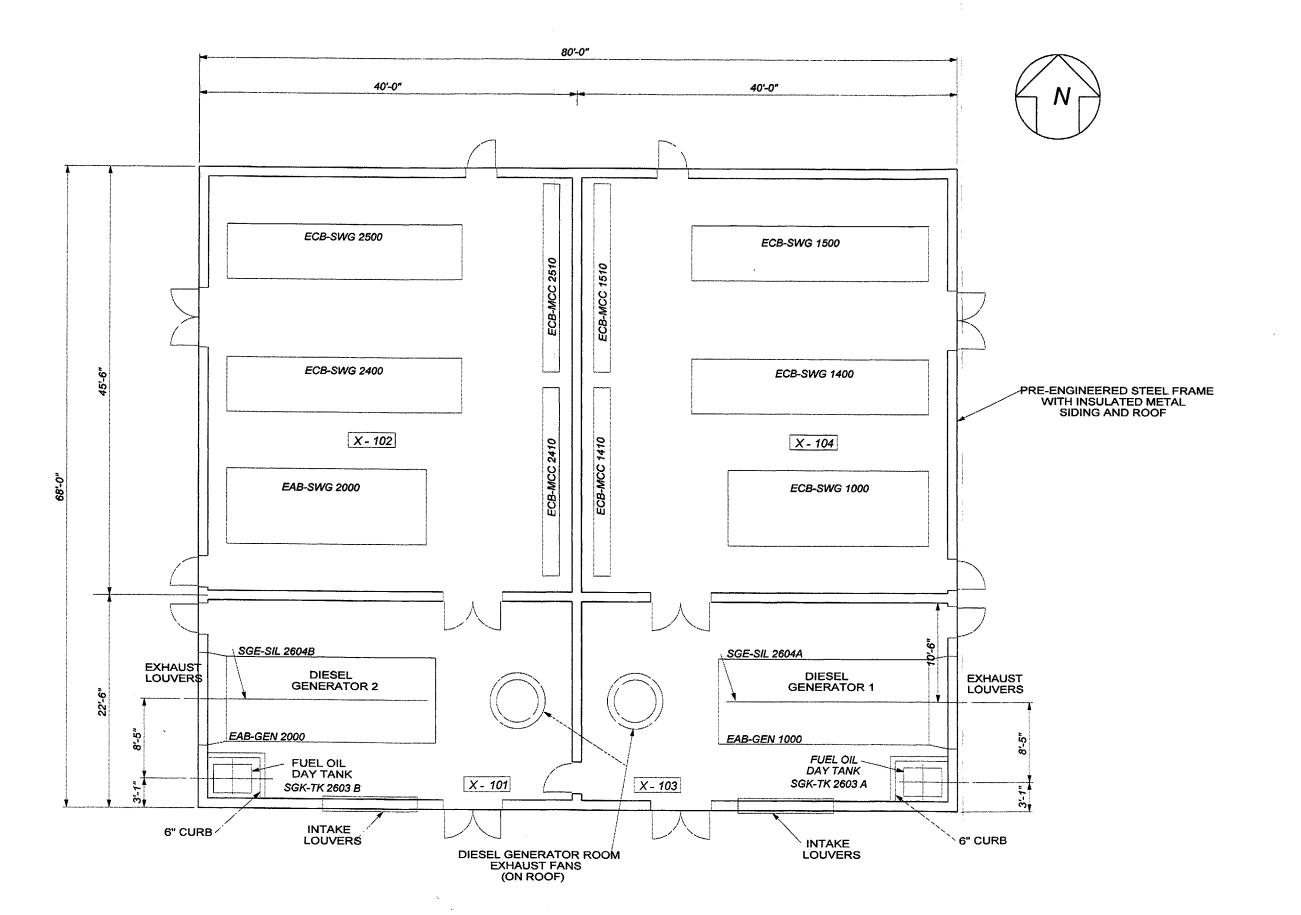


Figure 11.1-40. General Arrangement - Standby Diesel Generator (BSG) - Conceptual Layout

MFFF Construction Authorization Request Docket No. 070-03098

- (

This page intentionally left blank.

THIS PAGE IS AN OVERSIZED DRAWING OR FIGURE, THAT CAN BE VIEWED AT THE RECORD TITLED: FIGURE 7-1: MOX PROCESSING AREA FIRE AREA/BARRIER CONCEPTUAL LAYOUT LEVEL 1 (ELEVATION 0'-0'')

WITHIN THIS PACKAGE...OR, BY SEARCHING USING THE DRAWING NUMBER: FIGURE 7-1

THIS PAGE IS AN OVERSIZED DRAWING OR FIGURE, THAT CAN BE VIEWED AT THE RECORD TITLED: FIGURE 7-2: MOX PROCESSING AREA FIRE AREA/BARRIER CONCEPTUAL LAYOUT LEVEL 2 (ELEVATION 23'-4")

WITHIN THIS PACKAGE...OR, BY SEARCHING USING THE DRAWING NUMBER: FIGURE 7-2

THIS PAGE IS AN OVERSIZED DRAWING OR FIGURE, THAT CAN BE VIEWED AT THE RECORD TITLED: FIGURE 7-3: MOX PROCESSING AREA FIRE AREA/BARRIER CONCEPTUAL LAYOUT LEVEL 3 (ELEVATION 40'-10'')

WITHIN THIS PACKAGE...OR, BY SEARCHING USING THE DRAWING NUMBER: FIGURE 7-3

THIS PAGE IS AN OVERSIZED DRAWING OR FIGURE, THAT CAN BE VIEWED AT THE RECORD TITLED: FIGURE 7-4: AQUEOUS POLISHING AREA FIRE AREA/BARRIER CONCEPTUAL LAYOUT LEVEL 1 (ELEVATION 17'-6'')

WITHIN THIS PACKAGE...OR, BY SEARCHING USING THE DRAWING NUMBER: FIGURE 7-4

NOTE: Because of this page's large file size, it may be more convenient to copy the file to a local drive and use the Imaging (Wang) viewer, which can be accessed from the Programs/Accessories menu.

THIS PAGE IS AN OVERSIZED DRAWING OR FIGURE, THAT CAN BE VIEWED AT THE RECORD TITLED: FIGURE 7-5: AQUEOUS POLISHING AREA FIRE AREA/BARRIER CONCEPTUAL LAYOUT LEVEL 2 (ELEVATION 0'-0'')

WITHIN THIS PACKAGE...OR, BY SEARCHING USING THE DRAWING NUMBER: FIGURE 7-5

NOTE: Because of this page's large file size, it may be more convenient to copy the file to a local drive and use the Imaging (Wang) viewer, which can be accessed from the Programs/Accessories menu.

THIS PAGE IS AN OVERSIZED DRAWING OR FIGURE, THAT CAN BE VIEWED AT THE RECORD TITLED: FIGURE 7-6: AQUEOUS POLISHING AREA FIRE AREA/BARRIER CONCEPTUAL LAYOUT LEVEL 3 (ELEVATION 17'-6'')

WITHIN THIS PACKAGE...OR, BY SEARCHING USING THE DRAWING NUMBER: FIGURE 7-6

NOTE: Because of this page's large file size, it may be more convenient to copy the file to a local drive and use the Imaging (Wang) viewer, which can be accessed from the Programs/Accessories menu.

THIS PAGE IS AN OVERSIZED DRAWING OR FIGURE, THAT CAN BE VIEWED AT THE RECORD TITLED: FIGURE 7-7: AQUEOUS POLISHING AREA FIRE AREA/BARRIER CONCEPTUAL LAYOUT LEVEL 4 (ELEVATION 35'-0'')

WITHIN THIS PACKAGE...OR, BY SEARCHING USING THE DRAWING NUMBER: FIGURE 7-7

THIS PAGE IS AN OVERSIZED DRAWING OR FIGURE, THAT CAN BE VIEWED AT THE RECORD TITLED: FIGURE 7-8: AQUEOUS POLISHING AREA FIRE AREA/BARRIER CONCEPTUAL LAYOUT LEVEL 5 (ELEVATION 52'-6'')

WITHIN THIS PACKAGE...OR, BY SEARCHING USING THE DRAWING NUMBER: FIGURE 7-8

THIS PAGE IS AN OVERSIZED DRAWING OR FIGURE, THAT CAN BE VIEWED AT THE RECORD TITLED: FIGURE 11.1-16: MFFF PROCESSING AREA PROCESS CONCEPTUAL LAYOUT LEVEL 1 (ELEVATION 0'-0'')

WITHIN THIS PACKAGE...OR, BY SEARCHING USING THE DRAWING NUMBER: FIGURE 11.1-16

THIS PAGE IS AN OVERSIZED DRAWING OR FIGURE, THAT CAN BE VIEWED AT THE RECORD TITLED: FIGURE 11.1-17: MFFF PROCESSING AREA PROCESS CONCEPTUAL LAYOUT LEVEL 2 (ELEVATION 23'-4")

WITHIN THIS PACKAGE...OR, BY SEARCHING USING THE DRAWING NUMBER: FIGURE 11.1-17

NOTE: Because of this page's large file size, it may be more convenient to copy the file to a local drive and use the Imaging (Wang) viewer, which can be accessed from the Programs/Accessories menu.

THIS PAGE IS AN OVERSIZED DRAWING OR FIGURE, THAT CAN BE VIEWED AT THE RECORD TITLED: FIGURE 11.1-18: MFFF PROCESSING AREA PROCESS CONCEPTUAL LAYOUT LEVEL 3 (ELEVATION 40'-10'')

WITHIN THIS PACKAGE...OR, BY SEARCHING USING THE DRAWING NUMBER: FIGURE 11.1-18

NOTE: Because of this page's large file size, it may be more convenient to copy the file to a local drive and use the Imaging (Wang) viewer, which can be accessed from the Programs/Accessories menu.

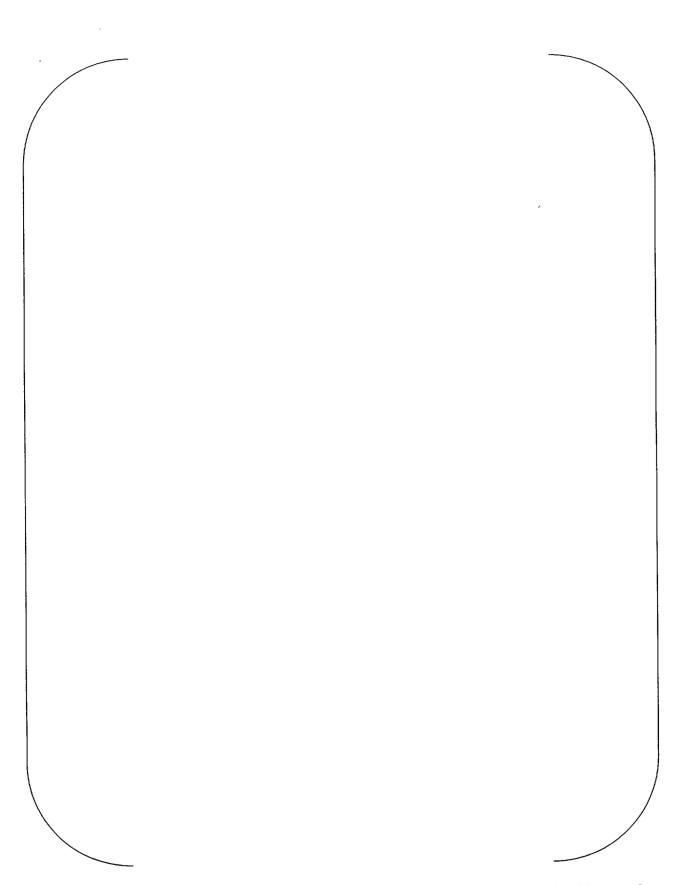


Figure 11.1-31. MOX Processing Area - Conceptual Process Layout - Misc Plans and Sections

Figure 11.1-32. MOX Processing Area - Conceptual Process Layout - Misc Plans and Sections