ACCELERATOR DEPARTMENT

BROOKHAVEN NATIONAL LABORATORY
Associated Universities, Inc.
Upton, L.I., N.Y.

EP & S DIVISION TECHNICAL NOTE

No. 10

J. Sullivan

December 4, 1967

AGS SUBSTATIONS

The purpose of this technical note is to indicate all loads presently connected to the AGS Substations.

As changes occur a correction notice will be distributed.

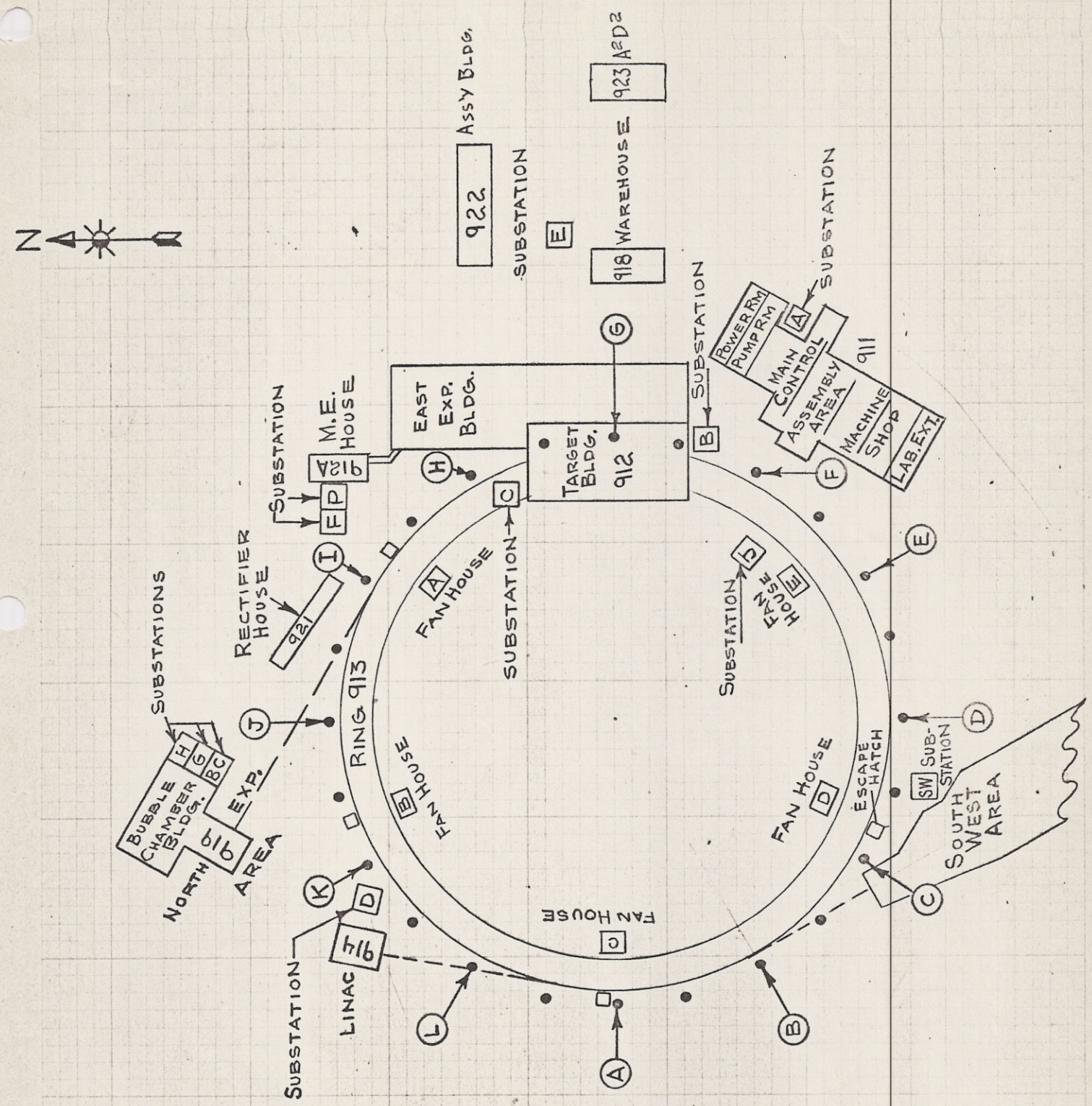
Distr.: AGS Div. Engineers
D. Davis, E. Shelton, H. Farrell, E. Heppner, W. Gefers, R. Loper, R. Monaghan, J. Schirmer, C. Anderson, R. Rasmussen, R. Alvino, J. Brockbank, F. Thornhill, L. Chimienti, G. Ryan, H. Knudsen, R. di Girolamo, EAO Control Room, J. Sullivan, W. Walker

BROOKHAVEN NATIONAL LABORATORY

BY Fred Luehl DATE 12/16/65 SUBJECT AGS-SUBSTATION LAYOUT SHEET No. ____ OF ____

CHKD. BY [illegible] DATE 12/16/65 JOB No. ____

SULLIVAN EXT. 604 DEPT. OR PROJECT AGS-EAO



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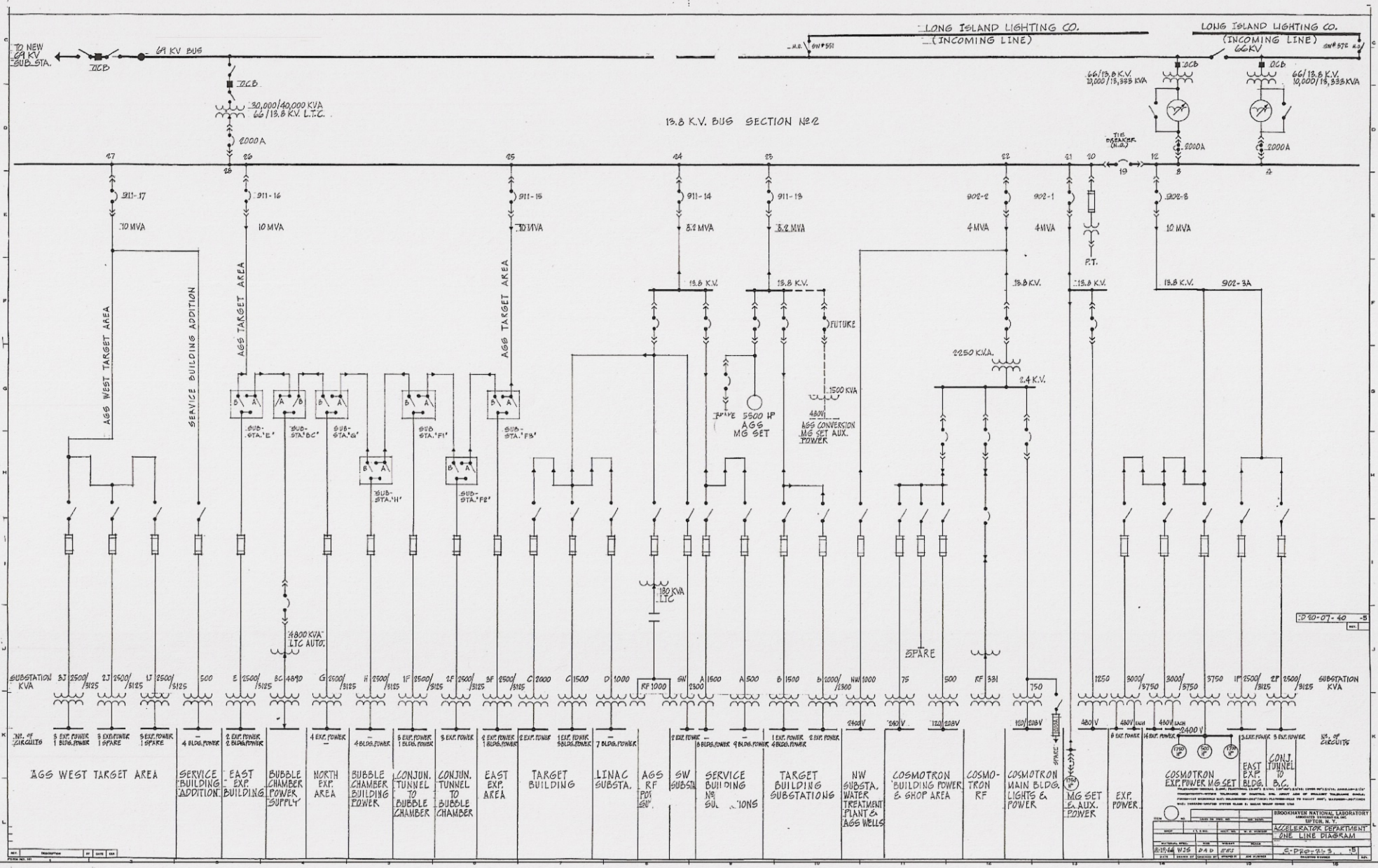
TO NEW 69 KV SUB. STA.
OCB
69 KV BUS
LONG ISLAND LIGHTING CO. (INCOMING LINE)
LONG ISLAND LIGHTING CO. (INCOMING LINE) 66KV
30,000/40,000 KVA 66/13.8 KV. L.T.C.
2000 A
13.8 K.V. BUS SECTION №2
66/13.8 K.V. 10,000/13,333 KVA
TIE BREAKER (N.O.)
911-17
911-16
911-15
911-14
911-13
902-2
902-1
902-3
902-3A
10 MVA
8.2 MVA
4 MVA
13.8 K.V.
P.T.
AGS WEST TARGET AREA
SERVICE BUILDING ADDITION
AGS TARGET AREA
SUB-STA. 'E'
SUB-STA. 'BC'
SUB-STA. 'G'
SUB-STA. 'H'
SUB-STA. 'F1'
SUB-STA. 'F2'
SUB-STA. 'F3'
FUTURE
5500 HP AGS MG SET
1500 KVA
480V
AGS CONVERSION MG SET AUX. POWER
2250 K.V.A.
2.4 K.V.
4800 KVA LTC AUTO.
180 KVA LTC
SPARE
SUBSTATION KVA
NO. OF CIRCUITS
AGS WEST TARGET AREA
SERVICE BUILDING ADDITION
EAST EXP. BUILDING
BUBBLE CHAMBER POWER SUPPLY
NORTH EXP. AREA
BUBBLE CHAMBER BUILDING POWER
CONJUN. TUNNEL TO BUBBLE CHAMBER
EAST EXP. AREA
TARGET BUILDING
LINAC SUBSTA.
AGS RF
SW SUBSTA.
SERVICE BUILDING
TARGET BUILDING SUBSTATIONS
NW SUBSTA. WATER TREATMENT PLANT & AGS WELLS
COSMOTRON BUILDING POWER & SHOP AREA
COSMOTRON RF
COSMOTRON MAIN BLDG. LIGHTS & POWER
MG SET & AUX. POWER
EXP. POWER
COSMOTRON EXP. POWER MG SET
CONJ. TUNNEL TO B.C.
BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.
UPTON, N. Y.
ACCELERATOR DEPARTMENT
ONE LINE DIAGRAM
S-PD-21-3
8-19-64
W.J.G.
D.A.D.
E.W.S.

AGS SUBSTATION A-500

BREAKER A-11

1. Lighting Panels - Power Room and Pump Room.
2. Outside Lighting on Service Building.
3. Receptacles, 120 and 208 Volt - Pump Room and Power Room.
4. Domestic Hot Water Circulator.
5. Filter Motors and Alternator Cooling Fans.
6. Vent Fan Filter - Power Room.
7. Unit Heaters.
8. Toilet Exhaust Fan.
9. "Normal Power" to Automatic Transfer Switch (208 V) (In Main MG Room).
   a. Emergency Lights - Service Building, Power Room, Pump Room, Target Building, Tunnel and Rectifier House.
   b. Receptacles, Normal/Emergency 208 Volt, 30 Amp Columns E-10 and A-6 in the Target Building.

BREAKER A-12

1. Lighting Panel - Main Control Room.
2. Lighting Panel - Main Lobby.
3. Lighting Panel - First Floor Offices.

BREAKER A-13

1. Power Panel - Machine Shop.
2. Lighting Panel - Machine Shop.
3. Lighting Panel - Assembly Area-East.
4. Lighting Panel - Electric Shop-West.
5. Receptacles, 120 and 208 Volt - Assembly Area.

AGS SUBSTATION A-500

BREAKER A-14

1. Regulated 120 Volts - Main Control Room and Main Control Tech Shop - 1st floor.

BREAKER A-15

1. Receptacle Panel - "Old Tech. Shop".

BREAKER A-16

SPARE

BREAKER A-17

1. Laboratory Extension

BREAKER A-21

1. Power Panel - Chemical Laboratory.
2. Light Panel - Ozalid Room for: Offices, Library, and Drafting.

BREAKER A-22

1. Lighting Panel - Vacuum Laboratory - 2nd Floor and Main Offices 2nd Floor.

AGS SUBSTATION A-1500

BREAKER A-41

1. Motor Control Center #1 - Pump Room
   - a. 480 Volt Load Center - Power Room Balcony.
   - b. Carrier Air Conditioning Unit.
   - c. Saturating Inductor Cooling Pumps.
   - d. R.F. Power Units (On the Balcony).
   - e. Vacuum Lab. and 30 KVA Trans. in Physics Lab. (2nd Floor).
   - f. Chilled Water Pumps #1, 2, 3, and 4.
   - g. Water Chiller Compressors #1, 2, 3, and 4.
   - h. 12th Harmonic Kicker Supply (2nd Floor Physics Lab).
   - i. Unit Vent Machine Room.
   - j. Sewage Ejectors #1 and 2 - Pump Room.
   - k. Condensate Pumps #1 and 2 - Pump Room.
   - l. Receptacles - Pump Room.
   - m. Pumps #1 and 2 - Power Room.
   - n. Receptacles - Power Room.
   - o. Vent and Roof Fans - Pump Room and Power Room.
   - p. Air Conditioning for F.D.R.
   - q. Power - Fan Room.
   - r. Alternator Cooling Fans #1, 2, and 3.
   - s. Receptacles, 480 Volt - Pump Room and Power Room.

AGS SUBSTATION A-1500

BREAKER A-42

1. Power Panel #42 in Machine Shop
   a. 480 Volt Power - Machine Shop.
   b. Levelator Platform - Outside behind Stock Room.
   c. Roof Fans and Ventilators - Machine Shop, Old Tech. Shop, and Assembly Area.
   d. Exhaust Fan - Tunnel connecting Target Building with Assembly Area.
   e. Motor Operated Door - Assembly Area.

BREAKER A-43

1. Power Panel #43 - Assembly Area.
2. Crane - Assembly Area.
3. Freight Elevator.
4. Receptacles, 480 Volt - Assembly Area, Old Tech. Shop, New Tech. Shop, and Assembly Area Test Dock (Magnetic Measurements).
5. Sewage Ejector Pumps - Outside Tech. Shop.
6. Receptacles, 120 and 208 Volt, Lights and Unit Heaters - Tech. Shop, Stock Room, and Corridor.
7. Air Conditioning, Hot Water, Chilled Water and Absorption Unit Pumps for Laboratory addition to Service Building.

BREAKER A-44

1. Low Voltage Cubicle - Main Power Supply.

AGS SUBSTATION A-1500

BREAKER A-45

1. Electronic Exciter - Main Power Supply.

BREAKER A-46

1. Quadrupole and Sextapole - Motor Generator Set.

BREAKER A-47

1. Magnet Test Dock in the Assembly Area. (Magnetic Measurements).

BREAKER A-48

1. Motor Control Center #2 - Pump Room.

    a. Magnet Cooling Water Pumps.

    b. Experimental Magnet Water Pumps #1, 2, 3, and 4.

    c. Main Magnet Water Pumps #1 and 2.

    d. Air Compressors #1, 2, and 3 (#3 is also supplied with Emergency Power).

    e. 5 KVA Control Transformers for Motor Control Centers #1 and 2.

    f. Cooling Tower, Pump House 480 Volt Feeder.

    g. R.F. Filter.

    H. Street Lights

AGS SUBSTATION B-1500

BREAKER B-41

1. Power Panel BP-41 - Fan House "D".
   a. R.F. Stations - BC, C, and CD.
   b. Lighting Panel - Adjacent to Monument "C" and 110 Volt Outlets.
   c. 6 KVA Transformer in Fan House "D" - Lights and Air Conditioning Filter Fans.
   d. Sewage Ejector in Escape Hatch "D".
   e. Air Conditioning Fans in Fan House "D".
   f. Sump Pump in Escape Hatch "D".

   } Notify Plant Maint. if Power goes off.

   g. 480 Volt Outlets inside Magnet Enclosure at "C" and CD.
   h. Vacuum System inside Magnet Enclosure at "C".

BREAKER B-42

SPARE

AGS SUBSTATION B-1500

BREAKER B-43

1. Power Panel BP43 - Fan House "E".
   a. R.F. Stations at "D" and "DE".
   b. Lighting Panel Adjacent to Monument "D" and 110 Volt Outlets.
   c. 30 KVA Transformer Adjacent to Monument "D" Feeding Injector and Auxiliary Equipment.
   d. 6 KVA Transformer in Fan House "E" - Lights and Air Conditioning Filter Fans.
   e. Air Conditioning Fans in Fan House "E".
   f. Condensate Pumps in Fan House "E".
   g. Sump Pumps, Assembly Area Access Tunnel.

   } Notify Plant Maint. if Power goes off.

   h. Vacuum Pumps Inside Magnet Enclosure at D, E, and F.
   i. 480 Volt Outlets at "D", "DE", "E", and "EF".
   j. Lighting Panel adjacent to Monument "E" and 110 Volt outlets.

BREAKER B-44

1. B-44-1 Switches 1, 2, 3, and 4.
2. B-44-2 Switches 21, 22, 23, and 24.
3. B-44-3 Switches 53, 54, 55, and 56.

} Target Building

AGS SUBSTATION B-1500

BREAKER B-45

1. Power Panel BP45 (Target Building South).
2. 120 and 208 Volt Power to South half of Target Building.
3. Overhead Lights in the south half of Target Building.
4. Receptacles, 120 Volt from "F" to "G" area in the Magnet Enclosure.
5. Normal 480 Volt outlets in Target Building at Columns B2, A2, A3, A7, E3, and E7.
6. Vacuum System F & G inside Magnet Enclosure.
7. Target Building Crane.
8. Magnet Enclosure Crane.
9. Receptacles - At F10 & F20 Magnet Enclosure.
10. Receptacles - At E3 & E7 Target Building.
11. AGS Warehouse.
12. Normal Power to Automatic Transfer Switch #1 (Emergency power supplied by Gen #2).
    a. Receptacles Normal/Emergency 480 Volt - E4, E7, and E11.
    b. Roof Fans, I, J, K, & L (Four 7 1/2 H.P.).
    c. Normal Power to Automatic Transfer Switch #2.
    d. 3 Gang Receptacles Normal/Emergency 480 Volt at E3, E5, and E8 and overhead door between Column E5 and 6 (In Target Building).
    e. Roof Fans, E, F, G, & H (Four 3/4 H.P.).
    f. Air Supply Fan (one 15 H.P.).

AGS SUBSTATION B-1500

BREAKER B-45 (Continued)

13. Sewage Ejector - South Target Building.
14. Condensate Pumps - South Target Building.

} Notify Plant Maintenance

15. Combination Starter at A-5 Target Building.
16. Receptacle 120 Volt and lights test dock.
17. Lighting Panel adjacent to Monument "F" and 120 Volt Machine Receptacle in area.

AGS SUBSTATION B-2000

BREAKER B-46

1. B46-1 SW 5, 6, 7 & 8
2. B46-2 SW 45, 46, 47 & 48

} Target Building

BREAKER B-47

1. B47-1 SW 13, 14, 15 & 16
2. B47-2 SW 57, 58, 59 & 60

   Note: SW 59 & 60 feeds Test Dock.

AGS SUBSTATION BC-4800

The 80" Bubble Chamber Power Supply.

AGS SUBSTATION C-1500

BREAKER C-41

1. Power Panel CP41 - Fan House "A".
   a. R.F. Stations at "HI" and "IJ".
   b. Lighting Panel adjacent to Monument "I" and 120 Volt outlets in area.
   c. 6 KVA Transformer in Fan House "A" for Lights and Air Conditioning Filter Fans and Civil Defense Tent.
   d. Air Conditioner in Fan House "A".
   e. Condensate Pumps in Fan House "A".
   f. Sewage Ejector in Escape Hatch "A".
   g. Sump Pumps in Escape Hatch "A".

   } Notify Plant Maintenance if Power goes Off.

   h. Vacuum System at "I".
   i. 480 Volt Outlets at "HI", "I", and "IJ" inside Magnet Enclosure.
   j. Heating Units in Conjunction Area Tunnel.

AGS SUBSTATION 1500

BREAKER C-42

SPARE

BREAKER C-43

SPARE

BREAKER C-44

1. C44-1 SW 9, 10, 11 & 12
2. C44-2 SW 29, 30, 31 & 32
3. C44-3 SW 37, 38, 39 & 40

} Target Building

AGS SUBSTATION C-1500

BREAKER C-45

1. Receiver 120 and 208 Volt in North Half of Target Building.
2. Overhead Lights in North Half of Target Building.
3. Receptacles in the "G" Superperiod.
4. "Normal" 480 Volt Receptacles in the Target Building at Columns A-12 and C-15.
5. Vacuum System at "H" inside Magnet Enclosure.
6. Magnet Enclosure Crane.
7. 480 Volt Receptacles at GH and H inside Magnet Enclosure.
8. Trailer Complex (30" and 31" BC), outside West Side of Target Building.
9. Lighting Panel adjacent to Monument "H" and 120 Volt Receptacles in area.
10. "Normal" power to automatic transfer switch #3 (Emergency power supplied by Emergency Gen. #2).
    a. Roof Fans A, B, C, & D (3/4 HP).
    b. Air Supply Fan #2 (15 HP).
    c. Unit Heater - E-5.
    d. 480 Volt Receptacles at Columns E-6, E-9, and E-12.
11. "Normal" Power to automatic transfer switch #4 (Emergency power supplied by Emergency Gen. #2).
    a. Roof Fans, N, P, O, and M (7 1/2 HP).
    b. 480 Volt Receptacles at E-4, E-7, and E-13.

AGS SUBSTATION C-2000

BREAKER C-46

1. C46-1 SW 25, 26, 27 & 28
2. C46-2 SW 41, 42, 43 & 44
3. C46-3 SW 49, 50, 51 & 52

} Target Building

BREAKER C-47

1. C47-1 SW 17, 18, 19 & 20
2. C47-2 SW 33, 34, 35 & 36

} Target Building

AGS SUBSTATION D-1000

BREAKER D-41

1. Power Panel DP41 in Fan House "B".
   a. Lighting Transformers adjacent to Monument "J", Monument "K" and Monument "L".
   b. Fan House "B" Lights.
   c. 480 Volt 30 Amp Receptacles at LA, L, KL, J, JK and K.
   d. Vacuum System at "L".
   e. Sump Pumps 1 and 2.
   f. Air Conditioning Supply Fan 1 and 2 and Return Fan.
   g. Condensate Pumps 1 and 2.
   h. R.F. Stations at "AB", "J", "JK", "K" and "KL".

BREAKER D-42

1. Pump House in the North Experimental Area.

BREAKER D-43

1. Power Panel DP 43 in Fan House "C".
   a. Power Supply, Fan House "C".
   b. Lighting Transformer adjacent to Monuments B & A.
   c. 480 Volt Receptacles at BC, B, AB, and A.
   d. Motor Control Center.
   e. Sump Pumps 1 and 2.
   f. Air Conditioning Supply Fans 1 and 2 and Return Fan.
   g. Condensate Pumps 1 and 2.
   h. Vacuum System at "A".
   i. Septum Magnet Power Supply.
   j. Lights and Receptacles in Fan House "C".

AGS SUBSTATION D-1000

BREAKER D-44

LINAC

BREAKER D-45

1. Linac Crane

2. Mag. Eng. Crane

BREAKER D-46

1. Power Supply in Linac.

AGS SUBSTATION E-3125

BREAKER E-41

1. E41-1 SW 65, 66, 67 and 68
2. E41-2 SW 73, 74, 75 and 76
3. E41-3 SW 89, 90, 91 and 92

} East Experimental Area

Note: SW 68 supplies all power to EEA Service Bay.

BREAKER E-42

1. E42-1 SW 61, 62, 63 and 64 (Removed 3/3/66).
2. E42-2 SW 69, 70, 71 and 72
3. E42-3 SW 77, 78, 79 and 80

} East Experimental Area

BREAKER E-43

SPARE

BREAKER E-44

1. Building 922
2. A^2D^2 Office (Building 923)

BREAKER E-45

1. Power Panel EP-44 at Column F-18.
   a. Mercury vapor lighting in the East Experimental Area.
   b. Condensate pump at F-3 and Sewage Ejector Pumps Column F-13.
   c. East Experimental Area Crane.
   d. Northwest Crane.
   e. All 120 and 208 volt receptacles in the East Experimental Area.
   f. Outside lights on East Experimental Area Building.
   g. Unit ventilators at F-19, F-21, F-11 and Balcony.
   h. All Fans and controls on steam unit heaters in the East Experimental Area.

AGS SUBSTATION 1F-3125

BREAKER 1F-41

1. 1F41-1 SW 181, 182, 183 and 184
2. 1F41-2 SW 201, 202, 203 and 204

} North Experimental Area

Note: SW 204 feeds cooling tower #4 north area.

BREAKER 1F-42

1. 1F42-1 SW 185, 186, 187 and 188
2. 1F42-2 SW 205, 206, 207 and 208

} North Experimental Area.

BREAKER 1F-43

1. All 120 and 208 volt power in the North Experimental area, including lights.
2. 120 volt and 208 volt power to receptacle panels in the Conjunction Area Tunnel.
3. All 120 and 208 volt power to buss duct in Portable Houses, including heat in the North Experimental Area.
4. "Normal" Power to trailers Numbers 1, 24, 7, and 11.
5. 80" Control Trailer and 80" Work Trailer and Hall Way.
6. Heat and lights and fans in Rectifier House.

BREAKER 1F-44

1. 1F44-1 SW 129, 130, 131 and 132.
2. 1F44-2 SW 145, 146, 147 and 148.

} Rectifier House

AGS SUBSTATION 2F-3125

BREAKER 2F-41

1. 2F41-1 SW 137, 138, 139 and 140
2. 2F41-2 SW 165, 166, 167 and 168

} Rectifier House

BREAKER 2F-42

1. 2F42-1 SW 141, 142, 143 and 144
2. 2F42-2 SW 149, 150, 151 and 152

} Rectifier House

Note: SW 152 feeds two power dist. panels in the North Experimental Area.

BREAKER 2F-43

SPARE

BREAKER 2F-44

1. 2F44-1 SW 85, 86, 87 and 88
2. 2F44-2 SW 97, 98, 99 and 100
3. 2F44-3 SW 109, 110, 111 and 112

} East Experimental Area.

AGS SUBSTATION 3F-3125

BREAKER 3F-41

1. 3F41-1 SW 81, 82, 83 and 84
2. 3F41-2 SW 101, 102, 103 and 104
3. 3F41-3 SW 117, 118, 119 and 120

} East Experimental Area

Note: SW 84 feeds A^2D^2 Port-A-Camps

BREAKER 3F-42

1. 3F42-1 SW 93, 94, 95 and 96
2. 3F42-2 SW 105, 106, 107 and 108
3. 3F42-3 SW 113, 114, 115 and 116

} East Experimental Area

BREAKER 3F-43

SPARE

AGS SUBSTATION 3F-3125

BREAKER 3F-44

1. Mechanical Equipment Building
   a. Lights and Receptacles, 120, 208 and 480 volt.
   b. Helium Compressors.
   c. Condensate Return Pumps.
   d. Fans and Controls on Steam Heaters.
2. "Normal" Power to Automatic Transfer Switch #7 (600 amps)(Emergency Power Supplied by Emergency Gen. #1).
   a. Air Compressors in Mech. Equipment Room.
   b. All 480 volt building receptacles in East Experimental Area.
   c. EAO Control Room Power.
   d. Emergency Lights in the East Experimental Area.
   e. 30 Roof Fans in the East Experimental Area.
   f. Normal/Emergency 480 volt outlets at Columns A-13, A-10, A-12, A-7 and A-3 in the Target Building.
   g. Sewage Ejector Pumps at Column F-13 and Service Bay.
   h. Trailers Numbers 1 & 24 in the North Area and R.F. Module P.S. ____.
   i. Five overhead doors in the EEA and one (1) in NW Area.

AGS SUBSTATION G-3125

BREAKER G-41

1. G41-1 SW 173, 174, 175 and 176
2. G41-2 SW 193, 194, 195 and 196
3. G41-3 SW 213, 214, 215 and 216

North Experimental Area

Note: SW 196 Power Panel in Portable House #14 in North Area

BREAKER G-42

1. G42-1 SW 169, 170, 171 and 172
2. G42-2 SW 189, 190, 191 and 192
3. G42-3 SW 209, 210, 211 and 212

North Experimental Area

Note: SW 192 feeds cooling tower #3 North Area.

BREAKER G-43

1. G43-1 SW 251, 252, 253 and 254

North Experimental Area

BREAKER G-44

1. G44-1 SW 177, 178, 179 and 180
2. G44-2 SW 197, 198, 199 and 200
3. G44-3 SW 217, 218, 219 and 220

North Experimental Area

AGS SUBSTATION H-3125

BREAKER

1. 80" Bubble Chamber

AGS SUBSTATION 1J-3125

BREAKER 1J-41

1. 1J41-1 SW 295, 296, 297 and 298
2. 1J41-2 SW 319, 320, 321 and 322

} West Experimental Area

BREAKER 1J-42

1. 1J42-1 SW 299, 300, 301 and 302
2. 1J42-2 SW 323, 324, 325 and 326

} West Experimental Area

BREAKER 1J-43

1. 1J43-1 SW 303, 304, 305 and 306
2. 1J43-2 SW 327, 328, 329 and 330

} West Experimental Area

BREAKER 1J-44

SPARE

AGS SUBSTATION 2J-3125

BREAKER 2J-41

1. 2J41-1 SW 307, 308, 309 and 310
2. 2J41-2 SW 343, 344, 345 and 346

} West Experimental Area

BREAKER 2J-42

1. 2J42-1 SW 311, 312, 313 and 314
2. 2J42-2 SW 347, 348, 349 and 350

} West Experimental Area

BREAKER 2J-43

1. 2J43-1 SW 315, 316, 317 and 318
2. 2J43-2 SW 351, 352, 353 and 354

} West Experimental Area

BREAKER 2J-44

SPARE

AGS SUBSTATION 3J-3125

BREAKER 3J-41

1. 3J41-1 SW 291, 292, 293 and 294
2. 3J41-2 SW 331, 332, 333 and 334

} West Experimental Area

BREAKER 3J-42

1. 3J42-1 SW 287, 288, 289 and 290
2. 3J42-2 SW 335, 336, 337 and 338

} West Experimental Area

BREAKER 3J-43

1. 3J43-1 SW 283, 284, 285 and 286
2. 3J43-2 SW 339, 340, 341 and 342

} West Experimental Area

3. All power in F-10 House

BREAKER 3J-44

1. All 120, 208 and 480 volt outlets in West Experimental Area.
2. Portable cooling tower #2 5, 6, 7 and 8.
3. "Normal" power to automatic transfer switch #5 (Emergency power supplied by Emergency Gen. #2).
   a. 30" Bubble Chamber.
4. "Normal" power to automatic transfer switch #6 (Emergency power supplied by Emergency Gen. #2).
   a. 31" Bubble Chamber.

AGS SUBSTATION 1P-3125

BREAKER 1P-41

1. 1P41-1 SW 263, 264, 265 and 266
2. 1P41-2 SW 267, 268, 269 and 270

} Target Building

BREAKER 1P-42

1. 1P42-1 SW 275, 276, 277 and 278 — Target Building
2. 1P42-2 SW 279, 280, 281 and 282 — East Experimental Building

BREAKER 1P-43

1. 1P43-1 SW 259, 260, 261 and 262
2. 1P43-2 SW 271, 272, 273 and 274

} Target Building

BREAKER 1P-44

1. Feeds Building 924

AGS SUBSTATION 2P-3125

BREAKER 2P-41

1. 2P41-1 SW 121, 122, 123 and 124
2. 2P41-2 SW 153, 154, 155 and 156

} Rectifier House

BREAKER 2P-42

1. 2P42-1 SW 125, 216, 127 and 128
2. 2P42-2 SW 161, 162, 163 and 164

} Rectifier House

BREAKER 2P-43

SPARE

BREAKER 2P-44

1. 2P44-1 SW 133, 134, 135 and 136
2. 2P44-2 SW 157, 158, 159 and 160

} Rectifier House

Note: Switch 136
1. Power panel in the conjunction area.
2. Fans and 480 volt dist. in the Rectifier House.

AGS SUBSTATION Q-500

(New extension to Building 911)

BREAKER Q-41

1. 440 V Main Dist. Panel.

BREAKER Q-42

1. Refrigeration Chiller #1.

BREAKER Q-43

1. Refrigeration Chiller #2.

BREAKER Q-44

1. Motor Control Center.

AGS SUBSTATION SW-2300

BREAKER SW-41

1. SW41-1 SW 227, 228, 229 and 230
2. SW41-2 SW 235, 236, 237 and 238

Note 1: SW 228 and 229 feeds 800A service to Staging and Assembly Building.

2: SW 230 feeds portable cooling tower #1 and receptacles 480 V East entrance to tunnel.

BREAKER SW-42

1. SW42-1 SW 231, 232, 233 and 234
2. SW42-2 SW 239, 240, 241 and 242

Note 1: SW 234 feeds 2 ea. 30 KVA trans.

2: SW 242 feeds power panel in Rectifier House.