DECOMP. TANK.

KE 0022319

N22473

Carter Oil Co.

CHECK CHART FOR ETHYL MIXING PLANT

General Layout

Plot plan drawing of refinery and Ethyl mixing plant (3 copies required by Ethyl Gasoline Corporation) showing:

1. Proposed location of mixing plant building.
   Dimensions of mixing plant building.
   of mixing plant building from:
   tanks (indicate contents).
   c. Nearest refinery equipment.
   d. All possible fire hazards.
   e. Nearest water fire hydrant (indicate normal and booster pressure available).
   f. Tanks to be used [illegible] ling.
   g. Public roads or h[illegible]
   h. Nearest railroad spur, siding, or team track.
   i. Refinery sewer or drainage system.
4. Location and capacity of b[illegible]
5. Size of swing lines in ble[illegible]
6. Total length and size of circulating lines.
7. Any other connections to blending tanks or circulating lines, such as lines to loading rack, other tanks, etc. (Indicate block valves).
8. Hook-up of eductor and circulating pumps, showing block valves. (See E.G.C. drawings).
9. Location, type, size, capacity & maximum pressure of eductor pump.
10. Location, type, size and capacity of circulating pump (or inner tank mixers, if used).
11. Indicate relative elevation of blending tanks, mixing plant building and railroad track.
12. Source and size of water supply lines to mixing plant building.
13. Location of control valve for sprinkler system.
14. Steam supply to mixing plant building and probable pressure.
15. Location of dye pot, if used, as hook-up to circulating lines. (Indicate valves).

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Also, construction drawings (3 copies required by Ethyl Gasoline Corporation) showing all details of construction of the building and all other items as required by our drawings and specifications sheet covering this type of plant.

CHECK CHART FOR TANK CAR MIXING PLANT

Detailed Construction Drawings

1. Building frame material?
2. Building siding material?
3. Building roof material?
4. Size of building? Inside dimensions?
5. Size of washroom? Inside dimensions?
6. Size of pit?
7. Shower, large sink and toilet?
8. Drain in washroom floor?
9. Curb around shower stall?
10. Curb around washroom floor?
11. Material of washroom walls?
12. Washroom walls and ceiling sealed tight?
13. Adequate hot water supply in washroom? Type?
14. Adequate heating facilities? Type?
15. Source of kerosene supply and location of outlets in washroom and building?
16. Water connections in washroom and building?
17. Number, type and size of windows?
18. Number, type, size of doors?
19. Roof height?
20. Size of ventilator?
21. Vent line galvanized? Tee and ells? Height above roof?
22. Electrical connection for weightograph?
23. Manifold correctly placed?
24. Brace for manifold?
25. A.P.I. standard steel line pipe, or equivalent, for Fluid lines?
26. Gauge panel?
27. Vacuum gauge connected to tee?
28. Eductor pump base? Location?
29. Eductor pump drain to sewer?
30. Pipe trenches for gasoline lines?
31. Pipe trenches covered over?
32. 2" from eductor pump to eductor and 3" from eductor to circulating line?
33. Adequate sprinkler system over weigh tank?
34. Location of sprinkler control valve away from building?
35. Clearance around pit?
36. Rail around pit?
37. Foundation pads to support load in pit?
38. Pit drain on manifold end of pit?
39. Valve and riser in pit drain?
40. Type of foam protection and location of generator or portable cart, if used?
41. Type of foam discharge in pit?
42. Floors and pit sloped toward drains?
43. Location of external sump, if used? How drained? Covered over?
44. Unloading swing line dimensions?
45. Unloading platform dimensions?
46. Unloading line braced?
47. Is distance from top of rail to center of first double unloading line swing joint correct?
48. Elevation of railroad spur track and bottom of pit?
49. Clearance of unloading platform and building from center of track?
50. Spur track straight and level at building site?
51. Is mixing plant located on dead end of spur track?

CHECK CHART FOR TANK CAR MIXING PLANT

Other Items

1. If 4250 tank is planned, will fluid consumption in future justify 8500?
2. Pick out location of Mixing Plant building.
3. See that general layout and construction drawings are made up for approval.
4. Have blenders been given medical examination?
5. Two-gallon sample to laboratory for lead response test?
6. Give refinery information on dyes and dye prices.
7. Five-gallon sample to Manufacturing Department for color tests?
8. Give copy of "Minimum Dye Concentrations in Leaded Gasolines" to management.
9. If Fluid is to be used in laboratory, check hood construction and give copy of "Preparation of Dilute Ethyl Fluid" to chemist.
10. One-gallon sample of Ethyl base stocks to laboratory before Ethyl mixes.
11. Progress reports on construction every week or ten days.
12. Floors smooth and no depressions?
13. Floors pitched toward pit and pit sloped to drain?
14. Foundation bolts for weightograph?
15. Bottom of pit poured monolithic with sides?
16. Pit walls waterproofed?
17. Pit drain on manifold end of pit?
18. Foundation pads in pit to support load?
19. Block valve and riser in pit drain?
20. Drain from eductor pump to sewer?
21. If external sump is used, is it covered? Does it work properly?
22. Pipes grouted in building wall and/or side of pit?
23. Curb around entire building?
24. Curb around shower stall?
25. Curb around washroom?
26. Locks on doors to open from inside without key?
27. Door from operating platform to washroom tight on bottom and fitted with lever catch to be opened from either side without key?
28. Vaporproof electrical connections?
29. Electrical conduit for weightograph?
30. Pipe trenches covered with grating or checkered plate?
31. Mixing type faucet in sink?
32. Check interior of weigh tank to see if clean.
33. Check fluid standpipe in weigh tank and check clearance off bottom.
34. Glycerine in weigh tank?
35. Ammonia valves tested before installing?
36. Spool pieces substituted for flexible hoses during construction?
37. Weld or braze fluid line connections.
38. Packing removed from swing joints before brazing and glycerine put on before reassembling?
39. Special blending valve in correct position?
40. Check valve in right direction?
41. Eductor in right direction?
42. Vacuum gauge connected to tee properly?
43. Extension handle for #1 valve?
44. Flexible hoses braced?
45. Unloading line braced?
46. Unloading line cable, pulley and counter-weight?
47. Folding walkway?

48. Unloading line fastened properly?
49. Blank flange on end of unloading line?
50. Building, floors and pit painted?
51. Tank and piping painted aluminum or white enamel?
52. Scales tested with 2000-# test weights?
53. 50# air pressure tests on tank and lines?
54. If 50# pressure is put on weigh tank at time lines are tested and glycerine has already been added, be sure that pressure is released through the vacuum and vent line to prevent forcing glycerine out the standpipe. Close No. 1 valve to make sure.
55. Warning tags on manifold and unloading line?
56. Test sprinkler and foam systems.
57. Five-gallon Foamite Hand Fire Extinguisher and one-gallon Pyrene or CO_2.
58. Are "No Admittance" signs on all doors?
59. Is dye storage separate from plant?
60. Check clothing and other equipment as follows:
    a. Two steel lockers for each man blending.
    b. Clean clothes cabinet.
    c. Two canister type masks, with white rubber facepieces and splinterless glass eyepieces; canister to contain not less than 500 c.c. activated charcoal.
    d. Two sets of white clothing for each man blending, consisting of underwear, socks, coveralls, caps.
    e. White rubber boots or shoes.
    f. White rubber or neoprene gloves.
    g. White canvas(tennis) shoes.
    h. Canvas gloves.
    i. Soap.
    j. Towels.
    k. Hand brushes.
61. Check posting of Medical Rules dated February 1, 1941 and check posting of Operations Chart and Blending Chart.
62. Give out Medical Regulations Booklets and discuss.
63. Safety meetings for management and blenders.
64. Authority and Notification Men Contacts, reports and give calendars to proper people.
65. Copies of "Precautions for Men Entering Tanks that have contained Leaded Gasoline" to Authority Men and post same in mixing plant, tank cleaning supervisor's office and air-line masks.
66. Check on tank car keys.
67. Unload first tank car.
68. Discuss return of empty tank cars and reversing of poison placards.
69. See that swing lines in blending tanks are set properly.
70. Make first mix.
71. Discuss Mixing and Inventory Statements and leave forms.
72. Make Quarterly Mixing Inspection report.
73 Obtain information for "Permanent Mixing Installation and Laboratory Record" card.
74. Discuss necessity for notifying us in case difficulties are experienced in unloading future tank cars, or in case repair work on Fluid lines is necessary.
75. Take picture of plant.

CHECK CHART FOR ETHYL MIXING PLANT

General Layout

Plot plan drawing of refinery and Ethyl mixing plant (3 copies required by Ethyl Gasoline Corporation) showing:

1. Proposed location of mixing plant building.
2. Dimensions of mixing plant building.
3. Distances of mixing plant building from:
    a. Nearest buildings.
    b. Nearest tanks (indicate contents).
    c. Nearest refinery equipment.
    d. All possible fire hazards.
    e. Nearest water fire hydrant (indicate normal and booster pressure available).
    f. Tanks to be used for blending.
    g. Public roads or highways.
    h. Nearest railroad spur, siding, or team track.
    i. Refinery sewer or drainage system.
4. Location and capacity of blending tanks.
5. Size of swing lines in blending tanks.
6. Total length and size of circulating lines.
7. Any other connections to blending tanks or circulating lines, such as lines to loading rack, other tanks, etc. (Indicate block valves).
8. Hook-up of eductor and circulating pumps, showing block valves. (See E.G.C. drawings).
9. Location, type, size, capacity and maximum pressure of eductor pump.
10. Location, type, size and capacity of circulating pump (or inner tank mixers, if used).
11. Indicate relative elevation of blending tanks, mixing plant building and railroad track.
12. Source and size of water supply lines to mixing plant building.
13. Location of control valve for sprinkler system.
14. Steam supply to mixing plant building and probable pressure.
15. Location of dye pot, if used, and hook-up to circulating lines. (Indicate valves).

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Also, construction drawings (3 copies required by Ethyl Gasoline Corporation) showing all details of construction of the building and all other items as required by our drawings and specifications sheet covering this type of plant.

CHECK CHART FOR DRUM-TO-WEIGH-TANK

MIXING PLANT

Detailed Construction Drawings

1. Building frame material.
2. Building siding material.
3. Building roof material.
4. Size of building - inside dimensions?
5. Size of washroom - inside dimensions?
6. Size of pit?
7. Shower, large sink and toilet?
8. Drain in washroom floor?
9. Curb around shower stall?
10. Curb around washroom floor?
11. Material of washroom walls?
12. Washroom walls and ceiling sealed tight?
13. Adequate hot water supply in washroom? Type?
14. Adequate heating facilities? Type?
15. Source of kerosene supply and location of outlets in washroom and building?
16. Water connections in washroom and building?
17. Number, size, type of windows?
18. Number, type, size of doors?
19. Roof height?
20. Size of ventilator?
21. Vent line galvanized? Tee and ells? Height above roof?
22. Electrical connection for weightograph?
23. Manifolds correctly placed?
24. Braces for manifolds?
25. A.P.I. standard steel line pipe, or equivalent, for fluid lines?
26. Gauge panels?
27. Vacuum gauges connected to tees?
28. Eductor pump base? Location?
29. Eductor pump drain to sewer?
30. Pipe trenches for gasoline lines?
31. Pipe trenches covered over?
32. 2" from eductor pump to eductor and 3" from eductor to circulating line?
33. Adequate sprinkler systems over weigh tank and drum platform?
34. Location of sprinkler control valve away from building?
35. Clearance around pit?
36. Rail around pit?
37. Foundation pads to support load in pit?
38. Pit drain on manifold end of pit?
39. Valve and riser in pit drain?
40. Type of foam protection and location of generator or portable cart, if used?
41. Type of foam discharge in pit?
42. Floors and pit sloped toward drains?
43. Location of external sump, if used? How drained? Covered over?
44. Elevation of railroad spur track and bottom of pit?
45. Clearance of building from center of track?
46. Spur track straight and level at building site?
47. Is mixing plant located on dead end of spur track?

48. Drum platform on proper end of building?
49. Size of drum platform, blending and storage space? Inside dimensions?
50. Height of drum platform?
51. Drum platform to support 200# per sq. ft.?
52. Roof over drum platform?
53. Wire fencing to roof line?
54. Curbing around drum platform 4" high and 4" wide; continue at gate and door, and have ramp at gate?
55. Width and location of gate?
56. Location of floor drain on drum platform?

CHECK CHART FOR DRUM-TO-WEIGH-TANK-MIXING PLANT

Other Items

1. Is Fluid consumption or possible future increase large enough to justify tank car plant?
2. Pick out location for Mixing Plant building.
3. See that general layout and construction drawings are made up for approval.
4. Is location on railroad spur so that drums can be unloaded from box car direct to storage platform? Or, built with proper clearance from spur so that tank car unloading line could be installed later?
5. Is size of blending platform adequate for number of drums to be stored?
6. Have blenders been given medical examination?
7. Two-gallon sample to laboratory for lead response test.
8. Give refinery information on dye and dye prices.
9. Five-gallon sample to Manufacturing Department for color tests.
10. Give copy of "Minimum Dye Concentrations in Leaded Gasolines" to management.
11. If Fluid is to be used in laboratory, check hood construction and give copy of "Preparation of Dilute Ethyl Fluid" to chemist.
12. One-gallon sample of Ethyl base stocks to laboratory before Ethyl mixes.
13. Progress reports on construction every week or ten days.
14. Floors smooth and no depressions?
15. Floors pitched toward pit and pit sloped to drain?
16. Drum platform floors sloped to drain?
17. Washroom floor sloped to drain?
18. Bottom of pit poured monolithic with sides?
19. Pit walls waterproofed?
20. Pit drain on manifold end of pit?
21. Foundation pads in pit to support load?
22. Block valve and riser in pit drain?
23. Drain from eductor pump to sewer?
24. If external sump is used, is it covered? Does it work properly?
25. Pipes grouted in building wall and/or side of pit?
26. Curb around entire building?
27. Curb around shower stall?
28. Curb around washroom?
29. Locks on doors to open from inside without keys?
30. Door from operating platform to washroom tight on bottom and fitted with lever catch to be opened from either side without key?
31. See that gate on drum platform swings outward.
32. Vaporproof electrical connections?
33. Electrical conduit for weightograph?
34. Foundation bolts for weightograph?
35. Pipe trenches covered with grating or checkered plate?
36. Mixing type faucet in sink?
37. Check interior of weigh tank to see if clean.
38. Check Fluid standpipe in weigh tank and check clearance offbottom.
39. Glycerine in weigh tank.
40. Ammonia valves tested before installing?
41. Spool pieces substituted for flexible hoses during construction?
42. Weld or braze Fluid line connections.
43. Packing removed from swing joints before brazing and glycerine put on before reassembling?

44. Special blending valve in correct position?
45. Check valve in right direction?
46. Eductor in right direction?
47. Vacuum gauges connected to tees properly?
48. Extension handle for No. 1 valve.
49. Flexible hoses braced?
50. Building, floors and pit painted?
51. Tank and piping painted aluminum or white enamel?
52. 50# air pressure test on tank and lines?
53. If 50# pressure is put on weigh tank at time lines are tested and glycerine has already been added, be sure that pressure is released through the vacuum and vent line to prevent forcing glycerine out the standpipe. Close No. 1 valve to make sure.
54. Warning tags on manifold and drum unloading line?
55. Test sprinkler and foam systems.
56. Five gallon Formite Hand Fire Extinguisher and one gallon Pyrene or CO_2.
57. Are "No Admittance" signs on all doors and gate?
58. Is dye storage separate from plant?
59. Check clothing and other equipment as follows:
    a. Two steel lockers for each man blending.
    b. Clean clothes cabinet.
    c. Two canister type masks, with white rubber facepieces and splinterless glass eyepieces; with canister containing not less than 500 c.c. of activated charcoal.
    d. Two sets of white clothing for each man blending, consisting of underwear, socks, coveralls, caps.
    e. White rubber boots or shoes.
    f. White rubber or neoprene gloves.
    g. White rubber aprons.
    h. Canvas gloves.
    i. Soap.
    j. Towels.
    k. Hand brushes.
60. Check posting of Medical Rules dated January 1, 1941 and check posting of Operations chart and Blending chart.
61. Give out Medical Regulations booklets and discuss.
62. Safety meetings for management and blenders.
63. Authority and Notification Men Contacts, Reports and give calendars to proper people.
64. Copies of "Precautions for Men Entering Tanks that have Contained Leaded Gasoline" to authority men and post same in mixing plant, tank cleaning supervisor's office and airline masks.
65. Blending area marked off?
66. Check on drum bung wrench and tongs.
67. Clean buckets for standpipes?
68. Discuss Mixing and Inventory Statements and leave forms.
69. Observe first shipment of drums and unload drums into weigh tank.
70. See that swing lines in blending tanks are set properly.
71. Make first mix.
72. Make Quarterly Mixing Inspection Report.
73. Obtain information for "Permanent Mixing Installation and Laboratory Record Card.
74. Discuss necessity of notifying us in case repair work on Fluid lines is necessary.
75. Discuss return of empty drums and make sure labels are covered with "Empty" label or obliterated.
76. Take pictures of plant.