NOTES:

1. NOTE ABOUT EFFECTS OF AN EQUIPOTENTIAL PLANE: IF THE FLOOR IS AT THE SAME POTENTIAL AS THE CONDUCTIVE EQUIPMENT AND ANY STRUCTURES ACCESSIBLE TO THE ANIMAL, STRAY VOLTAGE PROBLEMS CANNOT EXIST. THIS CAN BE ACCOMPLISHED BY PLACING A BONDED NETWORK OF WELDED WIRE MESH IN THE FLOOR. ANY ANIMAL STANDING ON A FLOOR CONTAINING A PROPERLY INSTALLED EQUIPOTENTIAL PLANE WILL HAVE ALL POSSIBLE CONTACT POINTS AT OR VERY NEAR THE SAME POTENTIAL.

2. BOND NO. 4 COPPER WIRE TO 6" x 6" (UP TO 12" x 12" IS OK) WIRE MESH IN CONCRETE FLOOR, 2 OR 3 TIMES PER EACH CONT. SECTION OF MESH.

3. IF THERE IS A POSSIBILITY FOR ENERGIZING DUE TO A LOCAL ELECTRICAL FAULT SUCH AS ELECTRIC EQUIPMENT NOT BEING PROPERLY GROUNDED, THEN STEEL POSTS, GATE POSTS, SUPPORT POSTS, FEEDER BRACKETS, ETC. SHOULD BE GROUNDED ACCORDING TO THE NATIONAL ELECTRIC CODE.

4. ANGLE IRON GRATE SUPPORTS FOR FLOOR DRAIN TO BE BONDED BY RESISTANCE WELDING AT 2 OR MORE POINTS FOR EACH CONT. SECTION.

5. 6" x 6" WIRE MESH ON FLOOR OF PIT CONNECTED AT 2 POINTS TO MESH IN CON PLATE FORM.

6. WIRE MESH TO HAVE A PROTECTIVE CONCRETE COVER TO PROTECT MESH FROM CORROSION OR DAMAGE (1" IS SUFFICIENT, BUT 1 1/2" IS BETTER).

7. 1/4" ROUND STEEL ROD WELDED (RESISTANCE OR ELECTRIC) TO FEEDER EXTENDING DOWN TO WIRING MESH. WELD OR BRAZE 1/4" ROD, MESH, AND NO. 4 COPPER GROUND WIRE TOGETHER. INSTALL 2 RODS PER SIDE OF PARLOR PROVIDED THAT ALL FEEDERS ARE INTERCONNECTED BY METAL PARTS. NOTE: CONDUCTORS AND CONNECTIONS SHOULD BE LOCATED WHERE THEY CANNOT BE EASILY DAMAGED OR DISTURBED.

8. UNDER SERIOUS CONDITIONS ANIMAL MAY BE EFFECTED WHEN IT STEPS INTO THE EQUIPOTENTIAL PLANE FROM AN AREA BEYOND THE PERIMETER. TO PROVIDE A MORE GROUNDING CHANGE IN VOLTAGE, A VOLTAGE RAMPS SHOULD BE INSTALLED AT THE ENTRANCE OR EXIT OF THE EQUIPOTENTIAL PLANE. (SEE VOLTAGE RAMPS DETAIL)

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DRAWING NOT TO SCALE

COOPERATIVE EXTENSION SERVICE
AGRICULTURE AND HOME ECONOMICS
Agricultural Extension Service
University of Tennessee Institute of Agriculture
Agricultural Engineering Department
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

MILKING PARLOR GROUNDING METHOD

CAN 87 6087 SHEET 1 OF 2

ADAPTED FROM CANADA PLAN 3242-1
CROSS SECTION

OPTIONAL TECHNIQUE FOR BONDING PARTS
(see notes)

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