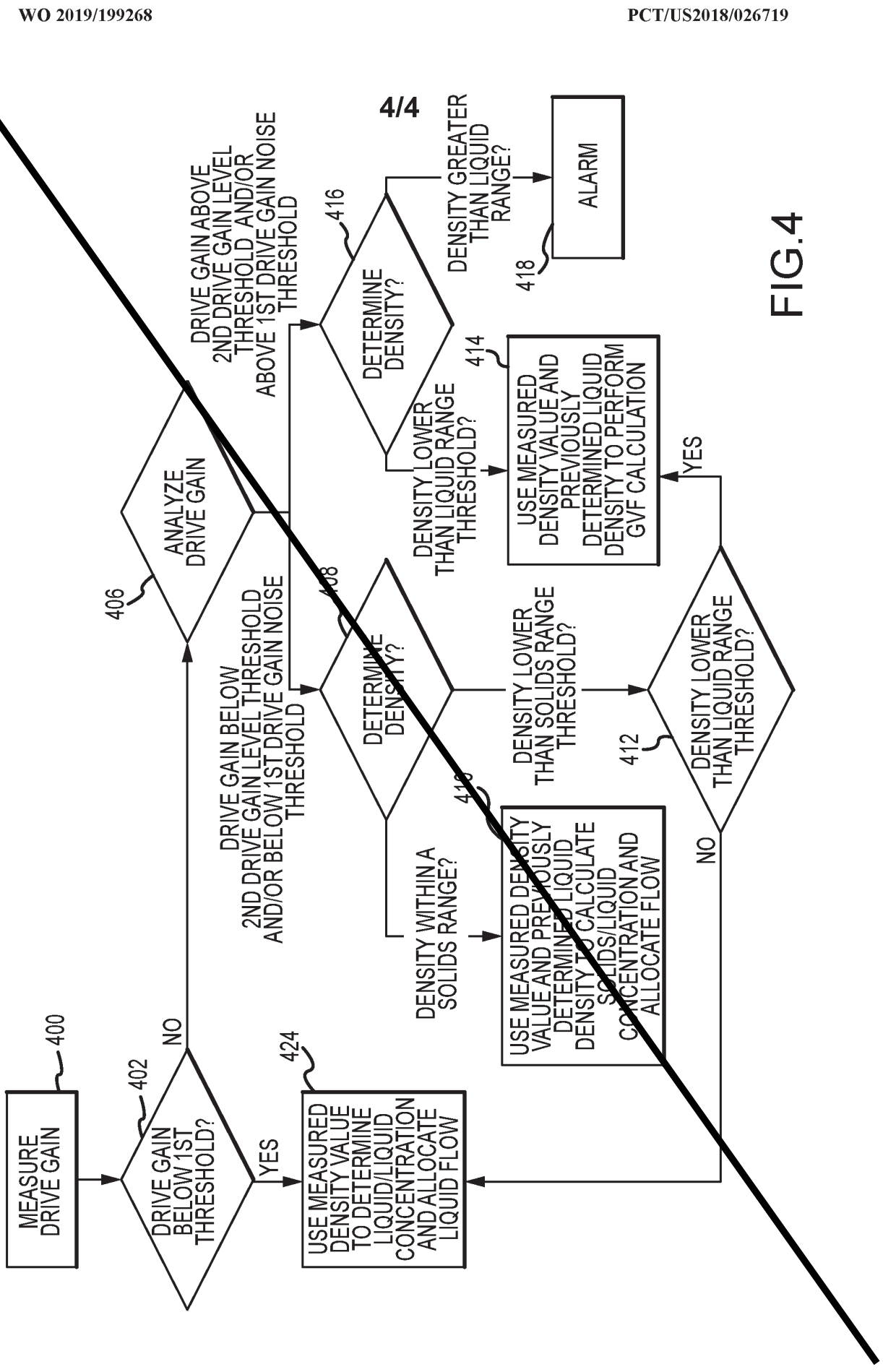

MEASURE DRIVE GAIN
400
DRIVE GAIN BELOW 1ST THRESHOLD?
402
NO
YES
USE MEASURED DENSITY VALUE TO DETERMINE LIQUID/LIQUID CONCENTRATION AND ALLOCATE LIQUID FLOW
424
ANALYZE DRIVE GAIN
406
DRIVE GAIN BELOW 2ND DRIVE GAIN LEVEL THRESHOLD AND/OR BELOW 1ST DRIVE GAIN NOISE THRESHOLD
DETERMINE DENSITY?
408
DENSITY WITHIN A SOLIDS RANGE?
USE MEASURED DENSITY VALUE AND PREVIOUSLY DETERMINED LIQUID DENSITY TO CALCULATE SOLIDS/LIQUID CONCENTRATION AND ALLOCATE FLOW
410
DENSITY LOWER THAN SOLIDS RANGE THRESHOLD?
412
DENSITY LOWER THAN LIQUID RANGE THRESHOLD?
NO
YES
DRIVE GAIN ABOVE 2ND DRIVE GAIN LEVEL THRESHOLD AND/OR ABOVE 1ST DRIVE GAIN NOISE THRESHOLD
DETERMINE DENSITY?
416
DENSITY LOWER THAN LIQUID RANGE THRESHOLD?
USE MEASURED DENSITY VALUE AND PREVIOUSLY DETERMINED LIQUID DENSITY TO PERFORM GVF CALCULATION
414
DENSITY GREATER THAN LIQUID RANGE?
ALARM
418

FIG.4

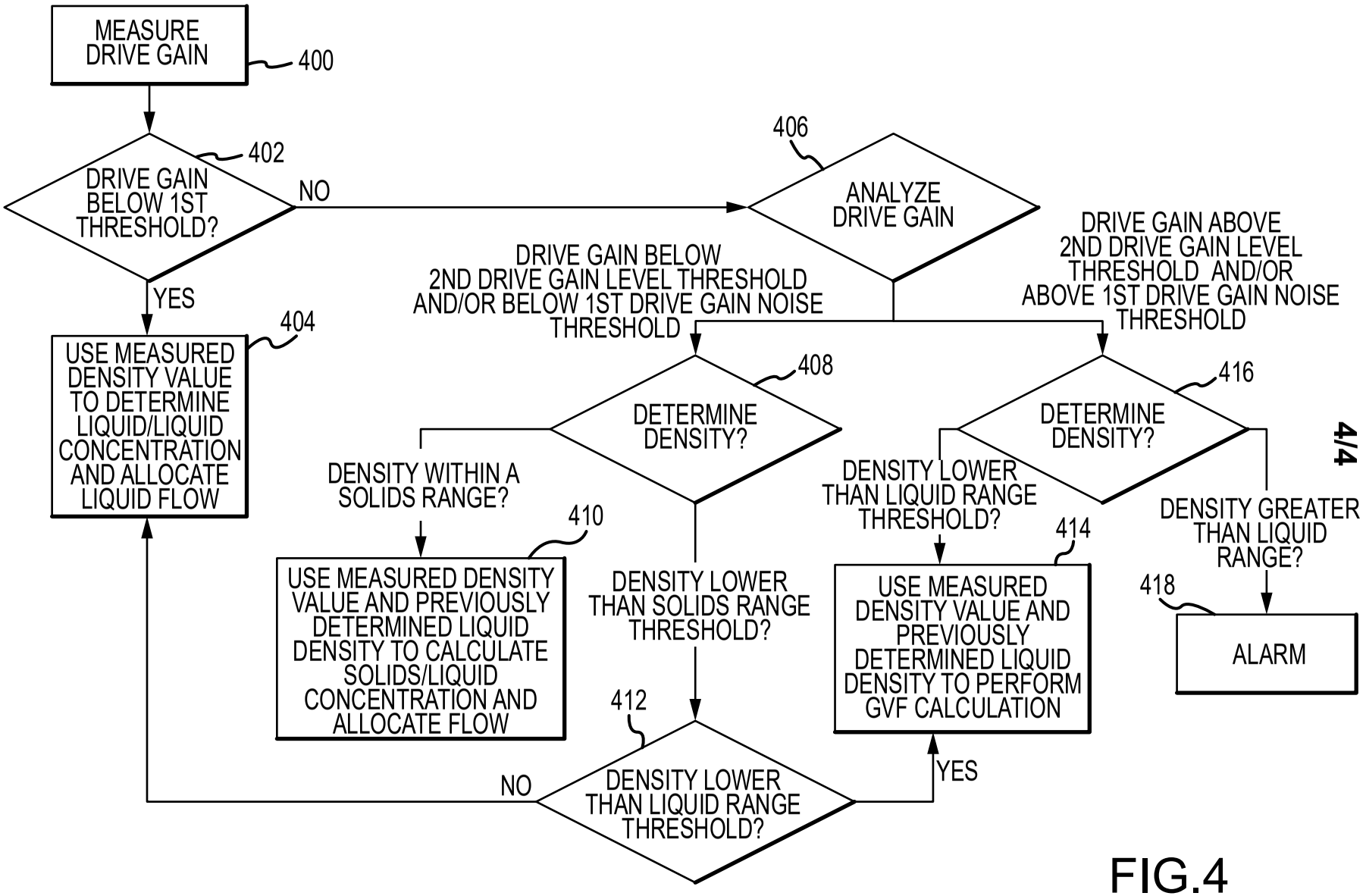

MEASURE DRIVE GAIN
400
DRIVE GAIN BELOW 1ST THRESHOLD?
402
NO
YES
ANALYZE DRIVE GAIN
406
USE MEASURED DENSITY VALUE TO DETERMINE LIQUID/LIQUID CONCENTRATION AND ALLOCATE LIQUID FLOW
404
DRIVE GAIN BELOW 2ND DRIVE GAIN LEVEL THRESHOLD AND/OR BELOW 1ST DRIVE GAIN NOISE THRESHOLD
DRIVE GAIN ABOVE 2ND DRIVE GAIN LEVEL THRESHOLD AND/OR ABOVE 1ST DRIVE GAIN NOISE THRESHOLD
DETERMINE DENSITY?
408
DETERMINE DENSITY?
416
DENSITY WITHIN A SOLIDS RANGE?
410
USE MEASURED DENSITY VALUE AND PREVIOUSLY DETERMINED LIQUID DENSITY TO CALCULATE SOLIDS/LIQUID CONCENTRATION AND ALLOCATE FLOW
DENSITY LOWER THAN SOLIDS RANGE THRESHOLD?
412
DENSITY LOWER THAN LIQUID RANGE THRESHOLD?
414
USE MEASURED DENSITY VALUE AND PREVIOUSLY DETERMINED LIQUID DENSITY TO PERFORM GVF CALCULATION
DENSITY GREATER THAN LIQUID RANGE?
418
ALARM
DENSITY LOWER THAN LIQUID RANGE THRESHOLD?
NO
YES
4/4

FIG.4