```python
from collections import deque

# Each state: (Missionaries_left, Cannibals_left, Boat_side)
# Boat_side: 1 = left bank, 0 = right bank

def is_valid(state):
    M_left, C_left, _ = state
    M_right = 3 - M_left
    C_right = 3 - C_left

    # Check for invalid conditions
    if M_left < 0 or C_left < 0 or M_right < 0 or C_right < 0:
        return False
    if (M_left and M_left < C_left) or (M_right and M_right < C_right):
        return False
    return True

def get_next_states(state):
    M_left, C_left, boat = state
    next_states = []
    moves = [(1, 0), (2, 0), (0, 1), (0, 2), (1, 1)]  # possible moves

    for m, c in moves:
        if boat == 1:  # boat on left side
            new_state = (M_left - m, C_left - c, 0)
        else:  # boat on right side
            new_state = (M_left + m, C_left + c, 1)

        if is_valid(new_state):
            next_states.append(new_state)
    return next_states

def solve():
    start = (3, 3, 1)
    goal = (0, 0, 0)
    queue = deque([(start, [start])])
    visited = set()

    while queue:
        state, path = queue.popleft()
        if state == goal:
            return path

        if state in visited:
            continue
        visited.add(state)
```

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    return next_states

def solve():
    start = (3, 3, 1)
    goal = (0, 0, 0)
    queue = deque([(start, [start])])
    visited = set()

    while queue:
        state, path = queue.popleft()
        if state == goal:
            return path

        if state in visited:
            continue
        visited.add(state)

        for next_state in get_next_states(state):
            queue.append((next_state, path + [next_state]))

    return None

# Run the solver
solution = solve()

if solution:
    print("Missionaries and Cannibals Problem Solution:\n")
    for step in solution:
        M_left, C_left, boat = step
        side = "left" if boat == 1 else "right"
        print(f"Left Bank -> M:{M_left}, C:{C_left}, Boat on {side}")
else:
    print("No solution found.")
```

Missionaries and Cannibals Problem Solution:

Left Bank -> M:3, C:3, Boat on left
Left Bank -> M:3, C:1, Boat on right
Left Bank -> M:3, C:2, Boat on left
Left Bank -> M:3, C:0, Boat on right
Left Bank -> M:3, C:1, Boat on left
Left Bank -> M:1, C:1, Boat on right
Left Bank -> M:2, C:2, Boat on left
Left Bank -> M:0, C:2, Boat on right
Left Bank -> M:0, C:3, Boat on left
Left Bank -> M:0, C:1, Boat on right
Left Bank -> M:1, C:1, Boat on left
Left Bank -> M:0, C:0, Boat on right