

Appendix H

Noncompliance Fee Determination

Basis for the Noncompliance Fees

The Noncompliance Fee Option (Option) is found in section (h) of the proposed regulation. The purpose of the Option is to allow a vessel owner or operator, under special circumstances, to pay a fee in lieu of complying with the proposed regulation. The fee schedule is shown in Table H-1.

| Visit | Fee | |
|--------------------------------------|-------------------------|---------------|
| | Diesel-Electric Vessels | Other Vessels |
| 1 st Port Visited | \$32,500 | \$13,000 |
| 2 nd Port Visited | \$65,000 | \$26,000 |
| 3 rd Port Visited | \$97,500 | \$39,000 |
| 4 th Port Visited | \$130,000 | \$52,000 |
| 5 th or more Port Visited | \$162,500 | \$65,000 |

In this Appendix, we explain the basis for these fee values.

Approach

The fees will be collected at each port where the Option is exercised. The local Port Authority will use the funds collected to reduce emissions from other emission sources on or near the Port. Staff considered the following when determining the amount of the fee:

- The amount of money collected should be sufficient to fund projects that reduce emissions equivalent to or greater than the emission reductions associated with that vessel complying with the requirements of (e)(1), Emission Limits.
- The fee amount should discourage the use of the Option, and encourage vessel owners to pursue all necessary means to comply with the requirements of (e)(1).

- The fee amount, at a minimum, should be greater than the cost associated with complying with the requirements of (e)(1) on a per visit basis.

Staff determined that a fee schedule that increased the fee each time the Option was used would serve two purposes. It would discourage the continued use of the Option, and provide money to fund equivalent emission reduction projects that are anticipated to be less cost-effective than complying with the proposed regulation. Staff also determined that two fee schedules should be established, one for diesel-electric vessels and one for all other vessels. The fee schedule for the diesel-electric vessel would reflect the increased cost of compliance with the proposed regulation for a diesel electric vessel.

Calculation

A. Assumptions

1. Cost of Fuel (\$/metric ton)
MGO= \$513.00
IFO 380= \$256.00
2. Fuel Consumption Rate
Diesel-Electric Vessel
MGO= 203 grams fuel/kW-hr
IFO 380= 213 grams fuel/kW-hr
Other Vessel
MGO= 217 grams fuel/kW-hr
IFO 380=227 grams fuel/kW-hr
3. Typical Single Visit Activity in California Waters

Diesel-Electric Vessel

| | Hours | Load (kW) |
|--------------------|-------|-----------|
| Hotelling | 8 | 7,000 |
| Maneuvering | 2 | 13,000 |
| Transit | 8 | 30,000 |

Other Vessel

| | Hours | Load (kW) |
|--------------------|-------|-----------|
| Hotelling | 50 | 2,000 |
| Maneuvering | 2 | 2,000 |
| Transit | 8 | 2,000 |

B. Calculations

| | | | | | | | | | | | | | | | | | | |
|----------------------|---|--------------------------|---|-----|---|-------------|---|--------------|---|-----|---------|------|---|--------------|---|-----|---|------|
| Equation (1) | | Hotelling | | | | Maneuvering | | | | | Transit | | | | | | | |
| Other Vessel: | = | 217 | X | 50 | X | 2000 | + | 217 | X | 2 | X | 2000 | + | 217 | X | 8 | X | 2000 |
| Consumption of MGO | | g fuel/kW-hr | | hrs | | kW | | g fuel/kW-hr | | hrs | | kW | | g fuel/kW-hr | | hrs | | kW |
| | = | 26,040,000 grams | | | | | | | | | | | | | | | | |
| | | 26.07 metric tons | | | | | | | | | | | | | | | | |

| | | | | |
|----------------------|---|--------------------|---|-------------------|
| Equation (2) | | | | |
| Other Vessel: | = | 26.07 metric tons | X | \$ 513/metric ton |
| Cost of MGO Consumed | | | | |
| | = | \$13,374.00 | | |

| | | | | | | | | | | | | | | | | | | |
|------------------------|---|--------------------------|---|-----|---|-------------|---|--------------|---|-----|---------|------|---|--------------|---|-----|---|------|
| Equation(3) | | Hotelling | | | | Maneuvering | | | | | Transit | | | | | | | |
| Other Vessel: | = | 227 | X | 50 | X | 2000 | + | 227 | X | 2 | X | 2000 | + | 227 | X | 8 | X | 2000 |
| Consumption of IFO-380 | | g fuel/kW-hr | | hrs | | kW | | g fuel/kW-hr | | hrs | | kW | | g fuel/kW-hr | | hrs | | kW |
| | = | 27,237,276 grams | | | | | | | | | | | | | | | | |
| | | 27.27 metric tons | | | | | | | | | | | | | | | | |

| | | | | |
|----------------------|---|-------------------|---|--------------------|
| Equation(4) | | | | |
| Other Vessel: | = | 27.27 metric tons | X | \$ 256 /metric ton |
| Cost of MGO Consumed | | | | |
| | = | \$6,981.00 | | |

| | | | |
|-------------------------------------|---|-------------------|--------------|
| Equation (5) | | | |
| Other Vessel: | = | \$13,374.00 | - \$6,981.00 |
| Cost Differential: MGO – IFO 380 | | | |
| | = | \$6,393.00 | |

Staff decided that two times the cost differential of using MGO instead of IFO 380 (Equation (5)) ,would be an appropriate noncompliance fee amount for a first port visit. This value, \$13,000.00, is reflected in Table H-1.

In determining the appropriate value of the first visit for a Diesel-Electric Vessel, Staff multiplied the noncompliance fee amount, \$13,000.00 by the increase in MGO fuel consumption associated with diesel-electric vessels when compared to other vessels. The fuel consumption rate of other vessels was determined by Equation (1) – 26.07 metric tons. The fuel consumption rate of Diesel-Electric Vessels is determined by Equation (6) – 65.44 metric tons.

| | | | | | | | | | | | | | | | | | | |
|----------------------|---|--------------------------|---|-----|---|-------------|---|----------|---|---------|---|--------|---|----------|---|-----|---|--------|
| Equation (6) | | Hotelling | | | | Maneuvering | | | | Transit | | | | | | | | |
| Other Vessel: | = | 203 | X | 8 | X | 7,000 | + | 203 | X | 2 | X | 13,000 | + | 203 | X | 8 | X | 30,000 |
| Consumption of MGO | | g | | hrs | | kW | | g | | hrs | | kW | | g | | hrs | | kW |
| | | fuel/kW- | | | | | | fuel/kW- | | | | | | fuel/kW- | | | | |
| | | hr | | | | | | hr | | | | | | hr | | | | |
| | = | 65,366,000 grams | | | | | | | | | | | | | | | | |
| | | 65.44 metric tons | | | | | | | | | | | | | | | | |

The increase in fuel consumption is determined by dividing 65.44 by 26.07 which is 2.5. Therefore, staff decided that the appropriate noncompliance fee for a diesel-electric vessel first-time port visit would be 2.5 times \$13,000, or \$32,500.00. This value is reflected in Table H-1.

The fees for additional visits were calculated by multiplying the first visit fee by the number of total visits under this option. These values are reflected in Table H-1.