OUR REFERENCE:

MC No. __01__ s. 1989

MEMORANDUM CIRCULAR

TO : THE ASSISTANT ADMINISTRATORS, HEADS OF DEPARTMENT AND STAFF, REGIONAL IRRIGATION MANAGERS, PROJECT/ OPERATIONS MANAGERS, REGIONAL/PROJECT ACCOUNTANTS CONCERNED, IRRIGATION SUPERINTENDENTS/OFFICERS-IN-CHARGE OF NATIONAL IRRIGATION SYSTEMS AND ALL OTHERS CONCERNED
NATIONAL IRRIGATION ADMINISTRATION

SUBJECT : INCENTIVE GRANT ON PHYSICAL PERFORMANCE OF NATIONAL IRRIGATION SYSTEMS.

The National Irrigation Administration in its desire to make irrigation systems viable and to obtain the longest life and greatest use of irrigation and drainage facilities which can be best accomplished by providing good maintenance and a program of systematic improvement and replacements envisioned the need to give incentive grant on physical performance of national systems. In pursuance to the NIA Board Resolution No. 5634-89 dated March 13, 1989 the granting of said incentive grant is hereby sanctioned.

I. COVERAGE

All national irrigation systems shall be covered by this Memorandum Circular.

II. DEFINITION OF INCENTIVE GRANT

Incentive grant on physical performance refers to a cash reward given to any national irrigation system's office whose physical performance passes the set standard of rating or evaluation of operation and maintenance and the operability and utilization of equipment.

Is this in addition to MC/15, s. 89 ?

No effectivity date

III. MECHANICS

1. All systems offices shall be furnished with an evaluation form which is incorporated in IMIS-Form 4. This shall be used in rating the physical performance of each system.

2. This evaluation shall be done every end of the month by the Manager, Operations and Maintenance Division and concurred in by the Regional Irrigation Manager. The evaluation form (IMIS Form 4) shall be submitted to the Manager, Systems Management Department, NIA, CO, Quezon City every 15th of the succeeding month.

3. An annual evaluation of the system's physical performance which shall be based on the monthly evaluation report of the Managers, Operations and Maintenance Division, shall be done at the Regional Office every end of the calendar year and the results of which shall be submitted to the Central Office for further evaluation to facilitate the release of the incentive grant.

4. Delegated personnel from the Central Office shall from time to time conduct ocular inspection/spot checking of national systems to monitor the physical performance evaluation report.

5. The incentive grant will be shared among the systems office personnel.

IV. COMPUTATION AND POINT RATING

The computation and point rating of physical performance shall be in accordance with the prescribed physical performance computation guidelines which is hereto attached (see Annex 1).

Please be guided accordingly.

FEDERICO N. ALDAY, JR.
Administrator

signed (-10-8?

INCENTIVE GRANT ON PHYSICAL PERFORMANCE

OF NATIONAL IRRIGATION SYSTEMS

NIS with very satisfactory/outstanding performance is eligible for incentive grant based on the following physical criteria.

ITEM	POINTS
1. Operation and Maintenance	70
a. Cropping Intensity	20
b. Maintenance of Canal & Service Roads	20
c. Measuring Devices & Control Gates	25
d. Ground and Building Upkeep	5
2. Operability and Utilization of Equipment	30
a. Operability of Equipment	20
b. Utilization of Equipment	10
TOTAL =	100

RATINGS	POINTS	INCENTIVE GRANT
1. Outstanding	91-100	P 8/ha
2. Very Satisfactory	81-90	6/ha

satisfactory - no /G

PHYSICAL PERFORMANCE COMPUTATION

GUIDELINES

1. Operation and Maintenance   (70 points)

   a. Cropping Intensity   (20 points)

Computation

$$CIW = BAW/AIAW$$

$$CID = BAD/AIAD$$

$$CIWD = CIW + CID$$

where:

CIW = Cropping Intensity, Wet Season

CID = Cropping Intensity, Dry Season

CIWD = Cropping Intensity, Wet and Dry Season

BAW = Benefited Area, Wet Season

BAD = Benefited Area, Dry Season

        For all crops (rice crop, other crop, third & annual crops)

AIAW = Attainable Irrigable Area, Wet Season

AIAD = Attainable Irrigable Area, Dry Season

This will be based on water resources availability (hydrology data) and physical constraint (inundation of area during wet season and topographical limitation during dry season).

Points Distribution

CIWD, %	POINTS
181- 200	21 - 25
161- 180	16 - 20
141- 160	11 - 15
< 141	10

b. Maintenance of Canal and Service Roads,(20 Points)

= Evaluation on the Physical Performance of items 1b, 1c, 1d and item 2 will be done on a monthly basis.

= Performance for a cropping season will be the average of the monthly rating.

b.1 Canal Maintenance Index (10 Points)

$$SCI = SN / TCU$$

where:

SCI = Satisfactorily maintained canal section index.

SN = Number of Satisfactorily maintained canal sections.

TCU = Total number of canal sections in use.

b.2 Service Road Maintenance Index (10 Points)

$$SRI = LSR / TLR$$

where:

SRI = Service Road Maintenance Index

LSR = Length of satisfactorily maintained service road, km.

TLR = Total length of service roads, km

Distribution

SCI/SRI	POINTS
0.91 - 1.0	8.5 - 10
0.81 - 0.90	6.5 - 8
0.71 - 0.80	4.5 - 6
< 0.71	4

c. Measuring Devices and Control Gates (25 Points)

    c.1 Measuring Device Functionality Index (2.5 Points)

    MDFI = MDF / TMP

    where:

    MDFI = Measuring Device Functional Index

    MDF = No. of Functional Measuring Device
           (Properly calibrated at least once
           per season)

    TMP = Total Number of Measuring Points

Points Distribution

MDFI	POINTS
0.95 - 1.0	2.5
0.90 - 0.94	2.0
0.85 - 0.89	1.5
0.80 - 0.84	1.0
0.80	0.5

    c.2 Measuring Device Utilization Index (12.5 Points)

    MDUI = $\bar{X}$ / Sd

    where:

    MDUI = Measuring Device Utilization Index

    Sd   = Standard Deviation = $\sum\limits_{i=1}^{n} \dfrac{(Q_{si}-Q_{di})^2}{n}$

    $\bar{X}$ = Mean Water Demand for the month for n

           measuring points = $\sum\limits_{i=1}^{n} \dfrac{Q_{di}}{n}$

    i   = Measuring Point Number

$$\text{n} = \text{Total number of Measuring Points}$$

$$\text{QD} = \text{Average Demand Discharge for the Month, } 1/\text{s}$$

$$\text{QS} = \text{Average water supplied for the month, } 1/\text{s}$$

Points Distribution

MDUI	POINTS
< 0.067	12.5
0.067 - 0.166	10.0
0.167 - 0.230	7.5
0.231 - 0.292	5.0
0.293 - 0.351	2.5

c.3 Control Gates Functional Index (5 Points)

$$\text{CGFI} = \text{CGF/TCP}$$

where:

CGFI = Control Gates Functional Index

CGF = Number of Functional Control Gates

TCP = Total Number of Control Points

Points Distribution

GFI	POINTS
0.95 - 1.0	5
0.90 - 0.94	4
0.85 - 0.80	3
0.80 - 0.84	2
< 0.80	1

c.4 Control Gates Utilization Index (5 Points)

$$CGUI = CGFU/TCP$$

where:

CGUI = Control Gates Utilization Index

CGFU = Number of Functional Gates Properly Used with complete records.

TCP = Total Number of Control Points

Points Distribution

CGUI	POINTS
0.95-1.0	5
0.90-0.94	4
0.85-0.89	3
0.80-0.84	2
$\leq$ 0.80	1

d. Ground and Building Upkeep

Points Distribution

Excellent	5
Very good	4
Good	3
Fair	2
Poor	1

2. Operability and Utilization of Equipment (30 Points)

a. Equipment Operability Index (20 Points)

$$ECI = A1/(A1 + A2)$$

where:

EOI = Equipment Operability Index

A1 = No. of Operable Equipment

A2 = No. of Equipment that needs repair.

Points Distribution

EOI	POINTS
0.95 - 1.0	20
0.90 - 0.94	16
0.85 - 0.89	12
0.80 - 0.84	8
< 0.80	4

b. Equipment Utilization Index (10 Points)

EUI = EAU / ERU

where:

EUI = Equipment Utilization Index

EAU = Equipment Actual Usage, Hr.

ERU = Equipment Required/Programmed Usage, Hr.

Points Distribution

EUI	POINTS
0.95 - 1.0	10
0.90 - 0.94	8
0.85 - 0.89	6
0.80 - 0.84	4
< 0.80	2

IRRIGATION SYSTEM_____ REGION _____

CROPPING SEASON _____ PROGRAM AREA _____ ESTIMATED COLLECTIBLE _____

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FINANCIAL STATUS	PHYSICAL PERFORMANCE

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FINANCIAL STATUS

1. CURRENT ISF COLLECTIBLES (P) _____
2. ISF COLLECTION
   a. Current Account
      1. In Cash (P)
      2. In Kind (P)
   b. Back Account
      1. In Cash (P)
      2. In Kind (P)
3. OTHER INCOME   (P)
4. TOTAL INCOME   (P)
5. EXPENSES
   a. Operation   (P)
   b. Maintenance   (P)
   c. Administrative (P)
   d. Other Expenses (P)
6. TOTAL EXPENSES (P)
7. SAA RECEIVED, O&M (P)
8. SAA BALANCE, O&M (P)

  WATER SUPPLY, FARMING & OTHER ACTIVITIES
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1. AIWS (lps)
2. ACTUAL RAINFALL (mm)
3. NUMBER OF DAYS
4. FARMING STATUS (ha)
   AREA:
   LS/LP
   EM
   HARVESTED
5. AREA BILLED (HA)   _____
   NO. OF BILLS DISTRIBUTED _____
   AREA _____

PHYSICAL PERFORMANCE

ITEM	POINTS

1. OPERATION AND MAINTENANCE

   a. Cropping Intensity

      1. $CIW=DAW/AIAW$ _____
      2. $CID=PFD/AIAD$ _____
      3. $CIWD=CIW+CID$ _____

   b. Maintenance of Canal & Service Roads

      1. $SCI=SA/TCD$ _____
      2. $SRI=LSR/TLR$ _____

   c. Measuring Devices & Control Gates

      1. $MSFI=MDF/TMP$ _____
      2. $MCWI= X/SG$ _____
      3. $CGFI=CGF/TCP$ _____
      4. $CGUI=CGFU/TCF$ _____

   d. Ground and Building Upkeep _____

2. OPERABILITY AND UTILIZATION OF EQUIPMENT

      a. $EOI=A1/(A1+A2)$ _____
      b. $EUI=EAU/ERU$ _____

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PREPARED BY: _____   RATED BY: _____
              IS/AIS   CHIEF, O & M

SUBMITTED BY: _____
                IS

                                            REVIEWED AND EVALUATED BY:
REVIEWED AND EVALUATED BY:

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        CHIEF, O & M   REGIONAL IRRIGATION MANAGER
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