

BENEFICIAL SUGGESTION 17-87

Coil Cleaning

Raymond L. Hackett, Clyde E. Riley



# ROUTING AND TRANSMITTAL SLIP

Date

19 Jan 88

<b>TO:</b> (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. Shirley		
2.		
3.		
4.		
5.		

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

**REMARKS**

Carolyn Arnold called to confirm Beneficial Suggestion Award ceremony for presentation to Raymond L. Hackett and Clyde E. Riley tomorrow at Building 1, 1000, by CG. I informed Kathy who in turn has verified to me that she informed the men and their supervisors. I also confirmed with Carol. Carol says Col. has a 0900 appointment at Bldg. 1 and will stay on for this one.

Beneficial Suggestion is the one on Coil Cleaning.

**DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions**

<b>FROM:</b> (Name, org. symbol, Agency/Post)	Room No.—Bldg.
Lori	Phone No.



**ROUTING AND TRANSMITTAL SLIP**

Date

15 Jan 88

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. Shirley		
2.		
3.		
4.		
5.		

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

**REMARKS**

Raymond (53) → (35)

2874  
 BENNEFICIAL SUGGESTION AWARDS PRESENTATION AT BLDG. 1 to HACKETT/RILEY proposed for Wednesday, 1000. This came to us from Carolyn Arnold, CPD. She says Jean will confirm with her. I've told Carol to note on her calendar for Colonel.

Inf acknowledges Ray Clyde

**DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions**

**FROM:** (Name, org. symbol, Agency/Post)

Room No.—Bldg.

Phone No.

Lori





UNITED STATES MARINE CORPS  
CIVILIAN PERSONNEL DIVISION  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542-5000

IN REPLY REFER TO:

12451  
CPD  
28 Aug 89

From: Supervisory Employee Relations Specialist  
To: Clyde E. Riley, Air-Conditioning Mechanic, Base  
Maintenance

Subj: BENEFICIAL SUGGESTION NO. 17-87

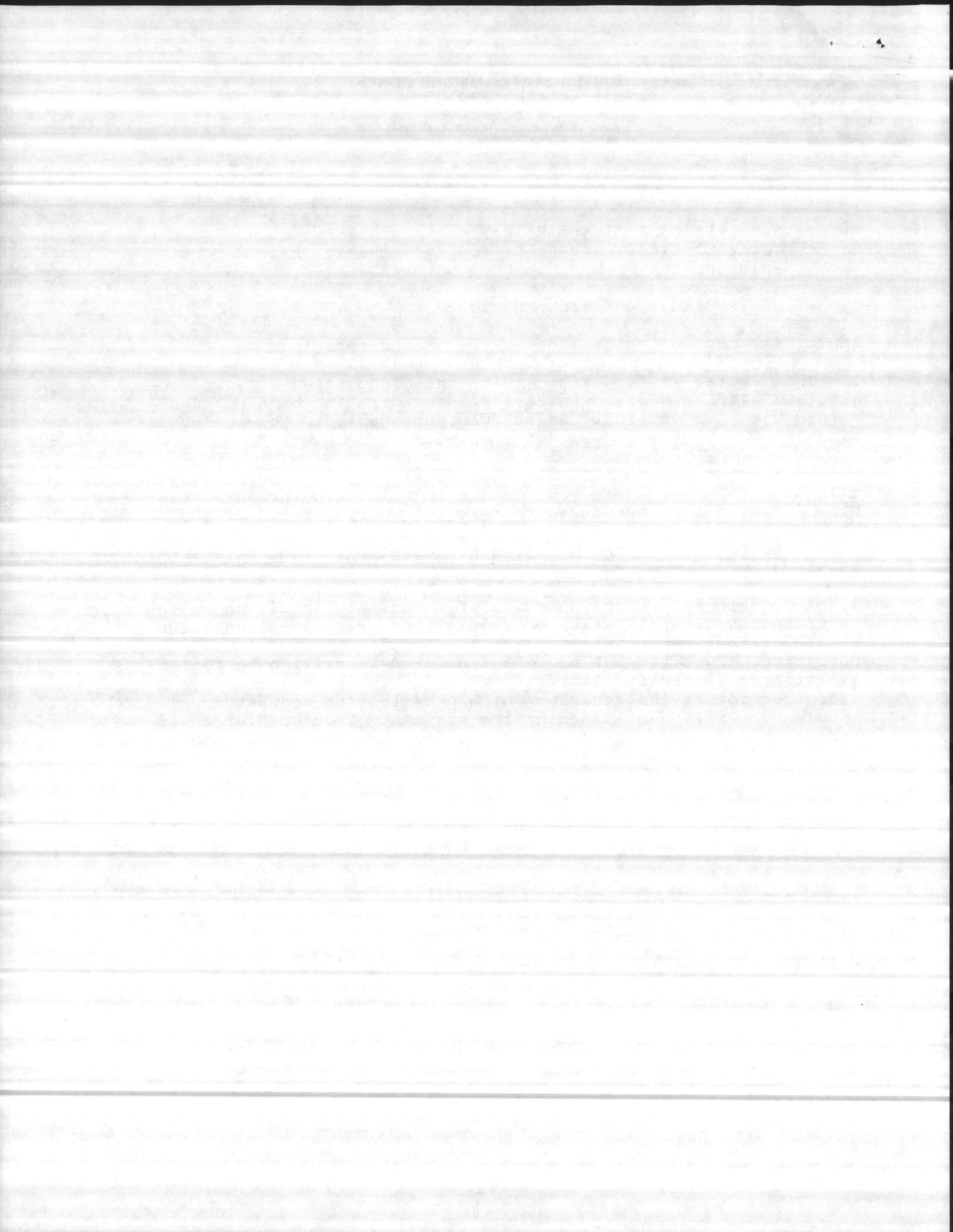
Encl: (1) Copy of suggestion investigation report

1. This letter is to advise you of the disposition of your suggestion. It has been given careful consideration by those concerned with its possible use but was not adopted. The enclosure explains why your idea was not adopted.

2. Your interest and initiative in developing and submitting this suggestion indicate your desire to be of greater service. Please continue to submit your ideas for improvement. If you have any questions regarding the decision on your suggestion, feel free to contact the Civilian Personnel Division, extension 1579.

3. A request for reconsideration of a decision involving an interpretation or application of regulations, the merit and value of a contribution, or eligibility to receive an award may be submitted. Such request must be submitted in writing to the Administrator, Incentive Awards Program within 30 calendar days after receipt of the decision which prompted the request and should contain the reasons for the request. Upon completion of the reconsideration, a final written decision will be issued.

*Mary K Turpin*  
MARY K TURPIN





UNITED STATES MARINE CORPS  
CIVILIAN PERSONNEL DIVISION  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542-5000

IN REPLY REFER TO:

12451  
CPD  
28 Aug 89

From: Supervisory Employee Relations Specialist  
To: Raymond L. Hackett, Air-Conditioning Mechanic, Base  
Maintenance

Subj: BENEFICIAL SUGGESTION NO. 17-87

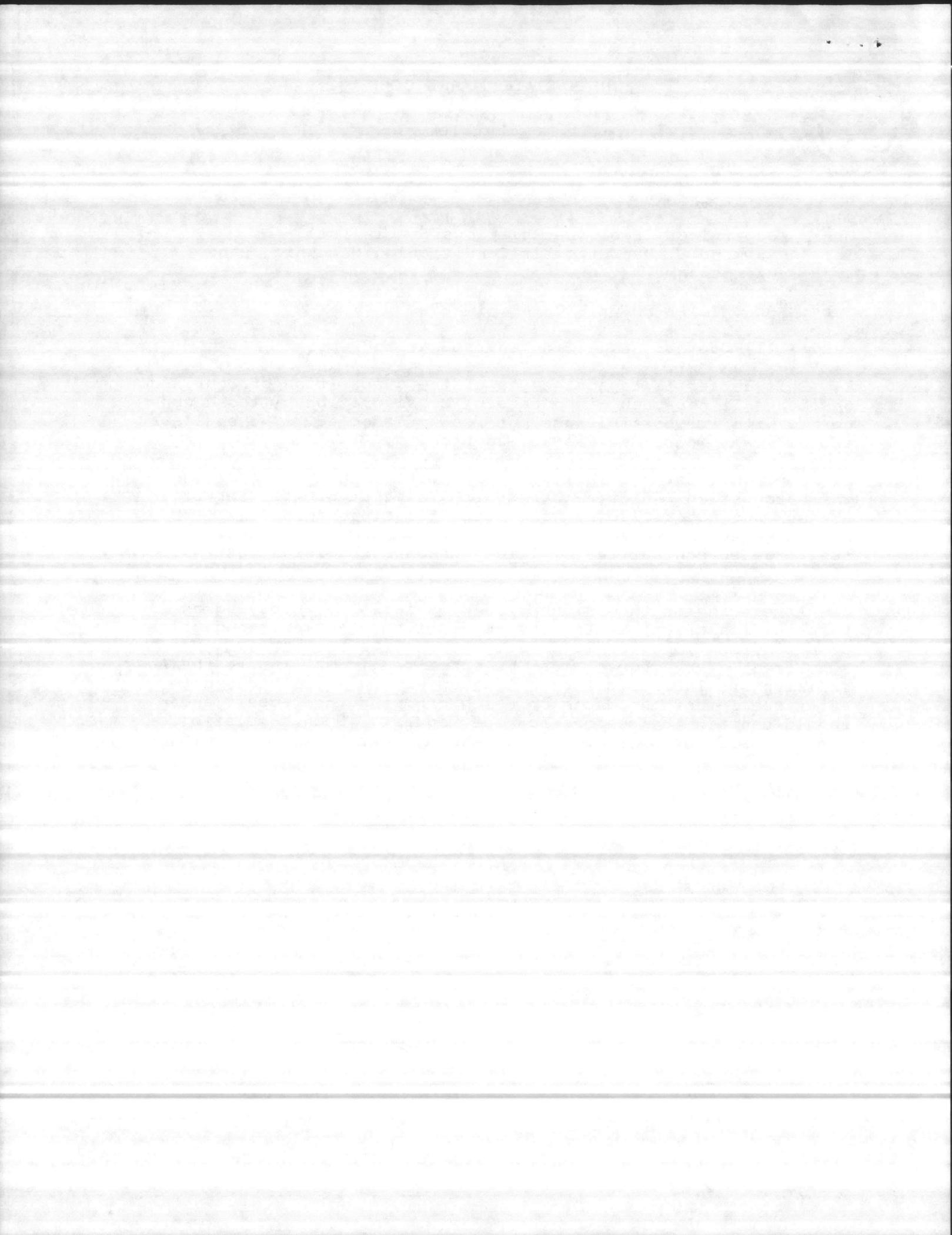
Encl: (1) Copy of suggestion investigation report

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*Mary K. Turpin*  
MARY K. TURPIN



**ROUTING AND TRANSMITTAL SLIP**

Date

29 August 1989

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. AC/S, Facilities (Attn: M. Elston)		
→ 2. Base Maintenance Officer (Attn: Shirley Muscare)		
3.		
4.		
5.		

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	<input checked="" type="checkbox"/> For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

**REMARKS**

RE: Beneficial Suggestion No. 17-87, Coil Clearing submitted by Raymond S. Hackett and Clyde E. Piley

The suggestion was forwarded to HQMC in June 1988 for further adoption consideration. Attached is the response we received from HQMC recently. If you have any further questions, please contact me. As you can see, HQMC has recommended the use of RENEWZ be discontinued at least for the present. Carolyn Arnold

**DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions**

**FROM: (Name, org. symbol, Agency/Post)**

Employee Relations  
CPD

Room No.—Bldg.

33

Phone No.

1579

ROUTING AND TRANSMITTAL SLIP

Date

To (Name, office symbol, room number, Building, Agency, Post)

Initials

Date


Routing	Initials	Date
Requested	Initials	Date
For Correction	Initials	Date
For Correction	Initials	Date
For Your Information	Initials	Date
Noted and Return	Initials	Date

*[Faint handwritten notes and signatures, including "D.M.C." and "J. D. ..."]*

*[Faint printed text at the bottom of the page, possibly a footer or instructions.]*



DEPARTMENT OF THE NAVY  
HEADQUARTERS UNITED STATES MARINE CORPS  
WASHINGTON, D.C. 20380-0001

IN REPLY REFER TO

12452  
MPC-35A  
4 AUG 1989

From: Commandant of the Marine Corps  
To: Commanding General, Marine Corps Base, Camp Lejeune, NC  
28542-5001

Subj: SUGGESTION NO. 17-87, "COIL CLEANING," SUBMITTED BY  
MR. RAYMOND L. HACKETT AND MR. CLYDE E. RILEY

Ref: (a) Your transmittal ltr of 30 Jun 88

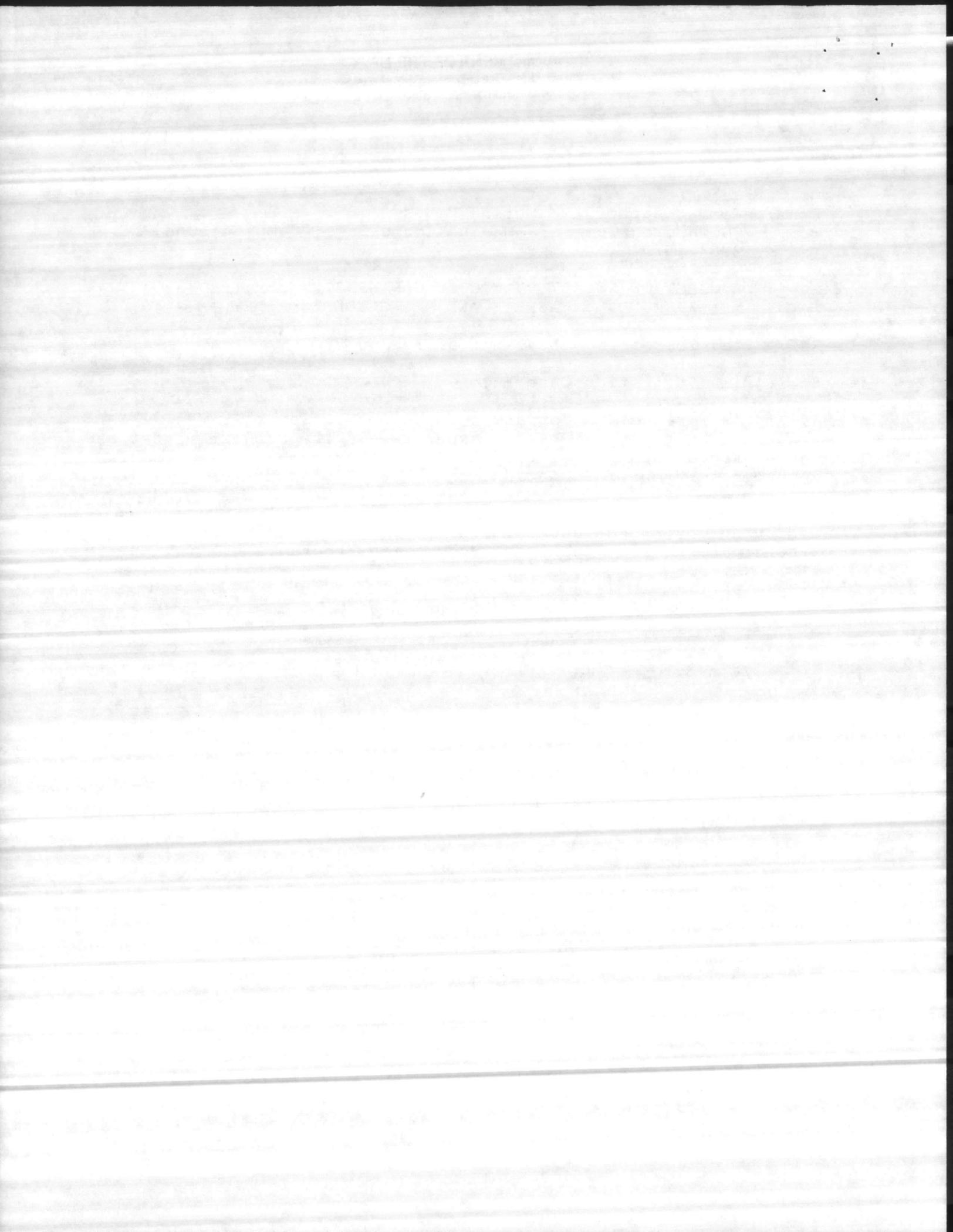
Encl: (1) Suggestion Case File

1. The reference was forwarded to us for review. It was evaluated by personnel having expertise in the subject matter and was disapproved. Documentation on the beneficial suggestion is returned for your information.

2. We commend Mr. Hackett and Mr. Riley for their interest in improving government equipment and encourage them to continue to participate in the Beneficial Suggestion Program.

A handwritten signature in cursive script, appearing to read "A. A. Fontana".

A. A. Fontana  
By direction



HACKETT RAYMOND  
RILEY CLYDE

AC MECH WG

301 30 0168

ORGANIZATION (Specify activity, ship, command, bureau or office)  
MCB CLNC

ORGANIZATION SUBDIVISION (Dept., Div., Sect., Unit or Shop)  
BASE MAINTS  
SHOP #35

PHONE  
451-2781

I (WE) UNDERSTAND that the acceptance of a cash award for the use of this suggestion by the United States Government shall not form the basis of a further claim of any nature upon the United States by me (us), my (our) heirs, or assigns.

DO NOT WRITE IN THIS SPACE

DATE RECEIVED  
11-20-86

SIGNATURE AND DATE  
Raymond L. Hackett 11-18-86

SIGNATURE AND DATE  
Clyde E Riley 11/18/86

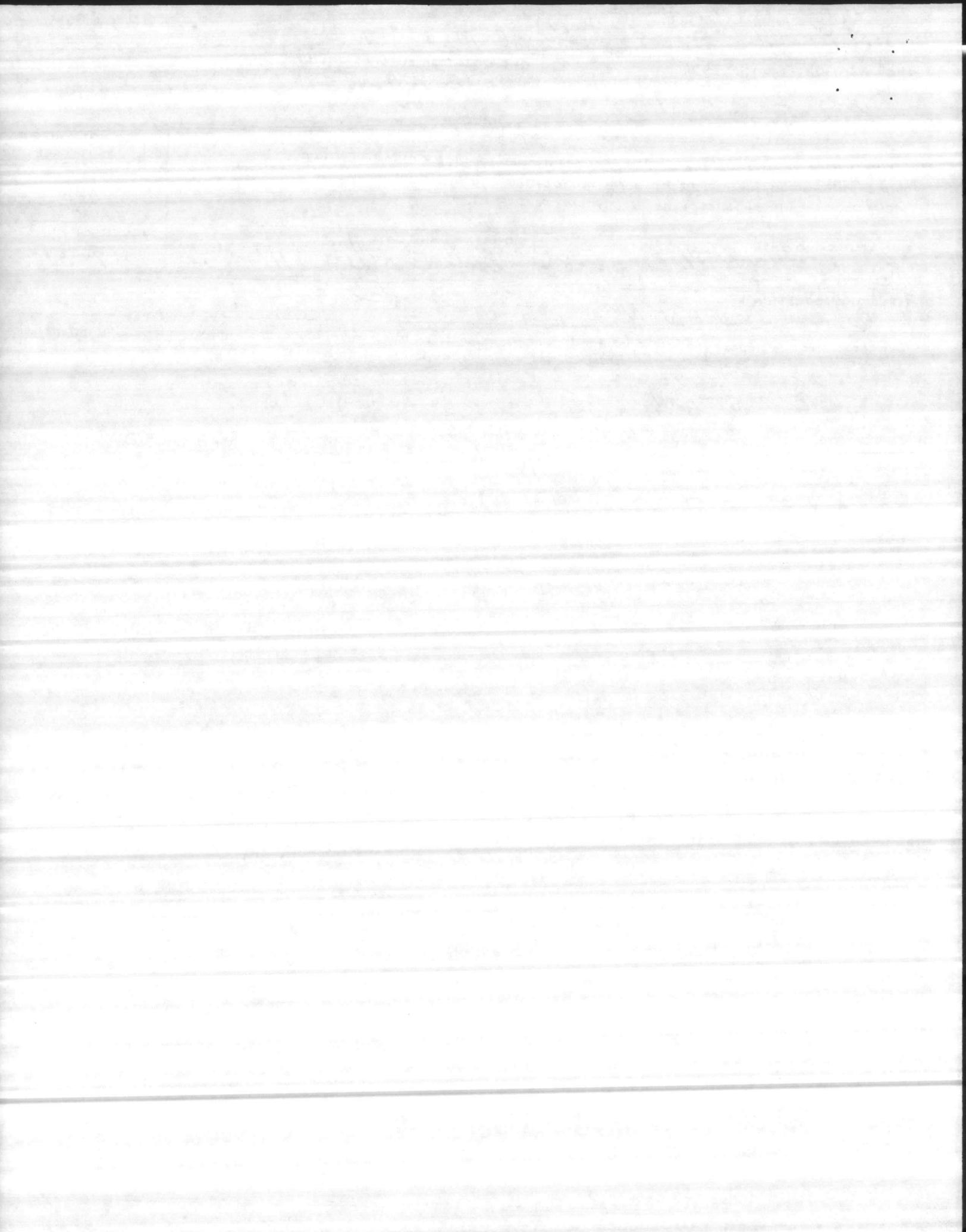
SUGGESTION NUMBER  
17-87

TITLE OF SUGGESTION  
COIL CLEANING

Describe in three separate paragraphs (1) the problem, difficulty, or circumstances that prompted you to submit this suggestion; (2) the suggested change; (3) where and how it can be used, what it will accomplish, and how it will benefit the Navy Government - in terms of tangible savings if possible.

SEE ATTACH ENCLOSURE.

Note - If you need more space, continue on separate sheet.



## COIL CLEANING

In order for heat pumps to function properly, adequate air flow through the coils is essential. The coils in these units, over a period of time, become excessively corroded, therefore, virtually impossible to clean thoroughly.

Eroded coils cause the following problems: 1) high head pressure on the compressors, 2) the compressors and inside blower motors deteriorate or do not function, and 3) heavy electric usage for both the compressors and the blower motors. Tenants are dissatisfied with the results of heat pumps during both the air conditioning season and heating season because of inefficiency. In addition, there are constant call backs on the service calls already performed.

The following steps are now being used in cleaning a coil:

a. First, pump down the unit or lose approximately 4 pounds of freon charge;

b. Next, unsweat silver solder joint at air handler and take out the coil;

c. Bring the coil back to the shop, thoroughly brush the coil, soak it in Calgon soap, and then thoroughly rinse with a water hose on both sides. This process must be accomplished normally three (3) times for adequate cleaning results.

d. After the coil has been cleaned, return to the house and place the coil back in the heat pump, resolder joint, and place freon back into the unit.

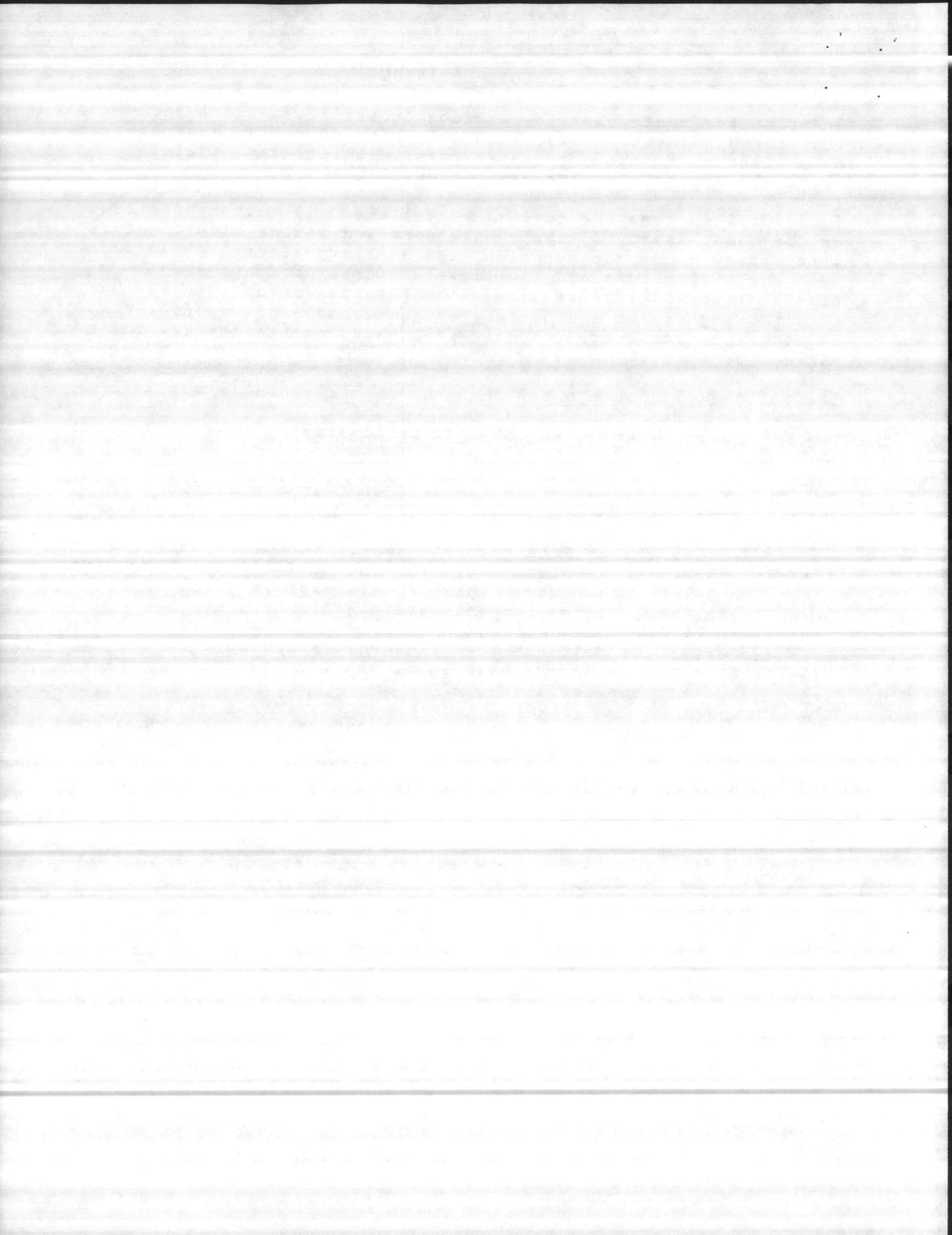
e. Last, change the Liquid Drier and vacuum the pump system three (3) times.

The above steps are completed by using 2 men, 4 man-hours each, and a truck. The following breakdown is made to easily depict how much money and time is involved in pulling one coil.

2 men - \$10.00 each man per hour for 4 hours..	\$ 80.00
Liquid Drier.....	17.00
Truck - \$10.00 per hour for 4 hours.....	<u>40.00</u>
Cost per coil.....	\$137.00

THE ANSWER TO SAVING IN THE ABOVE PROCESS IS TO USE RENEWZ

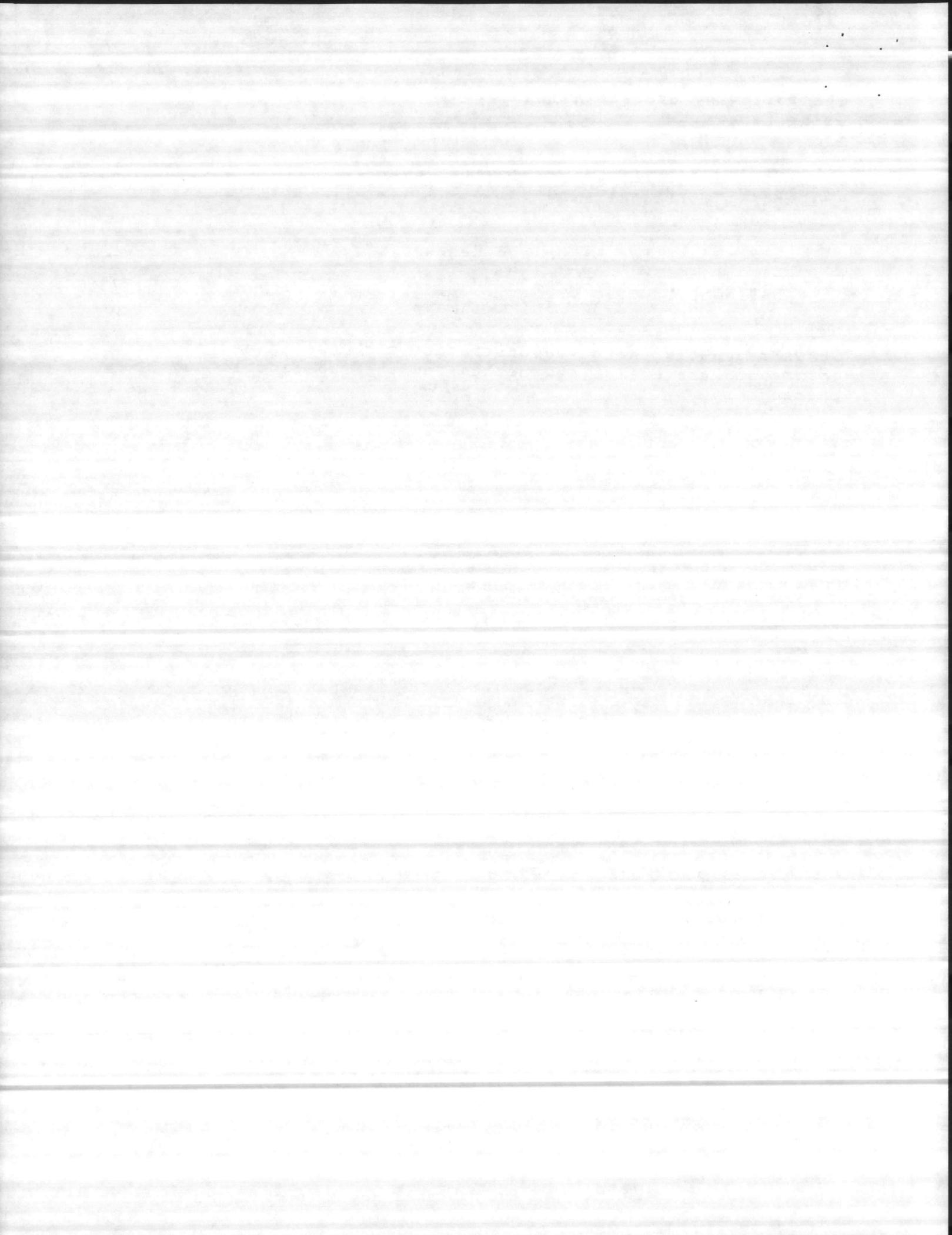
Renewz is a one step process which, when poured onto the coil, swells like a sponge agitating the element removing all eroded matter. In addition, Renewz can be used on all refrigeration coils located throughout the Base.



The following breakdown indicates how much money can be saved by using Renewz:

Cost per pulling and cleaning coil.....	\$137.00
Watkins Village (250 Units).....	<u>x 250</u>
	\$34,250.00
Minus cost for Labor and Renewz.....	<u>- 4,875.00</u>
<b>SAVINGS.....</b>	<b>\$29,375.00</b>

It is requested that a demonstration with the Inspector be granted to prove this new method and the substantial savings thereof.



4400  
LPP-1  
17 NOV 1988

INSTALLATION AND LOGISTICS DEPARTMENT COMMENTS on MPC-35A route  
sheet on 15 Jul 88

Subj: BENEFICIAL SUGGESTION NUMBER 17-87, COIL CLEANING

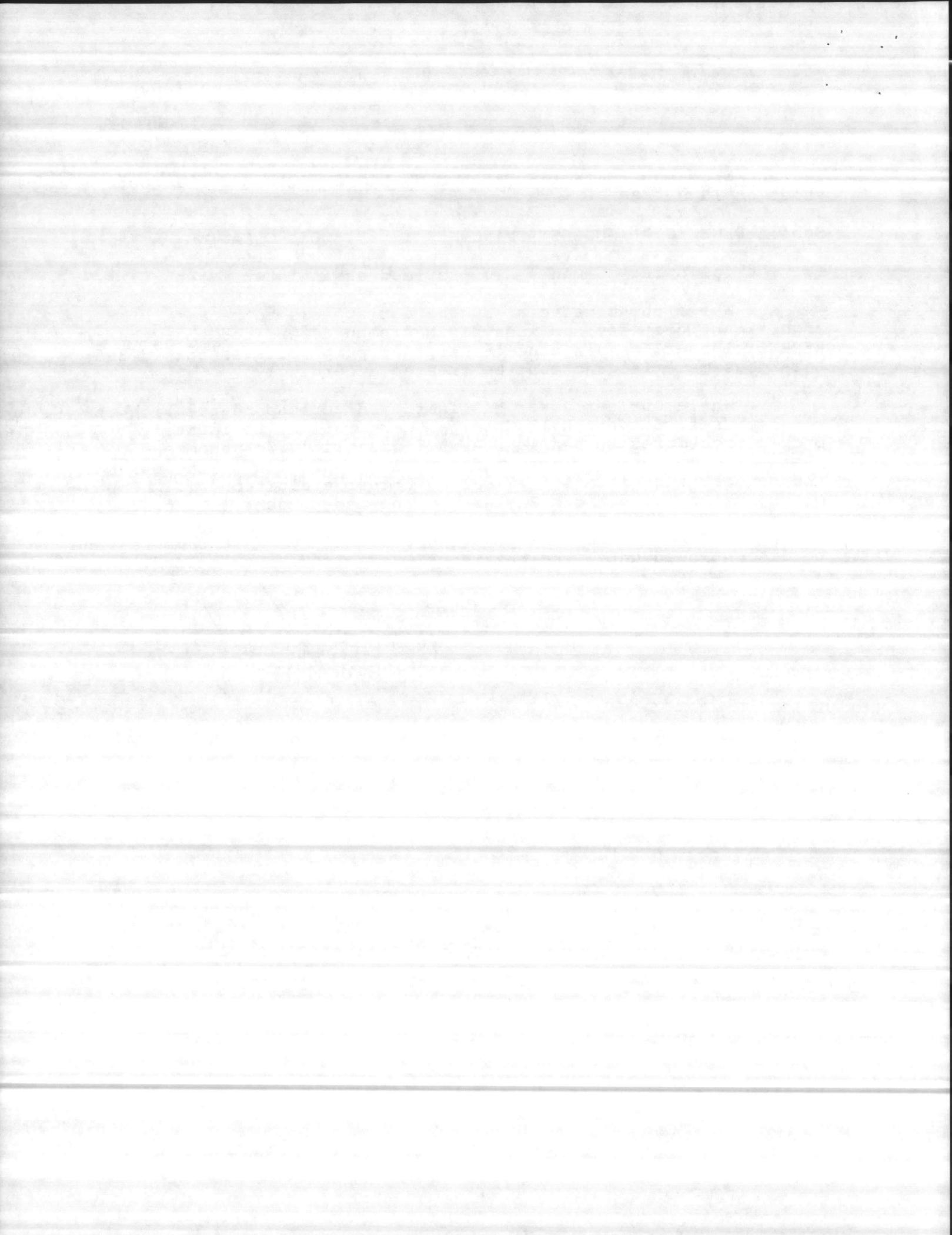
1. The following comments are provided as an interim report:

a. While the beneficial suggestion appears to be a significant cost savings idea, it has been determined that the RENEWZ cleaner for air conditioner/heat pump coils is considered hazardous material and must be treated accordingly.

b. While our evaluator has initiated correspondence with the manufacturer, Stewart Hall Chemical Corporation, to identify proper procedures to handle the waste material, we recommend that the command solicit an independent evaluation of the effects and composition of this chemical. Further evaluation will be based on the responses of both RENEWZ and the independent findings.

c. Recommend that the practice currently used at Camp Lejeune be discontinued until the hazardous waste issue is resolved.

  
L. L. SPARROW  
By direction





DEPARTMENT OF THE NAVY  
HEADQUARTERS  
NAVAL DISTRICT WASHINGTON, D C  
WASHINGTON, D C 20374

12450  
Ser 411.1/12

APR 10 1989

MEMORANDUM

From: Code 41A  
To: Code 211

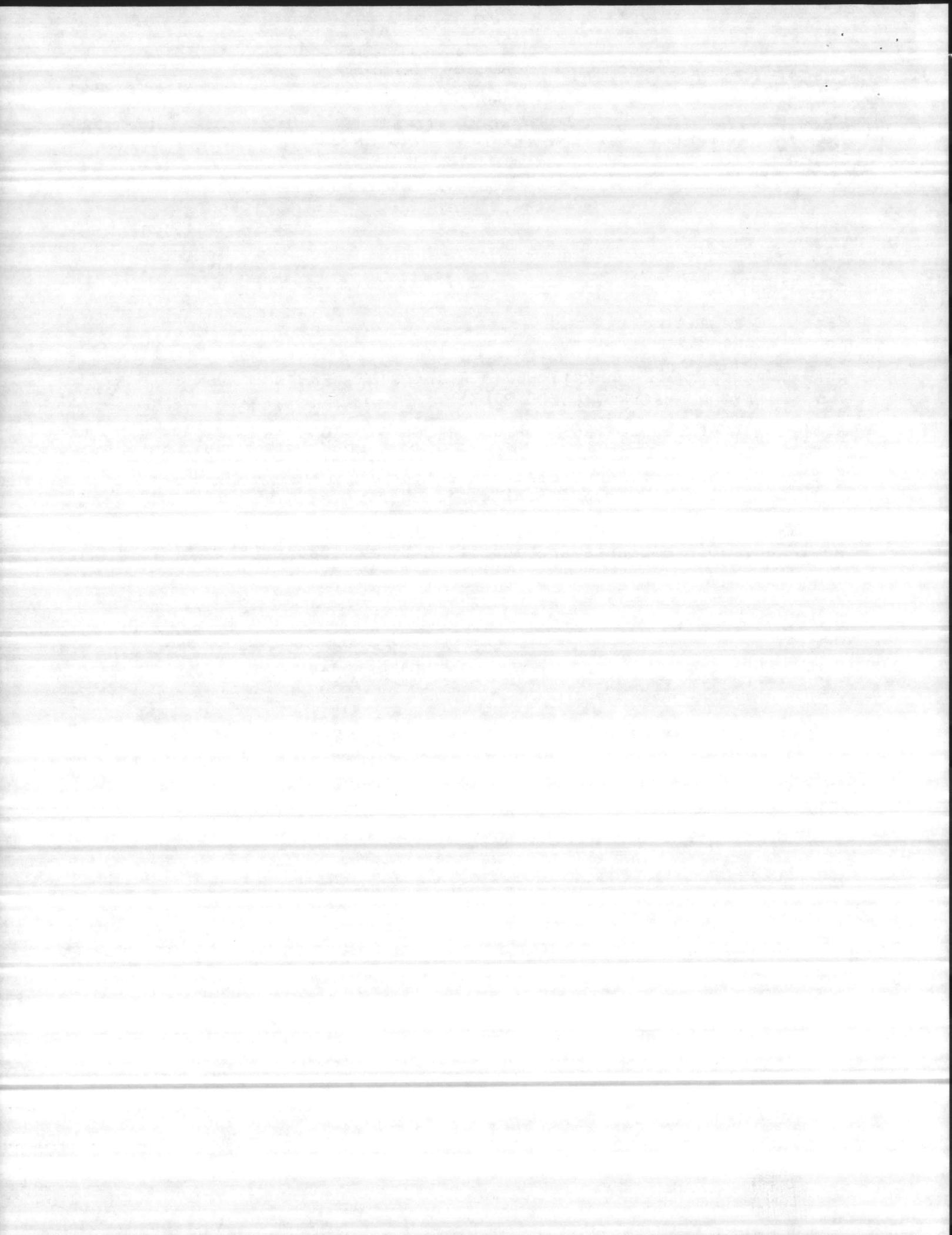
Subj: BENEFICIAL SUGGESTION #17-87, "COIL CLEANING" SUBMITTED BY  
RAYMOND HACKETT/CLYDE RILEY

Ref: (a) Your memo 12450, Code 211.2B of 3 Mar 89

Encl: (1) Subject Beneficial Suggestion  
(2) Contribution Investigation Report

1. As requested by reference (a), enclosure (1) has been reviewed. Our comments are submitted by enclosure (2).

  
G. C. CHAMBERLAIN



CONTRIBUTOR(S) (Name: Last, first, M.I.)

HACKETT, RAYMOND L.  
FILEY, CLYDE E.

CONTRIBUTION (Number and title)

17-87, "COIL CLEANING"

DATE RECEIVED

POSITION TITLE, AND GRADE OR RANK/RATE

A/C MECHANIC, WG-8  
A/C MECHANIC, WG-8

ACTIVITY OF CONTRIBUTOR(S) (Name and location)

MARINE CORPS BASE  
CAMP LEONARD, NC 28542

ORGANIZATIONAL CODE AND TITLE

BASE MAINTENANCE DIVISION, SHOP 35

TO:

DATE FORWARDED

DUE DATE

A complete evaluation of this contribution is necessary and all questions that apply should be answered. Although you may not have authority to implement the contribution, you are requested to give your opinion on its value. Do not merely state that authority to adopt the contribution is under the cognizance of GSA, VA, Treasury, etc. YOUR REPLY MAY BE USED VERBATIM IN NOTIFYING THE CONTRIBUTOR(S) OF THE RESULTS.

SIGNATURE OF AWARDS ADMINISTRATOR

ACTIVITY AND LOCATION

INVESTIGATION REPORT

	YES	NO
1. WILL CONTRIBUTION BE ADOPTED LOCALLY? (If "NO" give reason for nonadoption in space 4 and answer questions 5 and 6 only)		
2. IS CONTRIBUTION IN OPERATION? (Complete items below)		

IF "YES" GIVE DATE INSTALLED \_\_\_\_\_ IF "NO" INDICATE BELOW THE ACTION TAKEN TOWARD ADOPTION

COMMITMENT TO ADOPT HAS BEEN MADE    
  PROJECT OR JOB ORDER HAS BEEN ISSUED    
  EXPERIMENTAL WORK OR TRIAL TEST IS UNDER WAY    
  APPROVAL HAS BEEN REQUESTED

3. ESTIMATE OF BENEFITS

A. INTANGIBLE BENEFITS

VALUE                       MODERATE     SUBSTANTIAL     HIGH             EXCEPTIONAL  
 EXTENT OF APPLICATION     LIMITED        EXTENDED        BROAD            GENERAL

B. TANGIBLE BENEFITS (In table below compute labor savings at actual cost.)

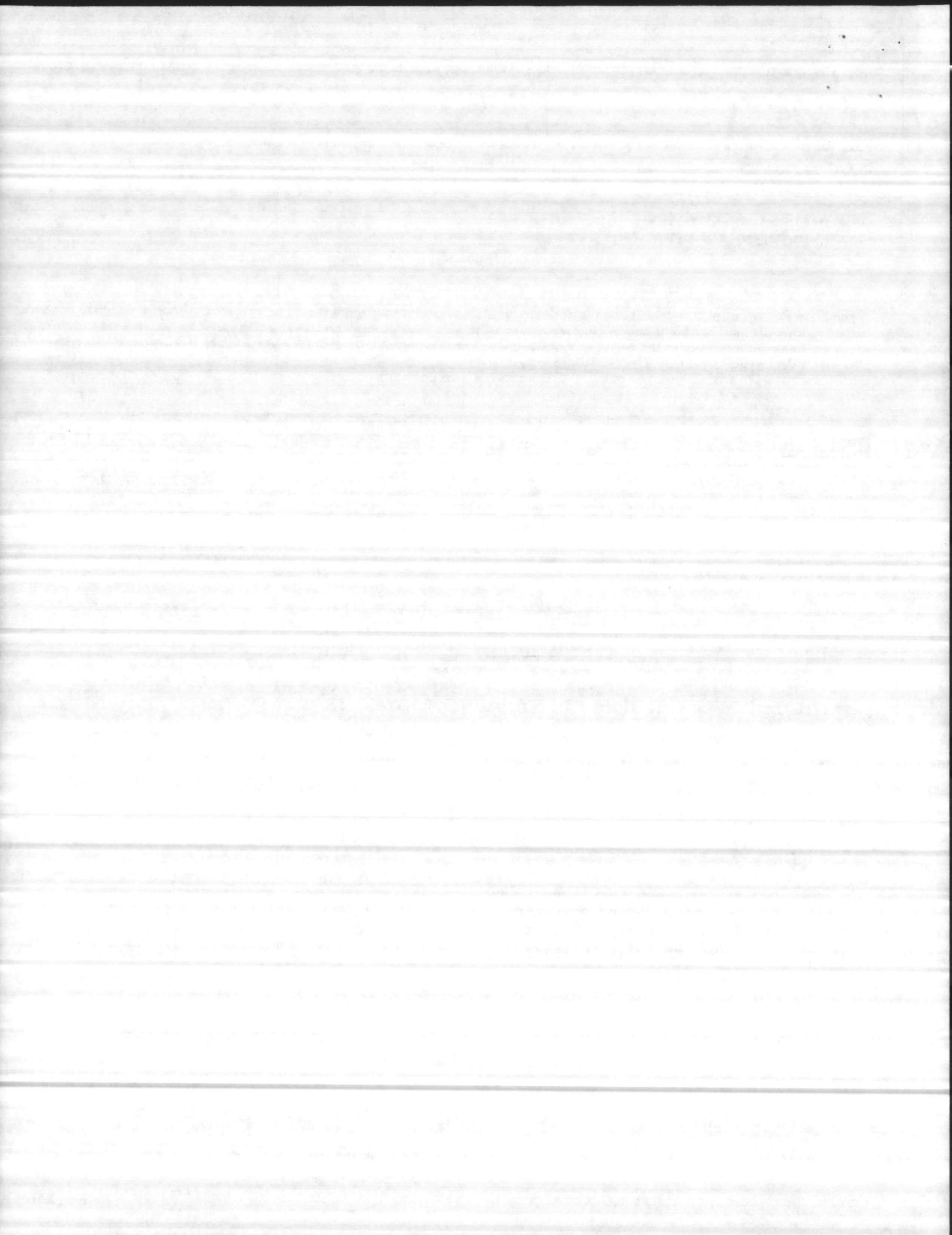
ITEM	LABOR			MATERIAL			TOTAL (LABOR AND MATERIALS)
	Hours Per	Dollars Per Hour	TOTAL	Units Per	Cost Per Unit	TOTAL	
FORMER METHOD		\$	\$		\$	\$	\$
NEW METHOD							
SAVINGS							

4. ADDITIONAL INFORMATION AND COMMENTS

The original method used to clean the coils utilized two men for a total of 4 labor hours. This is excessive and should only require 1 man for a maximum of 2 labor hours. Additionally, a proper PM program would eliminate the necessity to completely remove the coils for cleaning on an annual basis. Therefore, any costs savings is questionable.

(If more space is needed, use reverse side starting with this end of the page up. ↓)

5. IS PATENT INVESTIGATION RECOMMENDED?	YES	NO	SIGNATURE OF INVESTIGATOR	DATE
		<input checked="" type="checkbox"/>		
6. IF CONTRIBUTION CAN BE USED ELSEWHERE, INDICATE WHERE:	ACTIVITY AND LOCATION OF INVESTIGATOR			DATE
	APPROVING OFFICIAL <i>[Signature]</i>			





DEPARTMENT OF THE NAVY  
HEADQUARTERS  
NAVAL DISTRICT WASHINGTON, D C  
WASHINGTON, D C 20374

12450(21)  
Code 211.2B

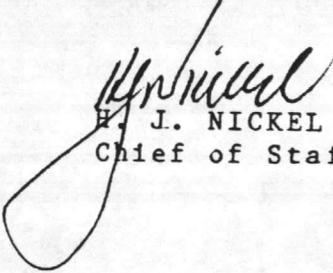
APR 18 1989

From: Commandant, Naval District Washington  
To: Director, Consolidated Civilian Personnel Office  
(Code 50)

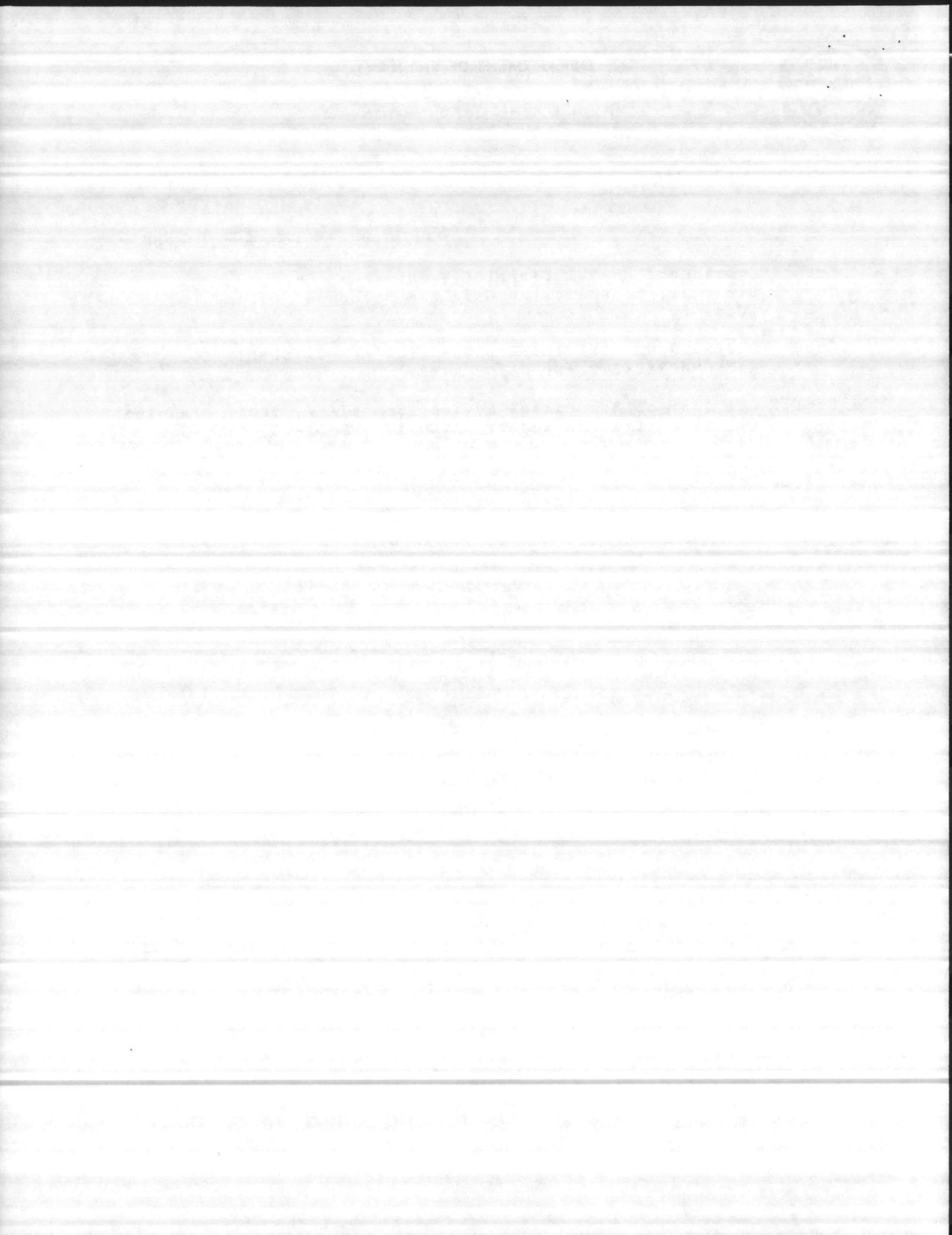
Subj: DECISION ON BENEFICIAL SUGGESTION #17-87 SUBMITTED BY  
RAYMOND HACKETT AND CLYDE RILEY

Encl: (1) Copy of Beneficial Suggestion #17-87, "Coil Cleaning"  
(2) Investigation Report NAVSO 5305/5 (1-78) 5PT

1. Enclosure (1) cannot be adopted per comments on enclosure (2).

  
H. J. NICKEL  
Chief of Staff

20 APR 1989





DEPARTMENT OF THE NAVY  
CONSOLIDATED CIVILIAN PERSONNEL OFFICE  
WASHINGTON  
WASHINGTON NAVY YARD  
WASHINGTON, D. C. 20374-2000

IN REPLY REFER TO:

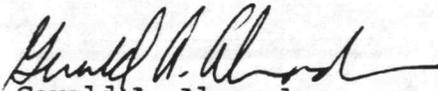
15 MAY 1989

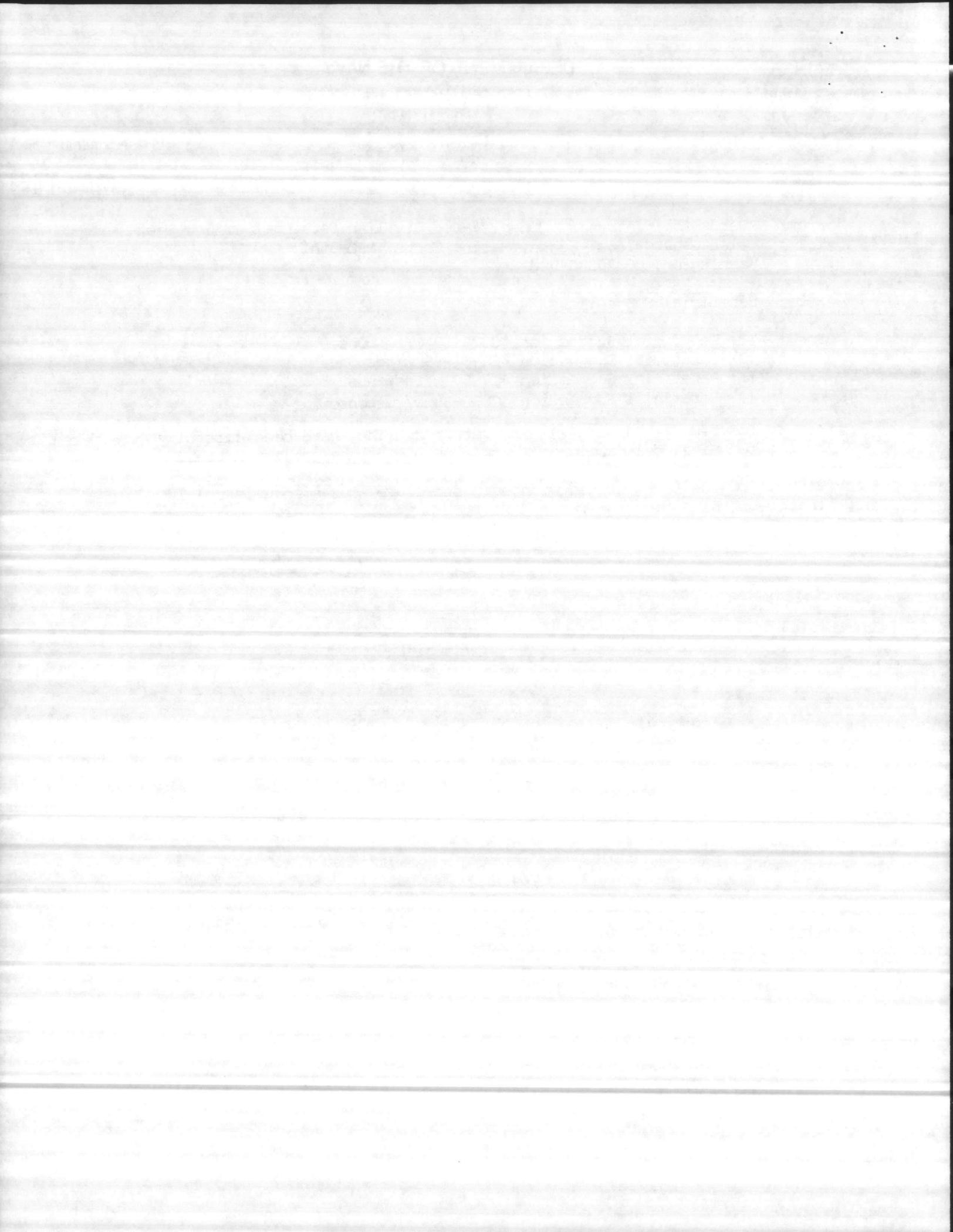
From: Awards Administrator, Consolidated Civilian Personnel Office-Wash.  
To: Belen G. Arquines, Hdqts, Marine Corps, MPC-35A,  
Washington, DC 20380-0001

Subj: Beneficial Suggestions

Encl: (1) Beneficial Suggestion #C028-89 w/response  
(2) Beneficial Suggestion #ES-01-89 w/response  
(3) Beneficial Suggestion #17-87 w/response  
(4) Beneficial Suggestion #C028-89 w/response

1. Enclosures (1) through (4) are returned. They have been carefully considered by the technical personnel most knowledgeable of the subject matter.
2. Due to the facts stated with each enclosure, our agency is unable to accept the suggestions.

  
Gerald A. Alexander



4000  
LPP-1

28 JUL 1989

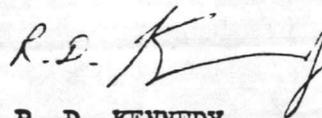
INSTALLATIONS AND LOGISTICS DEPARTMENT COMMENTS on MPC route  
sheet of 25 <sup>July</sup> ~~May~~ 88 89

Subj: BENEFICIAL SUGGESTION #17-87, COIL CLEANING

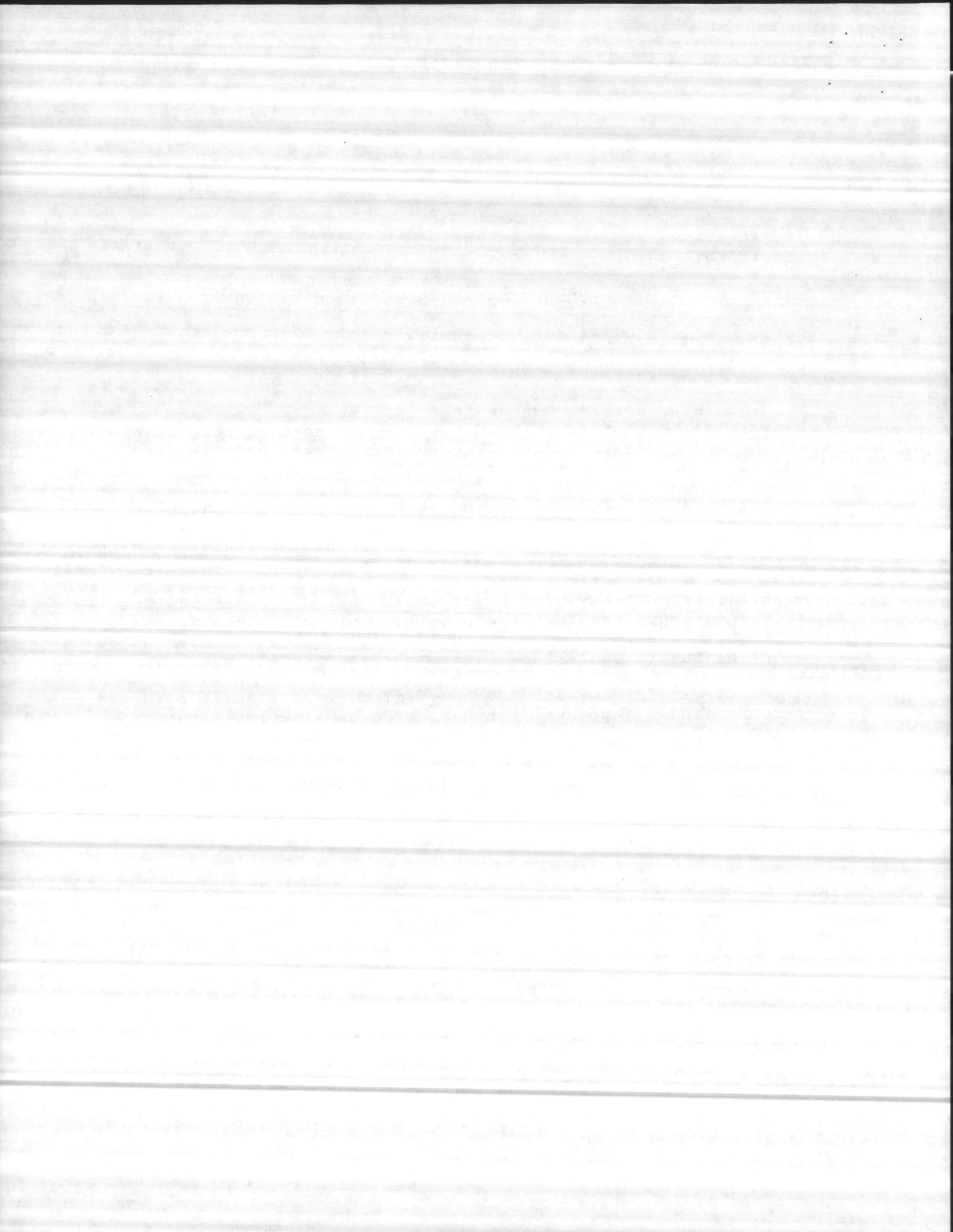
Ref: (a) I&L Department comments of 17 Nov 88

Encl: (1) Stewart-Hall Chemical Corp Product Data

1. The reference recommends that implementation of the beneficial suggestion be held in abeyance pending resolution of the hazardous waste issue. The reference further suggested that an independent evaluation be initiated at Camp Lejeune.
2. Although the results of the above independent evaluation is not available, evaluation of the enclosure confirms that the product produces a hazardous waste material. Evaluation of the cost associated with the handling of the hazardous waste material indicates it is not cost effective and does not produce the significant cost savings as originally noted. Additionally, the reference requested that the practice currently used at Camp Lejeune be discontinued, obviously this request has gone unheeded counting the resubmission of the subject suggestion.
3. Accordingly, the subject beneficial suggestion is returned, recommending disapproval for Marine Corps wide implementation.



R. D. KENNEDY  
By direction



**MATERIAL SAFETY DATA SHEET**

Stewart-Hall Chemical Corp.

222 Washington St., Mt. Vernon, NY 10553

Date Prepared: 1/31/89

**Section I**

MANUFACTURER'S NAME: Stewart-Hall Chemical Corp.  
ADDRESS: 222 Washington St., Mt. Vernon, NY 10553  
EMERGENCY PHONE #: 914-668-6300  
CHEMICAL NAME & SYNONYMS: Alkali cleaner  
TRADE NAME & SYNONYMS: RENEWZ  
CHEMICAL FAMILY: Caustics

**Section II HAZARDOUS INGREDIENTS**

	C.A.S.#	W/V	%
Sodium Hydroxide	1310-73-2	W	20%

Contains no other substances found on the "Hazardous Substance" List.

**Section III- PHYSICAL DATA**

BOILING POINT: (°F) 212+  
SPECIFIC GRAVITY: (Water=1) 1.25  
PERCENT VOLATILE BY VOLUME: 60%  
VAPOR PRESSURE: (mm Hg.) NA  
VAPOR DENSITY: (Air=1) NA  
EVAPORATION RATE: (water =1) 1  
SOLUBILITY IN WATER: 100%  
APPEARANCE AND ODOR: Yellow color. No distinct odor.

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

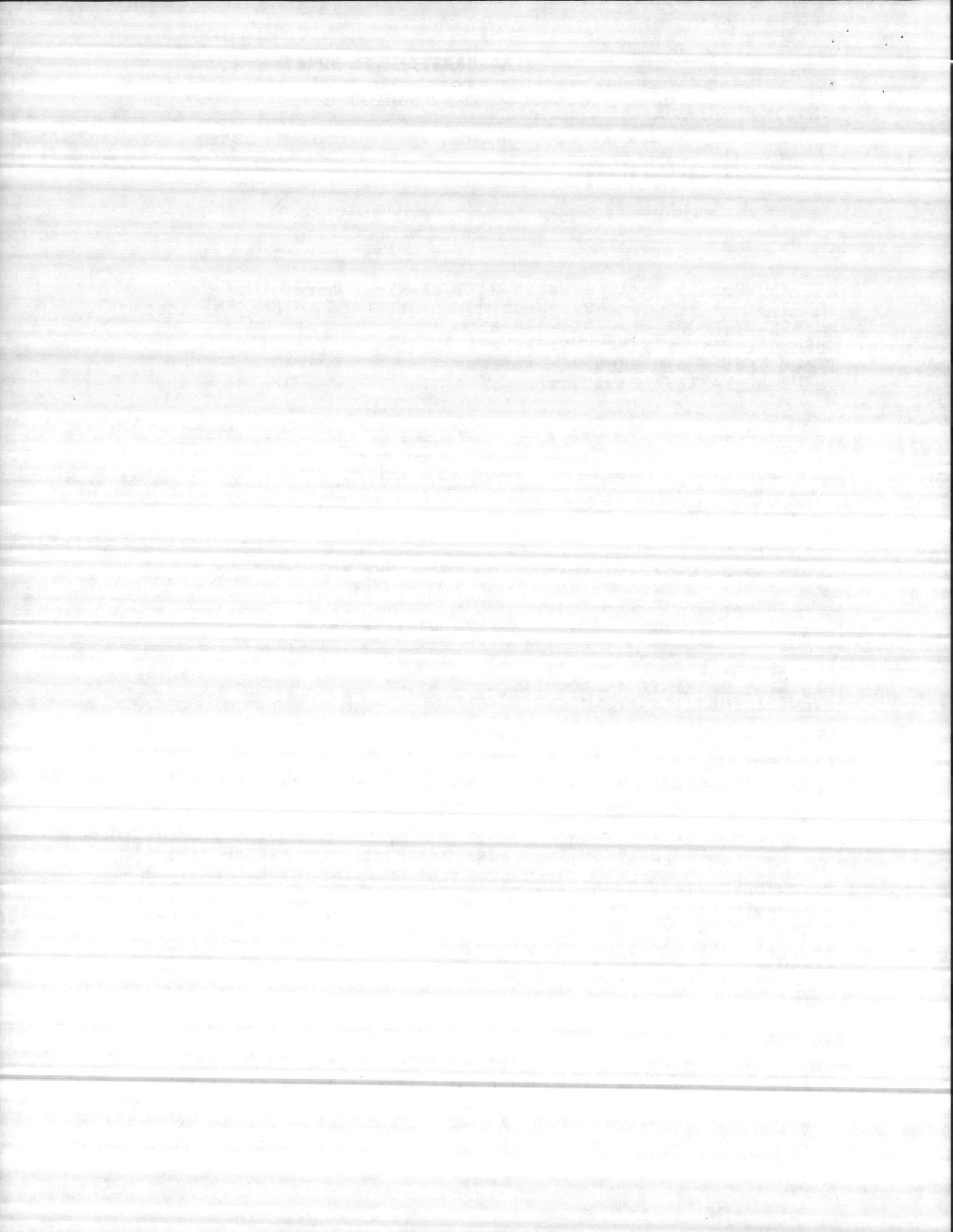
FLASH POINT (Method Used): Non-flammable  
FLAMMABLE LIMITS: NA  
EXTINGUISHING MEDIA: NA  
SPECIAL FIRE FIGHTING PROCEDURES: NA  
UNUSUAL FIRE & EXPLOSION HAZARDS: NA

*Egcho  
See Davis*

**SECTION V - HEALTH HAZARD DATA**

THRESHOLD LIMIT VALUE: 6mg/m3 - 8 hour exposure  
EFFECTS OF OVEREXPOSURE: NaOH is a strong alkali & is destructive of all human tissue it contacts, giving severe burns. Eye contact will produce severe or permanent injury. Inhalation of mist or spray can injure the entire respiratory tract.

ENCLOSURE (1)



**POSSIBLE ROUTES OF EXPOSURE:** Ingestion, inhalation, skin.

**EMERGENCY & FIRST AID PROCEDURES:**

**Eyes:** Wash eyes immediately with plenty of running water for 15 minutes, including under eyelids. SPEED IN BEGINNING THE EYEWASH IS ESSENTIAL if permanent injury is to be avoided. Consult a physician immediately.

**Skin:** Promptly wash exposed area with lots of water (dilute acetic acid or vinegar can be used to neutralize). Remove contaminated clothing UNDER THE SHOWER. Prolong washing in serious cases until doctor arrives. Get medical help for serious exposure.

**Inhalation:** Remove from exposure to mist & obtain prompt medical attention.

**Ingestion:** Immediately dilute by drinking water or milk & then neutralize with diluted vinegar or fruit juice. Contact physician promptly. DO NOT INDUCE VOMITING.

**SECTION V-a TOXICITY DATA**

**ORAL:**  $Ld_{50}$  - 500mg/kg as sodium hydroxide (Registry of Toxic Effects of Chemical Substances, 1980, NIOSH).

**DERMAL:** --

**SECTION VI - REACTIVITY DATA**

**STABILITY:** STABLE  UNSTABLE

**CONDITIONS TO AVOID:** NA

**INCOMPATIBILITY:** Acids, metals, explosives, organic peroxides.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Contact may release heat, hydrogen & poisonous gases.

**HAZARDOUS POLYMERIZATION:** MAY OCCUR  WILL NOT OCCUR

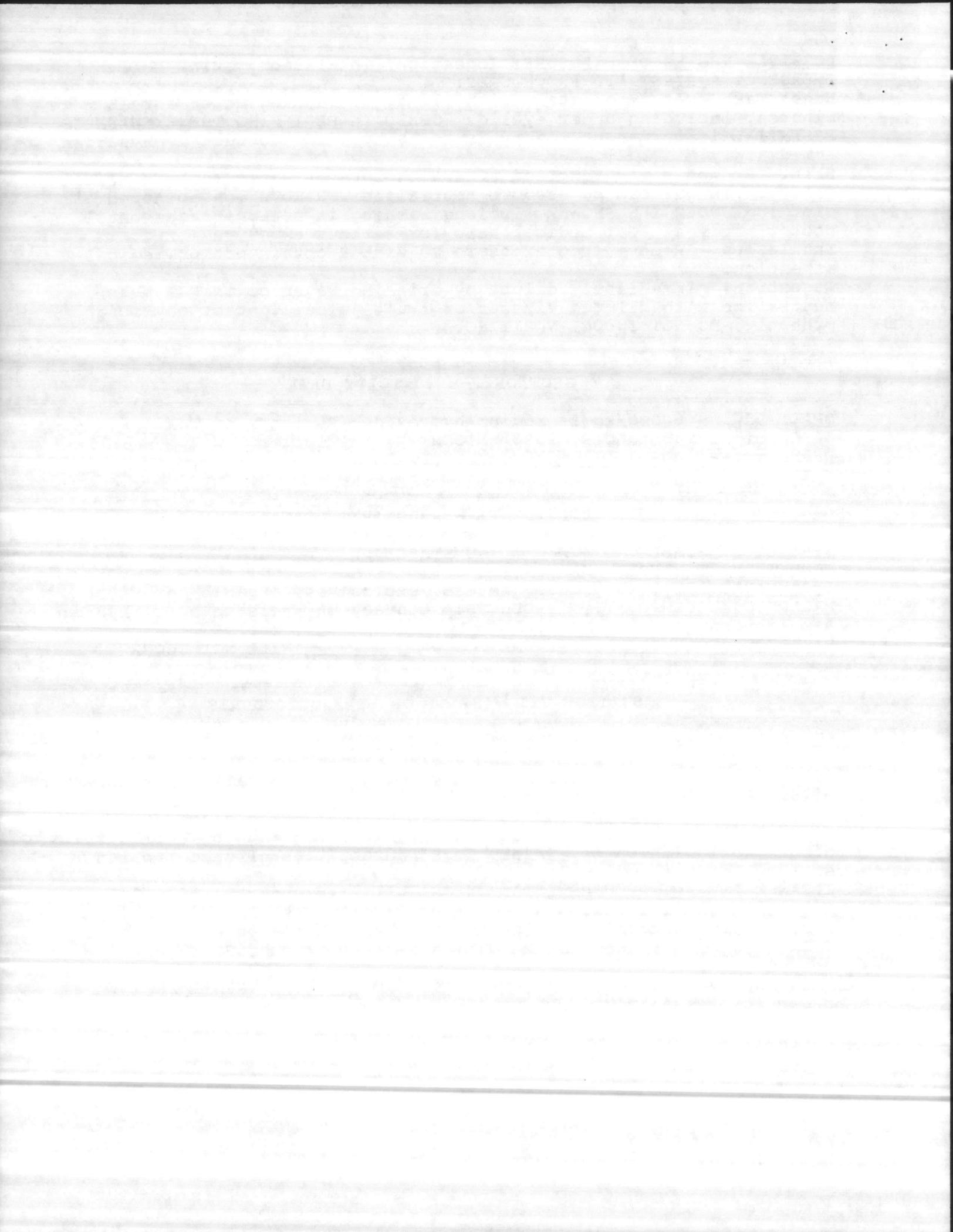
**SECTION VII - SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Contain in area. Pick up spill with vacuum equipment (alkali resistant) for disposal or flush to holding area with water. Neutralize residues with dilute acid & rinse with water.

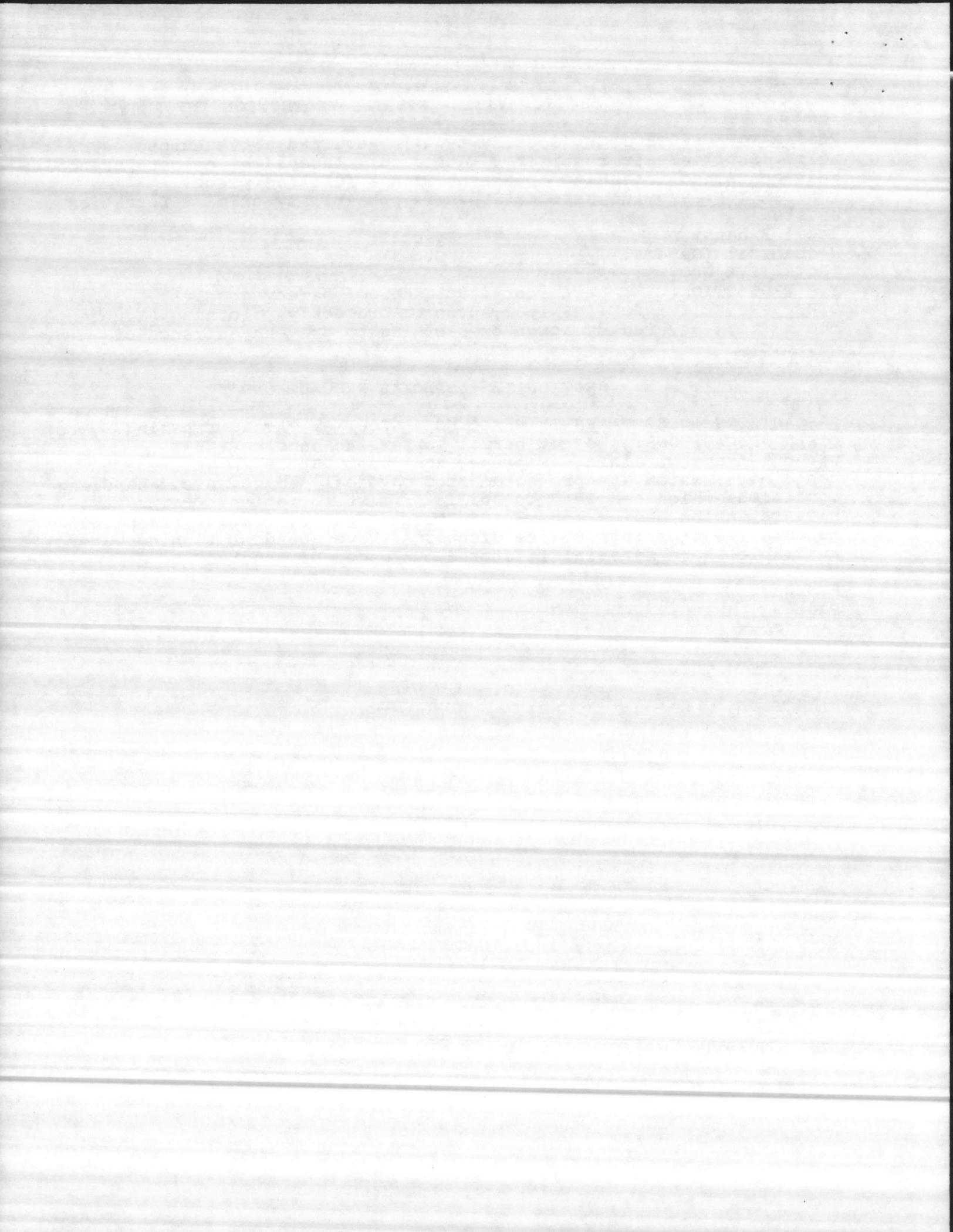
**WASTE DISPOSAL METHOD:** Waste caustic must NEVER be discharged directly to sewers or surface waters. First convert to neutral salts & dilute well with water. Inform legal authorities of uncontrolled spills.

**CLEAN WATER ACT REQUIREMENTS:** NaOH is listed under Section 311 as requiring the submission of a National Pollutant Discharge Elimination System (NPDES) permit application to EPA. Once a permit is issued, NaOH is exempted from the reporting requirements of S311 relating to spills.

**RESOURCE CONSERVATION & RECOVERY ACT (RCRA) REQUIREMENTS:** Defined under 40 CFR 261.22 as exhibiting the characteristic of corrosivity.







Hackett, Raymond L.  
Riley, Clyde E.

17-87, Coil Cleaning

ERB  
9  
DS

POSITION TITLE AND GRADE OR RANK/RATE

A/C Mechanic, WG-8  
A/C Mechanic, WG-8

ACTIVITY OF CONTRIBUTOR(S) (Name and location)

Marine Corps Base  
Camp Lejeune, NC 28542

ORGANIZATIONAL CODE AND TITLE

Base Maintenance Division, Shop 35

TO: Base Maintenance Officer

DATE FORWARDED  
Original- 11-24-86  
10-22-87

DUE DATE  
Original - 12-8-86  
11-5-87

A complete evaluation of this contribution is necessary and all questions that apply should be answered. Although you may not have authority to implement the contribution, you are requested to give your opinion on its value. Do not merely state that authority to adopt the contribution is under the cognizance of GSA, VA, Treasury, etc. YOUR REPLY MAY BE USED VERBATIM IN NOTIFYING THE CONTRIBUTOR(S) OF THE RESULTS.

SIGNATURE OF AWARDS ADMINISTRATOR

MARY K. TURPIN

ACTIVITY AND LOCATION  
CivPersDiv, MCB

Camp Lejeune, NC 28542

*Mary K. Turpin*

INVESTIGATION REPORT

- |   |     |    |
|---|-----|----|
| 1. WILL CONTRIBUTION BE ADOPTED LOCALLY? (If "NO" give reason for nonadoption in space 4 and answer questions 5 and 6 only) | YES | NO |
| 2. IS CONTRIBUTION IN OPERATION? (Complete items below)   | X   |    |

IF "YES" GIVE DATE INSTALLED Approximately Jan 87 IF "NO" INDICATE BELOW THE ACTION TAKEN TOWARD ADOPTION

- COMMITMENT TO ADOPT HAS BEEN MADE     PROJECT OR JOB ORDER HAS BEEN ISSUED     EXPERIMENTAL WORK OR TRIAL TEST IS UNDER WAY     APPROVAL HAS BEEN REQUESTED

3. ESTIMATE OF BENEFITS

A. INTANGIBLE BENEFITS

- VALUE     MODERATE     SUBSTANTIAL     HIGH     EXCEPTIONAL
- EXTENT OF APPLICATION     LIMITED     EXTENDED     BROAD     GENERAL

B. TANGIBLE BENEFITS (In table below compute labor savings at actual cost.)

ITEM	LABOR			MATERIAL			TOTAL (LABOR AND MATERIALS)
	Hours Per Year	Dollars Per Hour	TOTAL	Units Per	Cost Per Unit	TOTAL	
FORMER METHOD	1,000	\$15.71 <del>15.32</del>	\$15,710.00 <del>15,320.00</del>	250	\$ 28.83	\$ 7,207.50	\$ 22,917.50 <del>22,527.50</del>
NEW METHOD	250	15.71 <del>15.32</del>	3,927.50 <del>3,830.00</del>	250	4.21	1,052.50	4,980.00 <del>4,882.50</del>
SAVINGS			<u>11,782.50</u>			6,155.00	<u>17,937.50</u>

4. ADDITIONAL INFORMATION AND COMMENTS

Former method figures are based on 4 hours labor at \$15.32 p/h; liquid drier at \$16.03; Use of vehicle for 1 hr. at \$1.72; 1/2 gallon of Calgon coil cleaner at \$6.36; 4 lbs. of freon at \$4.72. The new method figures are based on 1/4 gallon of Renewz at \$2.49; 1 man-hour (WG-8) at \$15.32 and vehicle usage at \$1.72. These figures are based on one house. There are 250 houses in this project. \*Figure WG-8, Step 4, \$11.34 per hour plus ~~3.44~~ 38 labor acceleration rate. The suggesters figured two men at \$10.00 each for 4 hours; this should read 2 men at \$15.32 for 4 hours total. The suggestion has been in use since shortly after the suggesters made this suggestion. It has proven to be very effective and beneficial. Other shops within the Division are now using this product at a great savings to each shop. (See reverse side)

5. IS PATENT INVESTIGATION RECOMMENDED?

YES NO

SIGNATURE OF INVESTIGATOR

*Wade Bender*  
Wade Bender

DATE

10-26-87

6. IF CONTRIBUTION CAN BE USED ELSEWHERE, INDICATE WHERE:

Other DOD housing projects.

ACTIVITY AND LOCATION OF INVESTIGATOR

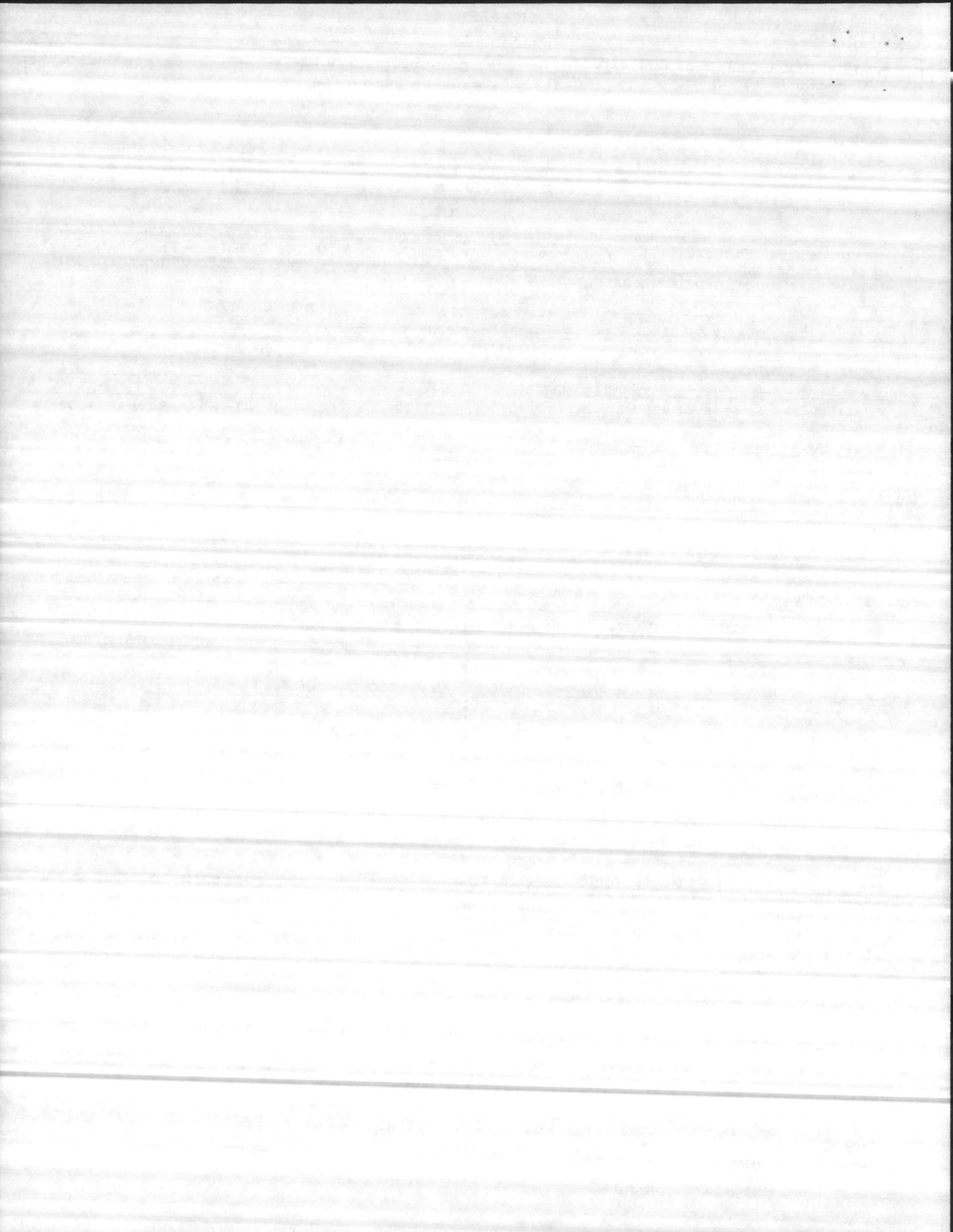
PP, Base Maintenance Division

APPROVING OFFICIAL

*MC Blanton*

DATE

15 DEC 87







UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542-5001

12451  
FAC  
NOV 09 1987

FIRST ENDORSEMENT on Employee Relations Spec ltr 12451 CPD dtd  
28 Oct 87

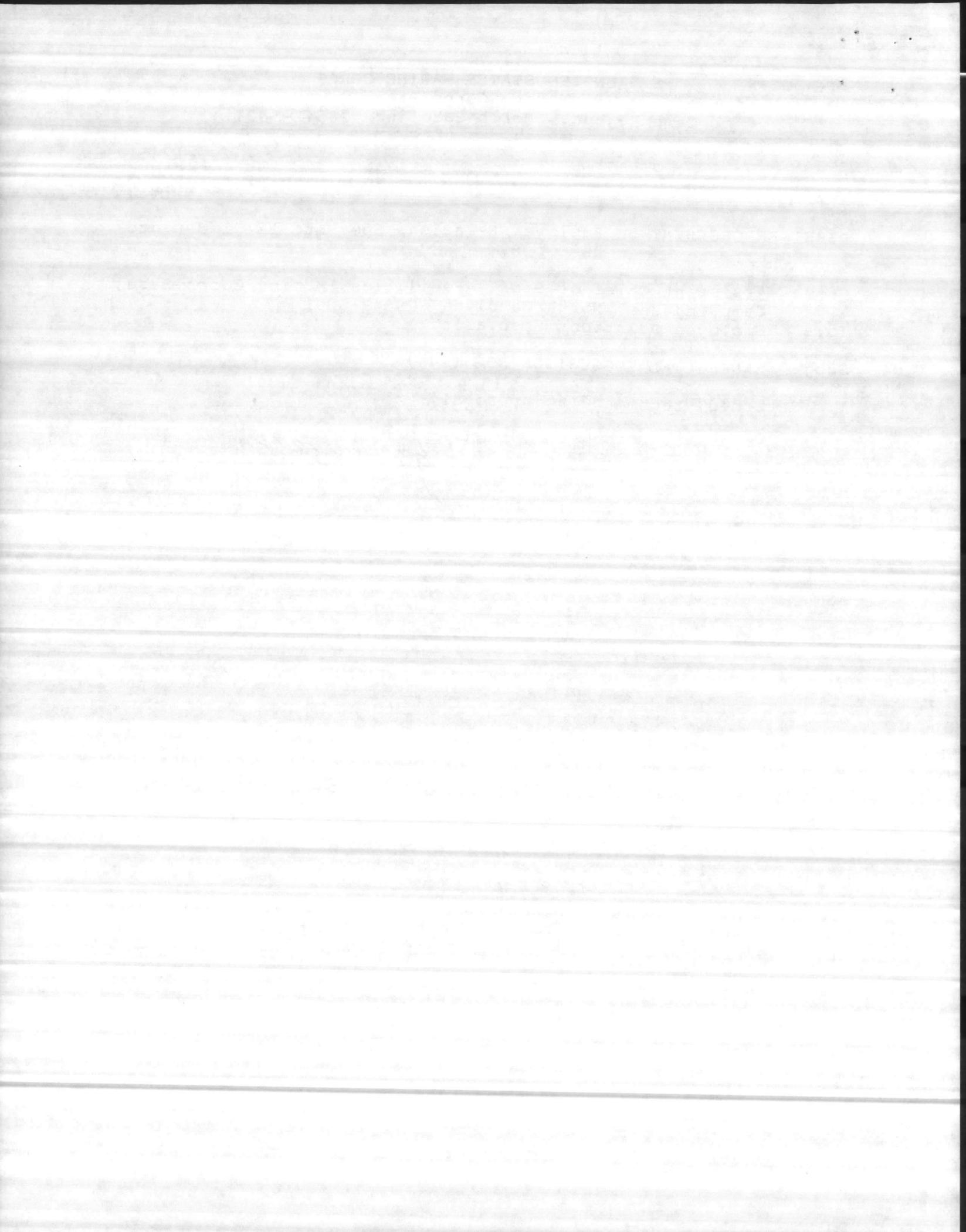
From: Assistant Chief of Staff, Facilities, Marine Corps Base,  
Camp Lejeune, North Carolina 28542-5001  
To: Employee Relations Specialist

Subj: BENEFICIAL SUGGESTION NO. 17-87

1. Returned, recommending approval.

  
T. J. DALZELL

NOV 24 1987





**UNITED STATES MARINE CORPS**  
**BASE MAINTENANCE DIVISION**  
**MARINE CORPS BASE**  
**CAMP LEJEUNE, NORTH CAROLINA 28542-6000**

IN REPLY REFER TO:

12451  
MAIN

26 OCT 1987

FIRST ENDORSEMENT ON BENEFICIAL SUGGESTION 17-87 dated 22 OCT 87

From: Base Maintenance Officer, Marine Corps Base, Camp Lejeune  
To: Employee Relations Specialist, Marine Corps Base, Camp  
Lejeune

Subj: BENEFICIAL SUGGESTION NO. 17-87

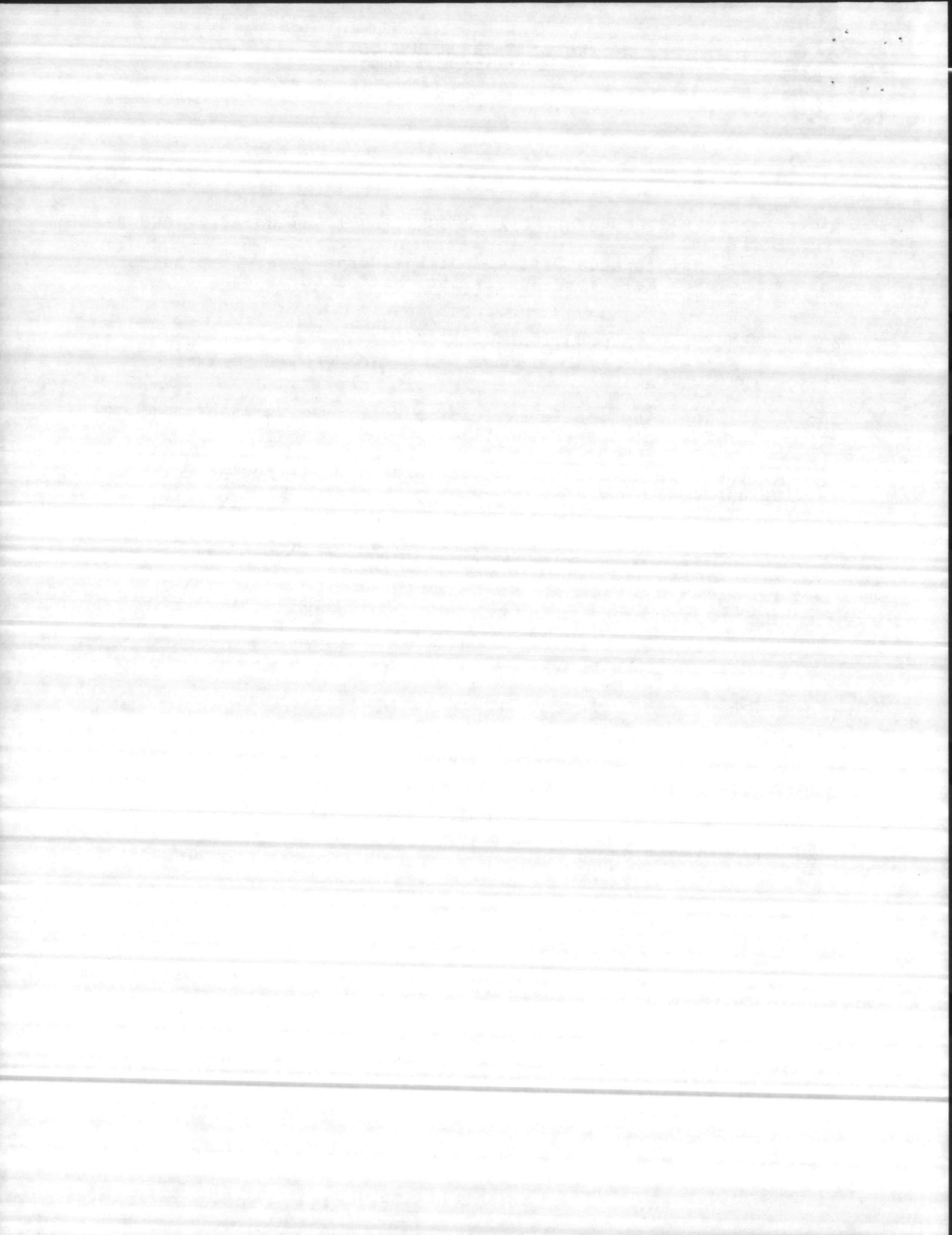
Ref: (a) BO 12451.2

Encl: (1) Contribution Investigation Report, NAVSO 5305/5 (1-78)  
(2) Subject suggestion file

1. Per the reference, the subject suggestion is forwarded, recommending approval.

A handwritten signature in black ink, appearing to read "M. G. Lilley".

M. G. LILLEY





UNITED STATES MARINE CORPS  
BASE MAINTENANCE DIVISION  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542-5000

IN REPLY REFER TO:

12451  
MAIN

11 2 1987

From: Base Maintenance Officer, Marine Corps Base, Camp Lejeune  
To: Employee Relations Specialist, Marine Corps Base, Camp  
Lejeune

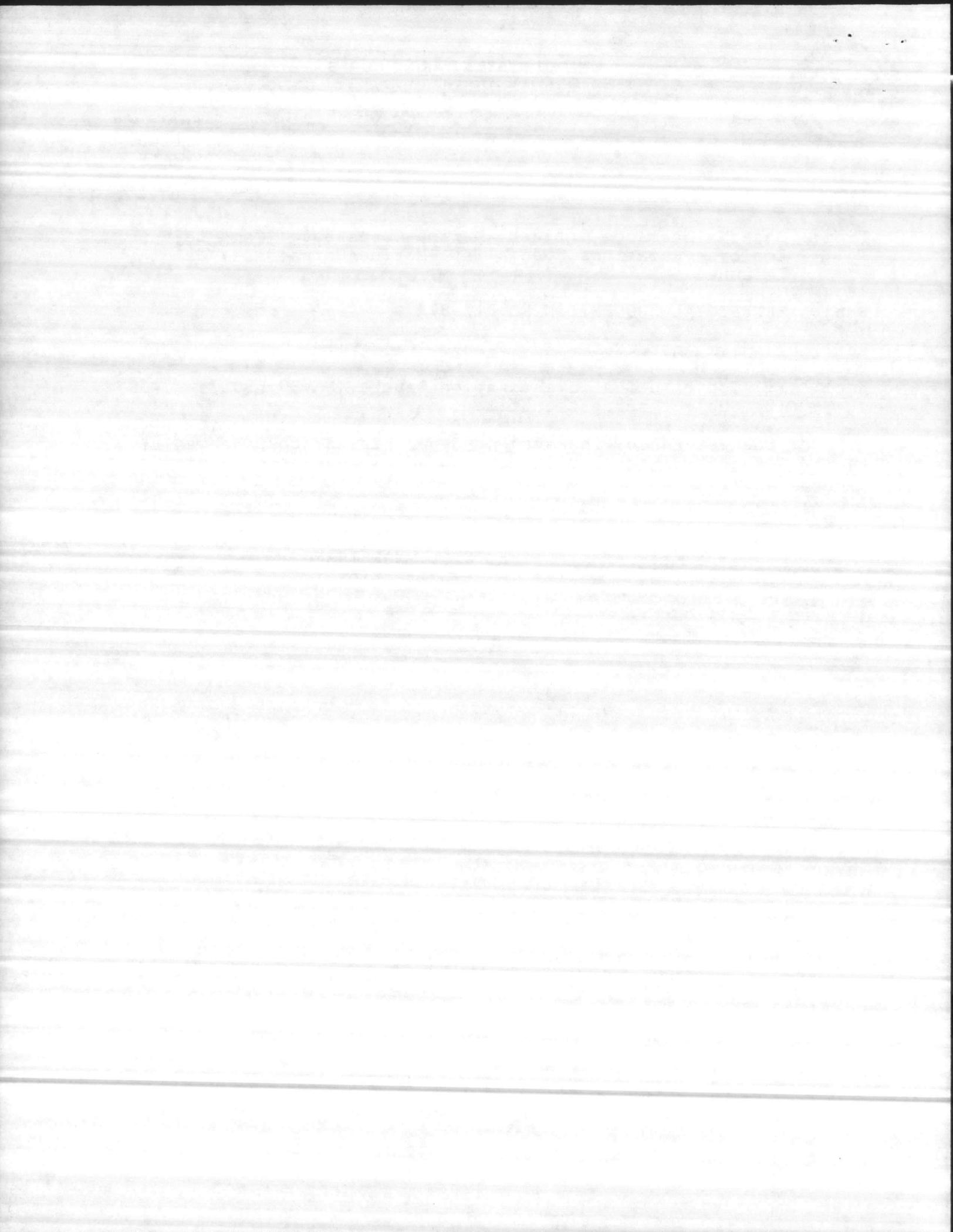
Subj: BENEFICIAL SUGGESTION NO. 17-87

Ref: (a) FPM Inst. 265, dtd 14 Aug. 1981

Encl: (1) Contribution Investigation Report, NAVSO 5305/5 (1-78)  
(2) Subject suggestion file

1. Per the reference, the subject Beneficial Suggestion was reviewed and it was determined that it does not fall under the purview of job responsibility.

*S. L. Marsicano*  
S. L. MARSICANO  
By direction



**BRIGHTENS AND CLEANS  
CONDENSER COILS**

**STRIPS AWAY DIRT, OXIDES AND  
COOKING GREASE.**



# RENEWZ

**Non-Acid, Foaming  
Renewer  
of Condenser Coils**

**CONTENT**

**1 U.S. G**

**(3.79 liter)**

**05230**

Manufactured By

**STEWART HALL**

**CHEMICAL CORPORATION**

**MOUNT VERNON, NEW YORK 10557**

**RENEWZ** leaves aluminum surfaces not only bright and shiny, but completely clean and insulation free in less than five minutes.

**RENEWZ'** penetrating, surfactant-aided, foaming action lifts and pushes insulating contaminants and oxides off the coils. This includes difficult to remove cooking greases found thickly coating coils in or near restaurants. **RENEWZ** penetrates the grease, solubilizes and disperses it. The foaming action then floats all loosened material out of normally inaccessible areas to where they can easily be rinsed away with low pressure water.

Cleaning dirty coils with **RENEWZ** reduces the head pressure on overheated compressors, avoids premature equipment breakdown, increases equipment efficiency and decreases power consumption and costs. The need for high pressure washers which can bend fins and wedge contaminants into the deep recesses of the coil, is eliminated. **RENEWZ** is also the perfect answer for cleaning electronic air filters, thus avoiding possible damage from high pressure steam cleaning.

### **— DIRECTIONS —**

**READ ALL DIRECTIONS AND WARNINGS ON LABEL BEFORE USING.**

1. Dilute **RENEWZ** with cold water only (below 100°F)

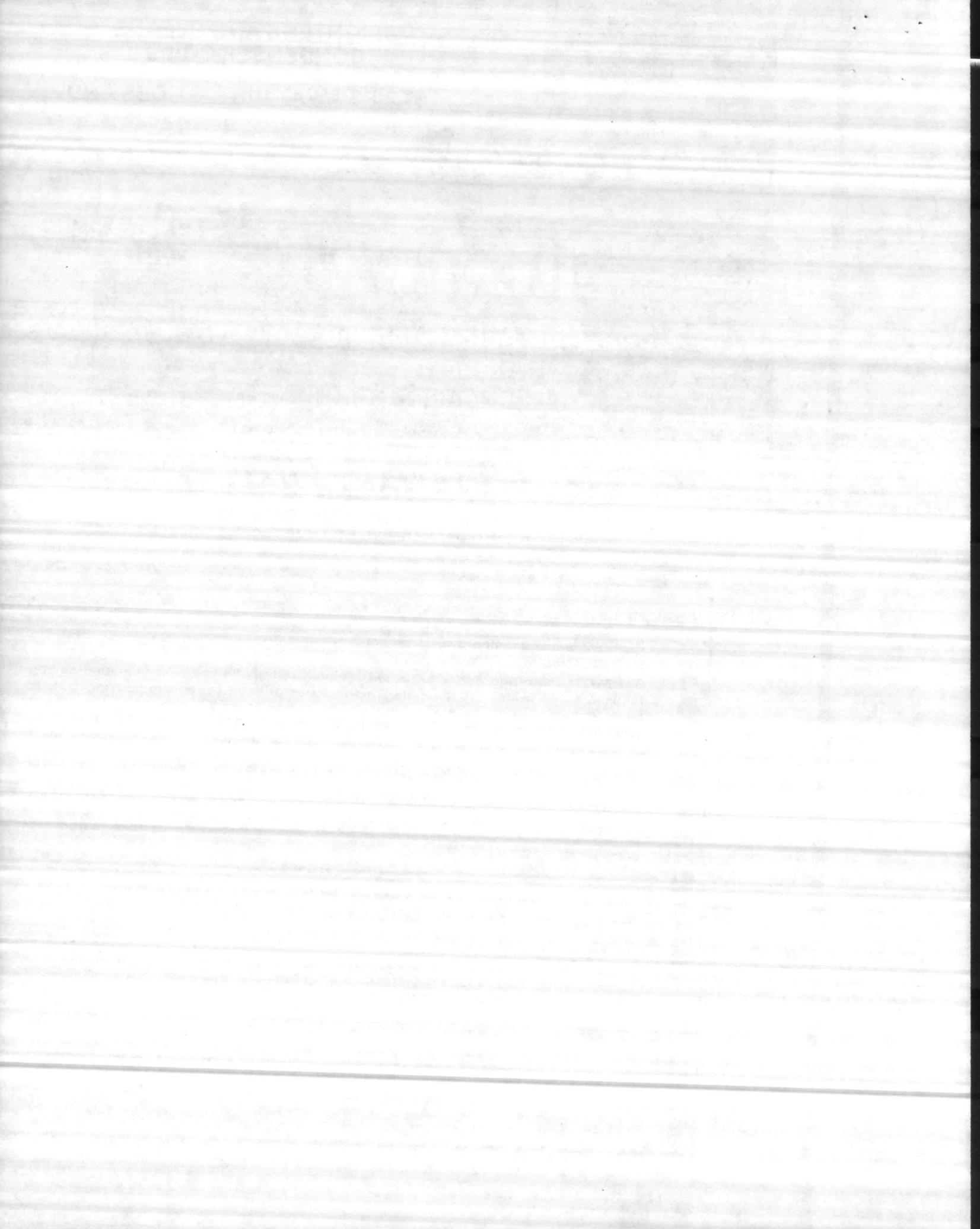
#### **APPLICATION**

Brightening and removal of heavy dirt and grease  
Some brightening and removal of light to medium dirt and oxides  
No brightening and removal of light dirt only

#### **DILUTE 1 PART RENEWZ WITH**

3 parts water  
6 parts water  
9 parts water

2. Avoid backspray from wind. Do not use in high pressure washers.
3. Shut off system.
4. Spray the diluted **RENEWZ** on to all surfaces, saturating the coils well. Use a low pressure sprayer that does not contain aluminum, or a Stewart-Hall Penetrator Sprayer Kit.
5. Allow 5 minutes for full cleaning action - but never more than 8 minutes.
6. Rinse coil very thoroughly with low pressure water.
7. For cooking grease applications: allow 8 minutes before rinsing. Repeat if necessary



# RENEWZ

## POISON!

Causes severe burns. Contains Sodium Hydroxide. (Caustic Soda). Do not get in eyes, on skin, on mucous membrane or clothing. Do not breathe vapors. Open container only to pour, then close at once. Wear eye goggles or full face shield, rubber gloves and protective clothing. Wash thoroughly after handling. Use only in well ventilated areas so as to maintain safe air levels as determined by established regulations.

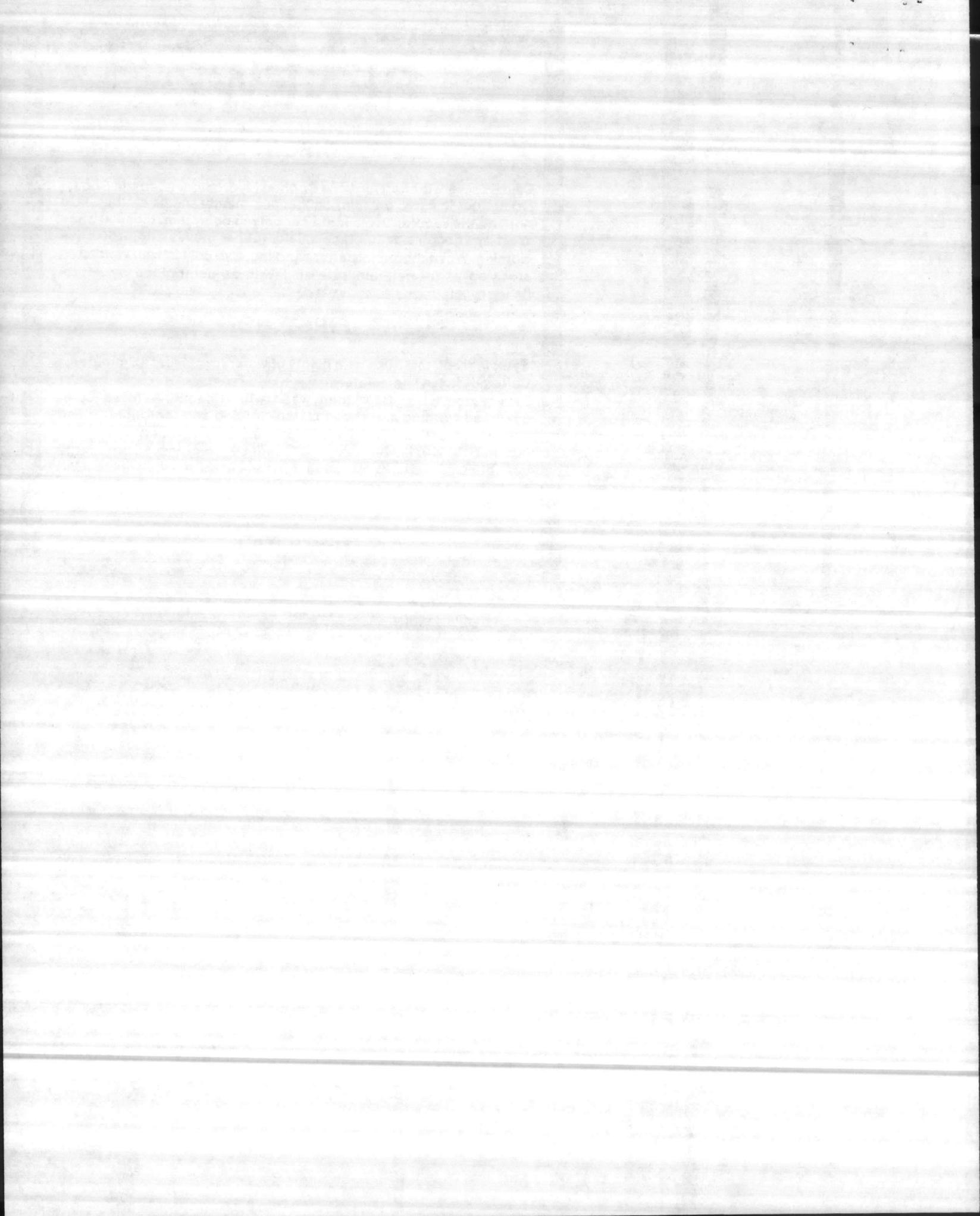
## FIRST AID

**Eyes:** Immediately flush with plenty of water for at least 15 minutes. Call a physician immediately.

**Skin:** Flood with water then wash with vinegar. Remove contaminated clothing and shoes. Wash clothing and thoroughly clean shoes before reuse. Call a physician if any irritation persists.

**Internal:** If swallowed, do NOT induce vomiting. Drink large quantities of water. If available, follow with citrus fruit juice. Call a physician immediately. Give nothing by mouth if person is unconscious.

Made in U.S.A.



CONTRIBUTER(S) (Name: Last, first, M.I.)

**HACKETT, Raymond L.  
RILEY, Clyde E.**

CONTRIBUTION (Number and title)  
**17-87, Coil Cleaning**

75000

DATE RECEIVED

11-20-86

17-87

POSITION TITLE, AND GRADE OR RANK/RATE

**A/C Mech, WG-8  
A/C Mech, WG-8**

ACTIVITY OF CONTRIBUTOR(S) (Name and location)

**Marine Corps Base, Camp Lejeune, NC 28542**

ORGANIZATIONAL CODE AND TITLE

**Base Maintenance, Shop 35**

TO:

DATE FORWARDED

11-24-86

DUE DATE

12-8-86

Base Maintenance Officer

A complete evaluation of this contribution is necessary and all questions that apply should be answered. Although you may not have authority to implement the contribution, you are requested to give your opinion on its value. Do not merely state that authority to adopt the contribution is under the cognizance of GSA, VA, Treasury, etc. YOUR REPLY MAY BE USED VERBATIM IN NOTIFYING THE CONTRIBUTOR(S) OF THE RESULTS.

SIGNATURE OF AWARDS ADMINISTRATOR

*Donald L. Smythe*  
DONALD L. SMYTHE

ACTIVITY AND LOCATION  
Civilian Personnel Division, MCB,  
Camp Lejeune, North Carolina 28542

INVESTIGATION REPORT

1. WILL CONTRIBUTION BE ADOPTED LOCALLY? (If "NO" give reason for nonadoption in space 4 and answer questions 5 and 6 only) YES  NO

2. IS CONTRIBUTION IN OPERATION? (Complete items below) YES  NO

IF "YES" GIVE DATE INSTALLED Approximately Jan 87 IF "NO" INDICATE BELOW THE ACTION TAKEN TOWARD ADOPTION

COMMITMENT TO ADOPT HAS BEEN MADE  PROJECT OR JOB ORDER HAS BEEN ISSUED  EXPERIMENTAL WORK OR TRIAL TEST IS UNDER WAY  APPROVAL HAS BEEN REQUESTED

3. ESTIMATE OF BENEFITS

A. INTANGIBLE BENEFITS

VALUE

MODERATE  SUBSTANTIAL  HIGH  EXCEPTIONAL

EXTENT OF APPLICATION

LIMITED  EXTENDED  BROAD  GENERAL

B. TANGIBLE BENEFITS (In table below compute labor savings at actual cost.)

ITEM	LABOR			MATERIAL			TOTAL (LABOR AND MATERIALS)
	Hours Per Unit	Dollars Per Hour	TOTAL	Units Per Year	Cost Per Unit	TOTAL	
FORMER METHOD	4	\$ 15.52	\$ 62.08	250	\$ 28.83	\$7,207.50	\$ 7,269.58
NEW METHOD	1	15.52	15.52	250	4.21	1,052.50	1,068.02
SAVINGS			46.56			6,155.00	6,201.56

4. ADDITIONAL INFORMATION AND COMMENTS

Former method figures are based on 4 hours labor at \$15.52 p/h; 1 liquid drier at \$16.03; Use of vehicle for 1 hr. at \$1.72; 1/2 gallon of Calgon coil cleaner at \$6.36; 4 lbs. of freon at \$4.72. The new method figures are based on 1/4 gallon of Renewz at \$2.49; 1 man-hour (WG-8) at \$15.52 and vehicle usage at \$1.72. These figures are based on one house; there are 250 houses in this project.

The suggestor figured two men at \$10.00 each for 4 hours; this should read 2 men at \$15.52 for 4 hours total.

The suggestion has been in use since shortly after the suggestor made this suggestion. It has proven to be very effective and beneficial. Other shops within the Division are now using this product at a great savings to each shop.

(If more space is needed, use reverse side starting with this end of the page up. ↴)

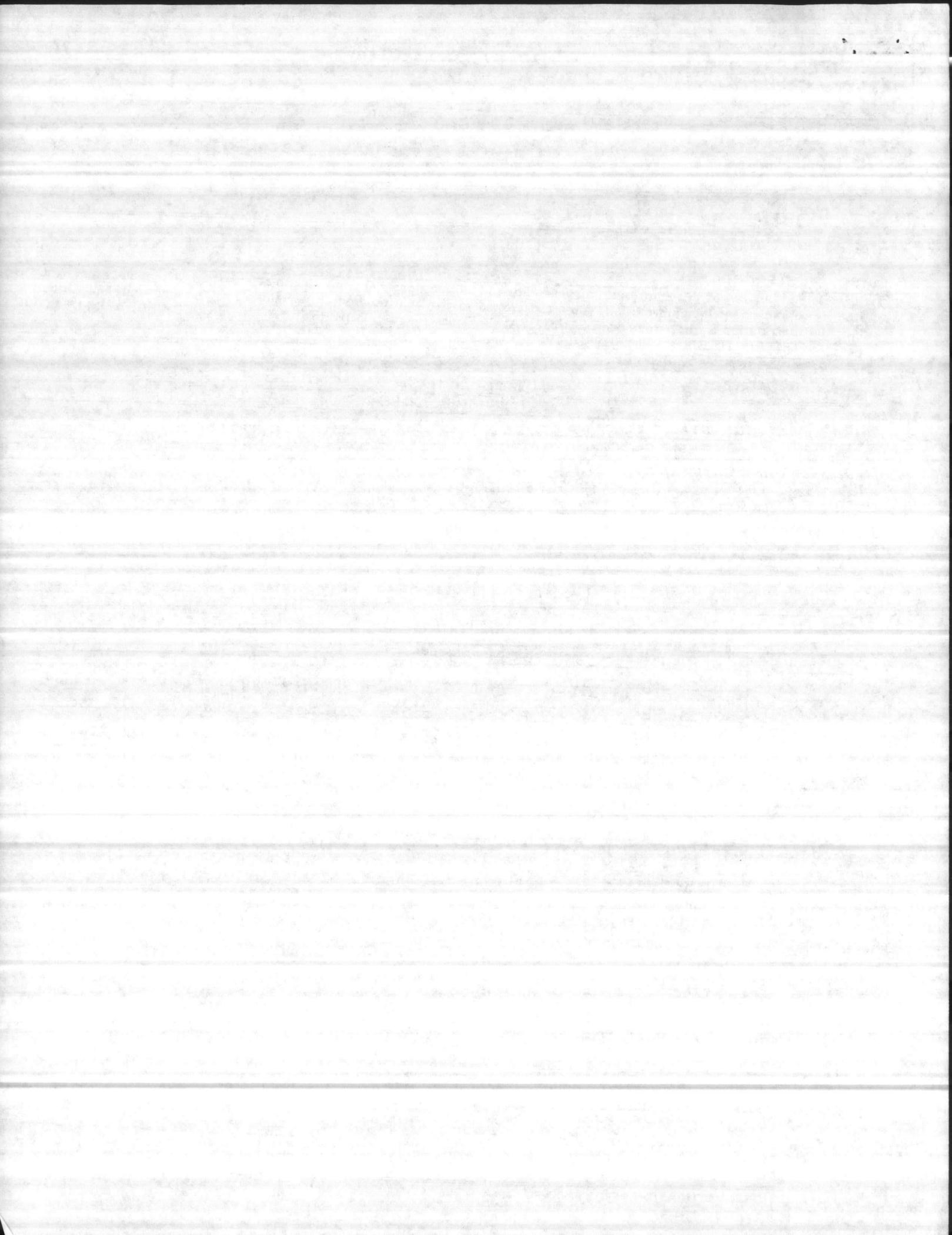
5. IS PATENT INVESTIGATION RECOMMENDED? YES  NO

6. IF CONTRIBUTION CAN BE USED ELSEWHERE, INDICATE WHERE:  
Other DOD housing projects.

SIGNATURE OF INVESTIGATOR: *Wade Bender* DATE: 9-14-87

ACTIVITY AND LOCATION OF INVESTIGATOR: PP, Base Maintenance Division

APPROVING OFFICIAL: \_\_\_\_\_ DATE: \_\_\_\_\_



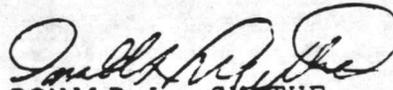


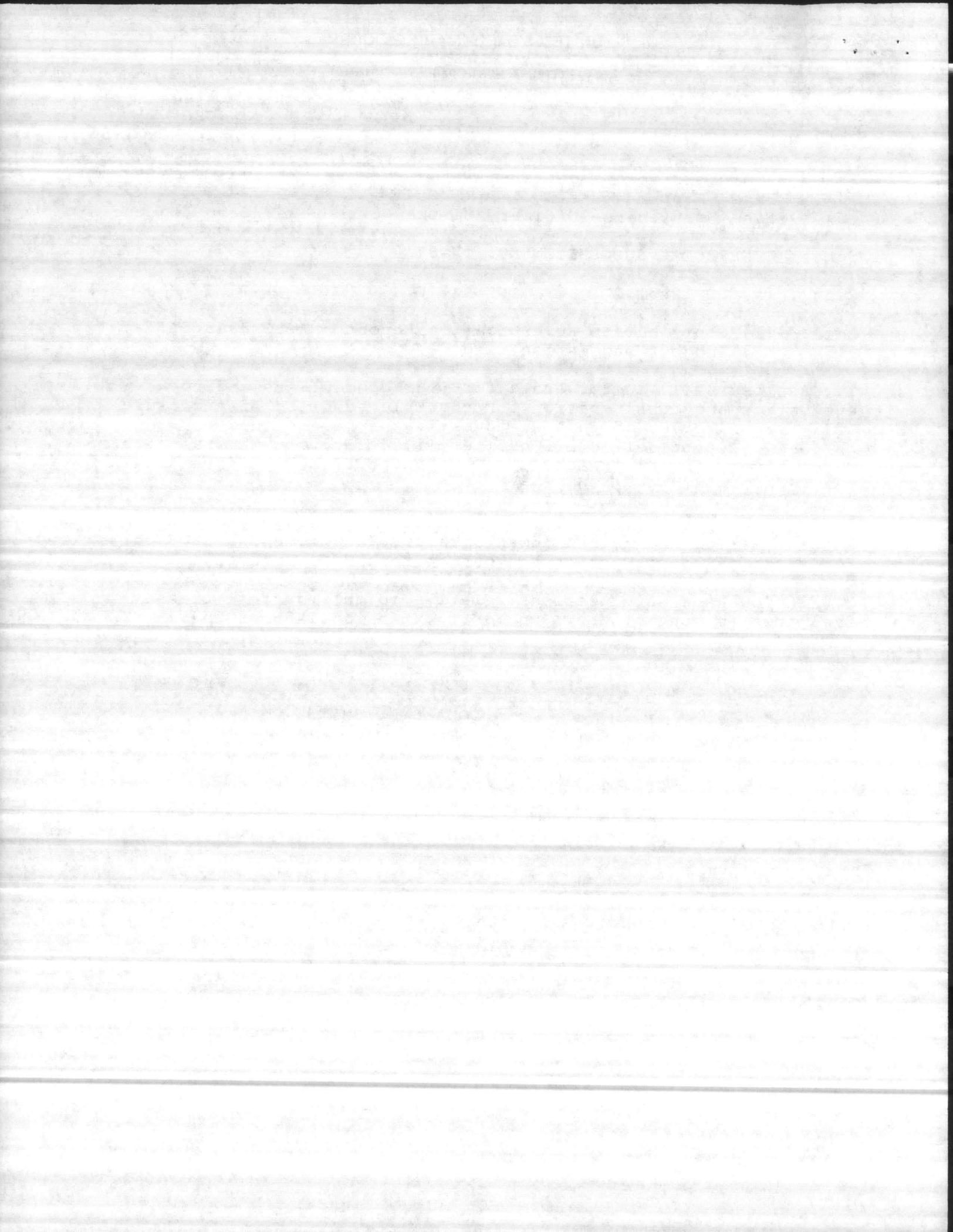
UNITED STATES MARINE CORPS  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542-5001

IN REPLY REFER TO:  
12451  
CPD  
24 Nov 1986

From: Administrator, Incentive Awards Program, Marine Corps  
Base, Camp Lejeune  
To: Base Maintenance Officer, Marine Corps Base, Camp Lejeune  
Subj: BENEFICIAL SUGGESTION NO. 17-87  
Ref: (a) BO 12451.2  
Encl: (1) Contribution Investigation Report, NAVSO 5305/5 (1-78)  
(2) Subject suggestion file

1. Enclosure (1) is forwarded for your comments regarding evaluation and consideration for possible adoption of enclosure (2). It is requested that an investigator be assigned for this purpose. Appropriate staff offices (i.e., Provost Marshal, Staff Judge Advocate, Base Safety) may be contacted by the investigator for input relative to their area.
2. Upon completion of the investigation, the suggestion file should be returned to the Administrator, Incentive Awards Program for technical review prior to your approval/disapproval.
3. If you have any questions relative to this matter, please feel free to contact Mrs. Arnold at extension 1458 or 1579.

  
DONALD L. SMYTHE



NAME OF SUGGESTER(S) HACKETT RAYMOND <sup>EE</sup> RILEY CLYDE EDWIN		AC MECH WG 8 AC MECH WG-8	148-30-4655 301300168
ORGANIZATION (Specify activity, ship, command, bureau or office) MCB CLNC	ORGANIZATION SUBDIVISION (Dept., Div., Sect., Unit or Shop) BASE MAINTS SHOP #35	PHONE 451-2781	

I (WE) UNDERSTAND that the acceptance of a cash award for the use of this suggestion by the United States Government shall not form the basis of a further claim of any nature upon the United States by me (us), my (our) heirs, or assigns.

DO NOT WRITE IN THIS SPACE
DATE RECEIVED 11-20-86
SUGGESTION NUMBER 17-87

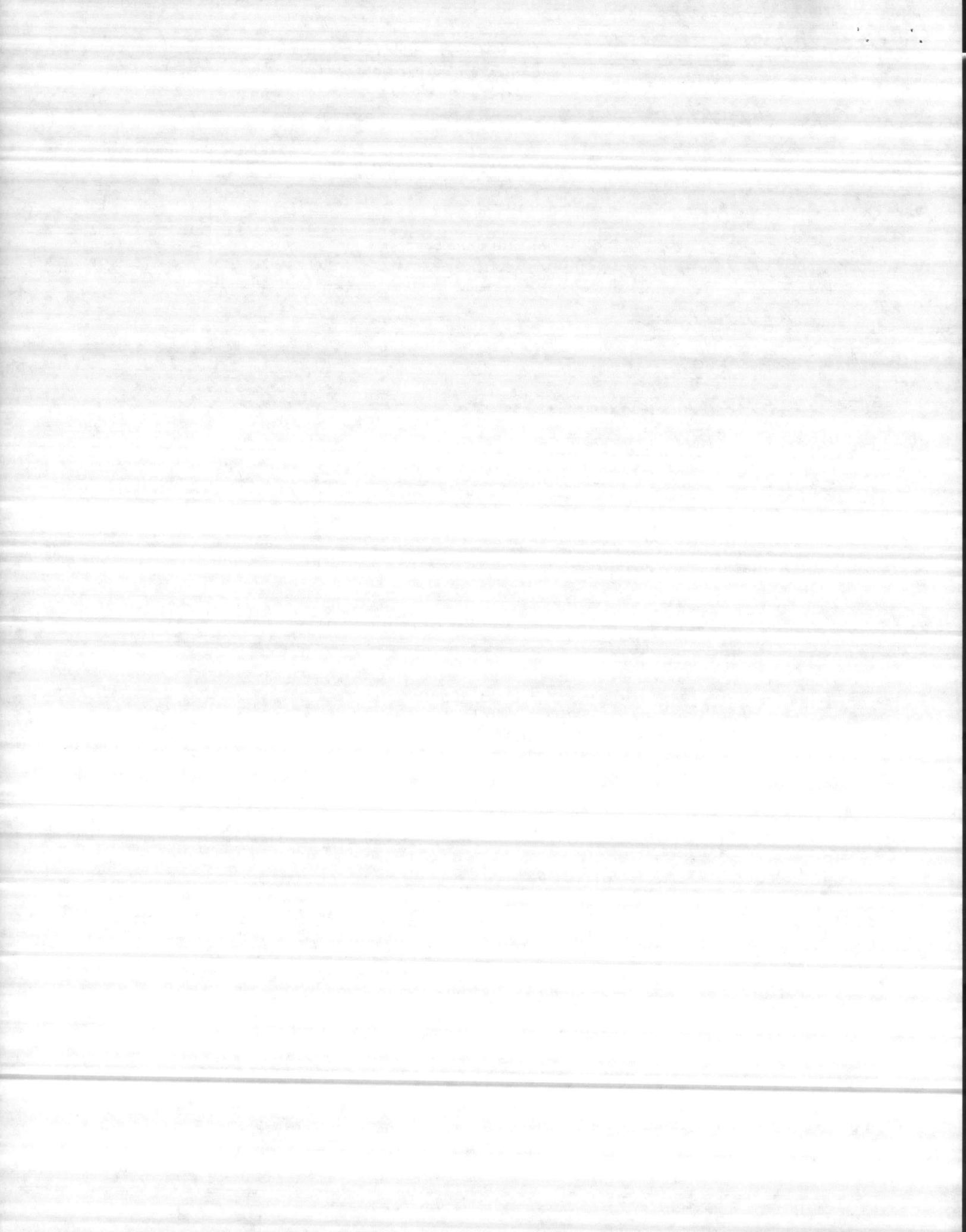
SIGNATURE AND DATE Raymond L. Hackett 11-18-86	SIGNATURE AND DATE Clyde E Riley 11/18/86
---	--

TITLE OF SUGGESTION  
COIL CLEANING

Describe in three separate paragraphs (1) the problem, difficulty, or circumstances that prompted you to submit this suggestion; (2) the suggested change; (3) where and how it can be used, what it will accomplish, and how it will benefit the Navy Government - in terms of tangible savings, if possible.

SEE ATTACH ENCLOSURE.

Note - If you need more space, continue on separate sheet.



## COIL CLEANING

In order for heat pumps to function properly, adequate air flow through the coils is essential. The coils in these units, over a period of time, become excessively corroded, therefore, virtually impossible to clean thoroughly.

Eroded coils cause the following problems: 1) high head pressure on the compressors, 2) the compressors and inside blower motors deteriorate or do not function, and 3) heavy electric usage for both the compressors and the blower motors. Tenants are dissatisfied with the results of heat pumps during both the air conditioning season and heating season because of inefficiency. In addition, there are constant call backs on the service calls already performed.

The following steps are now being used in cleaning a coil:

a. First, pump down the unit or lose approximately 4 pounds of freon charge;

b. Next, unsweat silver solder joint at air handler and take out the coil;

c. Bring the coil back to the shop, thoroughly brush the coil, soak it in Calgon soap, and then thoroughly rinse with a water hose on both sides. This process must be accomplished normally three (3) times for adequate cleansing results.

d. After the coil has been cleaned, return to the house and place the coil back in the heat pump, resolder joint, and place freon back into the unit.

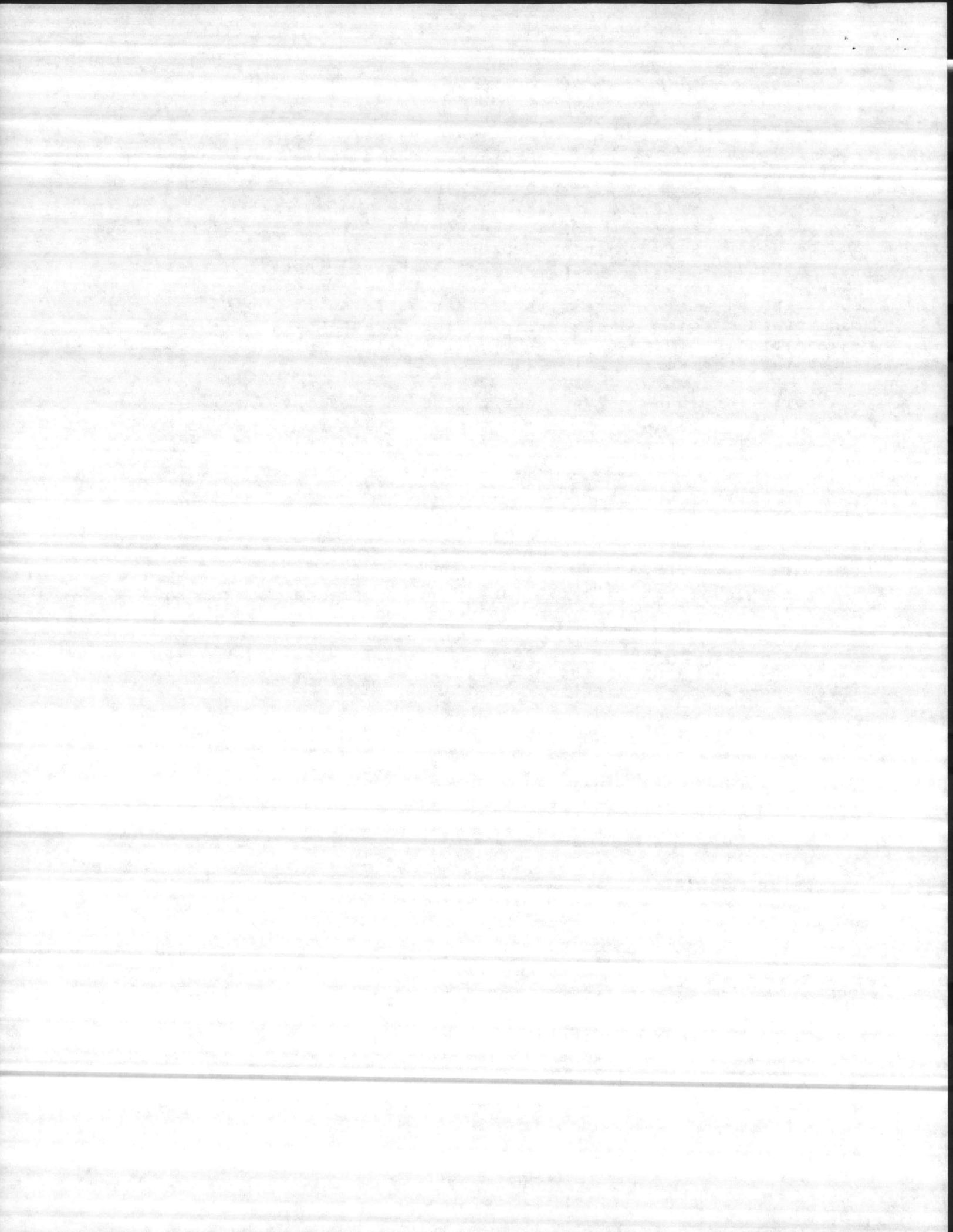
e. Last, change the Liquid Drier and vaccum the pump system three (3) times.

The above steps are completed by using 2 men, 4 man-hours each, and a truck. The following breakdown is made to easily depict how much money and time is involved in pulling one coil.

2 men - \$10.00 each man per hour for 4 hours..	\$ 80.00
Liquid Drier.....	17.00
Truck - \$10.00 per hour for 4 hours.....	<u>40.00</u>
Cost per coil.....	\$137.00

THE ANSWER TO SAVING IN THE ABOVE PROCESS IS TO USE RENEWZ

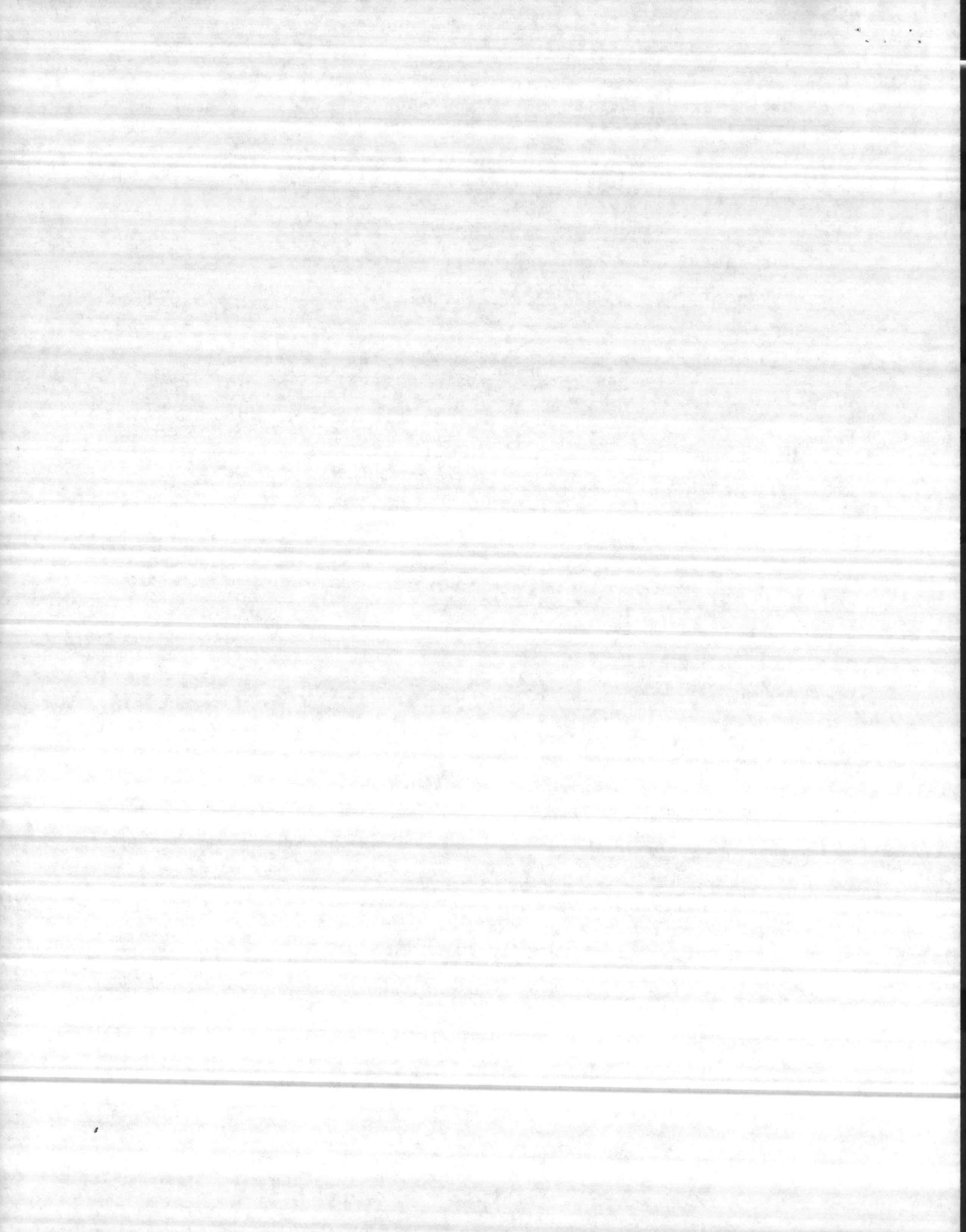
Renewz is a one step process which, when poured onto the coil, swells like a sponge agitating the element removing all eroded matter. In addition, Renewz can be used on all refrigeration coils located throughout the Base.



The following breakdown indicates how much money can be saved by using Renewz:

Cost per pulling and cleaning coil.....	\$137.00
Watkins Village (250 Units).....	<u>x 250</u>
	\$34,250.00
Minus cost for Labor and Renewz.....	<u>- 4,875.00</u>
<b>SAVINGS.....</b>	<b>\$29,375.00</b>

It is requested that a demonstration with the Inspector be granted to prove this new method and the substantial savings thereof.



**BRIGHTENS AND CLEANS  
CONDENSER COILS**

**STRIPS AWAY DIRT, OXIDES AND  
COOKING GREASE.**



# RENEWZ

**Non-Acid, Foaming  
Renewer  
of Condenser Coils**

**CONTENTS:  
1 U.S. Gal.  
(3.79 liters)**

**0523G**

Manufactured By

**STEWART HALL**

**CHEMICAL CORPORATION  
MOUNT VERNON, NEW YORK 10557**

RENEWZ leaves aluminum surfaces not only bright and shiny, but completely clean and insulation free in less than five minutes.

RENEWZ' penetrating, surfactant-aided, foaming action lifts and pushes insulating contaminants and oxides off the coils. This includes difficult to remove cooking greases found thickly coating coils in or near restaurants. RENEWZ penetrates the grease, solubilizes and disperses it. The foaming action then floats all loosened material out of normally inaccessible areas to where they can easily be rinsed away with low pressure water.

Cleaning dirty coils with RENEWZ reduces the head pressure on overheated compressors, avoids premature equipment breakdown, increases equipment efficiency and decreases power consumption and costs. The need for high pressure washers which can bend fins and wedge contaminants into the deep recesses of the coil, is eliminated. RENEWZ is also the perfect answer for cleaning electronic air filters, thus avoiding possible damage from high pressure steam cleaning.

### —DIRECTIONS—

**READ ALL DIRECTIONS AND WARNINGS ON LABEL BEFORE USING.**

1. Dilute RENEWZ with cold water only (below 100°F)

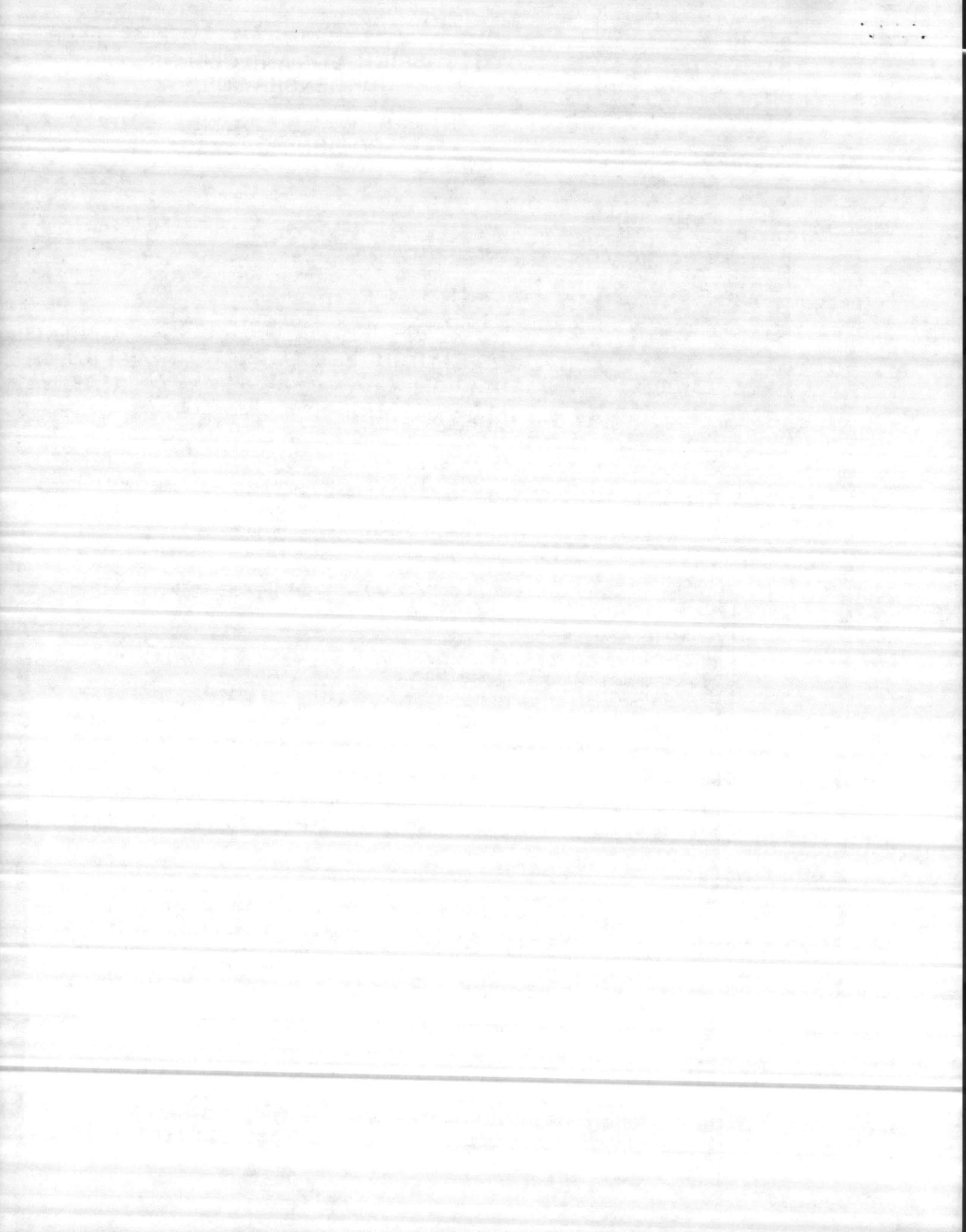
#### APPLICATION

Brightening and removal of heavy dirt and grease  
Some brightening and removal of light to medium dirt and oxides  
No brightening and removal of light dirt only

#### DILUTE 1 PART RENEWZ WITH

3 parts water  
6 parts water  
9 parts water

2. Avoid backspray from wind. Do not use in high pressure washers.
3. Shut off system.
4. Spray the diluted RENEWZ on to all surfaces, saturating the coils well. Use a low pressure sprayer that does not contain aluminum, or a Stewart-Hall Penetrator Sprayer Kit.
5. Allow 5 minutes for full cleaning action - but never more than 8 minutes.
6. Rinse coil very thoroughly with low pressure water.
7. For cooking grease applications: allow 8 minutes before rinsing. Repeat if necessary



# RENEWZ

## POISON!

Causes severe burns. Contains Sodium Hydroxide. (Caustic Soda). Do not get in eyes, on skin, on mucous membrane or clothing. Do not breathe vapors. Open container only to pour, then close at once. Wear eye goggles or full face shield, rubber gloves and protective clothing. Wash thoroughly after handling. Use only in well ventilated areas so as to maintain safe air levels as determined by established regulations.

## FIRST AID

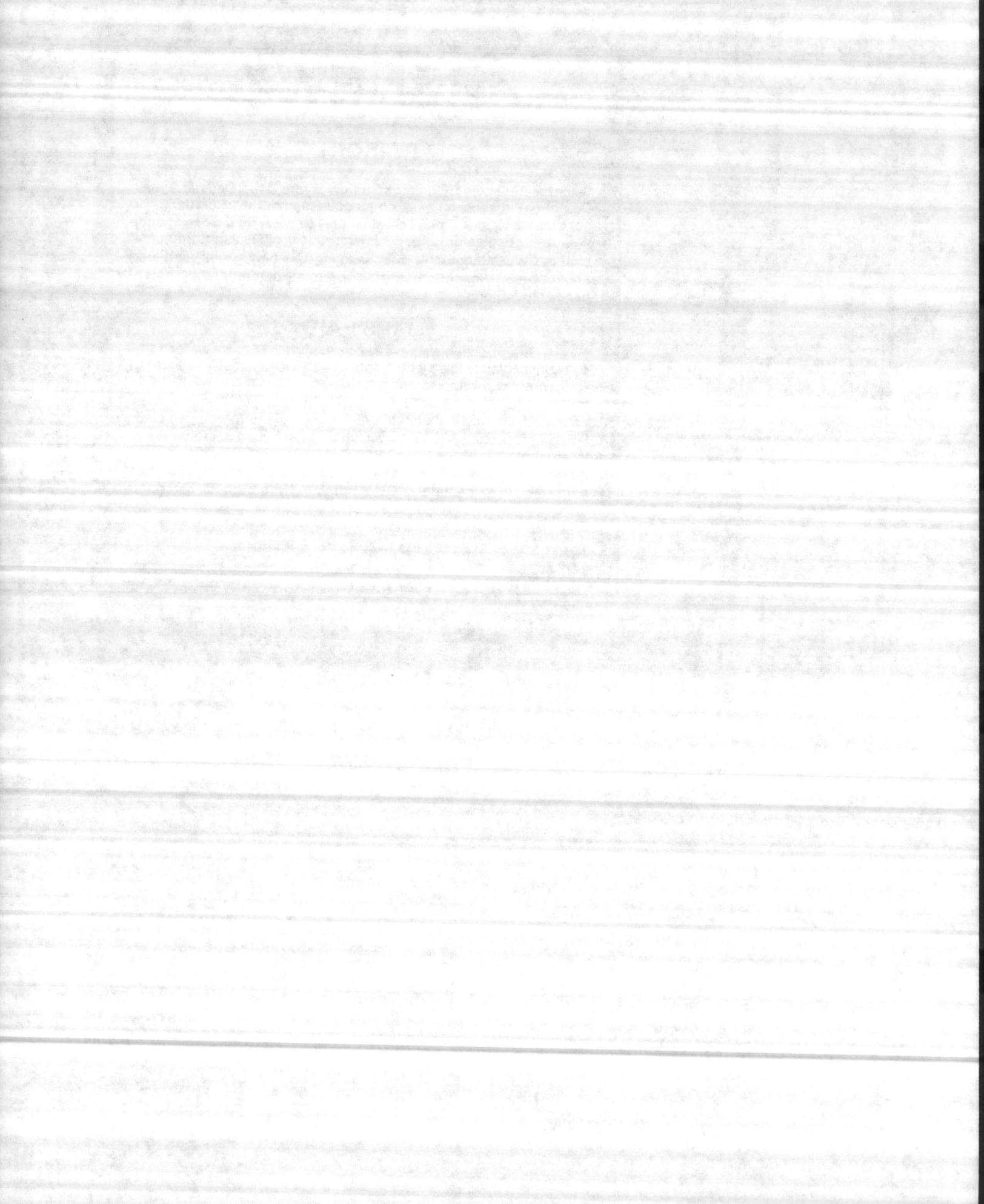
**Eyes:** Immediately flush with plenty of water for at least 15 minutes. Call a physician immediately.

**Skin:** Flood with water then wash with vinegar. Remove contaminated clothing and shoes. Wash clothing and thoroughly clean shoes before reuse. Call a physician if any irritation persists.

**Internal:** If swallowed, do NOT induce vomiting. Drink large quantities of water. If available, follow with citrus fruit juice. Call a physician immediately. Give nothing by mouth if person is unconscious.

Made in U.S.A.

FOR PROFESSIONAL SERVICE USE ONLY





UNITED STATES MARINE CORPS  
CIVILIAN PERSONNEL DIVISION  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542-5000

IN REPLY REFER TO:  
12451  
CPD  
9 Feb 1990

From: Supervisory Employee Relations Specialist, Civilian Personnel Division,  
Marine Corps Base, Camp Lejeune  
To: Mr. Raymond L. Hackett, Air-Conditioning Mechanic, Base Maintenance  
Division, Marine Corps Base, Camp Lejeune

Subj: BENEFICIAL SUGGESTION NO. 17-87

Ref: (a) BMO memo of 15 Sep 1989 w/end  
(b) BO 12451.2

Encl: (1) Cy of suggestion investigation report

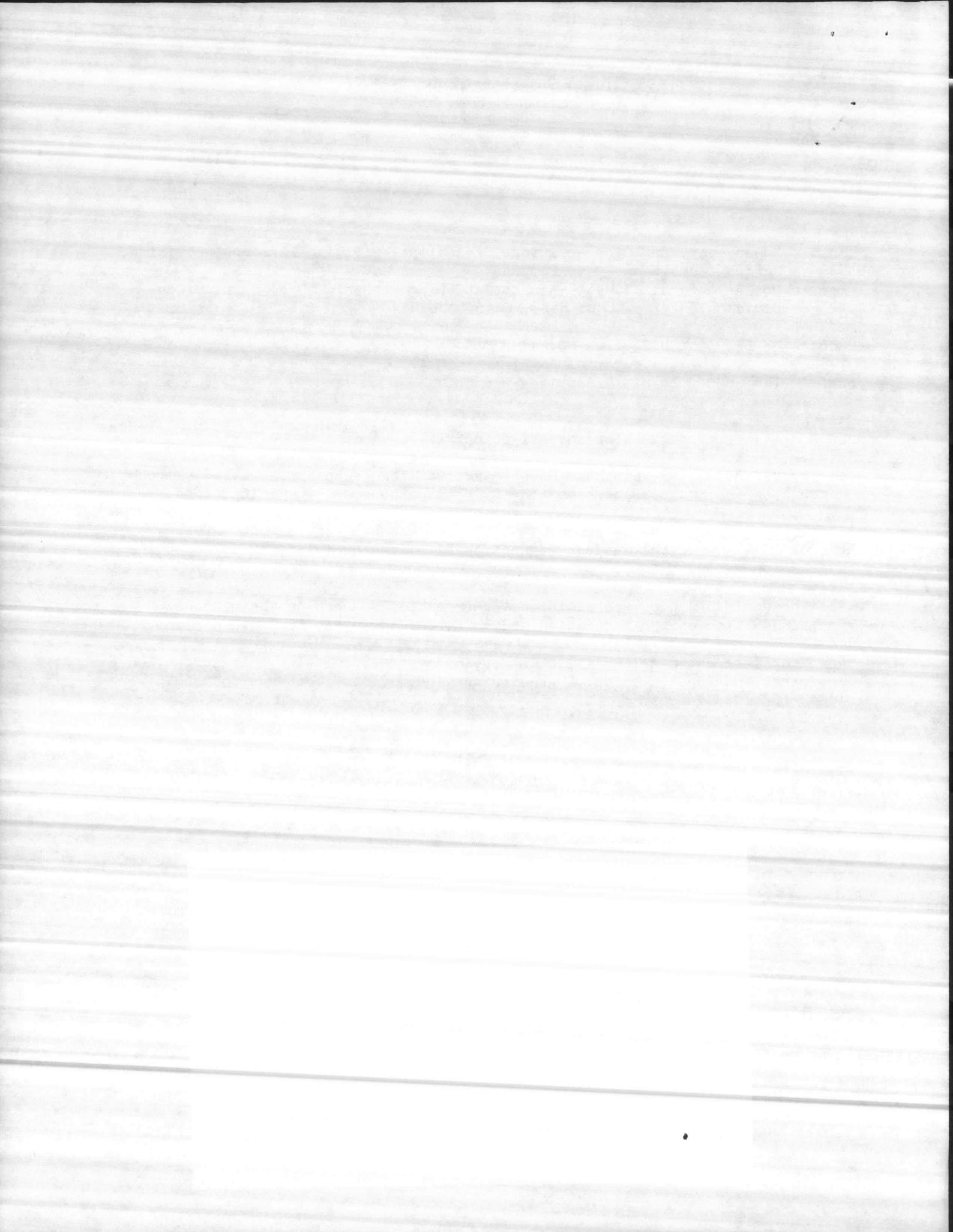
1. By reference (a), the Base Maintenance Officer requested a review of your suggestion for its possible adoption by Headquarters, U. S. Marine Corps.
2. In accordance with reference (b), the request was considered. After a thorough review of the subject suggestion file, the decision not to adopt the suggestion was sustained.
3. The enclosure provides additional information concerning the reasons for nonadoption of the suggestion and is forwarded to you for information.
4. Your interest and initiative in developing and submitting this suggestion indicates your desire to be of greater service. Please continue to submit your ideas for improvement.

*Mary K. Turpin*  
MARY K. TURPIN

Copy to:  
→ BMO

*Pam,  
file w/ Benny  
Suggs.*

*slm*





UNITED STATES MARINE CORPS  
CIVILIAN PERSONNEL DIVISION  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542-5000

IN REPLY REFER TO:  
12451  
CPD  
9 Feb 1990

From: Supervisory Employee Relations Specialist, Civilian Personnel Division,  
Marine Corps Base, Camp Lejeune  
To: Mr. Raymond L. Hackett, Air-Conditioning Mechanic, Base Maintenance  
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Subj: BENEFICIAL SUGGESTION NO. 17-87

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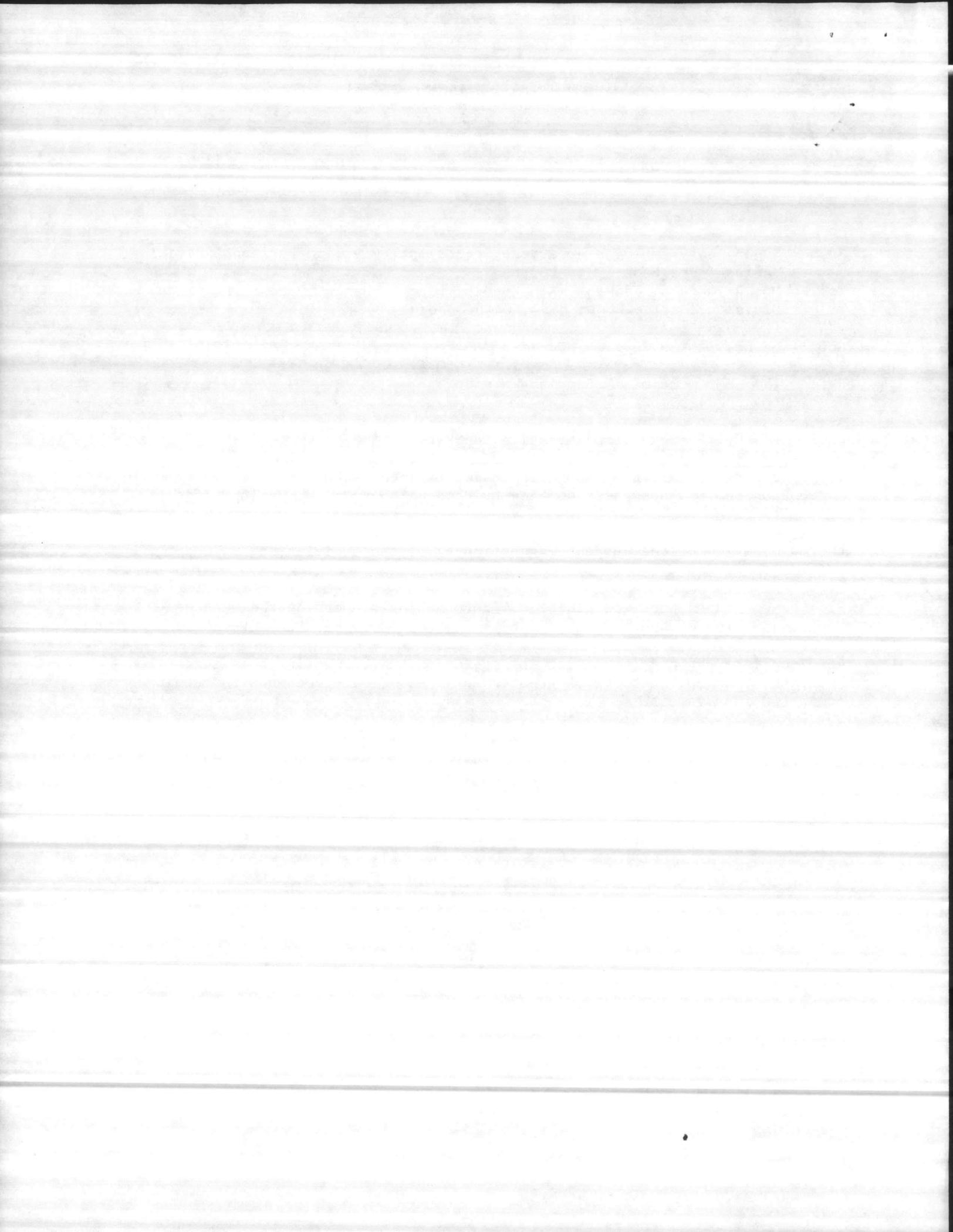
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*Mary K. Turpin*  
MARY K. TURPIN

Copy to:

→ BMO





UNITED STATES MARINE CORPS  
CIVILIAN PERSONNEL DIVISION  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542-5000

IN REPLY REFER TO:  
12451  
CPD  
9 Feb 1990

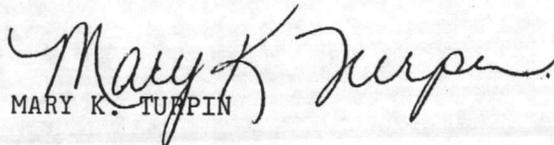
From: Supervisory Employee Relations Specialist, Civilian Personnel Division,  
Marine Corps Base, Camp Lejeune  
To: Mr. Clyde E. Riley, Air-Conditioning Mechanic, Base Maintenance  
Division, Marine Corps Base, Camp Lejeune

Subj: BENEFICIAL SUGGESTION NO. 17-87

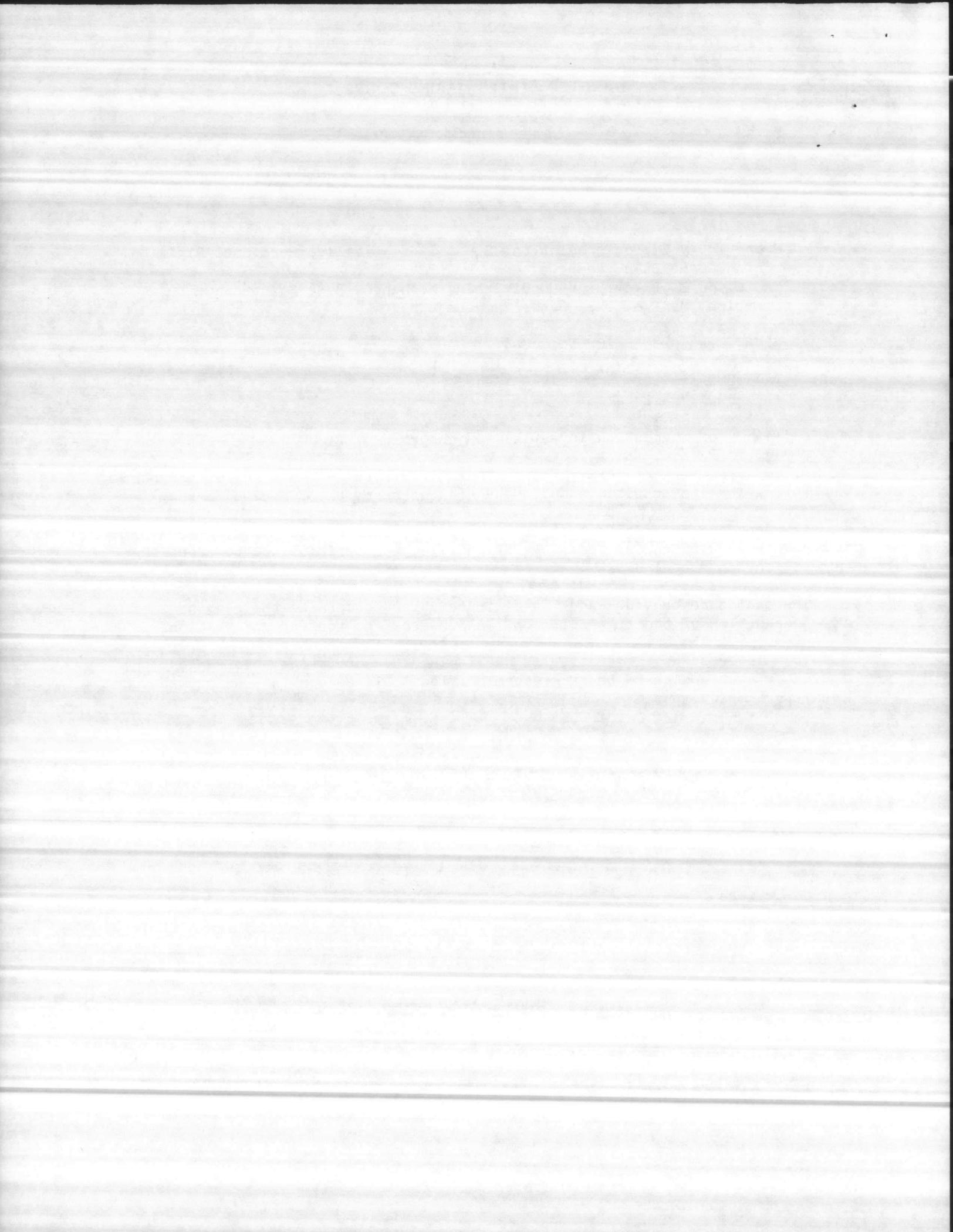
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2. In accordance with reference (b), the request was considered. After a thorough review of the subject suggestion file, the decision not to adopt the suggestion was sustained.
3. The enclosure provides additional information concerning the reasons for nonadoption of the suggestion and is forwarded to you for information.
4. Your interest and initiative in developing and submitting this suggestion indicates your desire to be of greater service. Please continue to submit your ideas for improvement.

  
MARY K. TUPPIN

Copy to:  
→ BMO





DEPARTMENT OF THE NAVY  
HEADQUARTERS UNITED STATES MARINE CORPS  
WASHINGTON, D.C. 20380-0001

*Efo*  
IN REPLY REFER TO  
4000  
MPC-35A  
05 FEB 1990

From: Commandant of the Marine Corps  
To: Commanding General, Marine Corps Base, Camp Lejeune, NC  
28542-5001

Subj: SUGGESTION NO. 17-87, "RE-EVALUATION OF COIL CLEANING,"  
SUBMITTED BY MR. RAYMOND L. HACKETT AND MR. CLYDE E. RILEY

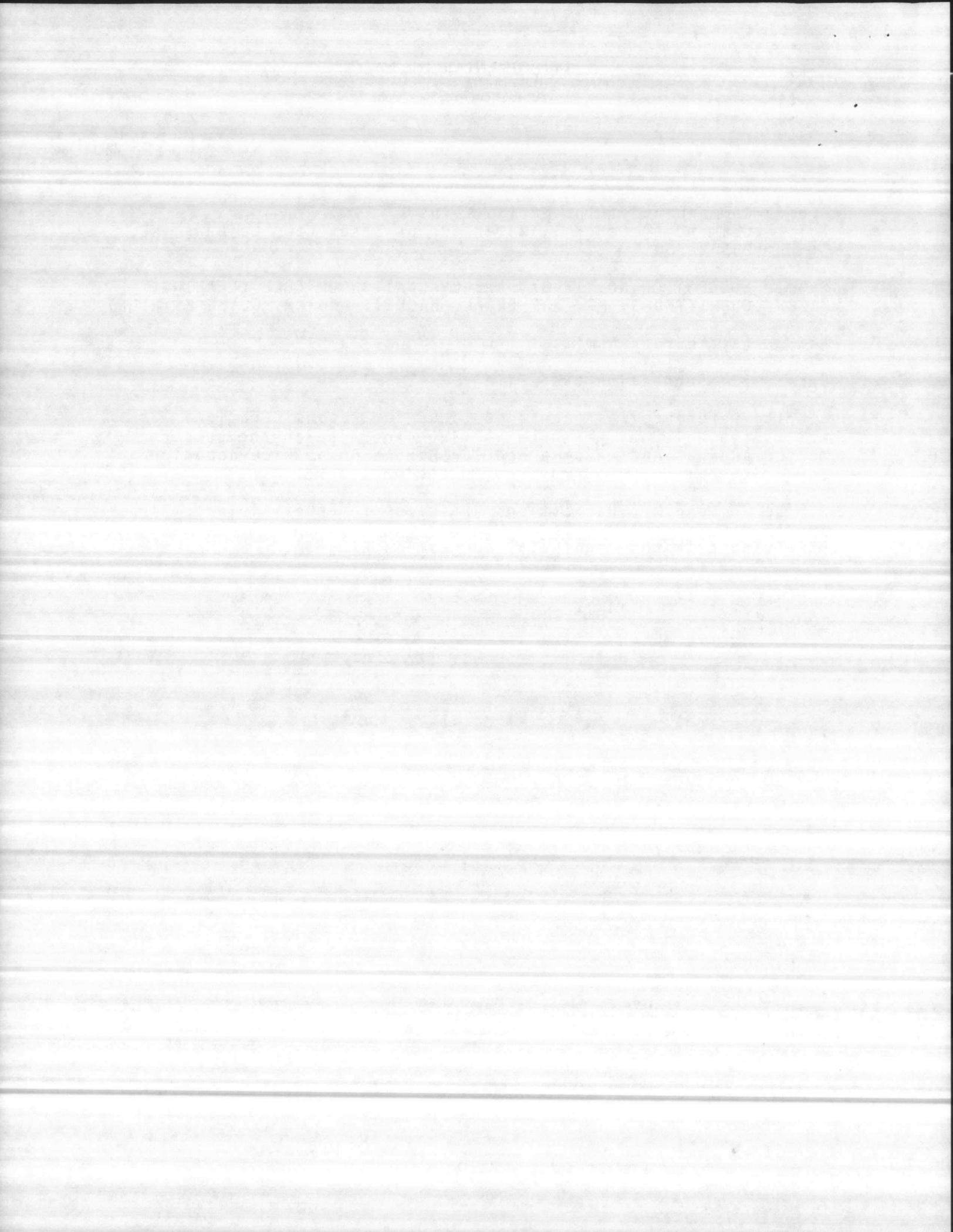
Ref: (a) Your transmittal ltr of 23 Oct 89

Encl: (1) Suggestion Case File

1. The reference was forwarded to us for reconsideration. It was re-evaluated by personnel having expertise in the subject matter and was not recommended for Marine Corps-wide adoption. Specific comments are provided in the enclosure.

2. We commend Mr. Hackett and Mr. Riley for their interest in improving government procedures and encourage them to continue to participate in the Beneficial Suggestion Program.

*A. A. Fontana*  
A. A. Fontana  
By direction



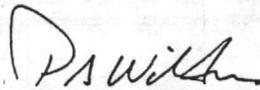
DEPARTMENT OF THE NAVY  
HEADQUARTERS UNITED STATES MARINE CORPS  
WASHINGTON, D.C. 20380-0001

IN REPLY REFER TO  
1600  
CLD89310  
19 Dec 89

MEMORANDUM FOR ENVIRONMENTAL PROGRAM MANAGER

Subj: BENEFICIAL SUGGESTION FOR COIL CLEANING

1. Per your request, I have reviewed the resubmitted beneficial suggestion by Camp Lejeune base maintenance division employees to use Renewz, a widely-available commercial product, to clean air conditioner coils in family housing units. Instead of removing, manually scrubbing, and reinstalling coils, it is suggested that maintenance personnel simply pour Renewz on the coils and rinse away built-up corrosion with water. This beneficial suggestion was first rejected because Renewz contained nitrilotriacetic acid. Base employees now show that the product no longer contains this possible carcinogen.
2. The MSDS states that Renewz contains 20% sodium hydroxide, a chemical exhibiting the characteristic of corrosivity. Assuming there is no significant alteration of the pH factor as a result of its use, the Resource Conservation and Recovery Act would normally require treatment of the waste rinse as a hazardous waste. EPA regulations, however, exclude certain materials from the definition of solid waste and certain solid waste from the definition of hazardous waste. On point is 40 C.F.R. § 261.4(b), which provides that the definition of solid waste excludes household waste (which would otherwise be subject to regulation as hazardous waste). Household solid waste is exempt from hazardous waste regulation. Use of Renewz to clean family housing air conditioner units is a "household" use. That base personnel (vice occupants) conduct the cleaning and that there are numerous households in a given area do not alter the "household" aspect of cleaning the coils. Accordingly, the waste produced by the Renewz cleaning process is not hazardous waste. It is, though, still subject to all safety considerations.
3. Acceptability of the beneficial suggestion is limited to the above-discussed facts. Excluded from the scope of the beneficial suggestion is any use of Renewz for cleaning coils at other than housing sites, e.g., mess halls, offices, or retail stores. For sites that do not meet the "household" exclusion, hazardous waste regulations and their criminal sanctions apply to releases of hazardous substances to the environment.



P. A. WILBUR  
Associate Counsel (Environment)

Enclosure (1)



3000  
LPP-1  
26 JAN 1990

INSTALLATIONS AND LOGISTICS DEPARTMENT COMMENTS on MPC route  
sheet of 30 Oct 89

Subj: BENEFICIAL SUGGESTION #17-87, COIL CLEANING

Encl: (1) Memorandum for Environmental Program Manager 1600  
CLD89310 of 19 Dec 89

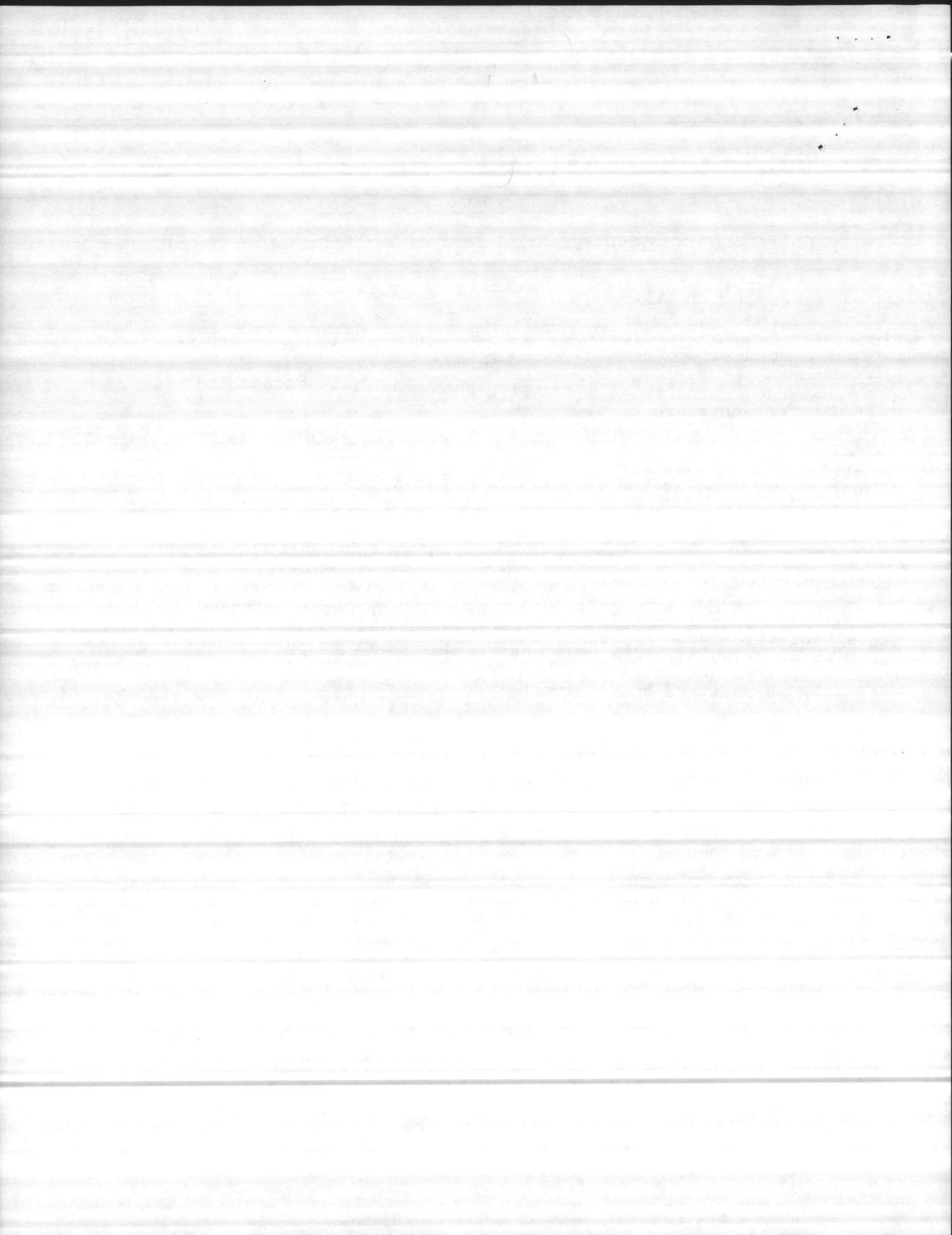
1. The subject beneficial suggestion has been reviewed and the following comments are provided:

a. Per the enclosure it has been determined that the subject beneficial suggestion has a limited application based upon the Resource Conservation and Recovery Act (RCRA) household waste exclusion.

b. Caution is urged in applying this exemption more broadly than is indicated in the enclosure because of the caveat on possible criminal sanctions mentioned in paragraph three.

c. Due to the difficulty in monitoring the implementation of this beneficial suggestion and limiting its application to housing areas only, it is not considered prudent to authorize the use of this product Marine Corps-wide. Accordingly, it is recommended that the suggestion not be adopted.

*R. D. Kennedy*  
R. D. KENNEDY  
By direction



**ROUTING AND TRANSMITTAL SLIP**

Date

2 Oct 87

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. CPD - Carolyn Arnold		
2.		
3.		
4.		
5.		

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

**REMARKS**

Beneficial Suggestion 17-87, Coil Cleaning

*Article  
filed Benn  
under Sug folder  
17-87*

**DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions**

<b>FROM:</b> (Name, org. symbol, Agency/Post)	Room No.—Bldg.
Shari Pricer, BMO	Phone No. 5307



CONTRIBUTOR(S) (Name: Last, first, M.I.)  
**HACKETT, Raymond L.**  
**KILEY, Clyde E.**

CONTRIBUTION (Number and title)  
**17-87, Coil Cleaning**

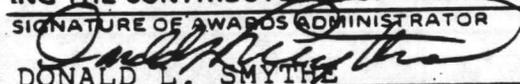
POSITION TITLE, AND GRADE OR RANK/RATE  
**A/C Mech, WG-8**  
**A/C Mech, WG-8**

ACTIVITY OF CONTRIBUTOR(S) (Name and location)  
**Marine Corps Base, Camp Lejeune, NC 28542**

ORGANIZATIONAL CODE AND TITLE  
**Base Maintenance, Shop 35**

TO: **Base Maintenance Officer**      DATE FORWARDED: **11-24-86**      DUE DATE: **12-8-86**

A complete evaluation of this contribution is necessary and all questions that apply should be answered. Although you may not have authority to implement the contribution, you are requested to give your opinion on its value. Do not merely state that authority to adopt the contribution is under the cognizance of GSA, VA, Treasury, etc. YOUR REPLY MAY BE USED VERBATIM IN NOTIFYING THE CONTRIBUTOR(S) OF THE RESULTS.

SIGNATURE OF AWARDS ADMINISTRATOR  
  
**DONALD L. SMYTHE**

ACTIVITY AND LOCATION  
**Civilian Personnel Division, MCB,**  
**Camp Lejeune, North Carolina 28542**

INVESTIGATION REPORT

1. WILL CONTRIBUTION BE ADOPTED LOCALLY? (If "NO" give reason for nonadoption in space 4 and answer questions 5 and 6 only)  YES  NO
2. IS CONTRIBUTION IN OPERATION? (Complete items below)  YES  NO
- IF "YES" GIVE DATE INSTALLED Approximately Jan 87 IF "NO" INDICATE BELOW THE ACTION TAKEN TOWARD ADOPTION
- COMMITMENT TO ADOPT HAS BEEN MADE       PROJECT OR JOB ORDER HAS BEEN ISSUED       EXPERIMENTAL WORK OR TRIAL TEST IS UNDER WAY       APPROVAL HAS BEEN REQUESTED

3. ESTIMATE OF BENEFITS

A. INTANGIBLE BENEFITS

VALUE       MODERATE       SUBSTANTIAL       HIGH       EXCEPTIONAL

EXTENT OF APPLICATION       LIMITED       EXTENDED       BROAD       GENERAL

B. TANGIBLE BENEFITS (In table below compute labor savings at actual cost.)

ITEM	LABOR			MATERIAL			TOTAL (LABOR AND MATERIAL)
	Hours Per Year	Dollars Per Hour	TOTAL	Units Per Year	Cost Per Unit	TOTAL	
FORMER METHOD	1,000	\$ 15.52	\$ 15,520	250	\$ 28.83	\$7,207.50	\$ 22,727.50
NEW METHOD	250	15.52	3,880	250	4.21	1,052.50	4,932.50
SAVINGS			11,640			6,155.00	17,795.50

4. ADDITIONAL INFORMATION AND COMMENTS

Former method figures are based on 4 hours labor at \$15.52 p/h; 1 liquid drier at \$16.03; Use of vehicle for 1 hr. at \$1.72; 1/2 gallon of Calgon coil cleaner at \$6.36; 4 lbs. of freon at \$4.72. The new method figures are based on 1/4 gallon of Renewz at \$2.49; 1 man-hour (WG-8) at \$15.52 and vehicle usage at \$1.72. These figures are based on one house, there are 250 houses in this project.

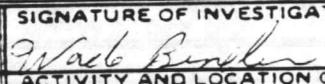
The suggestor figured two men at \$10.00 each for 4 hours; this should read 2 men at \$15.52 for 4 hours total.

The suggestion has been in use since shortly after the suggestor made this suggestion. It has proven to be very effective and beneficial. Other shops within the Division are now using this product at a great savings to each shop.

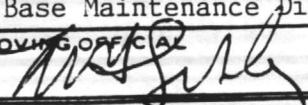
(If more space is needed, use reverse side starting with this end of the page up.)

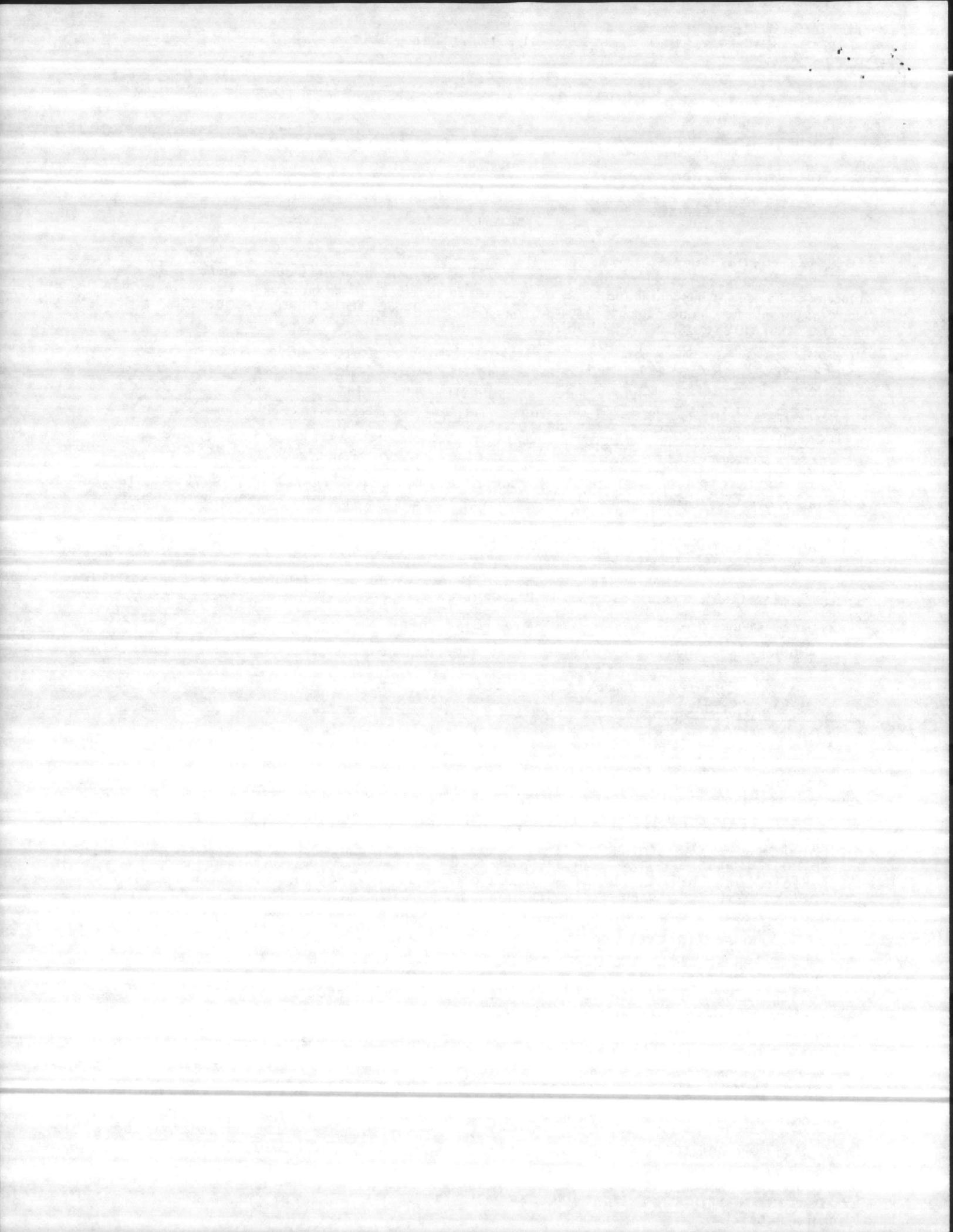
5. IS PATENT INVESTIGATION RECOMMENDED?      YES       NO

6. IF CONTRIBUTION CAN BE USED ELSEWHERE, INDICATE WHERE:  
 Other DOD housing projects.

SIGNATURE OF INVESTIGATOR:       DATE: **9-14-87**

ACTIVITY AND LOCATION OF INVESTIGATOR: **PP, Base Maintenance Division**

APPROVING OFFICIAL:       DATE: **9/28/87**



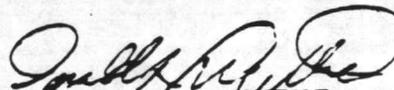


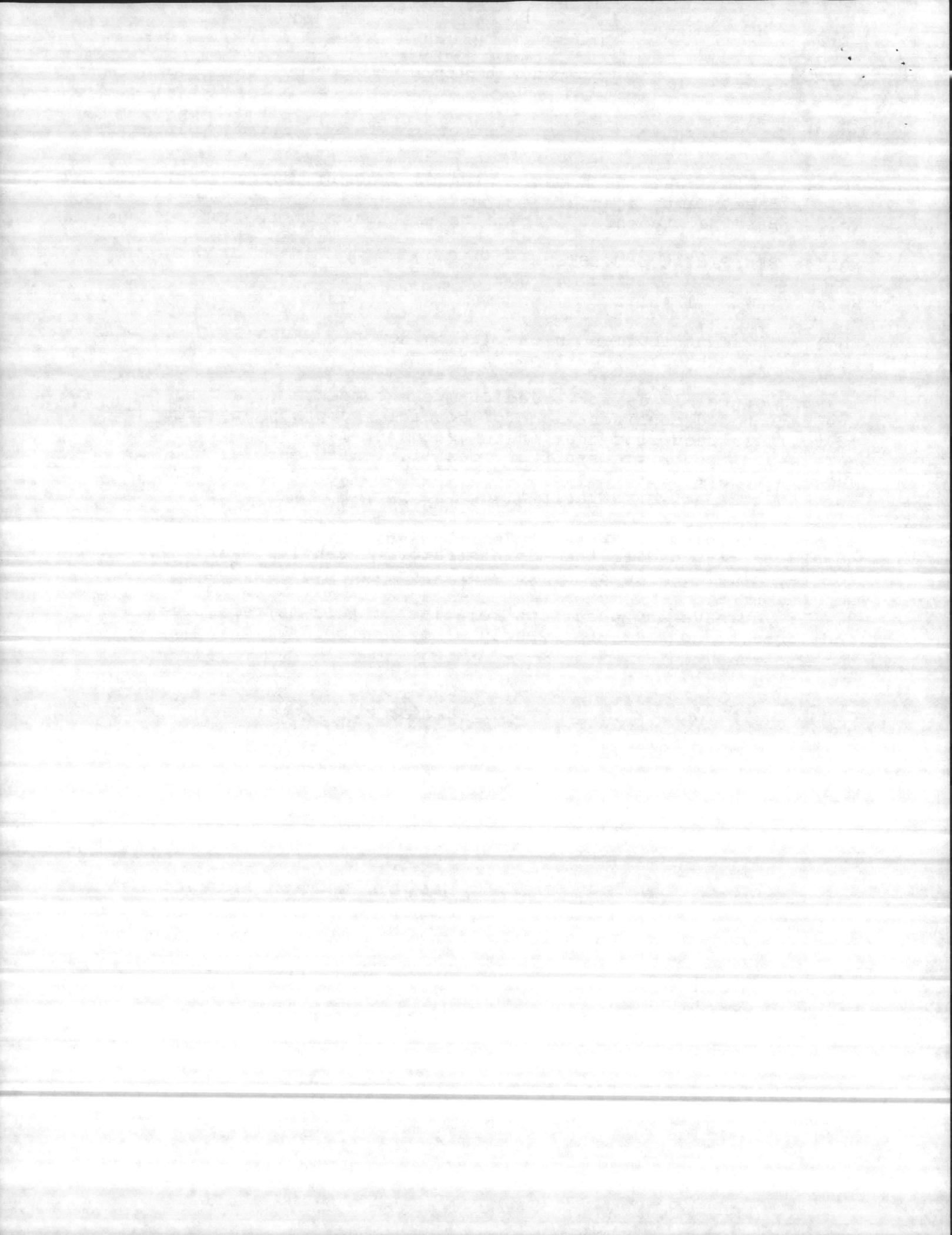
UNITED STATES MARINE CORPS  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542-5001

IN REPLY REFER TO:  
12451  
CPD  
24 Nov 1986

From: Administrator, Incentive Awards Program, Marine Corps  
Base, Camp Lejeune  
To: Base Maintenance Officer, Marine Corps Base, Camp Lejeune  
Subj: BENEFICIAL SUGGESTION NO. 17-87  
Ref: (a) BO 12451.2  
Encl: (1) Contribution Investigation Report, NAVSO 5305/5 (1-78)  
(2) Subject suggestion file

1. Enclosure (1) is forwarded for your comments regarding evaluation and consideration for possible adoption of enclosure (2). It is requested that an investigator be assigned for this purpose. Appropriate staff offices (i.e., Provost Marshal, Staff Judge Advocate, Base Safety) may be contacted by the investigator for input relative to their area.
2. Upon completion of the investigation, the suggestion file should be returned to the Administrator, Incentive Awards Program for technical review prior to your approval/disapproval.
3. If you have any questions relative to this matter, please feel free to contact Mrs. Arnold at extension 1458 or 1579.

  
DONALD L. SMYTHE



NAME HACKETT RAYMOND <del>LEE</del> RILEY CLYDE EDWIN		AC MECH WG 8 AC MECH WG-8	143-30 301 30 0168
ORGANIZATION (Specify activity, ship, command, bureau or office) MCB CLNC		ORGANIZATION SUBDIVISION (Dept., Div., Sect., Unit or Shop) BASE MAINTS Shop #35	PHONE 451-2781

I (WE) UNDERSTAND that the acceptance of a cash award for the use of this suggestion by the United States Government shall not form the basis of a further claim of any nature upon the United States by me (us), my (our) heirs, or assigns.

DO NOT WRITE IN THIS SPACE
DATE RECEIVED 11-20-86
SUGGESTION NUMBER 17-87

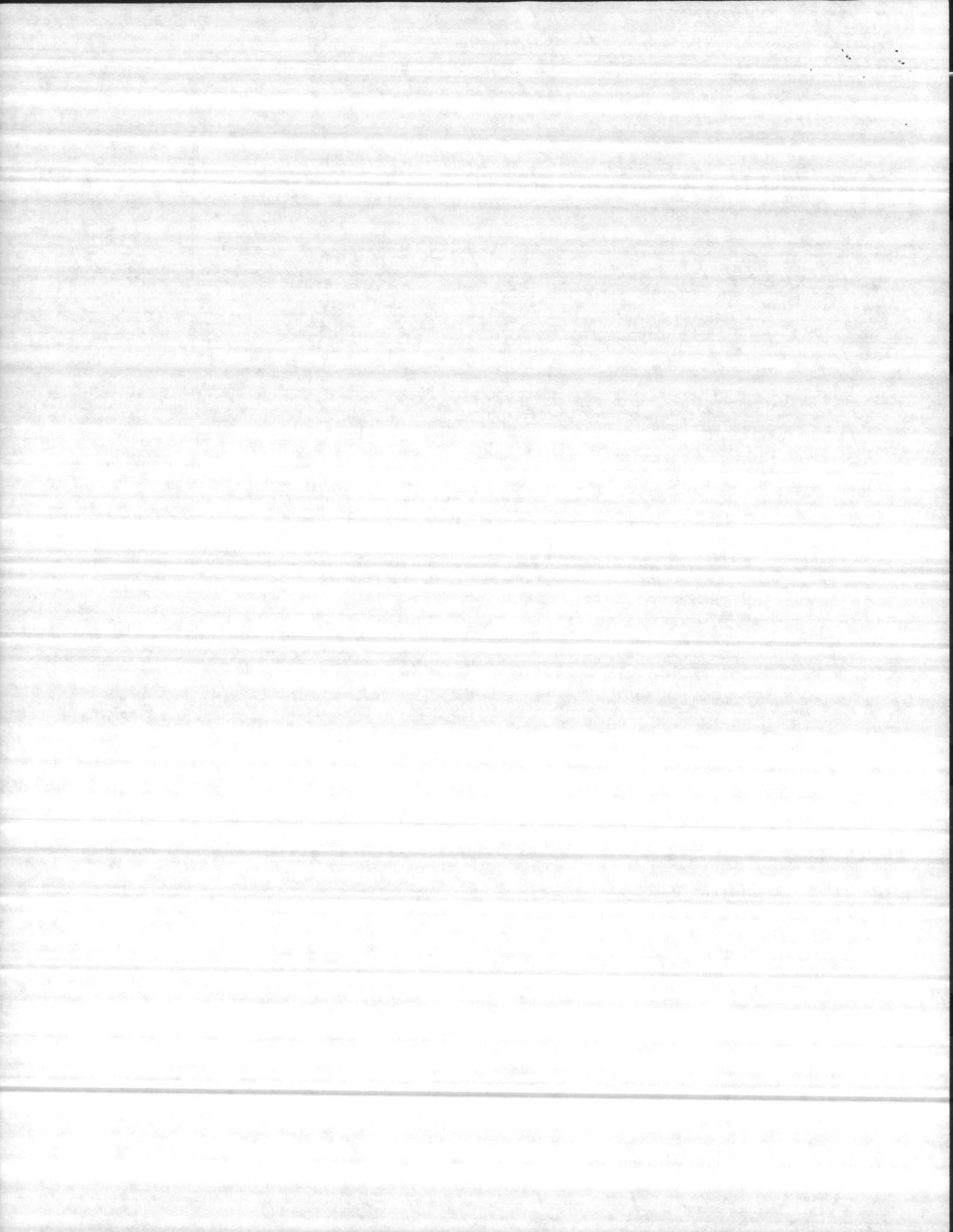
SIGNATURE AND DATE Raymond L. Hackett 11-18-86	SIGNATURE AND DATE Clyde E Riley 11/18/86
---	--

TITLE OF SUGGESTION  
COIL CLEANING

Describe in three separate paragraphs (1) the problem, difficulty, or circumstances that prompted you to submit this suggestion; (2) the suggested change; (3) where and how it can be used, what it will accomplish, and how it will benefit the Navy Government - in terms of tangible savings if possible.

SEE ATTACH ENCLOSURE,

Note - If you need more space, continue on separate sheet.



## COIL CLEANING

In order for heat pumps to function properly, adequate air flow through the coils is essential. The coils in these units, over a period of time, become excessively corroded, therefore, virtually impossible to clean thoroughly.

Eroded coils cause the following problems: 1) high head pressure on the compressors, 2) the compressors and inside blower motors deteriorate or do not function, and 3) heavy electric usage for both the compressors and the blower motors. Tenants are dissatisfied with the results of heat pumps during both the air conditioning season and heating season because of inefficiency. In addition, there are constant call backs on the service calls already performed.

The following steps are now being used in cleaning a coil:

a. First, pump down the unit or lose approximately 4 pounds of freon charge;

b. Next, unsweat silver solder joint at air handler and take out the coil;

c. Bring the coil back to the shop, thoroughly brush the coil, soak it in Calgon soap, and then thoroughly rinse with a water hose on both sides. This process must be accomplished normally three (3) times for adequate cleansing results.

d. After the coil has been cleaned, return to the house and place the coil back in the heat pump, resolder joint, and place freon back into the unit.

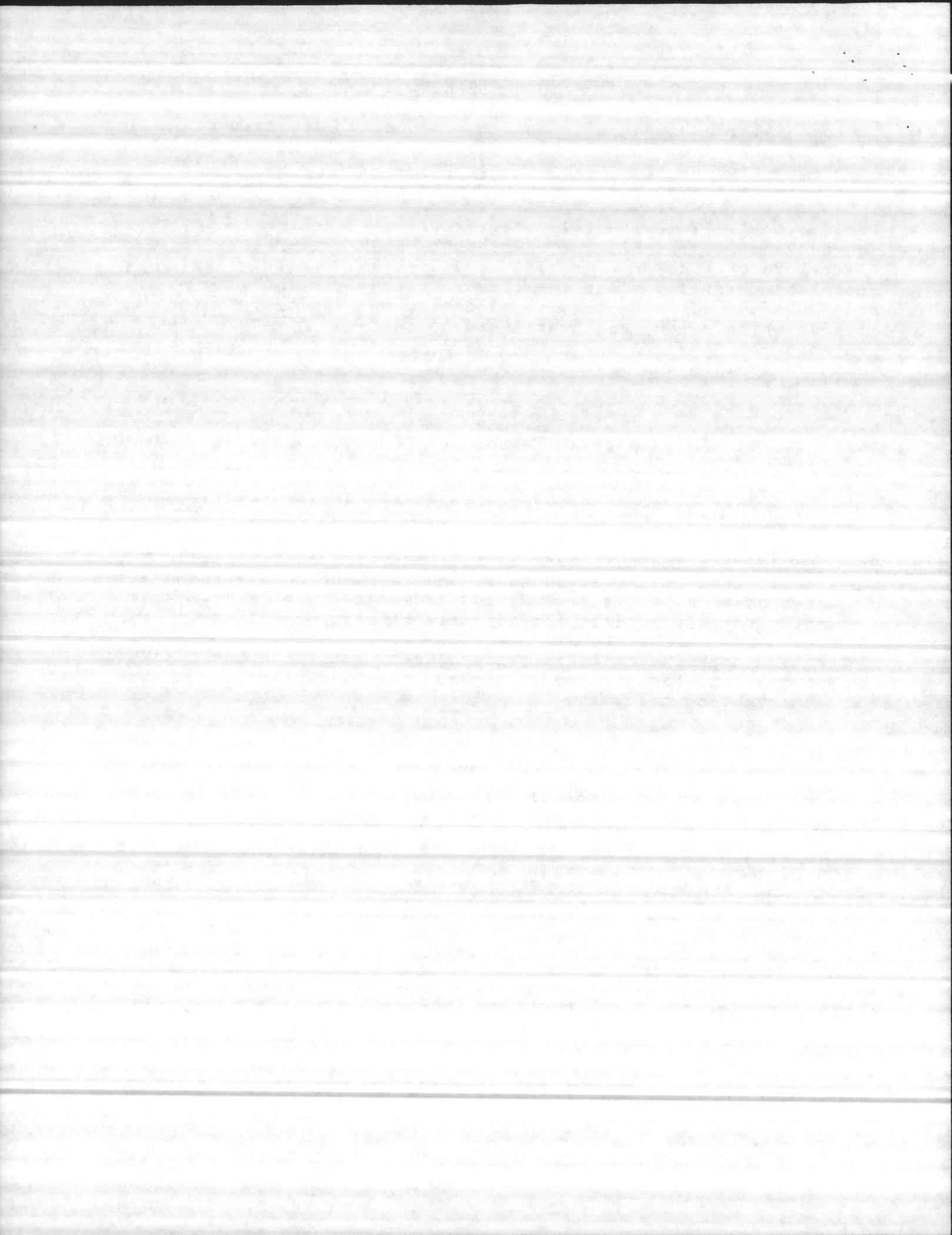
e. Last, change the Liquid Drier and vaccum the pump system three (3) times.

The above steps are completed by using 2 men, 4 man-hours each, and a truck. The following breakdown is made to easily depict how much money and time is involved in pulling one coil.

2 men - \$10.00 each man per hour for 4 hours..	\$ 80.00
Liquid Drier.....	17.00
Truck - \$10.00 per hour for 4 hours.....	<u>40.00</u>
Cost per coil.....	\$137.00

THE ANSWER TO SAVING IN THE ABOVE PROCESS IS TO USE RENEWZ

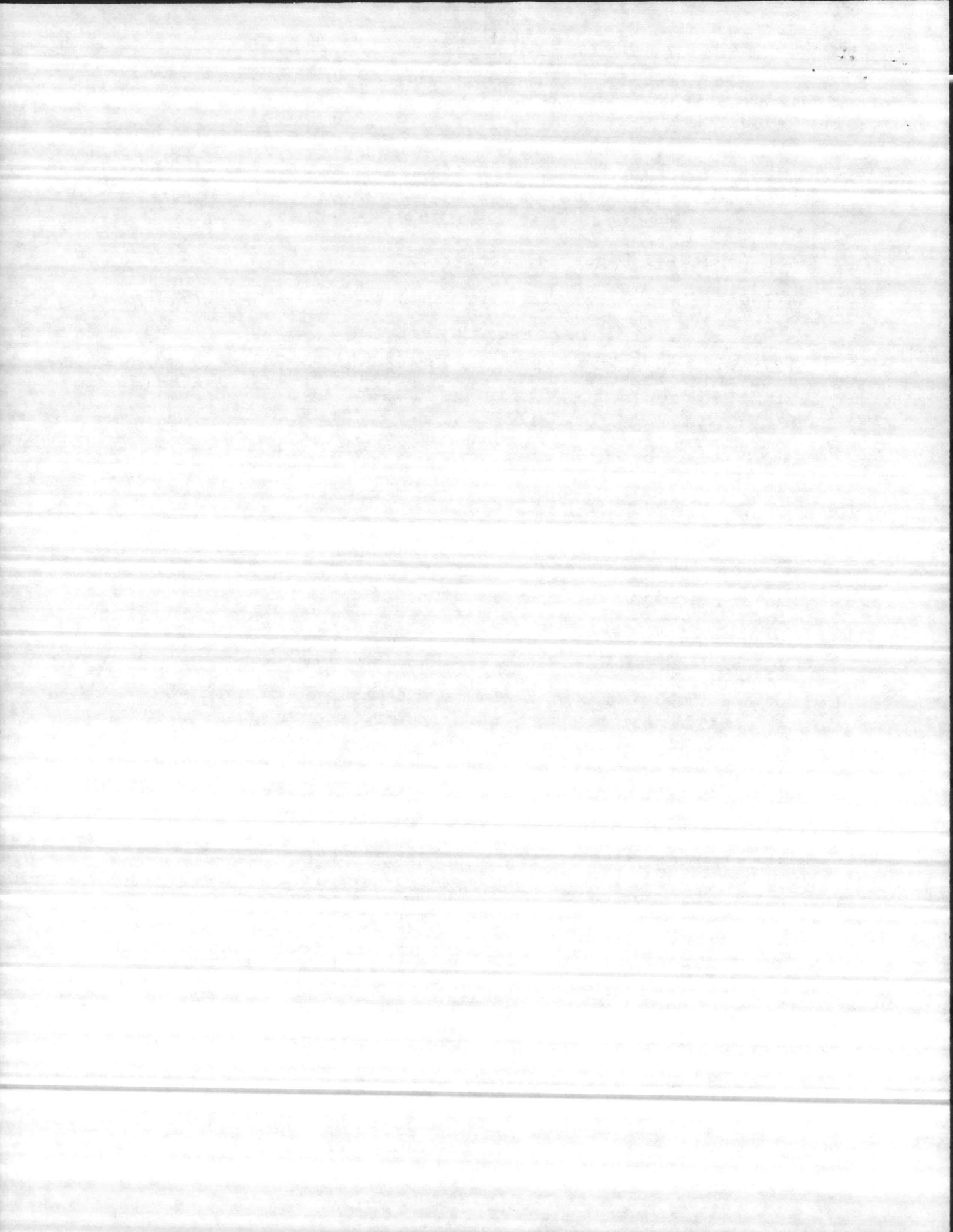
Renewz is a one step process which, when poured onto the coil, swells like a sponge agitating the element removing all eroded matter. In addition, Renewz can be used on all refrigeration coils located throughout the Base.



The following breakdown indicates how much money can be saved by using Renewz:

Cost per pulling and cleaning coil.....	\$137.00
Watkins Village (250 Units).....	<u>x 250</u>
	\$34,250.00
Minus cost for Labor and Renewz.....	<u>- 4,875.00</u>
<b>SAVINGS.....</b>	<b>\$29,375.00</b>

It is requested that a demonstration with the Inspector be granted to prove this new method and the substantial savings thereof.



**BRIGHTENS AND CLEANS  
CONDENSER COILS**

**STRIPS AWAY DIRT, OXIDES AND  
COOKING GREASE.**



**RENEWZ**

**Non-Acid, Foaming  
Renewer  
of Condenser Coils**

**CONTENT  
1 U.S. Ga  
(3.79 liter)**

**0523G**

Manufactured By

**STEWART HALL**  
CHEMICAL CORPORATION  
MOUNT VERNON, NEW YORK 10557

RENEWZ leaves aluminum surfaces not only bright and shiny, but completely clean and insulation free in less than five minutes.

RENEWZ' penetrating, surfactant-aided, foaming action lifts and pushes insulating contaminants and oxides off the coils. This includes difficult to remove cooking greases found thickly coating coils in or near restaurants. RENEWZ penetrates the grease, solubilizes and disperses it. The foaming action then floats all loosened material out of normally inaccessible areas to where they can easily be rinsed away with low pressure water.

Cleaning dirty coils with RENEWZ reduces the head pressure on overheated compressors, avoids premature equipment breakdown, increases equipment efficiency and decreases power consumption and costs. The need for high pressure washers which can bend fins and wedge contaminants into the deep recesses of the coil, is eliminated. RENEWZ is also the perfect answer for cleaning electronic air filters, thus avoiding possible damage from high pressure steam cleaning.

**— DIRECTIONS —**

**READ ALL DIRECTIONS AND WARNINGS ON LABEL BEFORE USING.**

1. Dilute RENEWZ with cold water only (below 100°F)

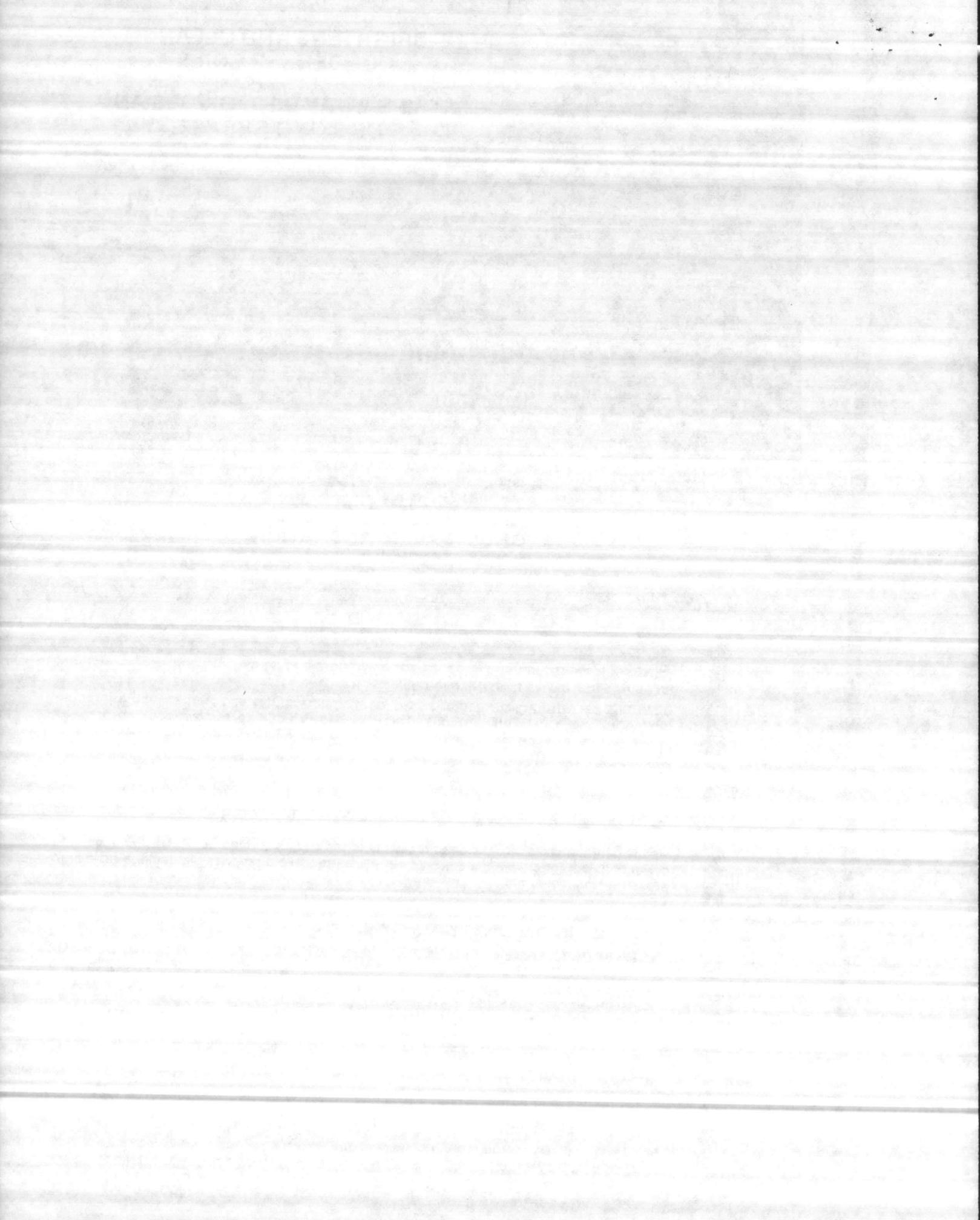
**APPLICATION**

Brightening and removal of heavy dirt and grease  
Some brightening and removal of light to medium dirt and oxides  
No brightening and removal of light dirt only

**DILUTE 1 PART RENEWZ WITH**

3 parts water  
6 parts water  
9 parts water

2. Avoid backspray from wind. Do not use in high pressure washers.
3. Shut off system.
4. Spray the diluted RENEWZ on to all surfaces, saturating the coils well. Use a low pressure sprayer that does not contain aluminum, or a Stewart-Hall Penetrator Sprayer Kit.
5. Allow 5 minutes for full cleaning action - but never more than 8 minutes.
6. Rinse coil very thoroughly with low pressure water.
7. For cooking grease applications: allow 8 minutes before rinsing. Repeat if necessary



# RENEWZ

## POISON!

Causes severe burns. Contains Sodium Hydroxide. (Caustic Soda). Do not get in eyes, on skin, on mucous membrane or clothing. Do not breathe vapors. Open container only to pour, then close at once. Wear eye goggles or full face shield, rubber gloves and protective clothing. Wash thoroughly after handling. Use only in well ventilated areas so as to maintain safe air levels as determined by established regulations.

## FIRST AID

**Eyes:** Immediately flush with plenty of water for at least 15 minutes. Call a physician immediately.

**Skin:** Flood with water then wash with vinegar. Remove contaminated clothing and shoes. Wash clothing and thoroughly clean shoes before reuse. Call a physician if any irritation persists.

**Internal:** If swallowed, do NOT induce vomiting. Drink large quantities of water. If available, follow with citrus fruit juice. Call a physician immediately. Give nothing by mouth if person is unconscious.

Made in U.S.A.



12451  
MAIN

DEC 2 1987

From: Base Maintenance Officer, Marine Corps Base, Camp Lejeune  
To: Employee Relations Specialist, Marine Corps Base, Camp  
Lejeune

Subj: BENEFICIAL SUGGESTION NO. 17-87

Ref: (a) FPM Inst. 265, dtd 14 Aug. 1981

Encl: (1) Contribution Investigation Report, NAVSO 5305/5 (1-78)  
(2) Subject suggestion file

1. Per the reference, the subject Beneficial Suggestion was reviewed and it was determined that it does not fall under the purview of job responsibility.

S. L. MARSICANO  
By direction

Writer: S. L. Marsicano, ADMIN, x5307  
Typist: L. P. Rademann, 2 Dec 1987

DEC 2 1957

MEMORANDUM FOR THE DIRECTOR, FEDERAL BUREAU OF INVESTIGATION

DATE: 12/10/57

TO: SAC, NEW YORK (100-100000)

FROM: SAC, NEW YORK (100-100000)

RE: [Illegible]

100-100000-1000

DEPARTMENT OF THE NAVY

# Memorandum

DATE: 12-1-1987

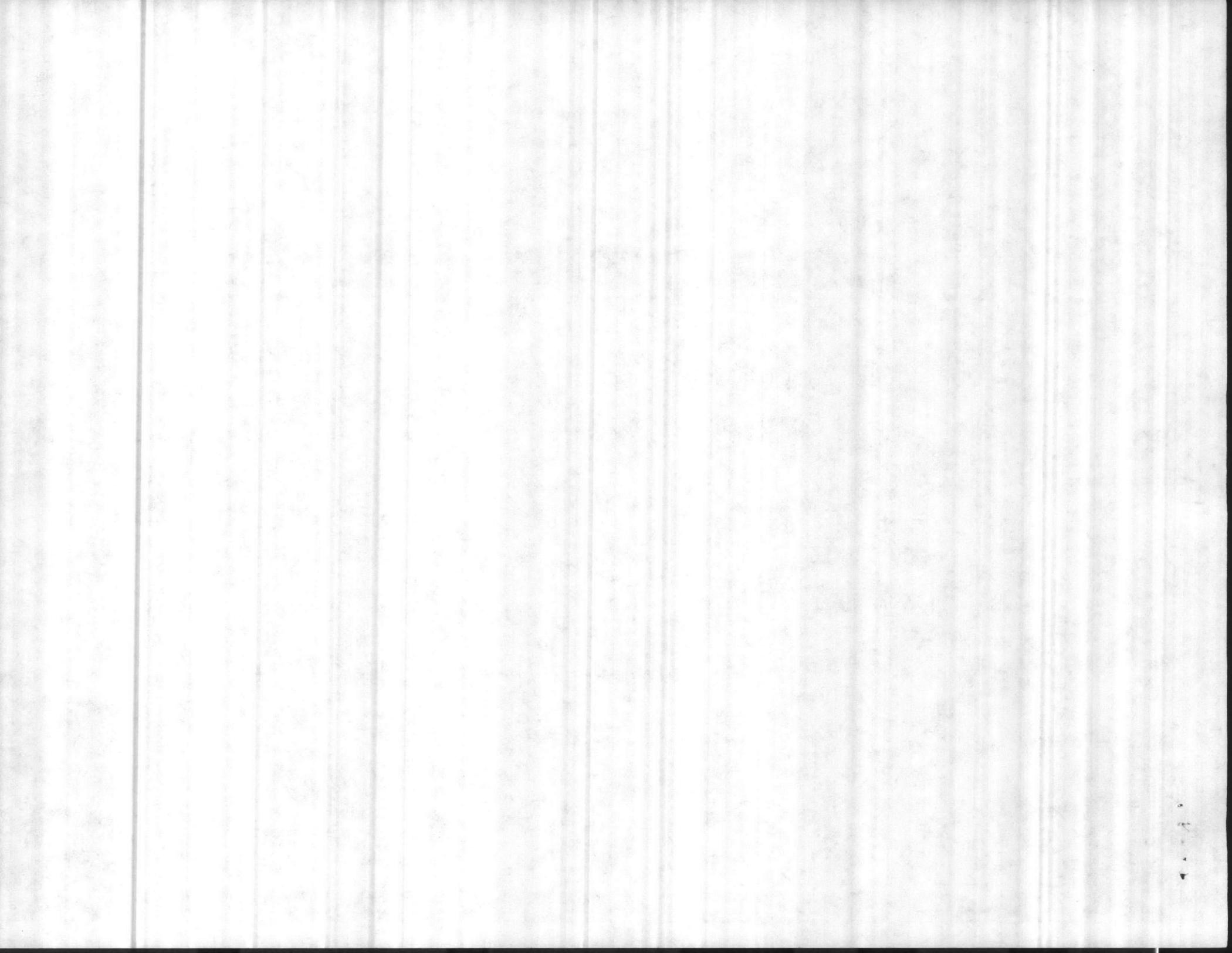
FROM: Wack & Bender, Electrical Foreman

TO: Lori Rodemann, Admin Branch

SUBJ: Beneficial Suggestion 17-87:

I feel that the Employee Suggestion was not under their Job responsibilities, or they could have continued to use the old way of doing the job but instead they did some research and found a new material that would eliminate the problem they were experiencing, "See Description of the new products use."

Wack & Bender



# ROUTING AND TRANSMITTAL SLIP

Date

Dec. 1, 1987

**TO:** (Name, office symbol, room number, building, Agency/Post)

Initials      Date

1. Shop 35, Wade E. Bender

2.

3.

4.

5.

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

**REMARKS**

Beneficial Suggestion 17-87

Per CPD's note of 23 Nov 87 to Shirley Marsicano, please make a determination if this suggestion falls under job responsibilities. Please return to ADMIN, Attn. Lori Rademann, NLT 4 Dec 87.

**DO NOT** use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

**FROM:** (Name, org. symbol, Agency/Post)

Lori Rademann  
Admin Branch

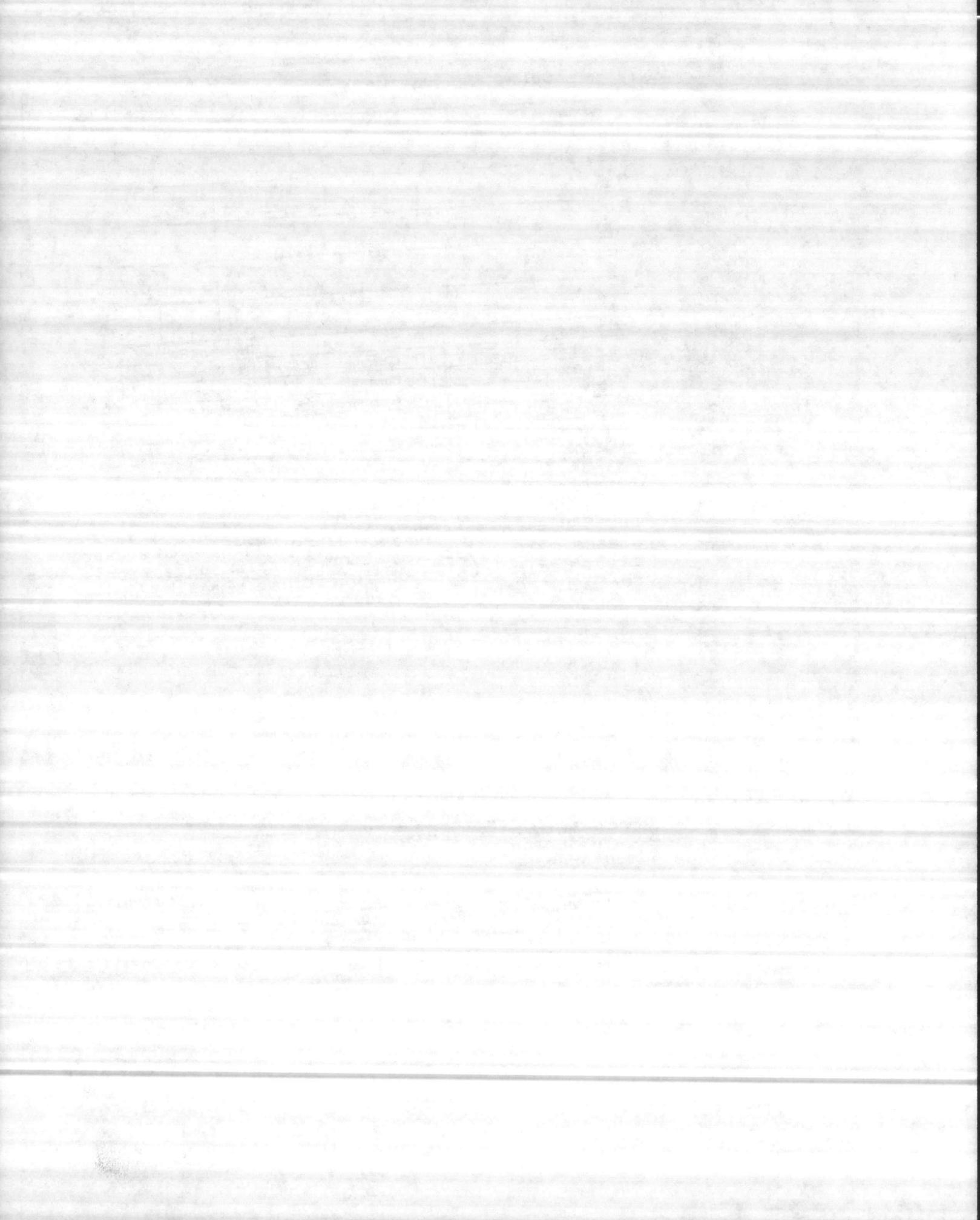
Room No.—Bldg.  
2      1202

Phone No.      3722/5307

5041-102 S/N 0107-LF-000-4100

U.S. GPO: 1986-704-009/46392

**OPTIONAL FORM 41 (Rev. 7-76)**  
Prescribed by GSA  
FPMR (41 CFR) 101-11.206



# ROUTING AND TRANSMITTAL SLIP

Date  
23 Nov 1987

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. Shirley Marsicano, Base Maintenance		
2.		
3.		
4.		
5.		

<input checked="" type="checkbox"/> Action	File	Note and Return
<input type="checkbox"/> Approval	<input type="checkbox"/> For Clearance	<input type="checkbox"/> Per Conversation
<input type="checkbox"/> As Requested	<input type="checkbox"/> For Correction	<input type="checkbox"/> Prepare Reply
<input type="checkbox"/> Circulate	<input type="checkbox"/> For Your Information	<input type="checkbox"/> See Me
<input type="checkbox"/> Comment	<input type="checkbox"/> Investigate	<input type="checkbox"/> Signature
<input type="checkbox"/> Coordination	<input type="checkbox"/> Justify	

**REMARKS** Beneficial Suggestion No. 17-87

Shirley-- First of all, I have had to revise the form again since the labor acceleration rate has change within the past three weeks to 38.5. Secondly, I am forwarding the suggestion package, along with copies of Appendix D from the FPM. A determination with regard to job responsibility on the part of the suggesters relative to the suggestion needs to be made prior to forwarding to Building 1. Hopefully, the pages from the FPM will answer any questions you might have regarding this and, of course, the Base Order refers to determining job responsibility under section 10c. Questions in addition to answers found in these two documents, give me a call.

*Carolyn*

Carolyn

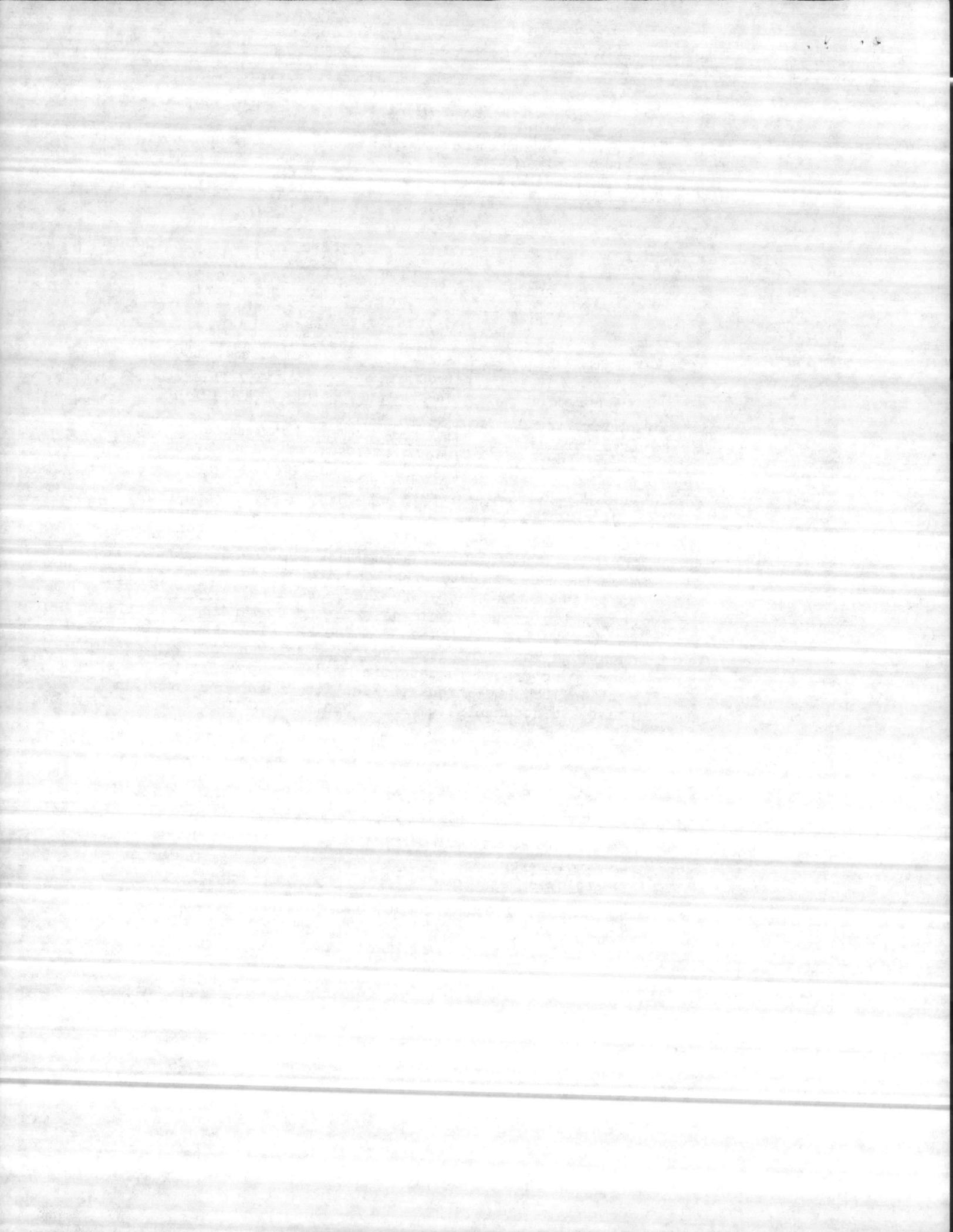
**DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions**

<b>FROM:</b> (Name, org. symbol, Agency/Post)	Room No.—Bldg.
Carolyn Arnold Employee Relations	33
	Phone No. 1579

5041-102 S/N 0107-LF-000-4100

\* U.S. GPO: 1986-704-009/46392

**OPTIONAL FORM 41 (Rev. 7-76)**  
Prescribed by GSA  
FPMR (41 CFR) 101-11.206



## Appendix D.

### Determining Extent of Job Responsibility

#### D-1. GENERAL

a. Monetary and/or honorary awards, as appropriate, should be granted when merited regardless of the employee's grade, level of responsibility, or type of responsibility. Higher grade employees, and all levels and types of management personnel, should be given the same encouragement to make superior contributions as is given to lower grade employees, particularly since their contributions, when job related, must be substantial in order to merit special recognition. Adherence to the requirement that awards be granted for job-related contributions only if they clearly are beyond performance requirements will preclude a disproportionate number of awards being granted to higher graded employees.

b. An award may be granted to an employee for a contribution which concerns matters either within or outside job responsibilities. However, if it is within job responsibilities, it must be so superior or meritorious that it warrants special recognition. In making such determinations, careful consideration should be given to the employee's job description, assigned duties, the performance requirements or standards for the position, and the extent of application of the contribution and its impact on the organization. The employee's supervisor generally is in the best position to evaluate whether the contribution is within job responsibilities. However, awards program administrators, classification specialists, personnel management specialists, and others, may provide valuable input to the decision.

c. Those making such determinations must exercise careful judgment to assure that criteria for determining award eligibility are neither too liberal nor too stringent, as either extreme could well lead to a lack of employee confidence in the program and management. Also, an important factor to be considered is the effect that a negative decision may have on the employee and his or her co-workers.

#### D-2. DETERMINING AWARD ELIGIBILITY

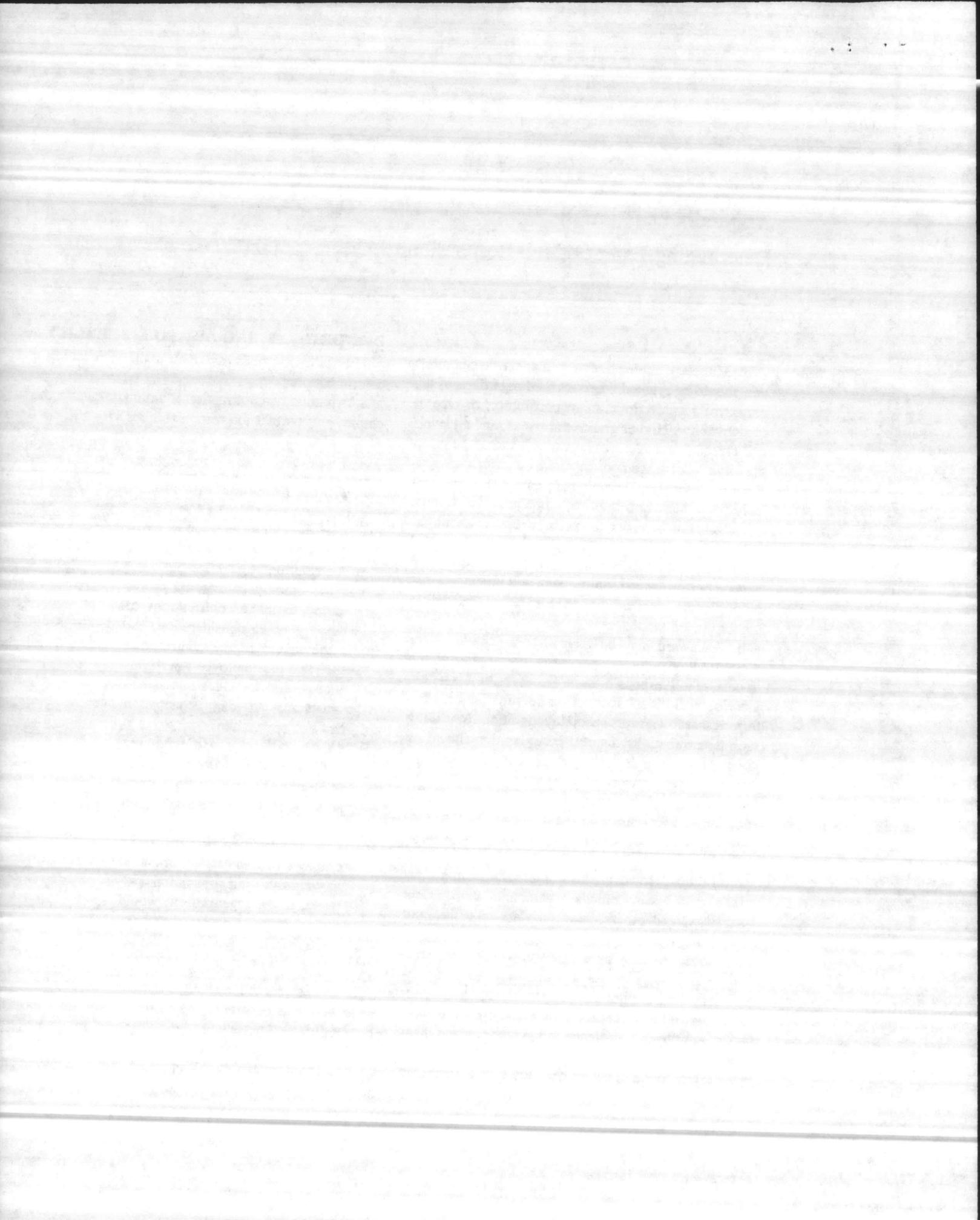
The following questions may assist in reaching a determination:

a. whether the contribution is within or outside the employee's normal job responsibilities.

- |  | YES                      | NO                       |
|--|--------------------------|--------------------------|
| (1) Is the subject of the contribution within the scope of the employee's work?  | <input type="checkbox"/> | <input type="checkbox"/> |
| (2) Does the employee's job description cover the subject of the contribution?   | <input type="checkbox"/> | <input type="checkbox"/> |
| (3) Is the employee expected or required to make contributions of the type under consideration?  | <input type="checkbox"/> | <input type="checkbox"/> |
| (4) Is the nature of the contribution such that the employee's performance would be judged less than satisfactory if this contribution had not been made?  | <input type="checkbox"/> | <input type="checkbox"/> |
| (5) Is the contribution one pertaining to the immediate work area which the employee can put into operation without consulting higher authority?   | <input type="checkbox"/> | <input type="checkbox"/> |
| (6) If the contribution pertains to the employee's immediate work area, as well as having application elsewhere in the organization, would the employee be expected to make contributions that have impact beyond his or her immediate area? | <input type="checkbox"/> | <input type="checkbox"/> |

If the answers to the above questions are "No" the contribution is outside of the employee's normal job responsibilities and should be considered for monetary and/or honorary recognition.

If the answers are "Yes" the contribution is within job responsibilities and, in order to receive recogni-



tion, a determination must be made that it is so superior that it merits an award.

b. whether the contribution is so superior that it merits an award.

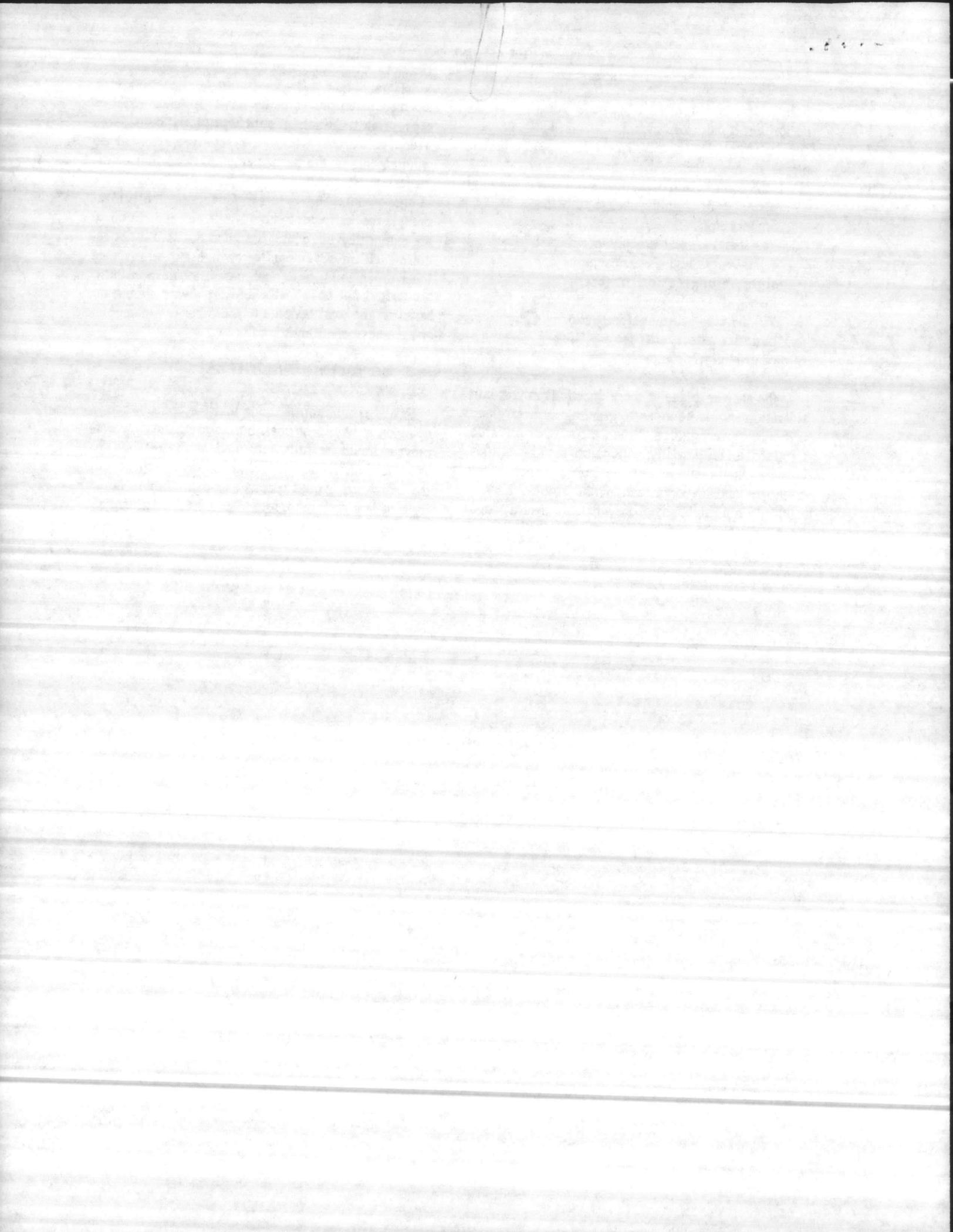
- (1) Is the contribution of particular importance or significance to the organization?
- (2) Was there a great amount of independent thought, or unusual insight, imagination or effort involved?
- (3) Will there be substantial impact or benefits derived from the contribution?

If the answer to any of these questions is yes, consideration should be given to granting monetary and/or honorary recognition. When a contribution is determined to be partially within job responsibilities, considering the equities of the case in terms of the employee and the organization, the amount may be reduced proportionately from what the award would have been had the contribution been clearly beyond

job responsibilities (e.g. by 25%, 50%, or 75%, as appropriate). When a contribution is considered within, or partially within, the employee's normal job requirements in the particular employing unit or organization, if it benefits other units within or outside of the organization or other Government organization(s), the individual should receive recognition to the extent that his or her assigned duties did not require such improvements or changes to be made in other organizations. In such cases, job responsibilities should not be a factor and the award should be based on the total benefits to the other organizations or agencies benefiting.

### D-3. HANDLING INELIGIBLE DETERMINATIONS

If a determination is made that the contribution is completely within normal job requirements, the employee should be fully informed of the reasons for this decision. Although ineligible for a cash award, the individual should receive, as a minimum, some form of non-cash recognition such as a certificate or letter of appreciation.



**ROUTING AND TRANSMITTAL SLIP**

Date **26 OCT 87**

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. Carolyn Arnold, CPD		
2.		
3.		
4.		
5.		

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

**REMARKS**

Attached is BENNY SUGG 17-87 with First Endorsement by Col. Lilley.

**DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions**

<b>FROM: (Name, org. symbol, Agency/Post)</b> Lori Rademann Administrative Section	Room No.—Bldg. 2 1201
	Phone No. 5307



12451  
MAIN

26 OCT 1987

FIRST ENDORSEMENT ON BENEFICIAL SUGGESTION 17-87 dated 22 OCT 87

From: Base Maintenance Officer, Marine Corps Base, Camp Lejeune  
To: Employee Relations Specialist, Marine Corps Base, Camp  
Lejeune

Subj: BENEFICIAL SUGGESTION NO. 17-87

Ref: (a) BO 12451.2

Encl: (1) Contribution Investigation Report, NAVSO 5305/5 (1-78)  
(2) Subject suggestion file

1. Per the reference, the subject suggestion is forwarded, recommending approval.

M. G. LILLEY

Writer: S. L. Marsicano, Director, Admin Branch, x5307  
Typist: L. P. Rademann, 26 October 87

1891 TOQ 8 8

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UNITED STATES MARINE CORPS  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542-5001

IN REPLY REFER TO:  
12451  
CPD  
24 Nov 1986

From: Administrator, Incentive Awards Program, Marine Corps  
Base, Camp Lejeune  
To: Base Maintenance Officer, Marine Corps Base, Camp Lejeune  
Subj: BENEFICIAL SUGGESTION NO. 17-87  
Ref: (a) BO 12451.2  
Encl: (1) Contribution Investigation Report, NAVSO 5305/5 (1-78)  
(2) Subject suggestion file

1. Enclosure (1) is forwarded for your comments regarding evaluation and consideration for possible adoption of enclosure (2). It is requested that an investigator be assigned for this purpose. Appropriate staff offices (i.e., Provost Marshal, Staff Judge Advocate, Base Safety) may be contacted by the investigator for input relative to their area.

2. Upon completion of the investigation, the suggestion file should be returned to the Administrator, Incentive Awards Program for technical review prior to your approval/disapproval.

3. If you have any questions relative to this matter, please feel free to contact Mrs. Arnold at extension 1458 or 1579.

  
DONALD L. SMYTHE

Shirley,  
Logged to CPD  
2 Oct 87!  
LPP

Shirley, 15 Oct 87  
We're going to start from scratch  
on these per my telcon w/Carolyn  
Arnold. Two on her list have  
been submitted to CPD (enclosed).  
She's giving us two weeks.

Lori, 10/26/87  
Pls file in  
Benny Auger's  
folder & give me  
a weekly status  
report where we  
stand. Shirley



UNITED STATES MARINE CORPS  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542-5001

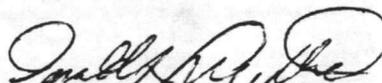
IN REPLY REFER TO:  
12451  
CPD  
24 Nov 1986

From: Administrator, Incentive Awards Program, Marine Corps  
Base, Camp Lejeune  
To: Base Maintenance Officer, Marine Corps Base, Camp Lejeune  
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Ref: (a) BO 12451.2  
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3. If you have any questions relative to this matter, please feel free to contact Mrs. Arnold at extension 1458 or 1579.

  
DONALD L. SMYTHE



DATE RECEIVED  
11-20-86

CONTRIBUTER(S) (Name: Last, first, M.I.)

HACKETT, Raymond L.  
RILEY, Clyde E.

CONTRIBUTION (Number and title)

17-87, Coil Cleaning

POSITION TITLE, AND GRADE OR RANK/RATE

A/C Mech, WG-8  
A/C Mech, WG-8

ACTIVITY OF CONTRIBUTOR(S) (Name and location)

Marine Corps Base, Camp Lejeune, NC 28542

ORGANIZATIONAL CODE AND TITLE

Base Maintenance, Shop 35

TO:

Base Maintenance Officer

DATE FORWARDED

11-24-86

DUE DATE

12-8-86

A complete evaluation of this contribution is necessary and all questions that apply should be answered. Although you may not have authority to implement the contribution, you are requested to give your opinion on its value. Do not merely state that authority to adopt the contribution is under the cognizance of GSA, VA, Treasury, etc. YOUR REPLY MAY BE USED VERBATIM IN NOTIFYING THE CONTRIBUTOR(S) OF THE RESULTS.

SIGNATURE OF AWARDS ADMINISTRATOR

*Donald L. Smythe*  
DONALD L. SMYTHE

ACTIVITY AND LOCATION

Civilian Personnel Division, MCB,  
Camp Lejeune, North Carolina 28542

INVESTIGATION REPORT

1. WILL CONTRIBUTION BE ADOPTED LOCALLY? (If "NO" give reason for nonadoption in space 4 and answer questions 5 and 6 only)

2. IS CONTRIBUTION IN OPERATION? (Complete items below)

IF "YES" GIVE DATE INSTALLED \_\_\_\_\_ IF "NO" INDICATE BELOW THE ACTION TAKEN TOWARD ADOPTION

COMMITMENT TO ADOPT HAS BEEN MADE     PROJECT OR JOB ORDER HAS BEEN ISSUED     EXPERIMENTAL WORK OR TRIAL TEST IS UNDER WAY     APPROVAL HAS BEEN REQUESTED

3. ESTIMATE OF BENEFITS

A. INTANGIBLE BENEFITS

VALUE     MODERATE     SUBSTANTIAL     HIGH     EXCEPTIONAL

EXTENT OF APPLICATION     LIMITED     EXTENDED     BROAD     GENERAL

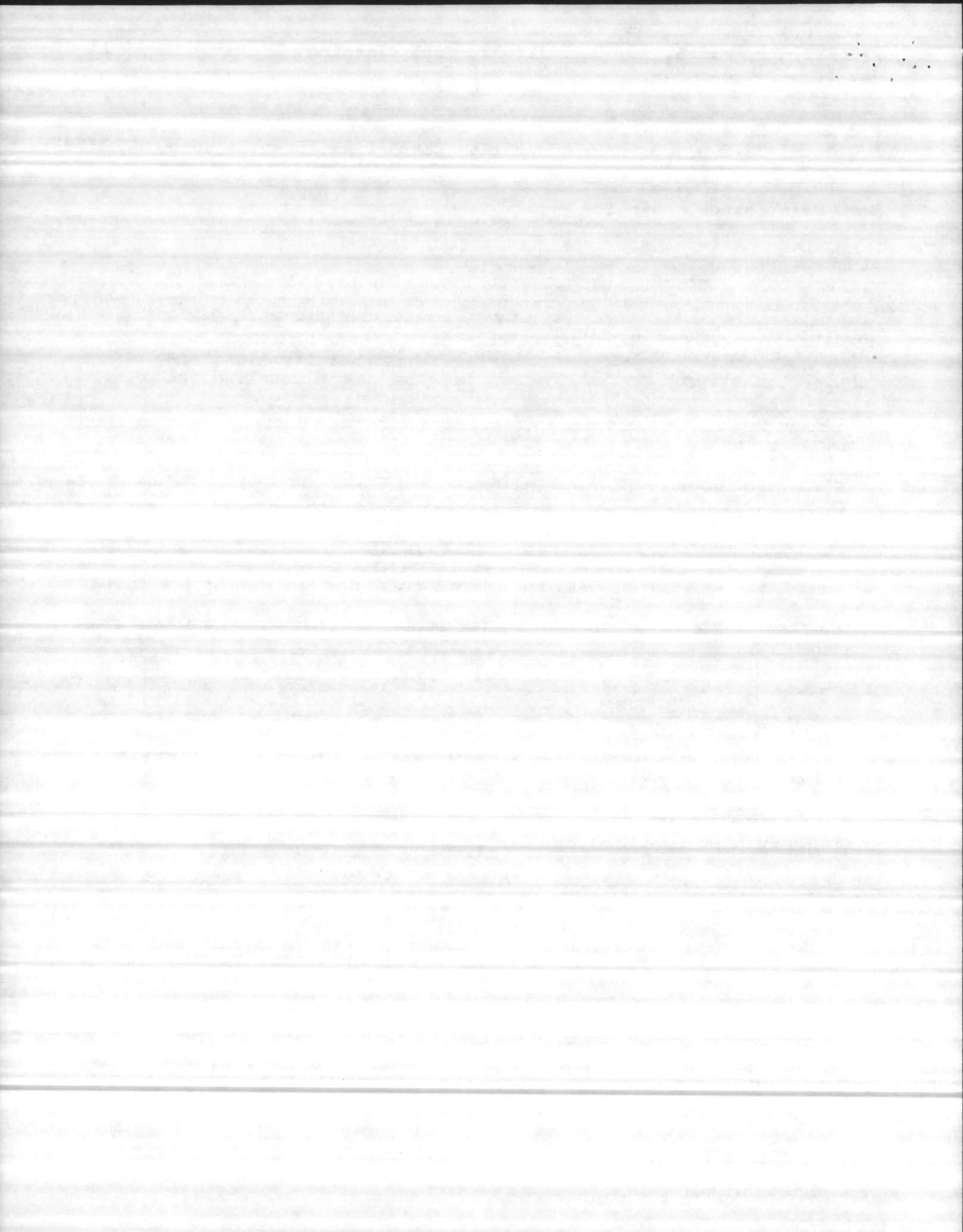
B. TANGIBLE BENEFITS (In table below compute labor savings at actual cost.)

ITEM	LABOR			MATERIAL			TOTAL (LABOR AND MATERIALS)
	Hours Per	Dollars Per Hour	TOTAL	Units Per	Cost Per Unit	TOTAL	
FORMER METHOD		\$	\$		\$	\$	\$
NEW METHOD							
SAVINGS							

4. ADDITIONAL INFORMATION AND COMMENTS

(If more space is needed, use reverse side starting with this end of the page up. )

5. IS PATENT INVESTIGATION RECOMMENDED?	YES	NO	SIGNATURE OF INVESTIGATOR	DATE
6. IF CONTRIBUTION CAN BE USED ELSEWHERE, INDICATE WHERE:			ACTIVITY AND LOCATION OF INVESTIGATOR	
			APPROVING OFFICIAL	DATE



NAME OF SUGGESTER(S) (last, first, m.i.) HACKETT RAYMOND E E RILEY CLYDE EDWIN	POSITION TITLE & GRADE (or military rank/rate) AC MECH WG 8 AC MECH WG-8	SOCIAL SECURITY NO. 148-30-4655 301300168
ORGANIZATION (Specify activity, ship, command, bureau or office) MCB CLNC	ORGANIZATION SUBDIVISION (Dept., Div., Sect., Unit or Shop) BASE MAINTS Shop #35	PHONE 451-2781

I (WE) UNDERSTAND that the acceptance of a cash award for the use of this suggestion by the United States Government shall not form the basis of a further claim of any nature upon the United States by me (us), my (our) heirs, or assigns.

DO NOT WRITE IN THIS SPACE
DATE RECEIVED 11-20-86
SUGGESTION NUMBER 17-87

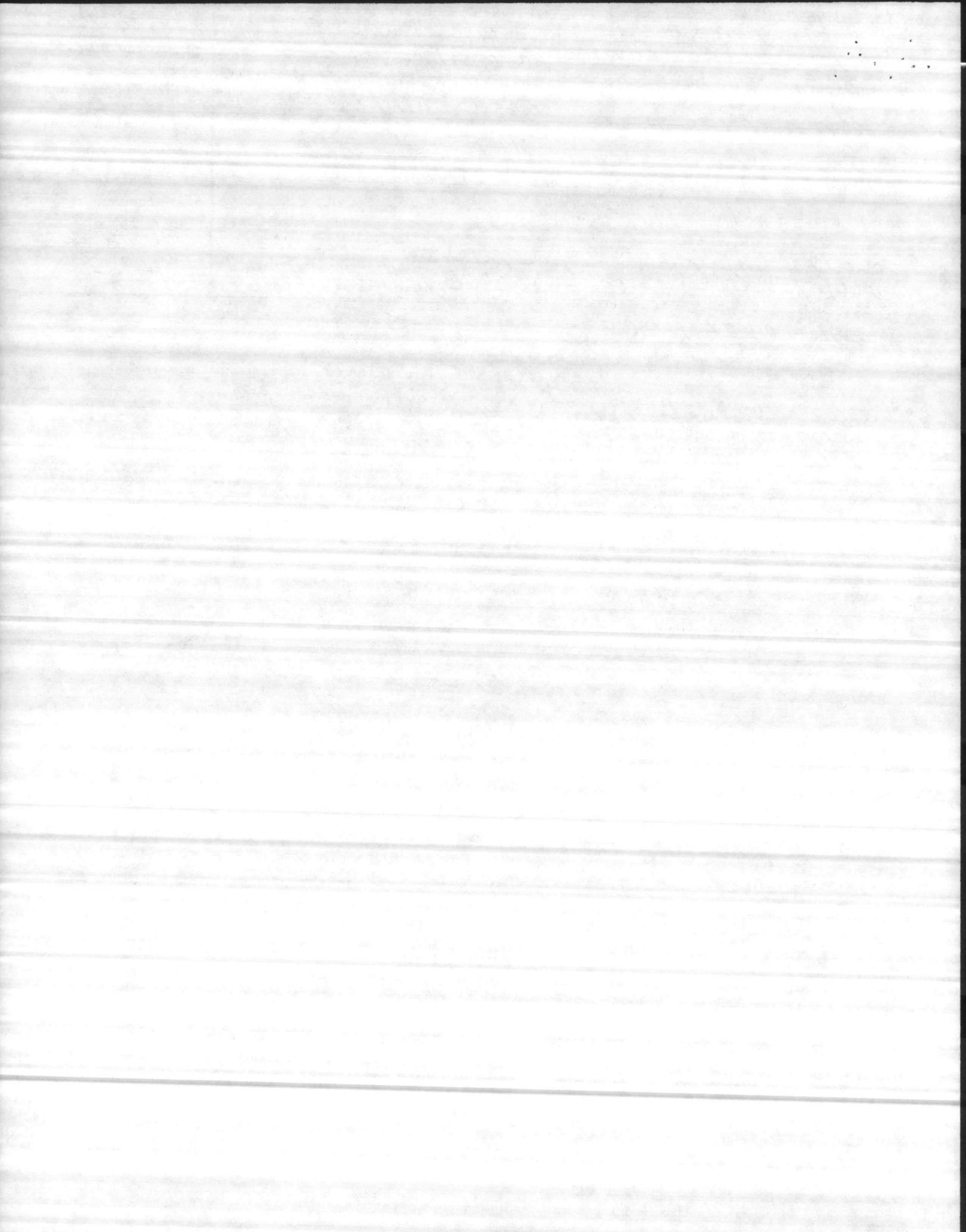
SIGNATURE AND DATE Raymond L. Hackett 11-18-86	SIGNATURE AND DATE Clyde E Riley 11/18/86
---	--

TITLE OF SUGGESTION  
COIL CLEANING

Describe in three separate paragraphs (1) the problem, difficulty, or circumstances that prompted you to submit this suggestion; (2) the suggested change; (3) where and how it can be used, what it will accomplish, and how it will benefit the Navy/Government - in terms of tangible savings, if possible.

SEE ATTACH ENCLOSURE,

Note - If you need more space, continue on separate sheet.



## COIL CLEANING

In order for heat pumps to function properly, adequate air flow through the coils is essential. The coils in these units, over a period of time, become excessively corroded, therefore, virtually impossible to clean thoroughly.

Eroded coils cause the following problems: 1) high head pressure on the compressors, 2) the compressors and inside blower motors deteriorate or do not function, and 3) heavy electric usage for both the compressors and the blower motors. Tenants are dissatisfied with the results of heat pumps during both the air conditioning season and heating season because of inefficiency. In addition, there are constant call backs on the service calls already performed.

The following steps are now being used in cleaning a coil:

a. First, pump down the unit or lose approximately 4 pounds of freon charge;

b. Next, unsweat silver solder joint at air handler and take out the coil;

c. Bring the coil back to the shop, thoroughly brush the coil, soak it in Calgon soap, and then thoroughly rinse with a water hose on both sides. This process must be accomplished normally three (3) times for adequate cleaning results.

d. After the coil has been cleaned, return to the house and place the coil back in the heat pump, resolder joint, and place freon back into the unit.

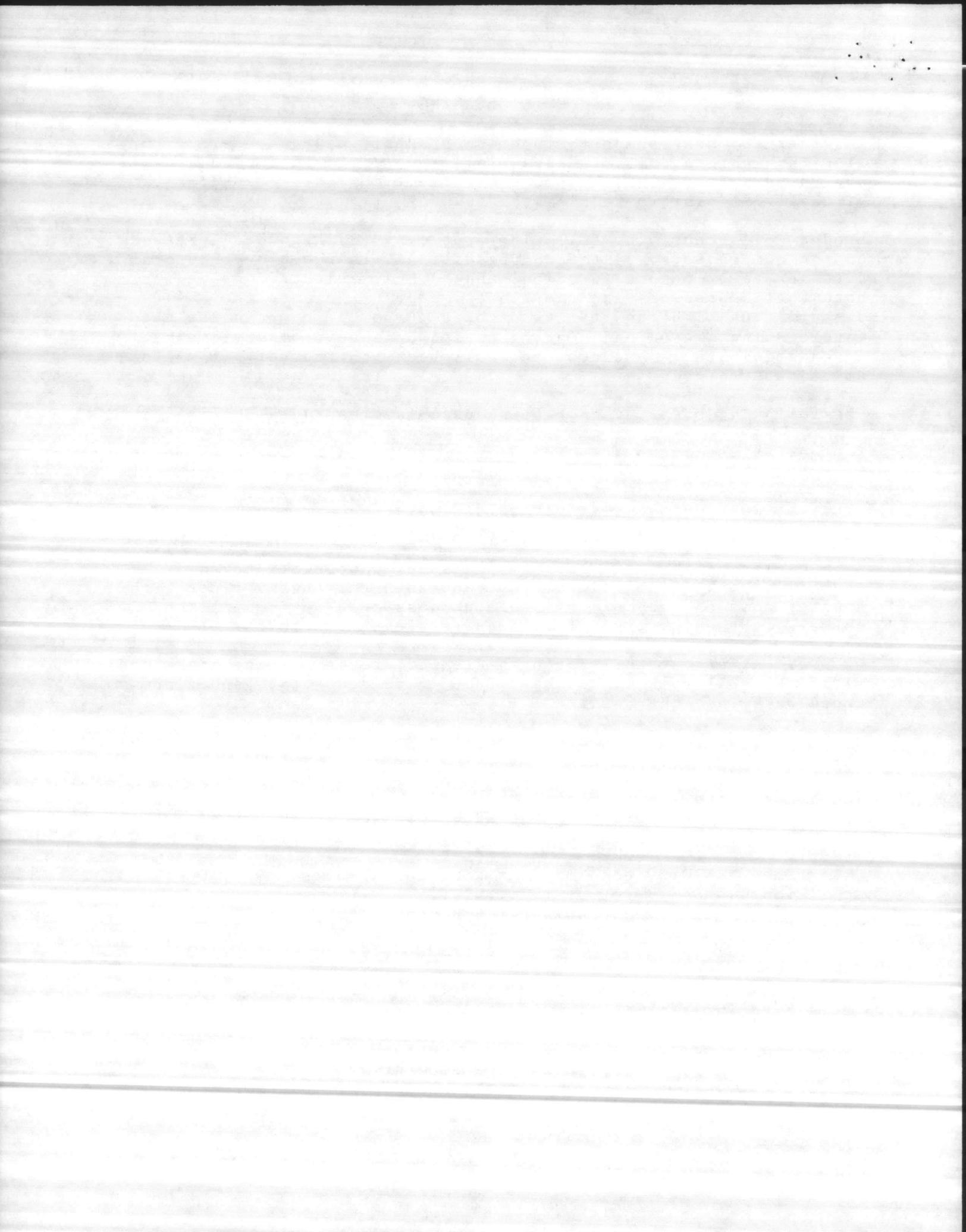
e. Last, change the Liquid Drier and vacuum the pump system three (3) times.

The above steps are completed by using 2 men, 4 man-hours each, and a truck. The following breakdown is made to easily depict how much money and time is involved in pulling one coil.

2 men - \$10.00 each man per hour for 4 hours..	\$ 80.00
Liquid Drier.....	17.00
Truck - \$10.00 per hour for 4 hours.....	<u>40.00</u>
Cost per coil.....	\$137.00

THE ANSWER TO SAVING IN THE ABOVE PROCESS IS TO USE RENEWZ

Renewz is a one step process which, when poured onto the coil, swells like a sponge agitating the element removing all eroded matter. In addition, Renewz can be used on all refrigeration coils located throughout the Base.



The following breakdown indicates how much money can be saved by using Renewz:

Cost per pulling and cleaning coil.....	\$137.00
Watkins Village (250 Units).....	<u>x 250</u>
	\$34,250.00
Minus cost for Labor and Renewz.....	<u>- 4,875.00</u>
<b>SAVINGS.....</b>	<b>\$29,375.00</b>

It is requested that a demonstration with the Inspector be granted to prove this new method and the substantial savings thereof.

10

**BRIGHTENS AND CLEANS  
CONDENSER COILS**

**STRIPS AWAY DIRT, OXIDES AND  
COOKING GREASE.**



**RENEWZ**

**Non-Acid, Foaming  
Renewer  
of Condenser Coils**

**CONTENTS:  
1 U.S. Gal.  
(3.79 liters)**

**0523G**

Manufactured By

**STEWART / HALL**

**CHEMICAL CORPORATION  
MOUNT VERNON, NEW YORK 10557**

**RENEWZ** leaves aluminum surfaces not only bright and shiny, but completely clean and insulation free in less than five minutes.

**RENEWZ'** penetrating, surfactant-aided, foaming action lifts and pushes insulating contaminants and oxides off the coils. This includes difficult to remove cooking greases found thickly coating coils in or near restaurants. **RENEWZ** penetrates the grease, solubilizes and disperses it. The foaming action then floats all loosened material out of normally inaccessible areas to where they can easily be rinsed away with low pressure water.

Cleaning dirty coils with **RENEWZ** reduces the head pressure on overheated compressors, avoids premature equipment breakdown, increases equipment efficiency and decreases power consumption and costs. The need for high pressure washers which can bend fins and wedge contaminants into the deep recesses of the coil, is eliminated. **RENEWZ** is also the perfect answer for cleaning electronic air filters, thus avoiding possible damage from high pressure steam cleaning.

**————DIRECTIONS————**

**READ ALL DIRECTIONS AND WARNINGS ON LABEL BEFORE USING.**

1. Dilute **RENEWZ** with cold water only (below 100°F)

**APPLICATION**

Brightening and removal of heavy dirt and grease  
Some brightening and removal of light to medium dirt and oxides  
No brightening and removal of light dirt only

**DILUTE 1 PART RENEWZ WITH**

3 parts water  
6 parts water  
9 parts water

2. Avoid backspray from wind. Do not use in high pressure washers.
3. Shut off system.
4. Spray the diluted **RENEWZ** on to all surfaces, saturating the coils well. Use a low pressure sprayer that does not contain aluminum, or a Stewart-Hall Penetrator Sprayer Kit.
5. Allow 5 minutes for full cleaning action - but never more than 8 minutes.
6. Rinse coil very thoroughly with low pressure water.
7. For cooking grease applications: allow 8 minutes before rinsing. Repeat if necessary

11

# RENEWZ

## POISON!

Causes severe burns. Contains Sodium Hydroxide. (Caustic Soda). Do not get in eyes, on skin, on mucous membrane or clothing. Do not breathe vapors. Open container only to pour, then close at once. Wear eye goggles or full face shield, rubber gloves and protective clothing. Wash thoroughly after handling. Use only in well ventilated areas so as to maintain safe air levels as determined by established regulations.

## FIRST AID

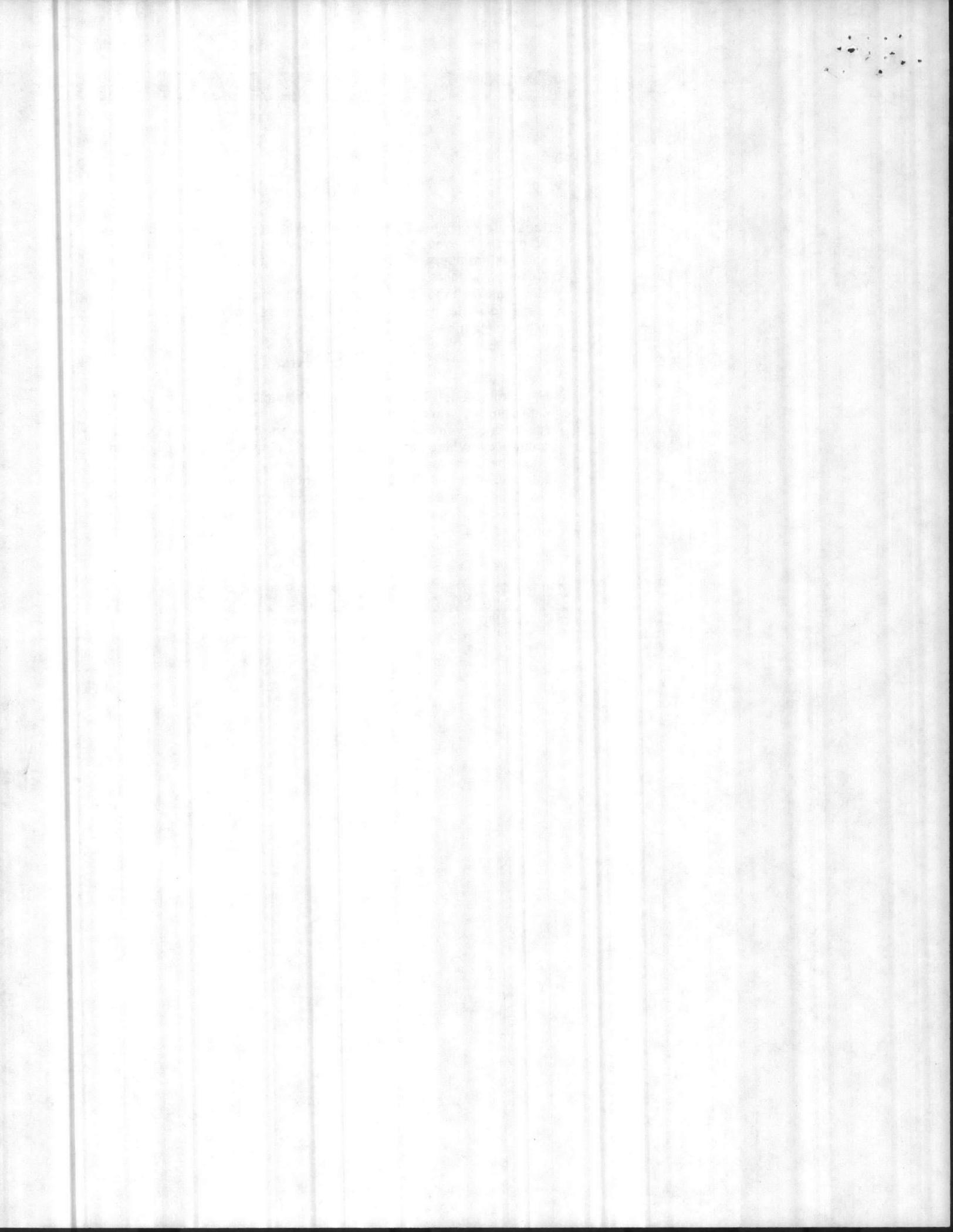
**Eyes:** Immediately flush with plenty of water for at least 15 minutes. Call a physician immediately.

**Skin:** Flood with water then wash with vinegar. Remove contaminated clothing and shoes. Wash clothing and thoroughly clean shoes before reuse. Call a physician if any irritation persists.

**Internal:** If swallowed, do NOT induce vomiting. Drink large quantities of water. If available, follow with citrus fruit juice. Call a physician immediately. Give nothing by mouth if person is unconscious.

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# ROUTING AND TRANSMITTAL SLIP

Date

Dec. 1, 1987

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. Shop 35, Wade E. Bender		
2.		
3.		
4.		
5.		

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

**REMARKS**

Beneficial Suggestion 17-87

Per CPD's note of 23 Nov 87 to Shirley Marsicano, please make a determination if this suggestion falls under job responsibilities. Please return to ADMIN, Attn. Lori Rademann, NLT 4 Dec 87.

**DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions**

<b>FROM: (Name, org. symbol, Agency/Post)</b> Lori Rademann Admin Branch	Room No.—Bldg. 2 1202 <hr/> Phone No. 3722/5307
--	---



**ROUTING AND TRANSMITTAL SLIP**

Date  
23 Nov 1987

TO: (Name, office symbol, room number, building, Agency/Post)		Initials	Date
1.	Shirley Marsicano, Base Maintenance		
2.			
3.			
4.			
5.			

<input checked="" type="checkbox"/> Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS Beneficial Suggestion No. 17-87

Shirley-- First of all, I have had to revise the form again since the labor acceleration rate has change within the past three weeks to 38.5. Secondly, I am forwarding the suggestion package, along with copies of Appendix D from the FPM. A determination with regard to job responsibility on the part of the suggesters relative to the suggestion needs to be made prior to forwarding to Building 1. Hopefully, the pages from the FPM will answer any questions you might have regarding this and, of course, the Base Order refers to determining job responsibility under section 10c. Questions in addition to answers found in these two documents, give me a call.

*Carolyn*  
Carolyn

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions.

*Lori*  
*Pls get w/ Wade Bender*  
*+ see if the suggestion*  
*falls under job responsibilities*

*Shirley*  
*Reply should be made in*  
*memo form.*

11/30/87  
No.—Bldg. 33  
No. 1579  
(Rev. 7-76)

<p>1. Name of the person or organization to whom the money is to be paid</p>	<p>2. Amount of money to be paid</p>
<p>3. Name of the person or organization to whom the money is to be paid</p>	<p>4. Amount of money to be paid</p>
<p>5. Name of the person or organization to whom the money is to be paid</p>	<p>6. Amount of money to be paid</p>
<p>7. Name of the person or organization to whom the money is to be paid</p>	<p>8. Amount of money to be paid</p>
<p>9. Name of the person or organization to whom the money is to be paid</p>	<p>10. Amount of money to be paid</p>
<p>11. Name of the person or organization to whom the money is to be paid</p>	<p>12. Amount of money to be paid</p>
<p>13. Name of the person or organization to whom the money is to be paid</p>	<p>14. Amount of money to be paid</p>
<p>15. Name of the person or organization to whom the money is to be paid</p>	<p>16. Amount of money to be paid</p>

**ROUTING AND TRANSMITTAL SLIP**

Date  
23 Nov 1987

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. Shirley Marsicano, Base Maintenance		
2.		
3.		
4.		
5.		

X Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
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Comment	Investigate	Signature
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*Carolyn*  
Carolyn

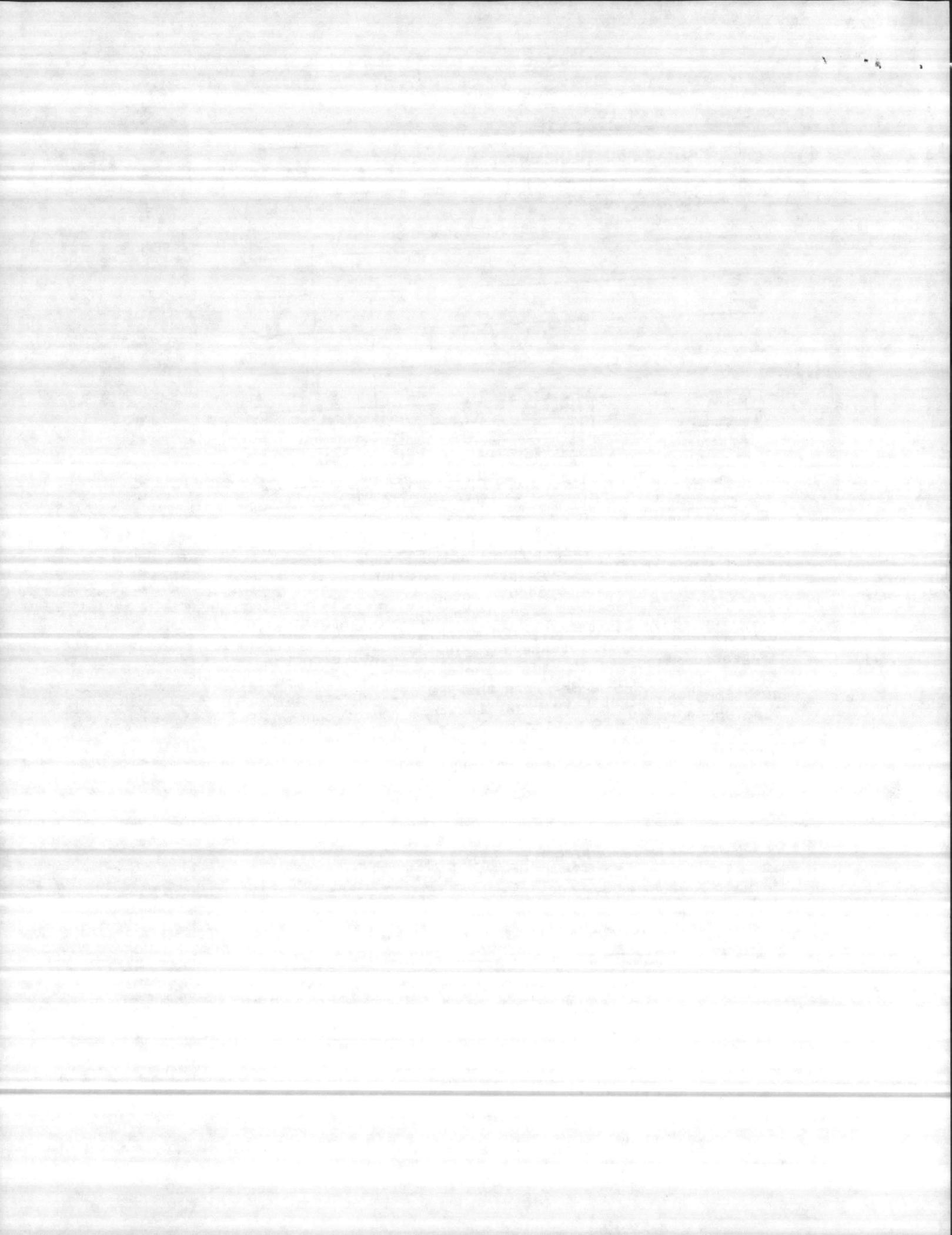
DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)	Room No.—Bldg.
Carolyn Arnold Employee Relations	33
	Phone No. 1579

8041-102 S/N 0107-LF-000-4100

\* U.S. GPO: 1986-704-009/46392

OPTIONAL FORM 41 (Rev. 7-76)  
Prescribed by GSA  
FPMR (41 CFR) 101-11.206



## Appendix D.

### Determining Extent of Job Responsibility

#### D-1. GENERAL

a. Monetary and/or honorary awards, as appropriate, should be granted when merited regardless of the employee's grade, level of responsibility, or type of responsibility. Higher grade employees, and all levels and types of management personnel, should be given the same encouragement to make superior contributions as is given to lower grade employees, particularly since their contributions, when job related, must be substantial in order to merit special recognition. Adherence to the requirement that awards be granted for job-related contributions only if they clearly are beyond performance requirements will preclude a disproportionate number of awards being granted to higher graded employees.

b. An award may be granted to an employee for a contribution which concerns matters either within or outside job responsibilities. However, if it is within job responsibilities, it must be so superior or meritorious that it warrants special recognition. In making such determinations, careful consideration should be given to the employee's job description, assigned duties, the performance requirements or standards for the position, and the extent of application of the contribution and its impact on the organization. The employee's supervisor generally is in the best position to evaluate whether the contribution is within job responsibilities. However, awards program administrators, classification specialists, personnel management specialists, and others, may provide valuable input to the decision.

c. Those making such determinations must exercise careful judgment to assure that criteria for determining award eligibility are neither too liberal nor too stringent, as either extreme could well lead to a lack of employee confidence in the program and management. Also, an important factor to be considered is the effect that a negative decision may have on the employee and his or her co-workers.

#### D-2. DETERMINING AWARD ELIGIBILITY

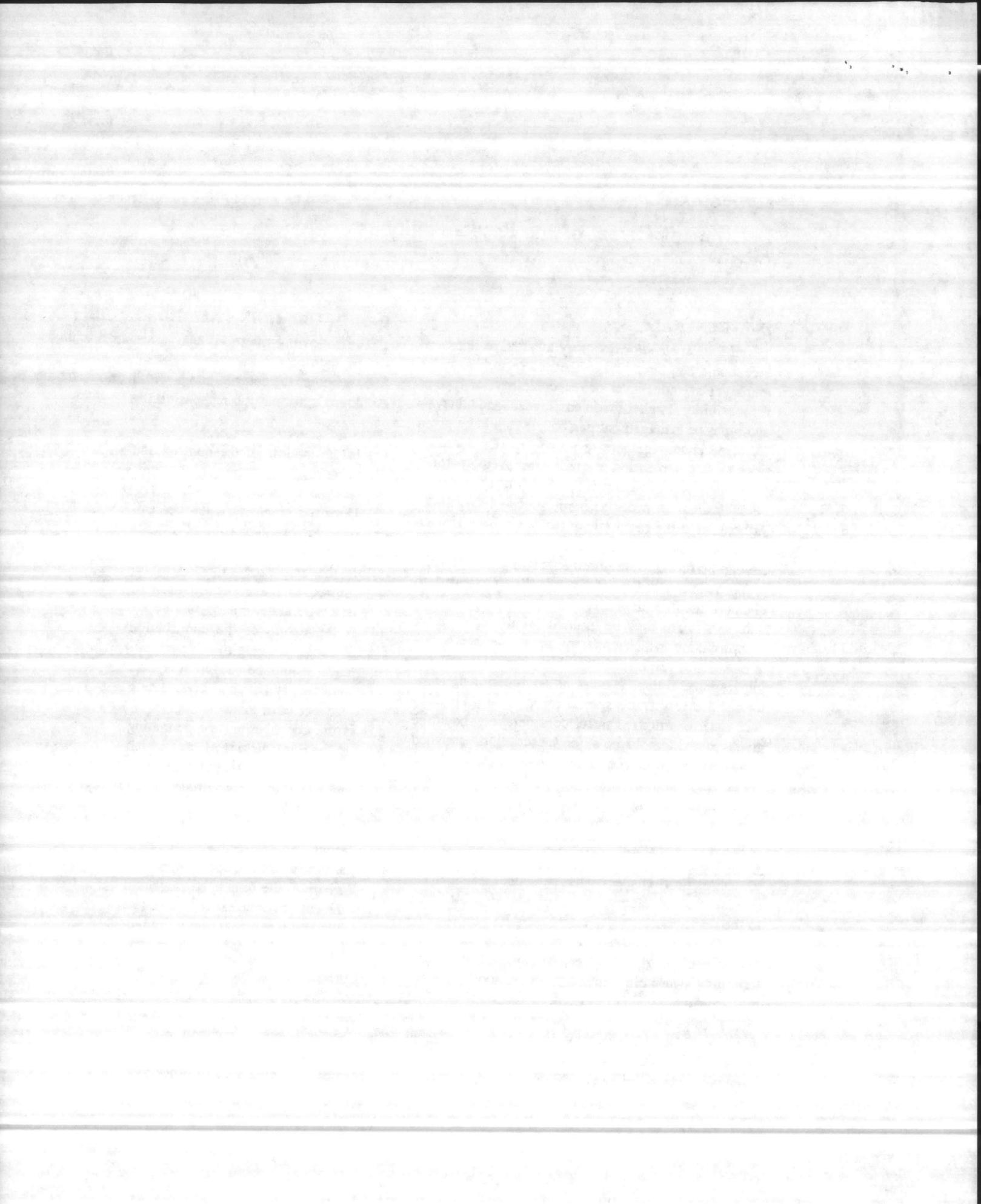
The following questions may assist in reaching a determination:

a. whether the contribution is within or outside the employee's normal job responsibilities.

- |  | YES                      | NO                       |
|--|--------------------------|--------------------------|
| (1) Is the subject of the contribution within the scope of the employee's work?  | <input type="checkbox"/> | <input type="checkbox"/> |
| (2) Does the employee's job description cover the subject of the contribution?   | <input type="checkbox"/> | <input type="checkbox"/> |
| (3) Is the employee expected or required to make contributions of the type under consideration?  | <input type="checkbox"/> | <input type="checkbox"/> |
| (4) Is the nature of the contribution such that the employee's performance would be judged less than satisfactory if this contribution had not been made?  | <input type="checkbox"/> | <input type="checkbox"/> |
| (5) Is the contribution one pertaining to the immediate work area which the employee can put into operation without consulting higher authority?   | <input type="checkbox"/> | <input type="checkbox"/> |
| (6) If the contribution pertains to the employee's immediate work area, as well as having application elsewhere in the organization, would the employee be expected to make contributions that have impact beyond his or her immediate area? | <input type="checkbox"/> | <input type="checkbox"/> |

If the answers to the above questions are "No" the contribution is outside of the employee's normal job responsibilities and should be considered for monetary and/or honorary recognition.

If the answers are "Yes" the contribution is within job responsibilities and, in order to receive recogni-



tion, a determination must be made that it is so superior that it merits an award.

b. whether the contribution is so superior that it merits an award.

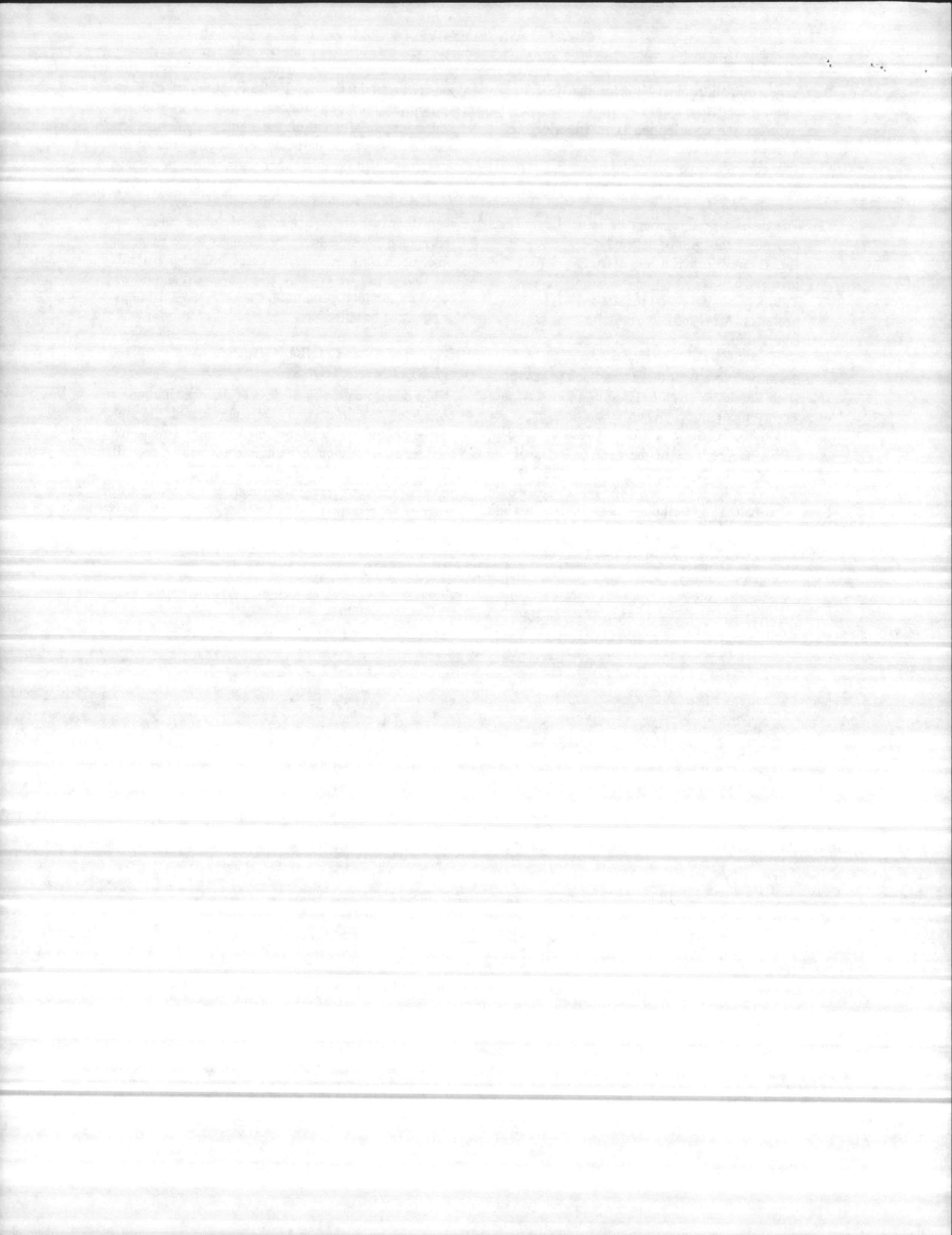
- |  |                          |                          |
|--|--------------------------|--------------------------|
| (1) Is the contribution of particular importance or significance to the organization?                    | <input type="checkbox"/> | <input type="checkbox"/> |
| (2) Was there a great amount of independent thought, or unusual insight, imagination or effort involved? | <input type="checkbox"/> | <input type="checkbox"/> |
| (3) Will there be substantial impact or benefits derived from the contribution?                          | <input type="checkbox"/> | <input type="checkbox"/> |

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Hackett, Raymond L.  
Riley, Clyde E.

17-87, Coil Cleaning

11-20-86

POSITION TITLE, AND GRADE OR RANK/RATE

A/C Mechanic, WG-8  
A/C Mechanic, WG-8

ACTIVITY OF CONTRIBUTOR(S) (Name and location)

Marine Corps Base  
Camp Lejeune, NC 28542

ORGANIZATIONAL CODE AND TITLE

Base Maintenance Division, Shop 35

TO: Base Maintenance Officer

DATE FORWARDED  
Original- 11-24-86  
10-22-87

DUE DATE  
Original - 12-8-86  
11-5-87

A complete evaluation of this contribution is necessary and all questions that apply should be answered. Although you may not have authority to implement the contribution, you are requested to give your opinion on its value. Do not merely state that authority to adopt the contribution is under the cognizance of GSA, VA, Treasury, etc. YOUR REPLY MAY BE USED VERBATIM IN NOTIFYING THE CONTRIBUTOR(S) OF THE RESULTS.

SIGNATURE OF AWARDS ADMINISTRATOR

MARY K. TURPIN

*Mary K. Turpin*

ACTIVITY AND LOCATION

CivPersDiv, MCB  
Camp Lejeune, NC 28542

INVESTIGATION REPORT

- |   |     |    |
|---|-----|----|
| 1. WILL CONTRIBUTION BE ADOPTED LOCALLY? (If "NO" give reason for nonadoption in space 4 and answer questions 5 and 6 only) | YES | NO |
| 2. IS CONTRIBUTION IN OPERATION? (Complete items below)   | X   |    |
|   | X   |    |

IF "YES" GIVE DATE INSTALLED Approximately Jan 87 IF "NO" INDICATE BELOW THE ACTION TAKEN TOWARD ADOPTION

- COMMITMENT TO ADOPT HAS BEEN MADE     PROJECT OR JOB ORDER HAS BEEN ISSUED     EXPERIMENTAL WORK OR TRIAL TEST IS UNDER WAY     APPROVAL HAS BEEN REQUESTED

3. ESTIMATE OF BENEFITS

A. INTANGIBLE BENEFITS

VALUE     MODERATE     SUBSTANTIAL     HIGH     EXCEPTIONAL

EXTENT OF APPLICATION     LIMITED     EXTENDED     BROAD     GENERAL

B. TANGIBLE BENEFITS (In table below compute labor savings at actual cost.)

ITEM	LABOR			MATERIAL			TOTAL (LABOR AND MATERIALS)
	Hours Per Year	Dollars Per Hour	TOTAL	Units Per	Cost Per Unit	TOTAL	
FORMER METHOD	1,000	<del>\$15.71</del> <del>15.32</del>	<del>\$15,710.00</del> <del>15,320.00</del>	250	\$ 28.83	\$ 7,207.50	<del>\$ 22,917.50</del> <del>22,527.50</del>
NEW METHOD	250	15.71 <del>15.32</del>	3,927.50 <del>3,830.00</del>	250	4.21	1,052.50	4,980.00 <del>4,882.50</del>
SAVINGS			<del>11,782.50</del> <del>11,690.00</del>			6,155.00	17,937.50 <del>17,545.00</del>

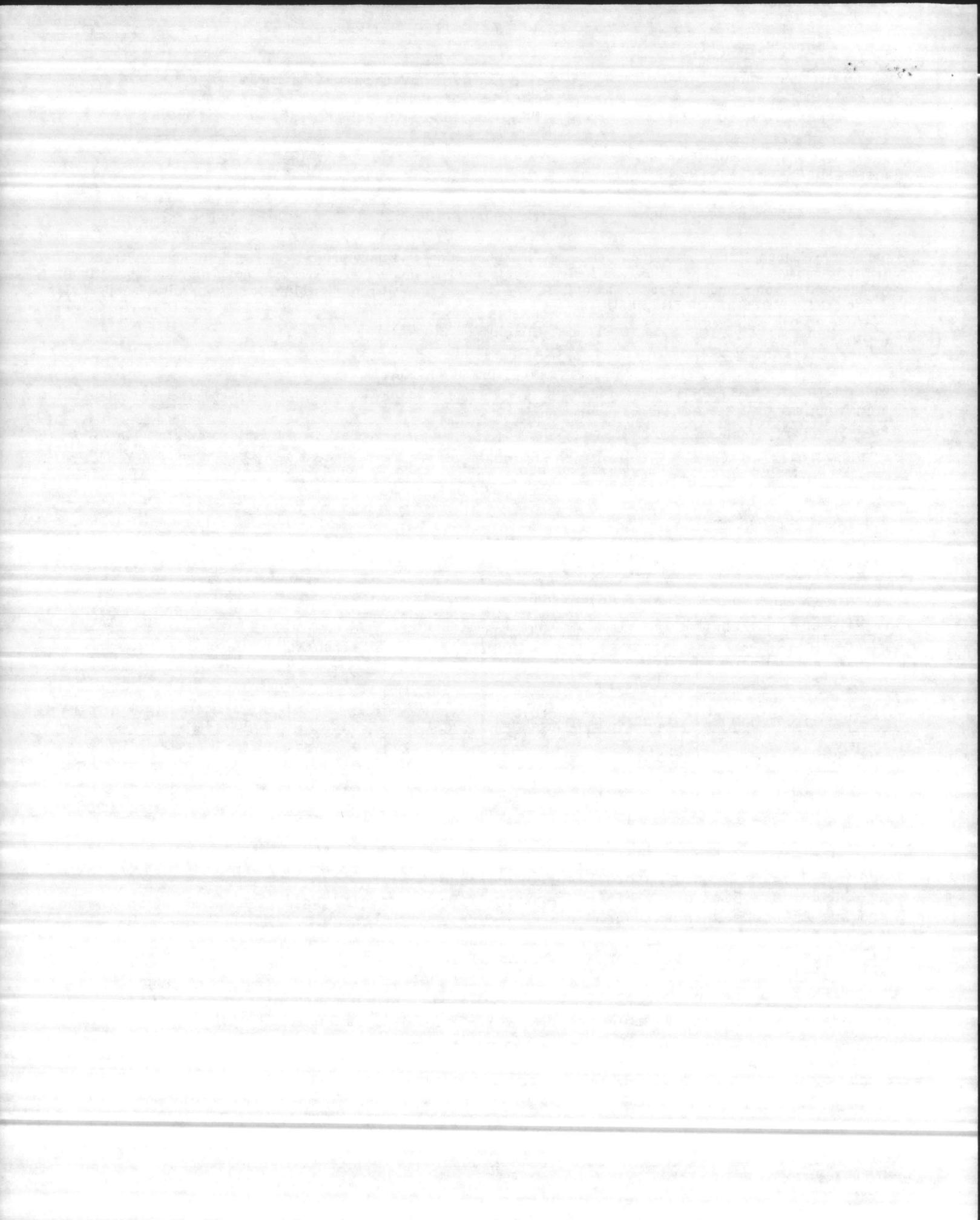
4. ADDITIONAL INFORMATION AND COMMENTS

Former method figures are based on 4 hours labor at \$15.32 p/h; liquid drier at \$16.03; Use of vehicle for 1 hr. at \$1.72; 1/2 gallon of Calgon coil cleaner at \$6.36; 4 lbs. of freon at \$4.72. The new method figures are based on 1/4 gallon of Renewz at \$2.49; 1 man-hour (WG-8) at \$15.32 and vehicle usage at \$1.72. These figures are based on one house. There are 250 houses in this project. \*Figure WG-8, Step 4, \$11.34 per hour plus 3% labor acceleration rate. The suggesters figured two men at \$10.00 each for 4 hours; this should read 2 men at \$15.32 for 4 hours total.

The suggestion has been in use since shortly after the suggesters made this suggestion. It has proven to be very effective and beneficial. Other shops within the Division are now using this product at a great savings to each shop.

(If more space is needed, use reverse side starting with this end of the page up.)

5. IS PATENT INVESTIGATION RECOMMENDED?	YES	NO	SIGNATURE OF INVESTIGATOR <i>Wade Bender</i> Wade Bender	DATE 10-26-87
		X		
6. IF CONTRIBUTION CAN BE USED ELSEWHERE, INDICATE WHERE: Other DOD housing projects.	ACTIVITY AND LOCATION OF INVESTIGATOR PP, Mase Maintenance Division			DATE
	APPROVING OFFICIAL			DATE





UNITED STATES MARINE CORPS  
BASE MAINTENANCE DIVISION  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542-5000

IN REPLY REFER TO:

12451  
MAIN

26 OCT 1987

FIRST ENDORSEMENT ON BENEFICIAL SUGGESTION 17-87 dated 22 OCT 87

From: Base Maintenance Officer, Marine Corps Base, Camp Lejeune  
To: Employee Relations Specialist, Marine Corps Base, Camp  
Lejeune

Subj: BENEFICIAL SUGGESTION NO. 17-87

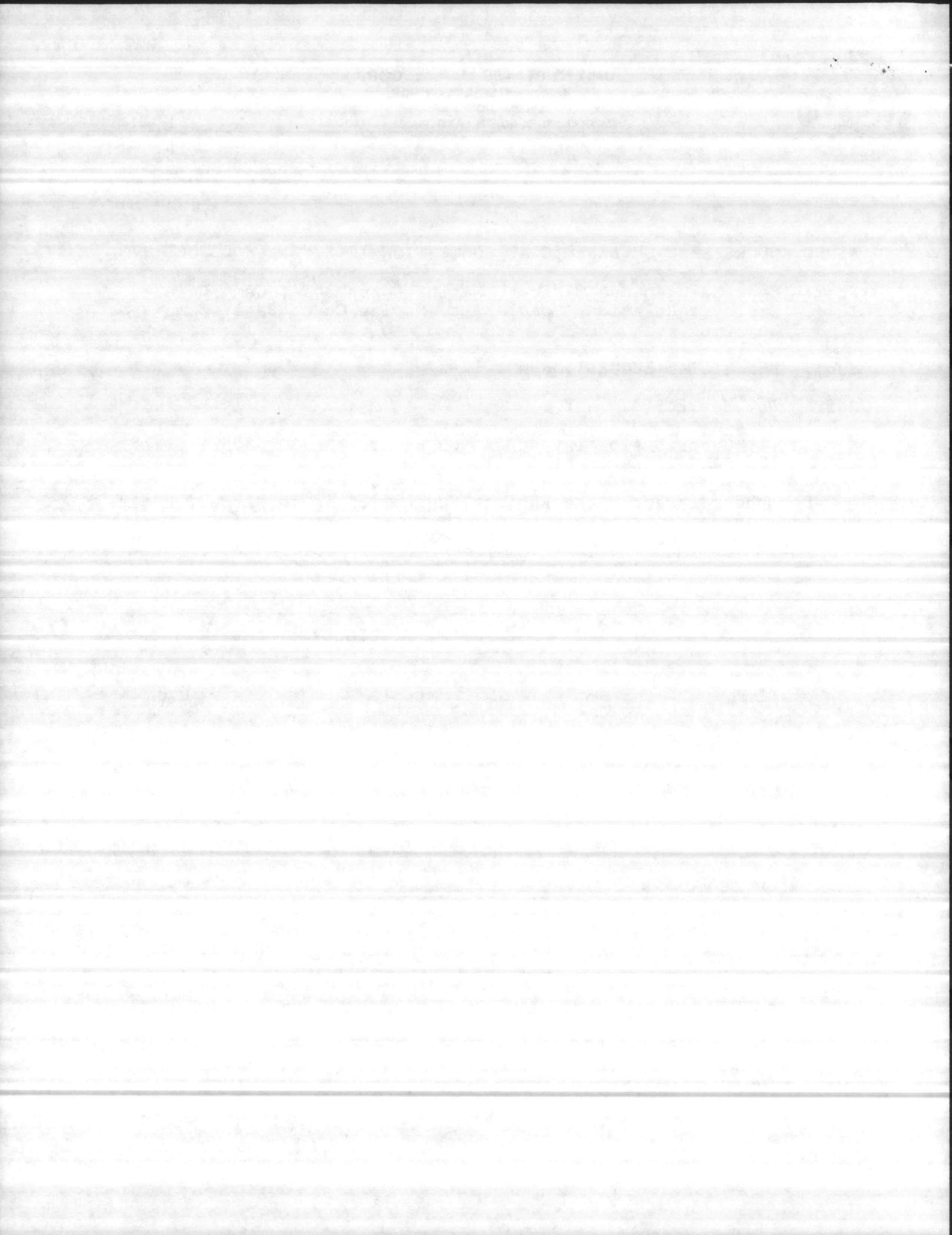
Ref: (a) BO 12451.2

Encl: (1) Contribution Investigation Report, NAVSO 5305/5 (1-78)  
(2) Subject suggestion file

1. Per the reference, the subject suggestion is forwarded, recommending approval.

A handwritten signature in black ink, appearing to read "M. G. Lilley", is written over the typed name.

M. G. LILLEY





UNITED STATES MARINE CORPS  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542-5001

IN REPLY REFER TO:

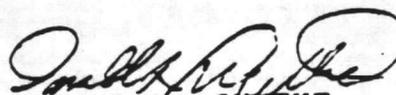
12451  
CPD  
24 Nov 1986

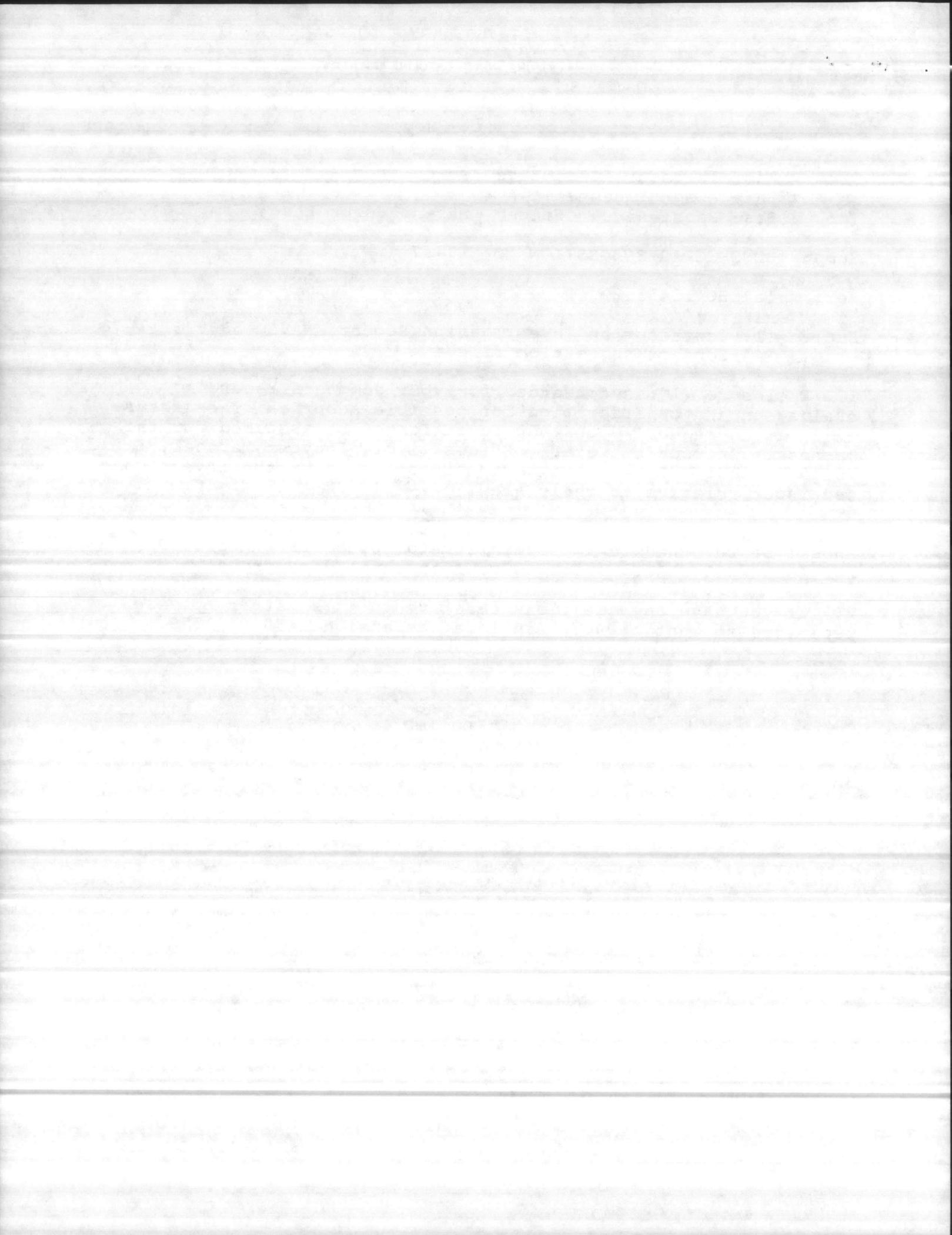
From: Administrator, Incentive Awards Program, Marine Corps  
Base, Camp Lejeune  
To: Base Maintenance Officer, Marine Corps Base, Camp Lejeune  
Subj: BENEFICIAL SUGGESTION NO. 17-87  
Ref: (a) BO 12451.2  
Encl: (1) Contribution Investigation Report, NAVSO 5305/5 (1-78)  
(2) Subject suggestion file

1. Enclosure (1) is forwarded for your comments regarding evaluation and consideration for possible adoption of enclosure (2). It is requested that an investigator be assigned for this purpose. Appropriate staff offices (i.e., Provost Marshal, Staff Judge Advocate, Base Safety) may be contacted by the investigator for input relative to their area.

2. Upon completion of the investigation, the suggestion file should be returned to the Administrator, Incentive Awards Program for technical review prior to your approval/disapproval.

3. If you have any questions relative to this matter, please feel free to contact Mrs. Arnold at extension 1458 or 1579.

  
DONALD L. SMYTHE



HACKETT RAYMOND <sup>EE</sup> AC MECH WG 301300168  
RILEY CLYDE <sup>EJW</sup> AC MECH WG

ORGANIZATION (Specify activity, ship, command, bureau or office) MCB CLNC	ORGANIZATION SUBDIVISION (Dept., Div., Sect., Unit or Shop) BASE MAINTS Shop #35	PHONE 451-2781
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I (WE) UNDERSTAND that the acceptance of a cash award for the use of this suggestion by the United States Government shall not form the basis of a further claim of any nature upon the United States by me (us), my (our) heirs, or assigns.

DO NOT WRITE IN THIS SPACE
DATE RECEIVED 11-20-86
SUGGESTION NUMBER 17-87

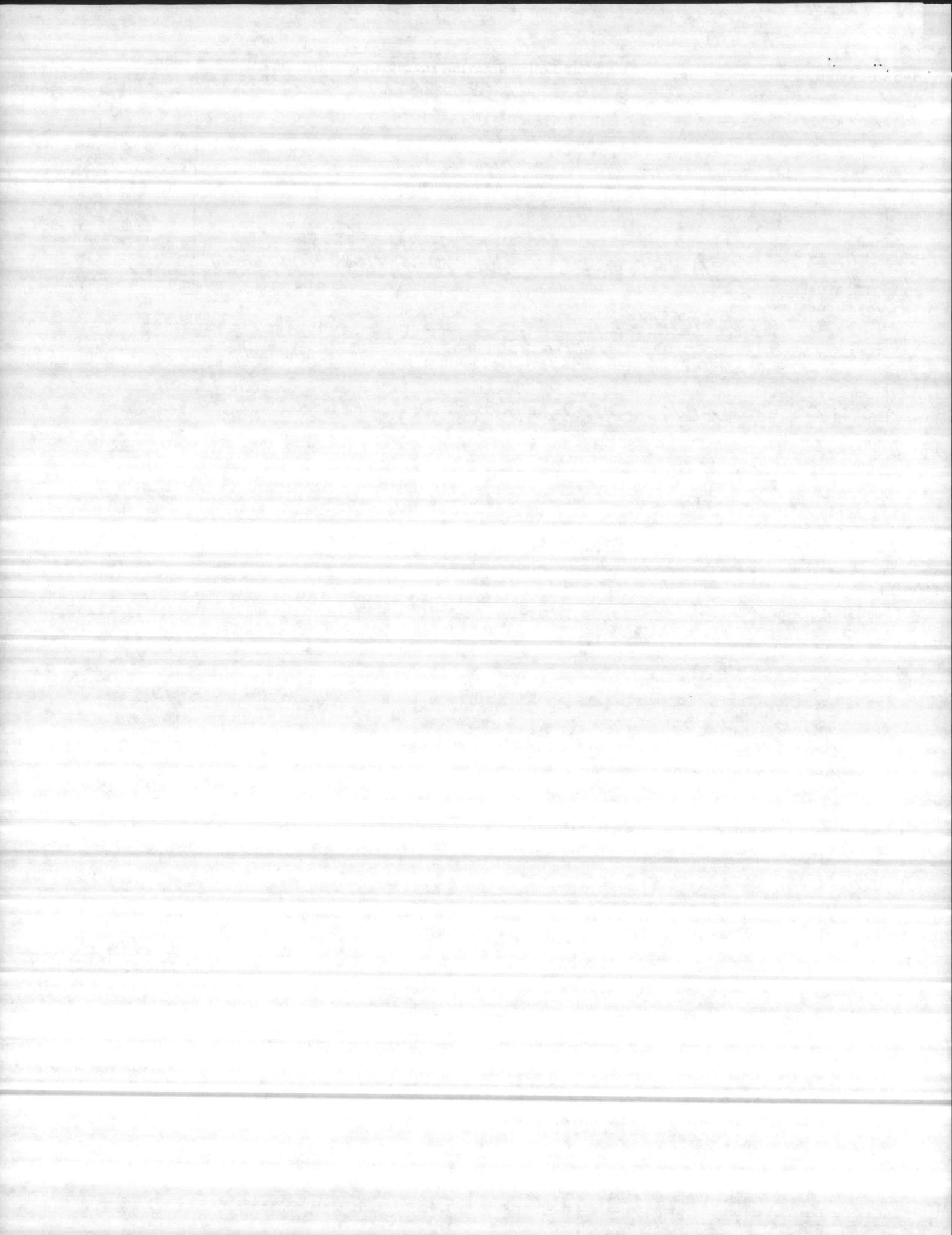
SIGNATURE AND DATE Raymond L. Hackett 11-18-86	SIGNATURE AND DATE Clyde E Riley 11/18/86
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TITLE OF SUGGESTION  
COIL CLEANING

Describe in three separate paragraphs (1) the problem, difficulty, or circumstances that prompted you to submit this suggestion; (2) the suggested change; (3) where and how it can be used, what it will accomplish, and how it will benefit the Navy Government - in terms of tangible savings, if possible.

SEE ATTACH ENCLOSURE,

Note - If you need more space, continue on separate sheet.



## COIL CLEANING

In order for heat pumps to function properly, adequate air flow through the coils is essential. The coils in these units, over a period of time, become excessively corroded, therefore, virtually impossible to clean thoroughly.

Eroded coils cause the following problems: 1) high head pressure on the compressors, 2) the compressors and inside blower motors deteriorate or do not function, and 3) heavy electric usage for both the compressors and the blower motors. Tenants are dissatisfied with the results of heat pumps during both the air conditioning season and heating season because of inefficiency. In addition, there are constant call backs on the service calls already performed.

The following steps are now being used in cleaning a coil:

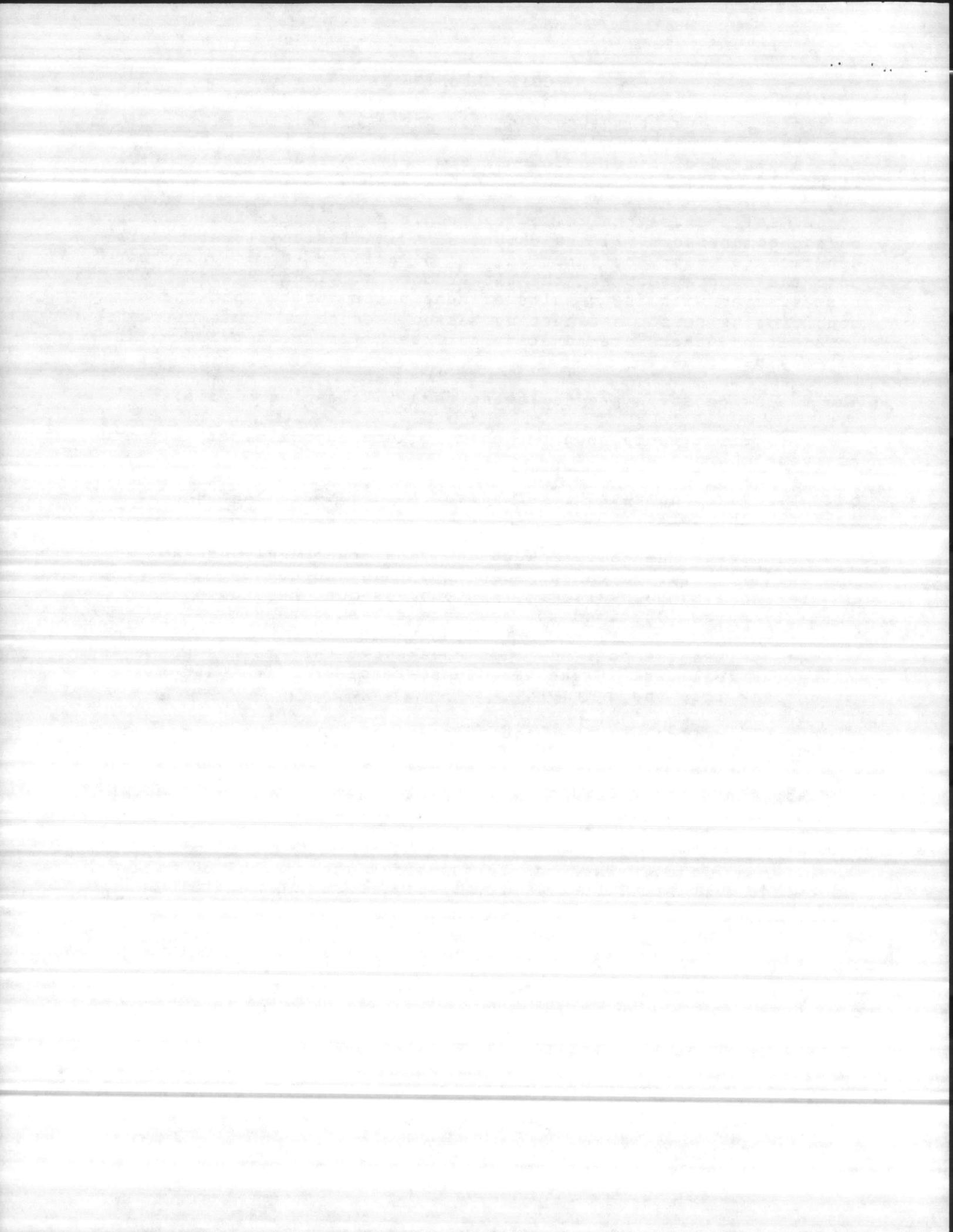
- a. First, pump down the unit or lose approximately 4 pounds of freon charge;
- b. Next, unsweat silver solder joint at air handler and take out the coil;
- c. Bring the coil back to the shop, thoroughly brush the coil, soak it in Calgon soap, and then thoroughly rinse with a water hose on both sides. This process must be accomplished normally three (3) times for adequate cleaning results.
- d. After the coil has been cleaned, return to the house and place the coil back in the heat pump, resolder joint, and place freon back into the unit.
- e. Last, change the Liquid Drier and vaccum the pump system three (3) times.

The above steps are completed by using 2 men, 4 man-hours each, and a truck. The following breakdown is made to easily depict how much money and time is involved in pulling one coil.

2 men - \$10.00 each man per hour for 4 hours..	\$ 80.00
Liquid Drier.....	17.00
Truck - \$10.00 per hour for 4 hours.....	<u>40.00</u>
Cost per coil.....	\$137.00

THE ANSWER TO SAVING IN THE ABOVE PROCESS IS TO USE RENEWZ

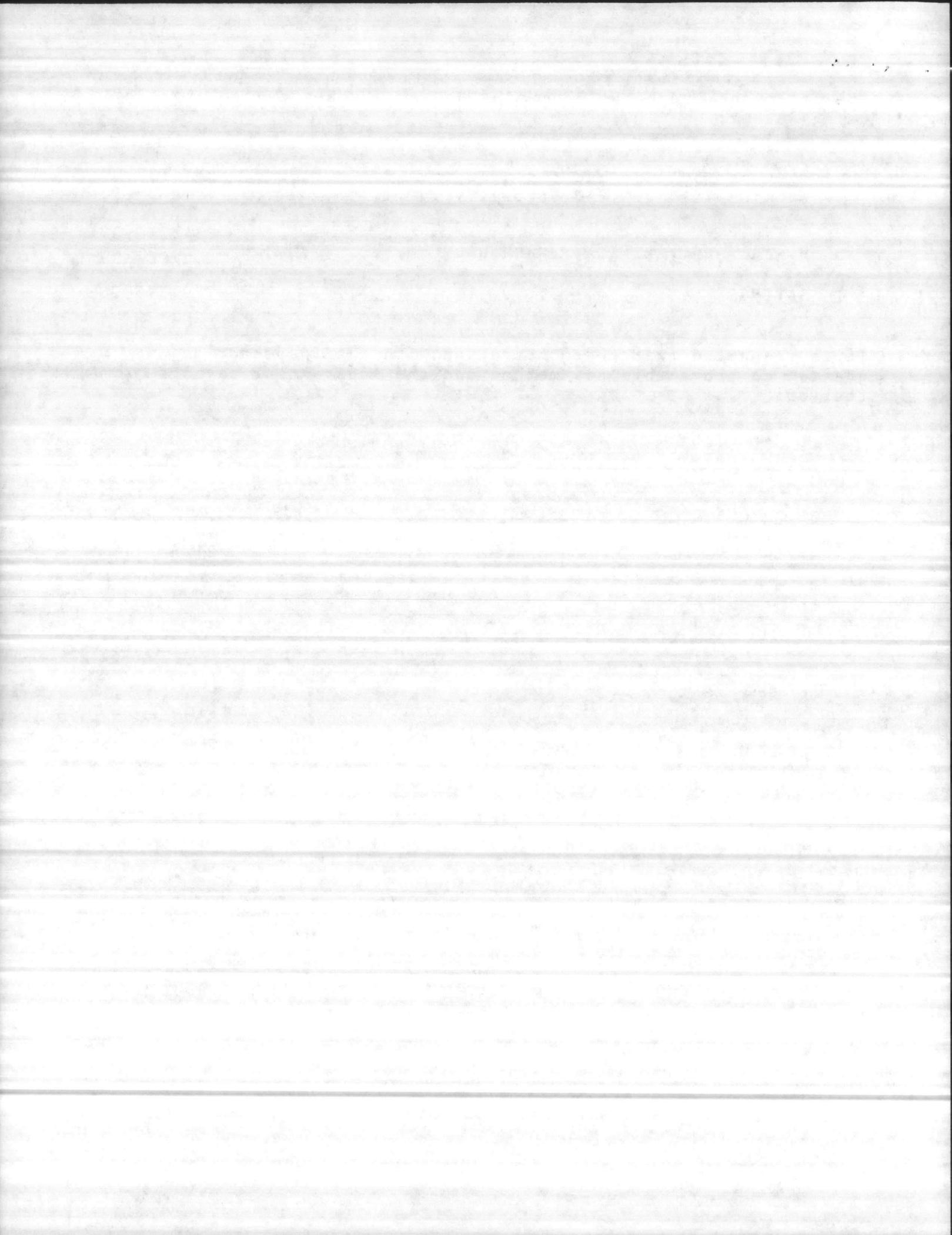
Renewz is a one step process which, when poured onto the coil, swells like a sponge agitating the element removing all eroded matter. In addition, Renewz can be used on all refrigeration coils located throughout the Base.



The following breakdown indicates how much money can be saved by using Renewz:

Cost per pulling and cleaning coil.....	\$137.00
Watkins Village (250 Units).....	<u>x 250</u>
	\$34,250.00
Minus cost for Labor and Renewz.....	<u>- 4,875.00</u>
<b>SAVINGS.....</b>	<b>\$29,375.00</b>

It is requested that a demonstration with the Inspector be granted to prove this new method and the substantial savings thereof.



**BRIGHTENS AND CLEANS  
CONDENSER COILS**  
**STRIPS AWAY DIRT, OXIDES AND  
COOKING GREASE.**



# RENEWZ

**Non-Acid, Foaming  
Renewer  
of Condenser Coils**

**CONTENT:  
1 U.S. Gal  
(3.79 liter)  
0523G**

Manufactured By

**STEWART HALL**  
CHEMICAL CORPORATION  
MOUNT VERNON, NEW YORK 10557

RENEWZ leaves aluminum surfaces not only bright and shiny, but completely clean and insulation free in less than five minutes.

RENEWZ' penetrating, surfactant-aided, foaming action lifts and pushes insulating contaminants and oxides off the coils. This includes difficult to remove cooking greases found thickly coating coils in or near restaurants. RENEWZ penetrates the grease, solubilizes and disperses it. The foaming action then floats all loosened material out of normally inaccessible areas to where they can easily be rinsed away with low pressure water.

Cleaning dirty coils with RENEWZ reduces the head pressure on overheated compressors, avoids premature equipment breakdown, increases equipment efficiency and decreases power consumption and costs. The need for high pressure washers which can bend fins and wedge contaminants into the deep recesses of the coil, is eliminated. RENEWZ is also the perfect answer for cleaning electronic air filters, thus avoiding possible damage from high pressure steam cleaning.

### — DIRECTIONS —

**READ ALL DIRECTIONS AND WARNINGS ON LABEL BEFORE USING.**

1. Dilute RENEWZ with cold water only (below 100°F)

#### APPLICATION

Brightening and removal of heavy dirt and grease  
Some brightening and removal of light to medium dirt and oxides  
No brightening and removal of light dirt only

#### DILUTE 1 PART RENEWZ WITH

3 parts water  
6 parts water  
9 parts water

2. Avoid backspray from wind. Do not use in high pressure washers.
3. Shut off system.
4. Spray the diluted RENEWZ on to all surfaces, saturating the coils well. Use a low pressure sprayer that does not contain aluminum, or a Stewart-Hall Penetrator Sprayer Kit.
5. Allow 5 minutes for full cleaning action - but never more than 8 minutes.
6. Rinse coil very thoroughly with low pressure water.
7. For cooking grease applications: allow 8 minutes before rinsing. Repeat if necessary



# RENEWZ

## POISON!

Causes severe burns. Contains Sodium Hydroxide. (Caustic Soda). Do not get in eyes, on skin, on mucous membrane or clothing. Do not breathe vapors. Open container only to pour, then close at once. Wear eye goggles or full face shield, rubber gloves and protective clothing. Wash thoroughly after handling. Use only in well ventilated areas so as to maintain safe air levels as determined by established regulations.

## FIRST AID

**Eyes:** Immediately flush with plenty of water for at least 15 minutes. Call a physician immediately.

**Skin:** Flood with water then wash with vinegar. Remove contaminated clothing and shoes. Wash clothing and thoroughly clean shoes before reuse. Call a physician if any irritation persists.

**Internal:** If swallowed, do NOT induce vomiting. Drink large quantities of water. If available, follow with citrus fruit juice. Call a physician immediately. Give nothing by mouth if person is unconscious.

Made in U.S.A.

