



OFFICE OF THE GOVERNOR
GUAM

Office of the Speaker
ANTONIO R. UNPINGCO
Date: 6-30-99
Time: 1:20
Rec'd by: [Signature]
Print Name: Charlene
OS25/99-0197

**Refer to
Legislative Secretary**

JUN 30 1999

The Honorable Antonio R. Unpingco
Speaker
I Mina'Bente Singko na Liheslaturan Guåhan
Twenty-Fifth Guam Legislature
Guam Legislature Temporary Building
155 Hesler Street
Hagåtña, Guam 96910

OFFICE OF THE LEGISLATIVE SECRETARY
ACKNOWLEDGEMENT RECEIPT
Received by: [Signature]
Time: 10:49 am
Date: 7-1-99

Dear Speaker Unpingco:

Enclosed please find Substitute Bill No. 81 (COR), "AN ACT TO ADD CHAPTER 53A TO PART 2 OF TITLE 10 OF THE GUAM CODE ANNOTATED, RELATIVE TO PROHIBITING THE USE OF LEAD PIPES, SOLDER AND FLUX; AND PROHIBITING THE USE OF, AND INTRODUCTION INTO COMMERCE OF, ANY PLUMBING FITTINGS AND FIXTURES THAT ARE NOT LEAD-FREE ON OR INTO GUAM", which I have signed into law today as **Public Law No. 25-51**.

This legislation prohibits the use of any pipe, plumbing fittings or fixtures, any solder, or any flux, which is not lead free in any public water system, or in any plumbing, both residential and nonresidential, which provides water for human consumption.

This legislation prohibits importing lead pipes or importing plumbing fittings or fixtures that are not ANSI/NSF certified. This is a standard developed by NSF International and adopted by the American National Standards Institute.


In order to regulate the prohibition on lead, no building permits or occupancy permits will be granted unless a building complies with the prohibitions.

00328

The legislation provides hefty penalties for violations. Administrative penalties of up to \$5,500 per day per violation may be assessed, and civil penalties may be imposed up to an amount of \$27,500 per day per violation.

I would recommend that there be some provision put into the legislation to provide for buildings which may at the present time be non-conforming to the requirements of this legislation. The provisions may call for either terminating the use of non-conforming pipes and accessories, or imposing some type of schedule to remove the non-conforming items. Also, the word "use" in the prohibition, while applying to future use, leaves open the question of how the Guam Environmental Protection Agency is to approach past use, where pipes or fittings are already installed, but not yet removed or made unusable.

Very truly yours,


Madeleine Z. Bordallo
I Maga'lahañ Guåhan, Akto
Acting Governor of Guam


Attachment: copy attached for signed bill or overridden bill
 original attached for vetoed bill

cc: The Honorable Joanne M. S. Brown
 Legislative Secretary

MINA'BENTE SINGKO NA LIHESLATURAN GUAHAN
1999 (FIRST) Regular Session

CERTIFICATION OF PASSAGE OF AN ACT TO I MAGA'LAHEN GUAHAN

This is to certify that Substitute Bill No. 81 (COR), "AN ACT TO ~~ADD~~ CHAPTER 53A TO PART 2 OF TITLE 10 OF THE GUAM CODE ANNOTATED, RELATIVE TO PROHIBITING THE USE OF LEAD PIPES, SOLDER AND FLUX; AND PROHIBITING THE USE OF, AND INTRODUCTION INTO COMMERCE OF, ANY PLUMBING FITTINGS AND FIXTURES THAT ARE ~~NOT~~ LEAD-FREE ON OR INTO GUAM," was on the 15th day of June, 1999, duly and regularly passed.



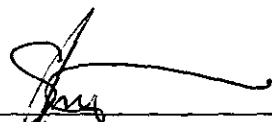
ANTONIO R. UNPINGCO
Speaker

Attested:



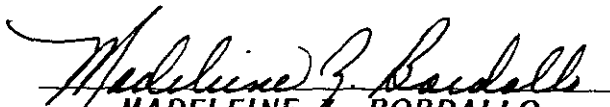
JOANNE M.S. BROWN
Senator and Legislative Secretary

This Act was received by I Maga'lahen Guahan this 15th day of June, 1999,
at 5:50 o'clock P. .M.



Assistant Staff Officer
Maga'lahi's Office

APPROVED:



MADELEINE Z. BORDALLO
Akto I Maga'lahen Guahan
Acting Governor of Guam

Date: 6/30/99

Public Law No. 25-51

MINA'BENTE SINGKO NA LIHESLATURAN GUÅHAN
1999 (FIRST) Regular Session

Bill No. 81 (COR)

As Substituted by the Committee
on Natural Resources and further
substituted and amended on the floor.

Introduced by:

J. M.S. Brown
A. C. Lamorena, V
V. C. Pangelinan
C. A. Leon Guerrero
L. F. Kasperbauer
Mark Forbes
M. G. Camacho
K. S. Moylan
E. B. Calvo
S. A. Sanchez, II
J. C. Salas
F. B. Aguon, Jr.
E. C. Bermudes
A. C. Blaz
A. R. Unpingco

**AN ACT TO ADD CHAPTER 53A TO PART 2 OF
TITLE 10 OF THE GUAM CODE ANNOTATED,
RELATIVE TO PROHIBITING THE USE OF LEAD
PIPES, SOLDER AND FLUX; AND PROHIBITING
THE USE OF, AND INTRODUCTION INTO
COMMERCE OF, ANY PLUMBING FITTINGS AND
FIXTURES THAT ARE NOT LEAD-FREE ON OR
INTO GUAM.**

1 **BE IT ENACTED BY THE PEOPLE OF GUAM:**

2 **Section 1. Legislative Findings and Intent.** *I Liheslaturan Guåhan finds*

1 that Guam has a history of problems with lead in the water. A standard needs
2 to be adopted and enforced to establish minimum requirements for the control
3 of potential adverse human health effects from products which contact drinking
4 water.

5 Section 2. Chapter 53A is hereby *added* to Part 2 of Title 10 of the Guam
6 Code Annotated to read as follows:

7 "CHAPTER 53A.

8 GUAM LEAD BAN ACT.

9 Section 53300. Title. This Chapter shall be known as the
10 '*Guam Lead Ban Act.*'

11 Section 53301. Definitions. For purposes of this Act, the
12 following words and phrases shall have the meaning given herein, *unless*
13 their use in the text of the Act clearly demonstrates a different meaning.

14 (1) '*Administrator*' shall mean the Administrator of the Guam
15 Environmental Protection Agency ('GEPA'), or that person's
16 designee.

17 (2) '*Agency*' shall mean the Guam Environmental Protection
18 Agency ('GEPA').

19 (3) '*ANSI/NSF Standard 61, §9*' shall mean the testing
20 protocol that measures and limits the amount of lead and other
21 contaminants that a device may contribute to drinking water. This
22 protocol was developed by NSF International and adopted by the
23 American National Standards Institute.

24 (4) '*Board*' shall mean the Board of Directors of the Guam
25 Environmental Protection Agency.

1 (5) *'Endpoint Devices'* shall mean plumbing fittings and
2 fixtures intended to dispense water from the domestic water piping
3 system for human ingestion. These devices include kitchen and bar
4 faucets, lavatory faucets, water dispensers, drinking fountains, water
5 coolers, glass fillers, residential refrigerator ice makers, supply stops
6 and endpoint control valves.

7 (6) *'Lead Free'* shall mean: (a) when used with respect to
8 solders and flux, refers to solders and flux containing *not* more than
9 0.2 percent (.2%) lead; (b) when used with respect to pipes and pipe
10 fittings, refers to pipes and pipe fittings containing *not* more than 8.0
11 percent (8%) lead; and (c) when used with respect to plumbing
12 fittings and fixtures intended as endpoint devices, refers to plumbing
13 fittings and fixtures that have been certified by an independent third
14 party to be in compliance with ANSI/NSF Standard 61, §9.

15 (7) *'Person'* shall mean any individual, partnership, co-
16 partnership, firm, company, corporation, association, joint stock
17 company, trust, estate, or any agency, department or instrumentality
18 of the Federal or local government, or any other legal representatives,
19 agents or assigns.

20 (8) Public water system ('PWS') shall mean a system for the
21 provision to the public of water for human consumption through
22 pipes or other constructed conveyances, *if* such system has at least
23 fifteen (15) service connections or regularly serves an average of at
24 least twenty-five (25) individuals daily at least sixty (60) days out of
25 the year. Such term includes: any collection, treatment, storage and

1 distribution facilities under control of the operator of such system
2 and used primarily in connection with such system; and any
3 collection or pretreatment storage facilities *not* under such control,
4 which are used primarily in connection with such system.

5 (9) '*Replacement*' shall mean when used with respect to a
6 potable water piping system, means the permanent removal of lead
7 containing materials.

8 **Section 53302. Prohibition on Use of Lead Pipes, Solder and Flux.**

9 (a) No person may use any pipe, plumbing fittings or
10 fixtures, any solder, or any flux, which is *not* lead free as defined in
11 this Act and any regulations promulgated hereunder, in the
12 installation or repair of:

13 (i) any public water system; *or*

14 (ii) any plumbing in a residential or nonresidential
15 facility providing water for human consumption.

16 (b) Subparagraph (a) shall *not* apply to leaded joints
17 necessary for the repair of cast iron pipes.

18 **Section 53303. Prohibition on the Importation, Use or Sale of**
19 **Pipes, Plumbing Fittings and Fixtures.**

20 (a) No person may import into Guam or introduce into
21 commerce any lead pipe, *except* for a pipe that is used in
22 manufacturing or industrial processing;

23 (b) No person may import into Guam or introduce into
24 commerce any plumbing fitting or fixture that is *not* ANSI/NSF
25 certified.

1 (c) No person may introduce into commerce or sell any
2 solder or flux that is *not* lead free, *unless* the solder or flux bears a
3 prominent label stating that it is illegal to use the solder or flux in the
4 installation or repair of any plumbing providing water for human
5 consumption.

6 (d) GEPA shall coordinate enforcement of this Section with
7 the Department of Customs and Quarantine.

8 **Section 53304. Right of Entry and Inspection.** The
9 Administrator or his authorized representative may enter at all reasonable
10 times upon private or public facilities for the purpose of inspecting and
11 investigating compliance with this Act. GEPA is authorized to charge for
12 conducting inspections to determine compliance with this Act and
13 regulations promulgated hereunder at the rate to be comprised of the
14 hourly rate of the engineer or environmental inspector, or both, plus an
15 additional fifteen percent (15%) of that total rate for administrative costs.
16 All fees collected under this Section shall be deposited into the Safe
17 Drinking Water Fund as established under §53308 of this Act.

18 **Section 53305. Building Permit.** No building permit
19 clearance will be granted, *unless* certification, in the form and language
20 deemed adequate by GEPA, is provided by the applicant that only lead free
21 materials will be used in the construction of potable water plumbing
22 systems at dwellings, schools, public buildings, restaurants, commercial
23 buildings, industrial buildings, places of assembly or water system
24 components, which include distribution, treatment, storage and
25 appurtenances.

1 **Section 53306. Occupancy Permit.** No building intended for
2 use as a dwelling, school, public building, restaurant, commercial building,
3 industrial building, place of assembly or any water system component,
4 which includes distribution, treatment, storage and appurtenances shall
5 receive an occupancy permit, *unless* it complies with the standards
6 established by this Act for lead and/or copper levels in first draw samples
7 from endline and endpoint devices. The specific procedure or protocol to
8 be followed for testing the different categories of buildings is attached as
9 **Exhibit A.** The levels of lead and/or copper in individual endpoint
10 devices deemed acceptable to issue an occupancy certificate is included in
11 **Exhibit A.**

12 **Section 53307. Enforcement and Penalties.**

13 (a) **Administrative.** Whenever, on the basis of any
14 information available, the Administrator finds that any person has
15 violated the provisions of this Act, or rules and regulations, or a
16 lawful order, or has violated any permit condition or limitation, the
17 Administrator may assess an administrative penalty of *not* more than
18 Five Thousand Five Hundred Dollars (\$5,500.00) per day per
19 violation.

20 The assessment of an administrative penalty shall *not* prohibit
21 the administrator from also ordering the mitigation and/or
22 replacement of lead containing material, or for the taking of such
23 other corrective action as may be appropriate. The administrator is
24 authorized to issue stop work orders to enforce this Section.

25 (1) Before issuing an order assessing a civil penalty,

1 the Administrator shall give to the person to be assessed such
2 penalty, written notice of the Administrator's proposal to issue
3 such order and the opportunity to request a hearing. Such
4 request must be made within thirty (30) days of receipt of the
5 notice. Hearings will be conducted as provided under the
6 Administrative Adjudication Law ('AAL').

7 In lieu of an order, the Agency may require that the
8 alleged violator or violators appear before the Agency for a
9 hearing at a time and place specified in the notice, and answer
10 the charges complained of, or the Agency may initiate civil or
11 criminal action.

12 (i) *If, after a hearing held pursuant to the AAL,*
13 *the Board finds that a violation or violations have*
14 *occurred, the Board shall affirm or modify the order*
15 *previously issued, or issue an appropriate order or*
16 *orders for the mitigation and/or replacement of lead*
17 *containing material involved, or for the taking of such*
18 *other corrective action as may be appropriate.*

19 (ii) *If, after hearing on an order contained in a*
20 *notice, the Board finds that no violation has occurred or*
21 *is occurring, the Board shall rescind the order.*

22 (iii) *Any order issued as part of a notice, or after*
23 *hearing, may prescribe the date or dates by which the*
24 *violation or violations shall cease, and may prescribe*
25 *timetables for the necessary action in mitigating and/or*

1 replacing the lead containing material.

2 (2) In determining the amount of any penalty assessed,
3 the Administrator shall take into account the nature,
4 circumstances, extent and gravity of the violation or violations
5 and with respect to the violator; ability to pay; any prior history
6 of such violations; the degree of culpability, economic benefit
7 or savings realized by the violator from the violation; and such
8 other matters as justice may require.

9 (3) If any person fails to pay an assessment of a civil
10 penalty after the order making the assessment has become
11 final, or after a court in an action has entered a final judgment
12 in favor of the Administrator, the Administrator shall request
13 the Attorney General to bring a civil action to recover the
14 amount assessed. In such an action, the validity, amount and
15 appropriateness of such penalty shall *not* be subject to review.

16 (b) **Civil.** Any person who violates any provision of
17 this Act, regulations or requirement of an applicable safe drinking
18 water program or an order requiring compliance shall be subject to
19 a civil penalty of *not* more than Twenty-seven Thousand Five
20 Hundred Dollars (\$27,500.00) for each day per violation. Assessment
21 of an administrative penalty order shall *not* be a bar to enforcement
22 of these regulations and orders made pursuant to these regulations,
23 by injunction or other appropriate remedy, and the Agency shall
24 have the power to institute and maintain in the name of Guam any
25 and all such enforcement proceedings.

1 (c) Each day of violation shall constitute a separate offense.

2 (d) Nothing in the Act shall prevent the Agency from
3 making efforts to obtain voluntary compliance through warning
4 conference, or any other appropriate means.

5 **Section 53308. Safe Drinking Water Fund.** There is hereby
6 created within the government of Guam a non-lapsing, revolving fund, to
7 be known as the '*Safe Drinking Water Fund*,' which shall be maintained
8 separate and apart from any other funds of the government of Guam and
9 shall be administered by the Administrator of GEPA. All fees, monetary
10 charges and other funds collected or received pursuant to this Act shall be
11 deposited in the Safe Drinking Water Fund, and used for the
12 administration and implementation of the Safe Drinking Water Program;
13 for public education and similar outreach programs; and promotions aimed
14 at increasing awareness of the dangers of using pipes, plumbing fittings or
15 fixtures containing lead over the acceptable limit set by this Act or
16 regulations."

17 **Section 3. Severability.** *If any provision of this Law or its application*
18 *to any person or circumstance is found to be invalid or contrary to law, such*
19 *invalidity shall not affect other provisions or applications of this Law which can*
20 *be given effect without the invalid provisions or application, and to this end the*
21 *provisions of this Law are severable.*

1 **EXHIBIT A.**

2 **Procedures for implementation of lead ban related to attaining building**
3 **occupancy permits clearance.**

4 Required testing procedure for endpoint device first draw sampling for
5 lead and/or copper for dwellings, schools, public buildings, commercial
6 buildings, industrial buildings or places of assembly. This testing procedure
7 applies to newly constructed facilities, as well as additions and renovations of
8 these same facilities.

9 **Number of Samples Collected.**

10 All new buildings, additions and renovations, *prior to* receiving occupancy
11 permits, shall have a representative sample of (first draw water) collected from
12 endpoint devices, as defined in the Guam Lead Ban Act, tested for levels of lead
13 and/or copper. The number of endpoint devices to be tested shall be as follows:

14 Buildings with less than five (5) endpoint fitting/fixture devices - all
15 devices shall be tested.

16 Buildings with five (5) or more endpoint fitting/fixture devices - five
17 (5) devices plus ten percent (10%) of the total numbers of endpoint
18 fitting/fixtures shall be tested; *however*, no building shall have less than five
19 (5) endpoint devices tested. Endpoint devices used primarily for drinking
20 water supply and cooking, i.e., water fountains, coolers, kitchen faucets,
21 shall be selected as first priority - other devices, bathroom faucets, etc., shall
22 be selected as second priority.

23 In the case of new, as well as additions and renovations of daycare
24 centers, schools and health care facilities - all endpoint devices in the
25 facility shall be tested.

1 **Sampling Protocol - First Draw Samples.**

2 All samples collected for determining materials in fittings shall be first
3 draw samples, i.e., water which has been allowed to sit in the pipes and endpoint
4 devices for at least six (6), but *not* more than twenty-four (24) hours, without use
5 of the water in the facility.

6 All other required samples will be determined by GEPA.

7 **Certified Laboratories.**

8 For the purpose of determining compliance with the above mentioned
9 water analysis, samples may be considered *only if* they have been analyzed by a
10 laboratory certified by Guam EPA, or any other laboratory certified by other
11 States acceptable to Guam's EPA.

12 **Issuance or Denial of Occupancy Permits.**

13 *If* all results are less than fifteen (15) parts per billion ("ppb"), then an
14 occupancy permit clearance may be issued.

15 *If* any results are greater than fifty (50) ppb, then those fixtures must be
16 replaced, and the replacement fixtures re-tested *prior to* issuance of occupancy
17 permit.

18 *If* any results are between fifteen (15) ppb and fifty (50) ppb, the facility
19 shall have three (3) options:

20 **Option 1.** Replace all fixtures, and/or pipes and fittings, *if*
21 appropriate, with results between fifteen to fifty (15-50) ppb, and re-tested.

22 An occupancy permit clearance may be issued *if* the analytical test results
23 of water samples collected are less than fifteen (15) ppb.

24 **Option 2.** Mitigate all fixtures and/or pipes and fittings and re-
25 tested. An occupancy permit clearance may be issued *if* the analytical test

1 results of water samples collected are less than fifteen (15) ppb.

2 **Option 3.** Keep fixtures with results between fifteen to fifty (15-50)
3 ppb, and post notices, as required below, adjacent to the fittings and
4 fixtures. Retest after three (3) months to determine *if* levels have decreased.

5 In the case of day care centers, schools or health care facilities, all endpoint
6 devices located in areas which may be used by children or infants, such as water
7 coolers, kitchen faucets, with a result greater than fifteen (15) ppb shall be
8 replaced. No devices producing water greater than fifteen (15) ppb shall be
9 allowed to be used by children.

10 **Public Notice Requirements.**

11 The contents of the notice shall provide a clear and readily understandable
12 explanation of:

- 13 (1) the potential sources of lead in the drinking water;
- 14 (2) the potential adverse health effects;
- 15 (3) the reasonably available methods of mitigating known or
16 potential lead content in drinking water;
- 17 (4) any steps the system is taking to mitigate lead content in
18 drinking waters, *and*
- 19 (5) the necessity for seeking alternative water supplies, *if any*.



COPY

MINA' BENTE SINGKO NA LIHESLATURAN GUAHAN
TWENTY-FIFTH GUAM LEGISLATURE
155 Hesler Street, Hagåtña, Guam 96910

June 18, 1999

[Handwritten signature] 6/14/99

The Honorable Carl T.C. Gutierrez
I Maga'lahaen Guahan
Ufisinan I Maga'lahi
Hagåtña, Guam 96910

Dear *Maga'lahi* Gutierrez:

Transmitted herewith are Substitute Bill Nos. 125 (COR), 170 (COR) and 81 (LS) which were passed by *I Mina'Bente Singko Na Liheslaturan Guahan* on June 15, 1999.

Sincerely,

[Handwritten signature of Joanne M.S. Brown]


JOANNE M.S. BROWN
Senator and Legislative Secretary

Enclosure (3)

MINA'BENTE SINGKO NA LIHESLATURAN GUAHAN
1999 (FIRST) Regular Session


CERTIFICATION OF PASSAGE OF AN ACT TO I MAGA'LAHEN GUAHAN

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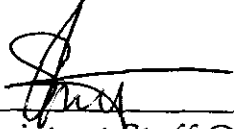
ANTONIO R. UNPINGCO
Speaker

Attested:



JOANNE M.S. BROWN
Senator and Legislative Secretary

This Act was received by *I Maga'lahaen Guahan* this 18th day of June, 1999,
at 5:50 o'clock P. .M.



Assistant Staff Officer
Maga'lahaen's Office

APPROVED:

CARL T. C. GUTIERREZ
I Maga'lahaen Guahan

Date: _____

Public Law No. _____

MINA'BENTE SINGKO NA LIHESLATURAN GUAHAN
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Speaker

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JOANNE M.S. BROWN
Senator and Legislative Secretary

.....
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Assistant Staff Officer
Maga'laha's Office

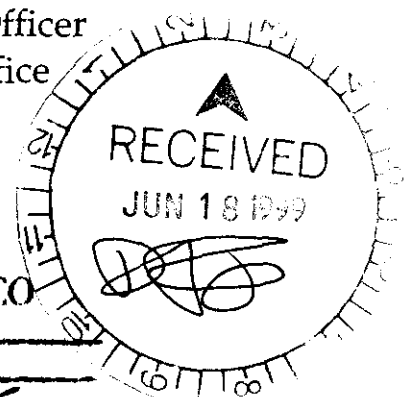
APPROVED:

CARL T. C. GUTIERREZ
I Maga'lahaen Guahan

Date: _____

Public Law No. _____

Office of the Speaker
ANTONIO R. UNPINGCO
Date: 6/18/99
Time: 1:25
Rec'd by: [Signature]
Print Name: Lawrence



MINA'BENTE SINGKO NA LIHESLATURAN GUÅHAN
1999 (FIRST) Regular Session

Bill No. 81 (COR)

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16 (b) Subparagraph (a) shall *not* apply to leaded joints
17 necessary for the repair of cast iron pipes.

18 **Section 53303. Prohibition on the Importation, Use or Sale of**
19 **Pipes, Plumbing Fittings and Fixtures.**

20 (a) No person may import into Guam or introduce into
21 commerce any lead pipe, *except* for a pipe that is used in
22 manufacturing or industrial processing;

23 (b) No person may import into Guam or introduce into
24 commerce any plumbing fitting or fixture that is *not* ANSI/NSF
25 certified.

1 (c) No person may introduce into commerce or sell any
2 solder or flux that is *not* lead free, *unless* the solder or flux bears a
3 prominent label stating that it is illegal to use the solder or flux in the
4 installation or repair of any plumbing providing water for human
5 consumption.

6 (d) GEPA shall coordinate enforcement of this Section with
7 the Department of Customs and Quarantine.

8 **Section 53304. Right of Entry and Inspection.** The

9 Administrator or his authorized representative may enter at all reasonable
10 times upon private or public facilities for the purpose of inspecting and
11 investigating compliance with this Act. GEPA is authorized to charge for
12 conducting inspections to determine compliance with this Act and
13 regulations promulgated hereunder at the rate to be comprised of the
14 hourly rate of the engineer or environmental inspector, or both, plus an
15 additional fifteen percent (15%) of that total rate for administrative costs.

16 All fees collected under this Section shall be deposited into the Safe
17 Drinking Water Fund as established under §53308 of this Act.

18 **Section 53305. Building Permit.** No building permit

19 clearance will be granted, *unless* certification, in the form and language
20 deemed adequate by GEPA, is provided by the applicant that only lead free
21 materials will be used in the construction of potable water plumbing
22 systems at dwellings, schools, public buildings, restaurants, commercial
23 buildings, industrial buildings, places of assembly or water system
24 components, which include distribution, treatment, storage and
25 appurtenances.

1 **Section 53306. Occupancy Permit.** No building intended for
2 use as a dwelling, school, public building, restaurant, commercial building,
3 industrial building, place of assembly or any water system component,
4 which includes distribution, treatment, storage and appurtenances shall
5 receive an occupancy permit, *unless* it complies with the standards
6 established by this Act for lead and/or copper levels in first draw samples
7 from endline and endpoint devices. The specific procedure or protocol to
8 be followed for testing the different categories of buildings is attached as
9 **Exhibit A.** The levels of lead and/or copper in individual endpoint
10 devices deemed acceptable to issue an occupancy certificate is included in
11 **Exhibit A.**

12 **Section 53307. Enforcement and Penalties.**

13 **(a) Administrative.** Whenever, on the basis of any
14 information available, the Administrator finds that any person has
15 violated the provisions of this Act, or rules and regulations, or a
16 lawful order, or has violated any permit condition or limitation, the
17 Administrator may assess an administrative penalty of *not* more than
18 Five Thousand Five Hundred Dollars (\$5,500.00) per day per
19 violation.

20 The assessment of an administrative penalty shall *not* prohibit
21 the administrator from also ordering the mitigation and/or
22 replacement of lead containing material, or for the taking of such
23 other corrective action as may be appropriate. The administrator is
24 authorized to issue stop work orders to enforce this Section.

25 (1) Before issuing an order assessing a civil penalty,

1 the Administrator shall give to the person to be assessed such
2 penalty, written notice of the Administrator's proposal to issue
3 such order and the opportunity to request a hearing. Such
4 request must be made within thirty (30) days of receipt of the
5 notice. Hearings will be conducted as provided under the
6 Administrative Adjudication Law ('AAL').

7 In lieu of an order, the Agency may require that the
8 alleged violator or violators appear before the Agency for a
9 hearing at a time and place specified in the notice, and answer
10 the charges complained of, or the Agency may initiate civil or
11 criminal action.

12 (i) *If, after a hearing held pursuant to the AAL,*
13 *the Board finds that a violation or violations have*
14 *occurred, the Board shall affirm or modify the order*
15 *previously issued, or issue an appropriate order or*
16 *orders for the mitigation and/or replacement of lead*
17 *containing material involved, or for the taking of such*
18 *other corrective action as may be appropriate.*

19 (ii) *If, after hearing on an order contained in a*
20 *notice, the Board finds that no violation has occurred or*
21 *is occurring, the Board shall rescind the order.*

22 (iii) *Any order issued as part of a notice, or after*
23 *hearing, may prescribe the date or dates by which the*
24 *violation or violations shall cease, and may prescribe*
25 *timetables for the necessary action in mitigating and/or*

1 replacing the lead containing material.

2 (2) In determining the amount of any penalty assessed,
3 the Administrator shall take into account the nature,
4 circumstances, extent and gravity of the violation or violations
5 and with respect to the violator; ability to pay; any prior history
6 of such violations; the degree of culpability, economic benefit
7 or savings realized by the violator from the violation; and such
8 other matters as justice may require.

9 (3) If any person fails to pay an assessment of a civil
10 penalty after the order making the assessment has become
11 final, or after a court in an action has entered a final judgment
12 in favor of the Administrator, the Administrator shall request
13 the Attorney General to bring a civil action to recover the
14 amount assessed. In such an action, the validity, amount and
15 appropriateness of such penalty shall *not* be subject to review.

16 (b) **Civil.** Any person who violates any provision of
17 this Act, regulations or requirement of an applicable safe drinking
18 water program or an order requiring compliance shall be subject to
19 a civil penalty of *not* more than Twenty-seven Thousand Five
20 Hundred Dollars (\$27,500.00) for each day per violation. Assessment
21 of an administrative penalty order shall *not* be a bar to enforcement
22 of these regulations and orders made pursuant to these regulations,
23 by injunction or other appropriate remedy, and the Agency shall
24 have the power to institute and maintain in the name of Guam any
25 and all such enforcement proceedings.

1 (c) Each day of violation shall constitute a separate offense.

2 (d) Nothing in the Act shall prevent the Agency from
3 making efforts to obtain voluntary compliance through warning
4 conference, or any other appropriate means.

5 **Section 53308. Safe Drinking Water Fund.** There is hereby
6 created within the government of Guam a non-lapsing, revolving fund, to
7 be known as the '*Safe Drinking Water Fund*,' which shall be maintained
8 separate and apart from any other funds of the government of Guam and
9 shall be administered by the Administrator of GEPA. All fees, monetary
10 charges and other funds collected or received pursuant to this Act shall be
11 deposited in the Safe Drinking Water Fund, and used for the
12 administration and implementation of the Safe Drinking Water Program;
13 for public education and similar outreach programs; and promotions aimed
14 at increasing awareness of the dangers of using pipes, plumbing fittings or
15 fixtures containing lead over the acceptable limit set by this Act or
16 regulations."

17 **Section 3. Severability.** *If* any provision of this Law or its application
18 to any person or circumstance is found to be invalid or contrary to law, such
19 invalidity shall *not* affect other provisions or applications of this Law which can
20 be given effect without the invalid provisions or application, and to this end the
21 provisions of this Law are severable.

1 **EXHIBIT A.**

2 **Procedures for implementation of lead ban related to attaining building**
3 **occupancy permits clearance.**

4 Required testing procedure for endpoint device first draw sampling for
5 lead and/or copper for dwellings, schools, public buildings, commercial
6 buildings, industrial buildings or places of assembly. This testing procedure
7 applies to newly constructed facilities, as well as additions and renovations of
8 these same facilities.

9 **Number of Samples Collected.**

10 All new buildings, additions and renovations, *prior to* receiving occupancy
11 permits, shall have a representative sample of (first draw water) collected from
12 endpoint devices, as defined in the Guam Lead Ban Act, tested for levels of lead
13 and/or copper. The number of endpoint devices to be tested shall be as follows:

14 Buildings with less than five (5) endpoint fitting/fixture devices - all
15 devices shall be tested.

16 Buildings with five (5) or more endpoint fitting/fixture devices - five
17 (5) devices plus ten percent (10%) of the total numbers of endpoint
18 fitting/fixtures shall be tested; *however*, no building shall have less than five
19 (5) endpoint devices tested. Endpoint devices used primarily for drinking
20 water supply and cooking, i.e., water fountains, coolers, kitchen faucets,
21 shall be selected as first priority - other devices, bathroom faucets, etc., shall
22 be selected as second priority.

23 In the case of new, as well as additions and renovations of daycare
24 centers, schools and health care facilities - all endpoint devices in the
25 facility shall be tested.

1 **Sampling Protocol - First Draw Samples.**

2 All samples collected for determining materials in fittings shall be first
3 draw samples, i.e., water which has been allowed to sit in the pipes and endpoint
4 devices for at least six (6), but *not* more than twenty-four (24) hours, without use
5 of the water in the facility.

6 All other required samples will be determined by GEPA.

7 **Certified Laboratories.**

8 For the purpose of determining compliance with the above mentioned
9 water analysis, samples may be considered *only if* they have been analyzed by a
10 laboratory certified by Guam EPA, or any other laboratory certified by other
11 States acceptable to Guam's EPA.

12 **Issuance or Denial of Occupancy Permits.**

13 *If* all results are less than fifteen (15) parts per billion ("ppb"), then an
14 occupancy permit clearance may be issued.

15 *If* any results are greater than fifty (50) ppb, then those fixtures must be
16 replaced, and the replacement fixtures re-tested *prior to* issuance of occupancy
17 permit.

18 *If* any results are between fifteen (15) ppb and fifty (50) ppb, the facility
19 shall have three (3) options:

20 **Option 1.** Replace all fixtures, and/or pipes and fittings, *if*
21 appropriate, with results between fifteen to fifty (15-50) ppb, and re-tested.

22 An occupancy permit clearance may be issued *if* the analytical test results
23 of water samples collected are less than fifteen (15) ppb.

24 **Option 2.** Mitigate all fixtures and/or pipes and fittings and re-
25 tested. An occupancy permit clearance may be issued *if* the analytical test

1 results of water samples collected are less than fifteen (15) ppb.

2 **Option 3.** Keep fixtures with results between fifteen to fifty (15-50)
3 ppb, and post notices, as required below, adjacent to the fittings and
4 fixtures. Retest after three (3) months to determine *if* levels have decreased.

5 In the case of day care centers, schools or health care facilities, all endpoint
6 devices located in areas which may be used by children or infants, such as water
7 coolers, kitchen faucets, with a result greater than fifteen (15) ppb shall be
8 replaced. No devices producing water greater than fifteen (15) ppb shall be
9 allowed to be used by children.

10 **Public Notice Requirements.**

11 The contents of the notice shall provide a clear and readily understandable
12 explanation of:

- 13 (1) the potential sources of lead in the drinking water;
- 14 (2) the potential adverse health effects;
- 15 (3) the reasonably available methods of mitigating known or
16 potential lead content in drinking water;
- 17 (4) any steps the system is taking to mitigate lead content in
18 drinking waters, *and*
- 19 (5) the necessity for seeking alternative water supplies, *if any*.

I MINA' BENTE SINGKO NA LIHESLATURAN GUAHAN

1999 (FIRST) Regular Session

Date: 6/15/99

VOTING SHEET

Bill No. 81(COR)

Resolution No. _____

Question: _____

NAME	YEAS	NAYS	NOT VOTING/ ABSTAINED	OUT DURING ROLL CALL	ABSENT ROLL CALL
AGUON, Frank B., Jr.					✓
BERMUDES, Eulogio C.	✓				
BLAZ, Anthony C.	✓				
BROWN, Joanne M.S.	✓				
CALVO, Eduardo B.	✓				
CAMACHO, Marcel G.	✓				
FORBES, Mark	✓				
KASPERBAUER, Lawrence F.	✓				
LAMORENA, Alberto C., V					✓
LEON GUERRERO, Carlotta A.	✓				
MOYLAN, Kaleo Scott	✓				
PANGELINAN, Vicente C.	✓				
SALAS, John C.	✓				
SANCHEZ, Simon A., II	✓				
UNPINGCO, Antonio R.	✓				

TOTAL

13

CERTIFIED TRUE AND CORRECT:

Clerk of the Legislature

* 3 Passes = No vote
EA = Excused Absence

MINA' BENTE SINGKO NA LIHESLATURAN GUAHAN
1999 (FIRST) Regular Session

Bill No. 81 (LS)

Introduced by:

J. M. S. Brown



**AN ACT RELATIVE TO PROHIBITING THE USE OF LEAD PIPES,
SOLDER AND FLUX, AND PLUMBING FITTINGS AND
FIXTURES, ON OR INTO GUAM.**

BE IT ENACTED BY THE PEOPLE OF GUAM:

Section 1. Legislative Findings and Intent. The Legislature finds that Guahan has a history of problems with lead in the water. A standard needs to be adopted and enforced to established minimum requirements for the control of potential adverse human health effects from products which contact drinking water.

Section 2. Act. This Act shall be known as the "Guam Lead Ban Act".

Section 3. Definitions. For purposes of this Act, the following words and phrases shall have the meaning given herein unless their use in the text of the Act clearly demonstrates a different meaning.

- (1) Administrator shall mean the Administrator of the Guam Environmental Protection Agency or his designee.
- (2) Agency shall mean the Guam Environmental Protection Agency.
- (3) Board shall mean the Board of Directors of the Guam Environmental

1 Protection Agency.

2 (4) Endline Devices shall mean plumbing fittings and fixtures intended to
3 dispense water from the domestic water piping system for human
4 ingestion. These devices include kitchen and bar faucets, lavatory
5 faucets, water dispensers, drinking fountains, water coolers, glass
6 fillers, residential refrigerator ice makers, supply stops, and endpoint
7 control valves.

8 (5) Lead Free shall mean (a) when used with respect to solders and flux
9 refers to solders and flux containing not more than 0.2 percent lead;
10 (b) when used with respect to pipes and pipe fittings refers to pipes
11 and pipe fittings containing not more than 8.0 percent lead, and (c)
12 when used with respect to plumbing fittings and fixtures intended as
13 endline devices, refers to plumbing fittings and fixtures that have
14 been certified by an independent third party to be in compliance with
15 ANSI/NSF Standard 61.

16 (6) Mitigation shall mean with respect to a potable water piping system,
17 to take such corrective action as is necessary to ensure that the water
18 piping system is lead free.

19 (7) NSF, International shall mean the independent, not-for-profit
20 organization that develops standards, then tests and evaluates
21 products and materials to determine compliance with those standards
22 for products and materials that promote and protect health, and
23 certifies products to ensure they meet these standards.

24 (8) Person shall mean any individual, partnership, co-partnership, firm,
25 company, corporation, association, joint stock company, trust, estate,

1 or any agency, department, or instrumentality of the federal or local
2 government, or any other legal representatives, agents or assigns.

3 (9) Public water system - as defined in 10 GCA Chapter 53.

4 (10) Replacement shall mean when used with respect to a potable water
5 piping system, means the permanent removal of lead containing
6 materials.

7 **Section 4. Prohibition on Use of Lead Pipes, Solder, and Flux.** (A) No person
8 may use any pipe, any pipe or plumbing fitting or fixtures, any solder, or any flux,
9 in the installation or repair of:

10 (i) any public water system; (or)

11 (ii) any plumbing in a residential or nonresidential facility providing
12 water for human consumption, that is not lead free as defined in this
13 Act.

14 (B) Subparagraphs (A) shall not apply to leaded joints necessary for the
15 repair of cast iron pipes.

16 **Section 5. Prohibition on Use of Plumbing Fittings and Fixtures.** (A) No
17 person may introduce into commerce any pipe, or any pipe or plumbing fitting or
18 fixture that is not lead free, except for a pipe that is used in manufacturing or
19 industrial processing; (B) No person may engage in the business of selling
20 plumbing supplies, except manufacturers, to sell solder or flux that is not lead
21 free; (C) No person may introduce into commerce any solder or flux that is not
22 lead free unless the solder or flux bears a prominent label stating that it is illegal to
23 use the solder or flux in the installation or repair of any plumbing providing water
24 for human consumption. (D) GEPA shall coordinate enforcement of this section
25 with the Department of Customs and Quarantine.

1 **Section 6. Right of Entry and Inspection.** The Administrator or his authorized
2 representative may enter at all reasonable times upon private or public facilities
3 for the purpose of inspecting and investigating the adequacy and compliance with
4 this Act.

5 **Section 7. Occupancy Permit.** No building used as a dwelling, school, public
6 building, commercial building, industrial building or place of assembly will
7 receive an occupancy permit, without first being tested for lead and copper levels
8 in first draw samples from endline devices. The specific procedure or protocol to
9 be followed for testing the different categories of buildings shall be developed by
10 GEPA. The levels of lead and copper in individual endline devices deemed
11 acceptable to issue an occupancy certificate shall be determined by GEPA. No
12 building permit or occupancy certificate under the building law of Guam shall be
13 issued without prior compliance with this Act.

14 **Section 8. Enforcement/Penalties.** (a) Administrative. Whenever on the basis
15 of any information available the Administrator finds that any person has violated
16 the provisions of this Act or rules and regulations or a lawful order, or has violated
17 any permit condition or limitation, the Administrator may assess a civil penalty
18 that may not exceed \$10,000 per day for each day during which the violation
19 continues, except that the maximum amount of any civil penalty under this section
20 shall not exceed \$125,000.

- 21 (1) Before issuing an order assessing a civil penalty, the Administrator
22 shall give to the person to be assessed such penalty, written notice of
23 the Administrator's proposal to issue such order and the opportunity
24 to request, within 30 days of the date the notice is received by such
25 person, a hearing on the proposed order. Hearing will be conducted

1 as provided under the Administrative Adjudication Law (AAL). In
2 lieu of an order, the Agency may require that the alleged violator or
3 violators appear before the Agency for a hearing at a time and place
4 specified in the notice and answer the charges complained of, or the
5 Agency may initiate action civil or criminal action.

6 (a) If, after a hearing held pursuant to the AAL, the Board finds
7 that a violation or violations have occurred, it shall affirm or
8 modify the order previously issued or issue an appropriate
9 order or orders for the prevention, abatement, or control of the
10 pollution or discharges involved or for the taking of such other
11 correction action as may be appropriate.

12 (b) If, after hearing on an order contained in a notice, the Board
13 finds that no violation has occurred or is occurring, it shall
14 rescind the order.

15 (c) Any order issued as part of a notice or after hearing may
16 prescribe the date or dates by which the violation or violations
17 shall cease and may prescribe timetables for the necessary
18 action in preventing, abating or controlling the pollution
19 discharge.

20 (2) In determining the amount of any penalty assessed, the Administrator
21 shall take into account the nature, circumstances, extent and gravity
22 of the violations or violations and with respect to the violator, ability
23 to pay, any prior history such violations, the degree of culpability,
24 economic benefit or savings if any resulting from the violation, and
25 such other matters as justice may require.

1 (3) If any person fails to pay an assessment of a civil penalty after the
2 order making the assessment has become final, or after a court in an
3 action has entered a final judgment in favor of the Administrator, the
4 Administrator, the Administrator shall request the Attorney General
5 to bring a civil action to recover the amount assessed. In such an
6 action, the validity, amount, and appropriateness of such penalty shall
7 not be subject to review.

8 (a) Criminal - Any person who violates any provision of this
9 regulation shall be guilty of a misdemeanor and subject on
10 account thereof to a fine not to exceed one thousand dollars
11 (\$1,000) a day.

12 (b) Civil - Assessment of an administrative penalty order shall not
13 be a bar to enforcement of these regulations and orders made
14 pursuant to these regulations, by injunction or other appropriate
15 remedy, and the Agency shall have the power to institute and
16 maintain in the name of Guam any an all such enforcement
17 proceedings.

18 (c) Each day of violation shall constitute a separate offense.

19 (d) Nothing in the Act shall prevent the Agency from making
20 efforts to obtain voluntary compliance through warning
21 conference or any other appropriate means to obtain mitigation
22 or replacement.

23 **Section 9. Lead Ban Fund.** There is hereby created within the government of
24 Guam a nonlapsing, revolving fund, to be known as the "Lead Ban Fund" which
25 shall be maintained separate and apart from any other funds of the government of

1 Guam and shall be administered by the Administrator of GEPA. All fees,
2 monetary charges and other funds collected or received pursuant to this Act shall
3 be deposited in the Lead Ban Fund and used for the administration and
4 implementation to protect our drinking water; for public education and similar
5 type outreach programs and advertisement promotions aimed at increasing
6 awareness of the dangers of using pipe, plumbing fittings or fixtures containing
7 lead over the acceptable limit.



MINA' BENTE SINGKO NA LIHESLATURAN GUÅHAN
TWENTY-FIFTH GUAM LEGISLATURE
155 Hesler Street, Hagåtña, Guam 96910

June 11, 1999

(DATE)

FILE

COPY

Memorandum

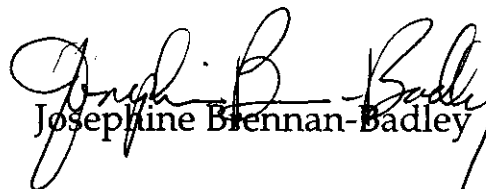
To: Senator Joanne M.S. BROWN

From: Clerk of the Legislature

Subject: Report on Bill No. 81 (COR)

Pursuant to §7.04 of Rule VII of the 25th Standing Rules, transmitted herewith is a copy of the Committee Report on Bill No. 81 (COR), for which you are the prime sponsor.

Should you have any questions or need further information, please call the undersigned at 472-3464/5.


Josephine Brennan-Badley

Attachment

RECEIVED
HAGATÑA
Date: Friday, June 11, 1999
Time: 3:57 PM



Office of Senator
Joanne M. Salas Brown
MINA' BENTE SINGKO NA LIHESLATURAN GUÅHAN

June 10, 1999

Speaker Antonio R. Unpingco
Mina' Bente Singko Na Liheslaturan Guahan
155 Hesler Street
Hagatna, Guam 96910

Dear Speaker Unpingco:

The Committee on Natural Resources, to which was referred, Bill No. 81(COR)-An Act to Add a New Chapter 53A to Title 10 Guam Code Annotated Relative to Prohibiting the Use of Lead Pipes, Solder and Flux; and Prohibiting the Use of, and Introduction into Commerce of, Any Plumbing Fittings and Fixtures that are not Lead-Free on or into Guam wishes to report back to the Legislature its recommendation **TO DO PASS as substituted.**

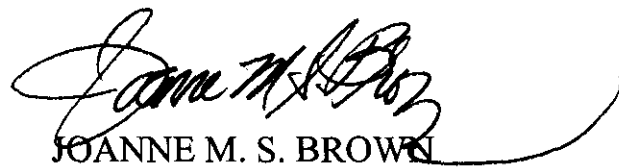
The voting sheet is as follows:

TO PASS	<u>9</u>
NOT TO PASS	<u>0</u>
ABSTAIN	<u>0</u>
TO PLACE IN INACTIVE FILE	<u>0</u>

Copies of the Committee Report and other pertinent documents are enclosed.

Thank you for your attention to this matter.

Sincerely,



JOANNE M. S. BROWN
Senator

Enclosures



Office of Senator

Joanne M. Salas Brown

MINA' BENTE SINGKO NA LIHESLATURAN GUÅHAN

June 10, 1999

MEMORANDUM

To: Committee Members

From: Chairperson, Committee on Natural Resources

Subject: Bill No. 81(COR) - An Act To Add a New Chapter 53A to Title 10 Guam Code Annotated Relative to Prohibiting the Use of Lead Pipes, Solder and Flux; and Prohibiting the Use of, and Introduction into Commerce of, Any Plumbing Fittings and Fixtures that are not Lead-Free on or into Guam. (As substituted)

Transmitted herewith for your consideration and action is our Committee Report on Bill No. 81(COR) - An Act To Add a New Chapter 53A to Title 10 Guam Code Annotated Relative to Prohibiting the Use of Lead Pipes, Solder and Flux; and Prohibiting the Use of, and Introduction into Commerce of, Any Plumbing Fittings and Fixtures that are not Lead-Free on or into Guam as substituted.

Please indicate your choice on the attached Voting Sheet and return the documents to my office for transmittal to the other members.

Should you have any questions on the narrative report or the accompanying documents, please do not hesitate to contact me at 472-3450/51.

Your attention and cooperation on this matter is greatly appreciated.


JOANNE M. S. BROWN

Attachments



Office of Senator
Joanne M. Salas Brown
 MINA' BENTE SINGKO NA LIHESLATURAN GUAHAN

Committee on Natural Resources

VOTING SHEET

Bill No. 81 (COR) - An Act To Add a New Chapter 53A to Title 10 Guam Code Annotated Relative to Prohibiting the Use of Lead Pipes, Solder and Flux; and Prohibiting the Use of, and Introduction into Commerce of, any Plumbing Fittings and Fixtures that are not Lead-Free on or into Guam. (As substituted)

COMMITTEE MEMBER	TO PASS	NOT TO PASS	ABSTAIN	TO PLACE IN INACTIVE FILE	SIGNATURE
Joanne S. Brown Chairperson	✓				
A.C. Lamorena Vice Chairman	✓				
A.R. Unpingco Speaker Ex-Officio Member	0				
C. Leon Guerrero Member	✓				
Larry Kasperbauer Member	x				
Vicente Pangelinan Member	✓				
John C. Salas Member					
Kaleo Moylan Member	✓				
Marcel Camacho Member	✓				
Mark Forbes Member	✓				
Frank B. Aguon, Jr. Member					
Simon Sanchez Member					

**MINA'BENTE SINGKO NA LIHESLATURAN GUAHAN
1999 (FIRST) REGULAR SESSION**

Bill No. 81 (COR)

As Substituted by the Committee on Natural Resources

Introduced by:

J.M.S. Brown

**AN ACT TO ADD A NEW CHAPTER 53A TO TITLE 10 GUAM CODE
ANNOTATED RELATIVE TO PROHIBITING THE USE OF LEAD
PIPES, SOLDER AND FLUX; AND PROHIBITING THE USE OF, AND
INTRODUCTION INTO COMMERCE OF, ANY PLUMBING FITTINGS
AND FIXTURES THAT ARE NOT LEAD-FREE ON OR INTO GUAM.**

BE IT ENACTED BY THE PEOPLE OF GUAM:

Section 1. Legislative Findings and Intent.

The Legislature finds that Guam has a history of problems with lead in the water. A standard needs to be adopted and enforced to establish minimum requirements for the control of potential adverse human health effects from products which contact drinking water.

Section 2. Act. This Act shall be known as the "Guam Lead Ban Act".

CHAPTER 53A

GUAM LEAD BAN ACT

§53300 Title. This Chapter shall be known as the "Guam Lead Ban Act".

1 **§53301.Definitions.** For purposes of this Act, the following words and
2 phrases shall have the meaning given herein unless their use in the text of
3 the Act clearly demonstrates a different meaning.

4 (1) "Administrator" shall mean the Administrator of the Guam
5 Environmental Protection Agency or his designee.

6 (2) "Agency" shall mean the Guam Environmental Protection Agency.

7 (3) "ANSI/NSF Standard 61, Section 9" shall mean the testing protocol that
8 measures and limits the amount of lead and other contaminants that a
9 device may contribute to drinking water. This protocol was developed by
10 NSF International and adopted by The American National Standards
11 Institute.

12 (4) "Board" shall mean the Board of Directors of the Guam Environmental
13 Protection Agency.

14 (5) "Endpoint Devices" shall mean plumbing fittings and fixtures intended to
15 dispense water from the domestic water piping system for human ingestion.
16 These devices include kitchen and bar faucets, lavatory faucets, water
17 dispensers, drinking fountains, water coolers, glass fillers, residential
18 refrigerator ice makers, supply stops, and endpoint control valves.

19 (6) "Lead Free" shall mean (a) when used with respect to solders and flux
20 refers to solders and flux containing not more than 0.2 percent lead; (b) when
21 used with respect to pipes and pipe fittings refers to pipes and pipe fittings
22 containing not more than 8.0 percent lead, and (c) when used with respect to
23 plumbing fittings and fixtures intended as endpoint devices, refers to plumbing

1 fittings and fixtures that have been certified by an independent third party to
2 be in compliance with ANSI/NSF Standard 61, Section 9.

3 (7) "Person" shall mean any individual, partnership, co-partnership, firm,
4 company, corporation, association, joint stock company, trust, estate, or any
5 agency, department, or instrumentality of the federal or local government, or
6 any other legal representatives, agents or assigns.

7 (8) Public water system (PWS) -shall mean a system for the provision to the
8 public of water for human consumption through pipes or other constructed
9 conveyances, if such system has at least fifteen (15) service connections or
10 regularly serves an average of at least twenty-five (25) individuals daily at
11 least sixty (60) days out of the year. Such term includes: any collection,
12 treatment, storage, and distribution facilities under control of the operator of
13 such system and used primarily in connection with such system; and any
14 collection or pretreatment storage facilities not under such control which are
15 used primarily in connection with such system.

16 (9) "Replacement" shall mean when used with respect to a potable water
17 piping system, means the permanent removal of lead containing materials.

18 **§53302. PROHIBITION ON USE OF LEAD PIPES, SOLDER, AND FLUX.**

19 (A) No person may use any pipe, plumbing fitting or fixtures, any solder, or
20 any flux, which is not lead free as defined in this Act and any regulations
21 promulgated hereunder, in the installation or repair of:

- 22 (i) any public water system;
- 23 (ii) any plumbing in a residential or nonresidential facility providing water for

1 human consumption.

2 (B) Subparagraph A shall not apply to leaded joints necessary for the repair
3 of cast iron pipes.

4 **§53303. Prohibition on the Importation, Use or Sale of Pipes, Plumbing**

5 **Fittings and Fixtures.** (A) No person may import into Guam or introduce into

6 commerce any lead pipe, except for a pipe that is used in manufacturing or

7 industrial processing; (B) No person may import into Guam or introduce into

8 commerce any plumbing fitting or fixture that is not ANSI/NSF certified. (C)

9 No person may introduce into commerce or sell any solder or flux that is not

10 lead free unless the solder or flux bears a prominent label stating that it is

11 illegal to use the solder or flux in the installation or repair of any plumbing

12 providing water for human consumption. (D) GEPA shall coordinate

13 enforcement of this section with the Department of Customs and Quarantine.

14 **§53304. Right of Entry and Inspection.** The Administrator or his

15 authorized representative may enter at all reasonable times upon private or

16 public facilities for the purpose of inspecting and investigating compliance with

17 this Act. GEPA is authorized to charge for conducting inspections to

18 determine compliance with this Act and regulation's promulgated hereunder

19 at the rate to be comprised of the hourly rate of the engineer or environmental

20 inspector, or both, plus an additional 15% of that total rate for administrative

21 costs. All fees collected under this section shall be deposited in the Safe

22 Drinking Water Fund as established under Section 10 of this Act.

23 **§53305. Building Permit.** No building permit clearance will be received

1 unless certification, in the form and language deemed adequate by GEPA,
2 is provided by the applicant that only lead free materials will be used in the
3 construction of potable water plumbing systems at dwellings, schools, public
4 buildings, restaurants, commercial buildings, industrial buildings, places of
5 assembly, or water system components which include distribution, treatment,
6 storage, and appurtenances.

7 **§53306. Occupancy Permit.** No building intended for use as a dwelling,
8 school, public building, restaurant, commercial building, industrial building,
9 place of assembly or any water system component which includes
10 distribution, treatment, storage and appurtenances shall receive an
11 occupancy permit, unless it complies with the standards established by this
12 Act for lead and/ or copper levels in first draw samples from endline and
13 endpoint devices. The specific procedure or protocol to be followed for
14 testing the different categories of buildings is attached as Exhibit A. The
15 levels of lead and/ or copper in individual endpoint devices deemed
16 acceptable to issue an occupancy certificate is included in Exhibit A.

17 **§53307. Enforcement and Penalties.** (A) Administrative. Whenever on the
18 basis of any information available the Administrator finds that any person has
19 violated the provisions of this Act or rules and regulations or a lawful order,
20 or has violated any permit condition or limitation, the Administrator may
21 assess an administrative penalty of not more than \$5,500 per day per
22 violation. The assessment of an administrative penalty shall not prohibit the
23 administrator from also ordering the mitigation and/or replacement of lead

1 containing material or for the taking of such other corrective action as may be
2 appropriate. The administrator is authorized to issue stop work orders to
3 enforce this section.

4 (1) Before issuing an order assessing a civil penalty, the Administrator shall
5 give to the person to be assessed such penalty, written notice of the
6 Administrator's proposal to issue such order and the opportunity to request
7 a hearing. Such request must be made within 30 days of receipt of the notice.
8 Hearings will be conducted as provided under the Administrative Adjudication
9 Law (AAL). In lieu of an order, the Agency may require that the alleged
10 violator or violators appear before the Agency for a hearing at a time and
11 place specified in the notice and answer the charges complained of, or the
12 Agency may initiate civil or criminal action.

13 (a) If, after a hearing held pursuant to the AAL, the Board finds that a
14 violation or violations have occurred, it shall affirm or modify the order
15 previously issued or issue an appropriate order or orders for the mitigation
16 and/or replacement of lead containing material involved or for the taking of
17 such other corrective action as may be appropriate.

18 (b) If, after hearing on an order contained in a notice, the Board finds that
19 no violation has occurred or is occurring, it shall rescind the order.

20 (c) Any order issued as part of a notice or after hearing may prescribe the
21 date or dates by which the violation or violations shall cease and may
22 prescribe timetables for the necessary action in mitigating and/or replacing
23 the lead containing material.

1 (2) In determining the amount of any penalty assessed, the Administrator
2 shall take into account the nature, circumstances, extent and gravity of the
3 violation or violations and with respect to the violator, ability to pay, any prior
4 history of such violations, the degree of culpability, economic benefit or
5 savings realized by the violator from the violation, and such other matters as
6 justice may require.

7 (3) If any person fails to pay an assessment of a civil penalty after the order
8 making the assessment has become final, or after a court in an action has
9 entered a final judgment in favor of the Administrator, the Administrator shall
10 request the Attorney General to bring a civil action to recover the amount
11 assessed. In such an action, the validity, amount, and appropriateness of
12 such penalty shall not be subject to review.

13 (B) Civil - Any person who violates any provision of this Act, regulations or
14 requirement of an applicable safe drinking water program or an order
15 requiring compliance shall be subject to a civil penalty of not more than
16 \$27,500 for each day per violation. Assessment of an administrative penalty
17 order shall not be a bar to enforcement of these regulations and orders made
18 pursuant to these regulations, by injunction or other appropriate remedy, and
19 the Agency shall have the power to institute and maintain in the name of
20 Guam any and all such enforcement proceedings.

21 (C) Each day of violation shall constitute a separate offense.

22 (D) Nothing in the Act shall prevent the Agency from making efforts to
23 obtain voluntary compliance through warning conference or any other

1 appropriate means.

2 **§53308. Safe Drinking Water Fund.** There is hereby created within the
3 government of Guam a nonlapsing, revolving fund, to be known as the "Safe
4 Drinking Water Fund" which shall be maintained separate and apart from any
5 other funds of the government of Guam and shall be administered by the
6 Administrator of GEPA. All fees, monetary charges and other funds collected
7 or received pursuant to this Act shall be deposited in the Safe Drinking Water
8 Fund and used for the administration and implementation of the Safe Drinking
9 Water Program; for public education and similar outreach programs and
10 promotions aimed at increasing awareness of the dangers of using pipes,
11 plumbing fittings or fixtures containing lead over the acceptable limit set by
12 this Act or regulations.

13 **Section 3. Severability.** If any provision of this Law or its application to any
14 person or circumstance is found to be invalid or contrary to law, such invalidity
15 shall not affect other provisions or applications of this Law which can be given
16 effect without the invalid provisions or application, and to this end the
17 provisions of this Law are severable.

EXHIBIT A

Procedures for implementation of lead ban related to attaining building occupancy permits clearance.

Required testing procedure for endpoint device first draw sampling for lead and/or copper for dwellings, schools, public buildings, commercial buildings, industrial buildings, or places of assembly. This testing procedure applies to newly constructed facilities as well as additions and renovations of these same facilities.

Number of samples collected

All new buildings, additions renovations, prior to receiving occupancy permits, shall have a representative sample of (first draw water) collected from endpoint devices (as defined in the Guam Lead Ban Act) tested for levels of lead and/or copper. The number of endpoint devices to be tested shall be as follows:

- Buildings with less than five (5) endpoint fitting/fixture devices - all devices shall be tested
- Buildings with five (5) or more endpoint fitting/fixture devices - five (5) devices plus 10% of the total numbers of endpoint fitting/fixtures shall be

tested; however no building shall have less than five (5) endpoint devices tested. Endpoint devices used primarily for drinking water supply and cooking (i.e. water fountains, coolers, kitchen faucets) shall be selected as first priority - other devices (bathroom faucets, etc.) shall be selected as second priority.

- In the case of new as well as additions and renovations of daycare centers, schools and health care facilities - all endpoint devices in the facility shall be tested.

Sampling protocol - first draw samples

- All samples collected for determining materials in fittings shall be first draw samples - i.e. water which has been allowed to sit in the pipes and endpoint devices for at least 6, but not more than 24 hours, without use of the water in the facility.

All other required samples will be determined by GEPA.

Certified Laboratories

- For the purpose of determining compliance with the above mentioned water analysis, samples may be considered only if they have been analyzed by a

laboratory certified by Guam EPA, or any other laboratory certified by other States acceptable to Guam EPA.

Issuance or denial of occupancy permits

- If all results are less than 15 parts per billion (ppb), then occupancy permit clearance may be issued.
- If any results are greater than 50 ppb, then those fixtures must be replaced, and the replacement fixtures re-tested prior to issuance of occupancy permit.
- If any results are between 15 ppb and 50 ppb, the facility shall have three options:

Option 1 - Replace all fixtures (and/or pipes and fittings, if appropriate) with results between 15-50 ppb, and re-tested. Occupancy permit clearance may be issued if the analytical test results of water samples collected are less than 15 ppb.

Option 2 - Mitigate all fixtures and/or pipes and fittings and re-tested. Occupancy permit clearance may be issued if the analytical test results of water samples collected are less than 15 ppb.

Option 3 - Keep fixtures with results between 15-50 ppb, and post notices, as required below, adjacent to the fittings and fixtures. Retest after three (3) months to determine if levels have decreased.

- In the case of day care centers, schools, or health care facilities all endpoint devices located in areas which may be used by children or infants (such as water coolers, kitchen faucets), with a result greater than 15 ppb shall be replaced. No devices producing water greater than 15 ppb shall be allowed to be used by children.

Public Notice Requirements

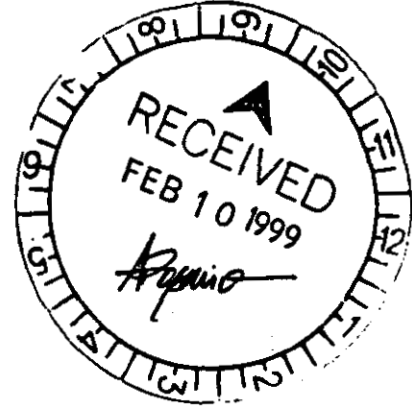
The contents of the Notice shall provide a clear and readily understandable explanation of:

- (1) the potential sources of lead in the drinking water,
- (2) potential adverse health effects,
- (3) reasonably available methods of mitigating known or potential lead content in drinking water,
- (4) any steps the system is taking to mitigate lead content in drinking waters, and
- (5) the necessity for seeking alternative water supplies, if any.



MINA' BENTE SINGKO NA LIHESLATURAN GUAHAN
Kumitean Areklamento, Refotman Gubetnamento Siha, Inetnon di Nuebu, yan Asuntion Fidirat
Senator Mark Forbes, Chairman

FEB 10 1999



MEMORANDUM

TO: Chairman
Committee on Natural Resources

FROM: Chairman *[Signature]*
Committee on Rules, Government Reform, Reorganization
and Federal Affairs

SUBJECT: Primary Referral - Bill No. 81

The above bill is referred to your Committee as the Principal Committee. In accordance with Section 6.04.05. of the Standing Rules, your Committee "Shall be the Committee to perform the public hearing and have the authority to amend or substitute the bill, as well as report the bill out to the Body." It is recommended that you schedule a public hearing at your earliest convenience.

Thank you for your attention to this matter.

MARK FORBES

Attachment

MINA' BENTE SINGKO NA LIHESLATURAN GUAHAN
1999 (FIRST) Regular Session

Bill No. 81 (LS)

Introduced by:

J. M. S. Brown 

**AN ACT RELATIVE TO PROHIBITING THE USE OF LEAD PIPES,
SOLDER AND FLUX, AND PLUMBING FITTINGS AND
FIXTURES, ON OR INTO GUAM.**

BE IT ENACTED BY THE PEOPLE OF GUAM:

Section 1. Legislative Findings and Intent. The Legislature finds that Guahan has a history of problems with lead in the water. A standard needs to be adopted and enforced to established minimum requirements for the control of potential adverse human health effects from products which contact drinking water.

Section 2. Act. This Act shall be known as the "Guam Lead Ban Act".

Section 3. Definitions. For purposes of this Act, the following words and phrases shall have the meaning given herein unless their use in the text of the Act clearly demonstrates a different meaning.

(1) Administrator shall mean the Administrator of the Guam Environmental Protection Agency or his designee.

(2) Agency shall mean the Guam Environmental Protection Agency.

(3) Board shall mean the Board of Directors of the Guam Environmental

1 Protection Agency.

- 2 (4) Endline Devices shall mean plumbing fittings and fixtures intended to
3 dispense water from the domestic water piping system for human
4 ingestion. These devices include kitchen and bar faucets, lavatory
5 faucets, water dispensers, drinking fountains, water coolers, glass
6 fillers, residential refrigerator ice makers, supply stops, and endpoint
7 control valves.
- 8 (5) Lead Free shall mean (a) when used with respect to solders and flux
9 refers to solders and flux containing not more than 0.2 percent lead;
10 (b) when used with respect to pipes and pipe fittings refers to pipes
11 and pipe fittings containing not more than 8.0 percent lead, and (c)
12 when used with respect to plumbing fittings and fixtures intended as
13 endline devices, refers to plumbing fittings and fixtures that have
14 been certified by an independent third party to be in compliance with
15 ANSI/NSF Standard 61.
- 16 (6) Mitigation shall mean with respect to a potable water piping system,
17 to take such corrective action as is necessary to ensure that the water
18 piping system is lead free.
- 19 (7) NSF, International shall mean the independent, not-for-profit
20 organization that develops standards, then tests and evaluates
21 products and materials to determine compliance with those standards
22 for products and materials that promote and protect health, and
23 certifies products to ensure they meet these standards.
- 24 (8) Person shall mean any individual, partnership, co-partnership, firm,
25 company, corporation, association, joint stock company, trust, estate,

1 or any agency, department, or instrumentality of the federal or local
2 government, or any other legal representatives, agents or assigns.

3 (9) Public water system - as defined in 10 GCA Chapter 53.

4 (10) Replacement shall mean when used with respect to a potable water
5 piping system, means the permanent removal of lead containing
6 materials.

7 **Section 4. Prohibition on Use of Lead Pipes, Solder, and Flux.** (A) No person
8 may use any pipe, any pipe or plumbing fitting or fixtures, any solder, or any flux,
9 in the installation or repair of:

10 (i) any public water system; (or)

11 (ii) any plumbing in a residential or nonresidential facility providing
12 water for human consumption, that is not lead free as defined in this
13 Act.

14 (B) Subparagraphs (A) shall not apply to leaded joints necessary for the
15 repair of cast iron pipes.

16 **Section 5. Prohibition on Use of Plumbing Fittings and Fixtures.** (A) No
17 person may introduce into commerce any pipe, or any pipe or plumbing fitting or
18 fixture that is not lead free, except for a pipe that is used in manufacturing or
19 industrial processing; (B) No person may engage in the business of selling
20 plumbing supplies, except manufacturers, to sell solder or flux that is not lead
21 free; (C) No person may introduce into commerce any solder or flux that is not
22 lead free unless the solder or flux bears a prominent label stating that it is illegal to
23 use the solder or flux in the installation or repair of any plumbing providing water
24 for human consumption. (D) GEPA shall coordinate enforcement of this section
25 with the Department of Customs and Quarantine.

1 **Section 6. Right of Entry and Inspection.** The Administrator or his authorized
2 representative may enter at all reasonable times upon private or public facilities
3 for the purpose of inspecting and investigating the adequacy and compliance with
4 this Act.

5 **Section 7. Occupancy Permit.** No building used as a dwelling, school, public
6 building, commercial building, industrial building or place of assembly will
7 receive an occupancy permit, without first being tested for lead and copper levels
8 in first draw samples from endline devices. The specific procedure or protocol to
9 be followed for testing the different categories of buildings shall be developed by
10 GEPA. The levels of lead and copper in individual endline devices deemed
11 acceptable to issue an occupancy certificate shall be determined by GEPA. No
12 building permit or occupancy certificate under the building law of Guam shall be
13 issued without prior compliance with this Act.

14 **Section 8. Enforcement/Penalties.** (a) Administrative. Whenever on the basis
15 of any information available the Administrator finds that any person has violated
16 the provisions of this Act or rules and regulations or a lawful order, or has violated
17 any permit condition or limitation, the Administrator may assess a civil penalty
18 that may not exceed \$10,000 per day for each day during which the violation
19 continues, except that the maximum amount of any civil penalty under this section
20 shall not exceed \$125,000.

21 (1) Before issuing an order assessing a civil penalty, the Administrator
22 shall give to the person to be assessed such penalty, written notice of
23 the Administrator's proposal to issue such order and the opportunity
24 to request, within 30 days of the date the notice is received by such
25 person, a hearing on the proposed order. Hearing will be conducted

1 as provided under the Administrative Adjudication Law (AAL). In
2 lieu of an order, the Agency may require that the alleged violator or
3 violators appear before the Agency for a hearing at a time and place
4 specified in the notice and answer the charges complained of, or the
5 Agency may initiate action civil or criminal action.

6 (a) If, after a hearing held pursuant to the AAL, the Board finds
7 that a violation or violations have occurred, it shall affirm or
8 modify the order previously issued or issue an appropriate
9 order or orders for the prevention, abatement, or control of the
10 pollution or discharges involved or for the taking of such other
11 correction action as may be appropriate.

12 (b) If, after hearing on an order contained in a notice, the Board
13 finds that no violation has occurred or is occurring, it shall
14 rescind the order.

15 (c) Any order issued as part of a notice or after hearing may
16 prescribe the date or dates by which the violation or violations
17 shall cease and may prescribe timetables for the necessary
18 action in preventing, abating or controlling the pollution
19 discharge.

20 (2) In determining the amount of any penalty assessed, the Administrator
21 shall take into account the nature, circumstances, extent and gravity
22 of the violations or violations and with respect to the violator, ability
23 to pay, any prior history such violations, the degree of culpability,
24 economic benefit or savings if any resulting from the violation, and
25 such other matters as justice may require.

1 (3) If any person fails to pay an assessment of a civil penalty after the
2 order making the assessment has become final, or after a court in an
3 action has entered a final judgment in favor of the Administrator, the
4 Administrator, the Administrator shall request the Attorney General
5 to bring a civil action to recover the amount assessed. In such an
6 action, the validity, amount, and appropriateness of such penalty shall
7 not be subject to review.

8 (a) Criminal - Any person who violates any provision of this
9 regulation shall be guilty of a misdemeanor and subject on
10 account thereof to a fine not to exceed one thousand dollars
11 (\$1,000) a day.

12 (b) Civil - Assessment of an administrative penalty order shall not
13 be a bar to enforcement of these regulations and orders made
14 pursuant to these regulations, by injunction or other appropriate
15 remedy, and the Agency shall have the power to institute and
16 maintain in the name of Guam any an all such enforcement
17 proceedings.

18 (c) Each day of violation shall constitute a separate offense.

19 (d) Nothing in the Act shall prevent the Agency from making
20 efforts to obtain voluntary compliance through warning
21 conference or any other appropriate means to obtain mitigation
22 or replacement.

23 **Section 9. Lead Ban Fund.** There is hereby created within the government of
24 Guam a nonlapsing, revolving fund, to be known as the "Lead Ban Fund" which
25 shall be maintained separate and apart from any other funds of the government of

1 **Guam and shall be administered by the Administrator of GEPA. All fees,**
2 **monetary charges and other funds collected or received pursuant to this Act shall**
3 **be deposited in the Lead Ban Fund and used for the administration and**
4 **implementation to protect our drinking water; for public education and similar**
5 **type outreach programs and advertisement promotions aimed at increasing**
6 **awareness of the dangers of using pipe, plumbing fittings or fixtures containing**
7 **lead over the acceptable limit.**

Committee on Natural Resources

Mark-Up Meeting on

Bill No. 81 - An Act Relative to Prohibiting the Use of Lead Pipes, Solder and Flux, and Plumbing Fittings and Fixtures, on or into Guam.

**Tuesday, June 1, 1999
9:00 a.m.**

Committee Report

The Committee on Natural Resources chaired by Senator Joanne M.S. Brown held a Mark-Up meeting on Tuesday, June 1, 1999 at the Legislative Public Hearing Room with regard to Bill No. 81 - An Act to Prohibiting the Use of Lead Pipes, Solder and Flux, and Plumbing Fittings and Fixtures, on or into Guam.

Present were: Senator Joanne M. S. Brown
 Senator Marcel Camacho
 Senator Larry Kasperbauer

Senator Brown commenced the Mark-Up meeting by informing representatives of Guam Environmental Protection Agency and the University of Guam that the hearing on Bill No. 81 was held earlier and would like to get the bill on the session floor when it convenes in a couple of weeks. She would like to go over any additional recommendations anyone has and mentioned that the Department of Education and a couple of government agencies submitted recommendations to enhance the bill. The military wrote and informed the committee that they were already in compliance with regard to the recommendation contained in Bill No. 81. She mentioned that there was no feedback from the hardware stores, the construction companies, as well as the Contractor's Licensing Board. (It was the most extensive letters she ever sent out to anyone for any particular piece of legislation and could only assume that it was not a concern to them, and would proceed with regards to legislation.) She called on the individuals who wished to be involved with the discussion and informed them the meeting was not a formal

public hearing. She called on Mr. David Longa to introduce GEPA's representatives and anyone else who is there to discuss the bill.

Mr. David Longa stated his name for the record and introduced GEPA staff, Mr. Angel Marquez, Mr. Narcisio Custodio and Mr. Lito Buan, who are also from the Water Division.

Senator Brown recognized representatives from the University of Guam and asked them to introduce themselves.

Mr. Richard Young introduced himself as the Manager for the Facilities and Utilities for the University of Guam.

Mr. Brian Mullen introduced himself from the University of Guam, Maintenance.

Senator Brown asked GEPA representatives if they had any additional contribution to make to the bill or received any feedback since the public hearing. If there were any, GEPA would have to justify why it is needed and also why does it have to get through this year.

Mr. David Longa responded that GEPA did not receive feedback from companies who are involved with the products that would be imported.

Senator Brown reiterated Mr. Longa's statements with reference to the additional feedback and inquired if any was received from the hardware stores.

Mr. Angel Marquez commented that the hardware stores still display 80% of the regular fittings and 20% of the NSF products.

Senator Brown inquired if GEPA is inspecting current construction of single family residential dwellings that are being constructed.

Mr. Angel Marquez responded that GEPA does not inspect residential homes on the NSF certified, but does on new constructions and eating establishments and have seen more of the NSF certified fittings and fixtures being used.

Senator Brown inquired if the non NSF certified fixtures are still being placed on individual residential dwellings or does the owner know of the certification of the fixtures, or is it because the contractors are just purchasing the cheapest material.

Mr. Angel Marquez responded that both the owner and contractor are not aware of the advantage of the certification of the fixtures.

Senator Brown asked if the contractors are aware that once the bill passes they are not allowed to bring any more of the materials into Guam or use them.

Mr. Angel Marquez responded that the designer and contractors are aware of the law that has been in effect since August, as it is part of GEPA's comment review process.

Senator Brown introduced Senator Marcel Camacho who is a member of the committee and briefed him on the discussion the group had earlier with reference to feedback from GEPA on Bill 81 on whether they had any additional testimonies since the public hearing. The intent of the legislation is to prohibit the use of lead in terms of solder or materials such as fixtures in the construction of buildings here on Guam.

She mentioned the major concerns with the construction of the Southern High School where the fixtures and piping did contain lead material and it cost over \$800,000 to refit the Southern High School to come into water compliance.

Asked Mr. Young and Mr. Mullen from the University of Guam if they had any comments.

Mr. Richard Young commented that the penalties shown on page 6 and the one on page 8 conflicted. He pointed out that on page 8, it defines a person to be fined \$27,500, and on page 6, it showed \$10,000 and maximized at \$125,000. He would like to incorporate all entities and companies involved.

Senator Brown stated that the concern with reference to the penalties were brought up at the public hearing.

- The amendments to the penalties made by GEPA were felt to be a

little too stiff.

- Imprisonment was a bit much for any fines issued.
- The committee would go back and readdress the financial penalties as well as the imprisonment because they felt it was a bit extreme, even though GEPA's legal counsel felt the heart of the penalty was the more deterrent, however, the committee's feelings are quite contrary.
- The court would not entertain something as extreme as this. The committee will look at amending the penalties before the bill is reported out.

Mr. Richard Young stated the other concern is whether the clarity of the bill addresses existing installations. He asked what the impact would be to existing facilities that have already been installed incorrectly, if the bill's perspective is to install the equipment in new facilities that are brought into the island in the near future.

Mr. Brian Mullen inquired if the fittings, fixtures, or equipment going to be replaced or is a phase-in period going to be applied, because the government could not bear the burden of the financial liability.

Senator Brown responded that the first step is to prohibit the new construction from using these non NSF certified materials, and to:

- Deal with existing private construction,
- Inform the public that it is an option that they would have to take themselves and encumber the cost.
- Have GEPA staff check the public schools on Guam in terms of their water quality.

Mr. Angel Marquez responded that GEPA is required to do testing on any renovation with new projects.

Senator Brown inquired if GEPA does water quality testing on existing schools, because they took out water fountains because of lead content.

Mr. Angel Marquez responded that GEPA does water quality testing if there is a request or complaint from the Director of DOE or the principal. GEPA

coordinates with DOE's Safety Office and does the testing at the University of Guam.

Senator Brown asked Mr. Longa if this was something that GEPA needs to work and coordinate with DOE because she is particularly concerned with the school facilities. She asked the administration if GEPA can look into testing the water quality at the older schools to ensure that they are in compliance with regard to the lead concern.

Mr. Longa responded that when GEPA did the water quality test on all the schools, to include both the private and nursery schools, they were found to be in compliance. The water fountains, which is an external equipment that was added on, showed up with lead content. Based on data provided to GEPA, leaching of lead or even copper was minimized because of the calcium build up. Because of the hard water condition on Guam, the plumbing system usually clogs up and GEPA would have to go in and do their inspection.

Senator Brown inquired if GEPA was working on an informational outreach program to inform people about the change in legislation. She does not think that people are aware of the piping fixtures in their homes that they need to be concerned with. The issue was discussed about the need for more assertiveness on the part of the agency to go out and do community outreach as to how to get their water tested and the cost of getting it done.

Mr. Brian Mullen commented that people could just run their water for about ten minutes and that process would clean what is in the water. Part of the informational system is just running your water before utilizing it.

Senator Brown stated that most people do not realize how running the water for a few minutes would clean what is in the water.

Mr. Brian Mullen (inaudible)

Senator Brown stated that what Mr. Mullen mentioned was true but it is not heard out there. It has been only recently that Guam Waterworks has started encouraging people to conserve water, but GEPA, with their public relations need to work on more extensive outreach programs to inform people of existing fixtures

that may be in their homes or in their buildings and what they could do if they wish to change it. GEPA could make some recommendations as to what type of materials to use and not use.

Mr. Brian Mullen inquired where will the legitimate or valid testing points be and who incurs the cost as well.

Senator Brown responded that GEPA can answer that. She knows GEPA does that with new facilities that have been constructed before occupancy clearance is granted on a building. She asked GEPA to elaborate on it.

Mr. Angel Marquez stated that the public education outreach is in GEPA's objective this fiscal year. GEPA is waiting for this bill to be in a formal law so that they can proceed with the proposal. He mentioned that USEPA Region IX and one expert from Montana and were on island recently and were discussing this issue. The expert from USEPA will be visiting next week and will be working and having meetings with Senator Brown. The new construction or building that is three years old or newer are the most impacted by this bill.. Anything five or years older is not as much of a problem as is new construction.

Senator Brown inquired why that would be.

Mr. Angel Marquez explained that the lead in the fixtures smear in the manufacturing of the fixtures which is the 8% lead content.

- The 8% percent is the surface of the material that is coming in contact with the water. The longer the fixture is used, the corrosion or removal of this lead from this fixture would be washed out.
- The northern part of our island has hard water conditions, in addition to the water being removed, part of the material is coated with hard lime.
- In the south, it takes a little bit longer before the lead will be removed, or partially removed from the pipe, because the south has soft water. The soft water is more corrosive and the tendency for the corrosive water, rather than coating tends to corrode the system or the pipe in it.
- During the lead and copper testing as required in the Safe Water

Drinking Act, GEPA selected houses that were five years old just to ensure that the leaching of lead is not eminent in those fittings. GEPA discovered that in the North, it was barely meeting the requirements, which means, about 92% are still within the acceptable level, but there is still a concern with the 8% .

- In the south, it was the surface water. This is where they had some problem with this higher lead concentration, and therefore, the water supplier, both the Navy and GWA were required to adjust the ph of the water to control this corrosion of lead and copper from the pipe.

Senator Brown reiterated that the surface water we are using down south is more corrosive than the pipes.

Mr. Angel Marquez responded in the affirmative.

- GEPA has a program in place to require all contractors for commercial type building, except for single family dwelling, to be tested prior to the issuance of the occupancy permit. In place of those testings, GEPA found that new fittings and fixtures are in fact leaching high concentration of lead and in some cases copper.
- Copper on the other hand is not as dangerous as lead. The advantage for using copper out balances the health effects.
- GEPA's research found that even in the USA, copper is not that much with the injection level at 1,300 micrograms per liter. The recorded maximum contaminant level of copper is set at that level.
- On the other side, lead has set a maximum level goal of 0, which means, that any consumption of this lead has some health effects. Therefore, GEPA does not recommend that copper be bonded or remove as part of our plumbing system.

Senator Brown reiterated that GEPA is not as concerned with regards to copper piping being used.

Mr. Angel Marquez stated that the construction today requires at least PVC from the outside to the building and copper from the building to the fixtures. Copper being used in single residential dwellings are very minimal to the effect of copper corrosion. Most problems occur from fittings in fixtures coming from the point of

use device, such as a kitchen or lavatory sink.

Senator Brown inquired about the fixtures bought off the shelf with regards to the lead content and not meeting standards.

Mr. Angel Marquez responded that fixtures that were manufactured, not certified by NSF normally leaches higher concentration of lead the first few years of the life, depending on the usage and the quality of the water being served in the dwelling.

Senator Brown reiterated the concern is not in the old fixtures, but those newer fixtures recently installed.

Mr. Angel Marquez responded that based on GEPA's testing data, houses that are five (5) years or older from the time of testing, are less eminent of eroding lead in the system, than houses that are new and being used.

Senator Brown introduced Senator Kasperbauer and informed him that the Committee is doing a mark-up on Bill No. 81.

- The bill was publicly heard and there were some concerns raised with the implementation date and the penalties.
- The committee did an extensive outreach in extending invitations to the Contractors Association, to all the different hardware stores on Guam to come out and provide testimony on this bill.
- The committee did not receive any testimony, and its unfortunate, because some of them may be impacted with this legislation if they have material in their inventory.
- With the passage of this legislation, it will prohibit them in new construction, or going back and replacing existing fixtures from using the materials that have lead in them.
- There is going to be an impact, but it does not appear that the impacted community is either concern or aware of what the implications of this legislation are.
- She noticed that the hardware stores have very few of the labeling of certified NSF fixtures.

She inquired if anyone has any additional recommendations and called upon Ms. Liz Cruz, legal counsel for GEPA to join the other representatives of GEPA at the table. She stated that when the public hearing was held, there were some concerns with regards to the penalties. Both GEPA and the committee's legal counsel will be working together to come up with what might be a more agreeable penalty because her colleagues are very concerned, of what they view is extremely severe penalty, such as the three years potential imprisonment for the use of this material in construction. The penalties would have to be negotiated otherwise, the bill will not get anywhere.

Senator Camacho inquired if this legislation is a result of an effort at the national level to try to reduce the metal lead?

Mr. Angel Marquez responded in the affirmative. There is already an existing law that is in effect since 1998 that the same law that we are looking at here are in effect nationwide on a federal level.

Senator Camacho asked to have the NSF elaborated on.

Mr. Angel Marquez responded that NSF stands for National Seditive of Foundation. It is a third party foundation that certifies products after several testings, to meet the minimum requirement of lead and copper leaking in the system. It is recommended by USEPA as part of the rule to implement the content of the Safe Drinking Water Act as amended in 1996.

Senator Camacho stated that manufacturers of fixtures are having the fixtures tested and are getting a stamp of approval through NSF.

Mr. Angel Marquez responded:

- In 1996 amendment, the Safe Drinking Water Act, allowed 8% lead in any material in the plumbing system, which is called lead free.
- From 1986 to 1996, they found out that even 8% lead leached a higher concentration of lead depending on how the manufacturer used that 8% during the manufacturing process.
- The manufacturers are doing a certain strategy of process in such a way that the use of lead or even 8% lead does not leach much lead in

- the tap.
- Every year GEPA receives a copy that there are more and more product, added in that listing.

Senator Camacho asked if fixtures are prohibited from using lead products, because his understanding is that lead is in the solder that joint the pipes.

Mr. Angel Marquez responded that the lead solder is allowed .2%. This is the material that is used to connect copper piping. The 8% material that is used in the fixtures are to make the manufacturing process easier. During the manufacturing process, the lead leaches because most of the lead smears outside the pipe and comes in contact with the water.

Senator Camacho inquired if the lead is a coating, or is it the in ead the pipe and the solder.

Mr. Angel Marquez stated that the 8% lead is used to make the grinding or the machining smoother. Because lead is like a soap material, when added to a brush it makes it easier for the manufacturer to make a thread.

Senator Brown reiterated it is essentially on the coating of the fixtures than on the piping was what Mr. Marquez was referring to. It is not contained within the piping but it is coated as a result of the manufacturing process.

Mr. Angel Marquez responded that in some way, it is 8% and is a part of it. The manufacturer goes by weight and is added in the fixture. It is the process that the manufacturer goes by to meet the requirements of NSF. The brochure lists products that are 4%, or 6% lead and varies. They are 8% or 7% lead, but leaches less than those listed in smaller percentages such as 4 or 5% perhaps because of the manufacturing process. In the NSF, all these materials in the different ph. In other words, the worst scenario where you have ph or corrosive water, it should not leach within a certain level, and once that is proven, then they certify that product and adds it to their listing.

Senator Kasperbauer commented that he has a video that deals with lead poison preventive projects. His concern was with the water fountains in the schools. He expressed disappointment that a couple of years ago, he was informed that all the

water fountains in DOE have been changed, only to find out it was not true.

Senator Brown commented that GEPA was involved in the testing of the water fountains and recommended that they be removed from the school premises. She asked Mr. Longa if he had any feedback with Senator Kasperbauer's concern.

Mr. Longa responded that on the water fountain issue, GEPA conducted a test a couple of years ago for all schools including the private schools, and were provided information that all water fountains identified as having lead within its own coil have been removed. He was not aware of the information that Senator Kasperbauer brought up.

Senator Kasperbauer stated this happened a couple of years ago.

Mr. Longa stated that this was before the lead scare.

Senator Brown inquired what year did GEPA go out and recommend removal of those water fountains in the school.

Mr. Angel Marquez responded that the Lead Contamination Control Act in 1988 required Guam EPA as a local EPA to assist DOE to monitor all the water fountains in both public and private schools.

- GEPA inspected all the drinking fountains in 1988 on the island school system and listed those that were not in compliance with the Act.
- There were brand names in the manufacturers name that were bonded, and were allowed at the time.
- GEPA did a random testing in 1988 and found that 33% of the water fountain leached a high concentration of lead and recommended to DOE to replace them.
- In conjunction with the DOE Director's orders, GEPA tested 100% of all the water fountains both private and public school in 1997. GEPA found 20% of the fountains leaching a high concentration of lead and found several of the old ones that were not in compliance with the Lead Contamination Control Act.
- GEPA did the Airport work with Department of Education to replace

all the identified water fountains. A listing was submitted to DOE of every single school where the water fountains were replaced and tested and as of today, GEPA is not aware, based on information they have, any school or water fountain leaching high concentration of lead, unless they were replaced with uncertified products. It is illegal to install water fountains that are not lead free.

Senator Brown inquired if the newer fountains are lead free?

Mr. Angel Marquez responded that DOE had a stack of water fountains a couple which were checked and verified that the manufacturer was in the lead free listing.

Senator Brown commented that the installation of the water fountains existing in the public or private schools would not be GEPA's concern when they were inspected.

Mr. Angel Marquez responded that it was not in the water fountain that concerned GEPA, but it was the fixtures and fittings that were used for the cafeteria and some of the lavatory sinks that in-house work was referred to DOE.

Senator Brown stated that she is aware of the cases that GEPA had to go back and address compliance with, and inquired if GEPA went back to DOE and ensured that DOE complied with the new standards, or removed the fixtures or piping that contained high lead.

Mr. Angel Marquez responded that GEPA worked extensively with DOE and did the testing side by side with them. They inspected the water fountains that were replaced, but does not know how many to date have been replaced from the listing that was given to DOE.

Senator Brown inquired if GEPA was following up to check with DOE to find out how many water fountains have been replaced from the listing. She knew the concern was in the cafeteria areas because they found lead content in the fixtures.

Mr. Angel Marquez responded that GEPA receives calls from the principal or the custodian, and they go out to check with them. GEPA does sampling and testing but does not have enough personnel to go follow up every single complaint

at DOE.

Senator Brown asked if GEPA has an existing list where the personnel goes back to inspect on the quality of water. She recognized the limited personnel, however, GEPA could check with DOE director or administrator within the different schools to follow up to ensure compliance. She suggested to have DOE maintenance personnel be more conscientious in the maintenance and repair of existing lines, or replacing lines to ensure that DOE is using lead free material. DOE does not go to the government for permitting.

Senator Kasperbauer commented that not only is the fixture his concern, but the actual installation process. If the fittings were soldered together, using solder with lead in it what happens if the fixture is lead free.

Senator Brown stated that the process is an on-going problem. She mentioned that Senator Pangelinan brought up the issue of why do we require the testing after the construction and placing the burden on the homeowner or building owner to incur the cost of paying for quality water testing. One of the concerns was there was not enough personnel to ensure that with every construction, GEPA has to go in to inspect the piping. GEPA would not know once the walls are poured what is contained in there until the water is tested.

Senator Kasperbauer commented that he did not see any huge pile of old water fountains anywhere taken out of the schools that were replaced.

Mr. Young responded that UOG got rid of them in the clean up for the junk cars and other wide goods.

Senator Brown inquired into the case of the University of Guam and asked if testing was done to ensure that the water fountains were in compliance.

Mr. Young responded that the UOG was involved in the testing in 1997 and found that of all the water fountains on campus, six (6) were in non-compliance. These six (6) were disconnected by Mr. Brian Mullen.

Senator Brown inquired if the fountains were replaced with fountains that were

lead free.

Mr. Young responded that some of them were not replaced, they were just shut off.

Senator Brown recognized Mr. Fred Nisihira, legal counsel from the Department of Education and appreciated his presence because he provided written testimony on Bill No. 81. She would take his testimony into consideration for the final preparation of the bill. She asked Mr. Nisihira if he had any additional comment on behalf of DOE. Addressing another concern was the cost involved in the testing. She mentioned that Senator Pangelinan felt that if the bill was passed and there was enforcement of it, there would not be any need for testing because we are to assume that all the material put in the piping and the fixtures would be lead free. She asked Mr. Angel Marquez what the steps would be to ensure that water quality is being met, and how would GEPA go about in making that determination.

Mr. Angel Marquez responded that GEPA proposed mandatory testing for a minimum of five fixtures and over. It will allow GEPA to determine if the fixtures used in the plumbing system is lead free. The cost per testing would be \$40. A three bedroom, 2 bath, home and a kitchen, would require four (4) fixtures and the requirement in the bill is a minimum of five (5) fixtures or over.

Senator Brown inquired that if she has a home and has less than four fixtures or less, she would not require testing.

Mr. Angel Marquez clarified that what he was saying is if the homeowner has one type of fixture, one testing is required if the product is the same.

Senator Brown inquired how would GEPA make that determination and How would they know if the fixtures are all from different companies?

Mr. Angel Marquez responded that in a regular single house, if there are 3 lavatories, one testing would be taken because the lavatory has a different product than a kitchen sink. Also the lavatory and kitchen sinks are two different processes during manufacturing. If you conduct one testing in the kitchen sink and one in the lavatory sink, the average testing would be two for every single

house.

Senator Brown inquired how much does it cost per point per testing.

Mr. Angel Marquez responded that University of Guam usually does the testing at \$40.00 per testing.

Senator Brown clarified that if you have five (5) or six (6) points that is 6Xs \$40.

Mr. Angel Marquez stated that for an average house, 2 sample tests would cost \$80.

Senator Brown inquired if the incoming point is tested into the house through the GWA line before you test the house, or is the tap tested in the house.

Mr. Angel Marquez responded that GWA has seven sets of testing that were done islandwide, and they were proven that it did not come from the source, the distribution line, or transmission line.

Senator Brown reiterated it is not from GWA. There is no lead that is leaching into the water as a result of the GWA line. She asked how often does GEPA retest GWA's distribution system islandwide.

Mr. Angel Marquez responded that GEPA does testing for GWA's water distribution line every six months.

Senator Brown stated that the lead concerns will be coming primarily from the buildings, the piping, or the fixtures inside a building and asked if the testing is done with every home before occupancy is granted.

Mr. Angel Marquez stated that with deposits of the well, it is mandatory. GEPA has a program that requires commercial buildings and apartments to have minimum testing as a part of the occupancy permit clearance.

Senator Brown inquired about the testing to residential homes.

Mr. Angel Marquez responded it is only a certification between the owner and the contractor that only lead free materials would be used.

Senator Brown stated it would not be known if that is true or not. With passage of this legislation it would make it mandatory for residential homes.

Senator Camacho inquired into the testing of the government buildings.

Mr. Angel Marquez responded they have a written in- house policy.

Senator Camacho stated that the government has the tendency sometimes to exempt themselves from the rules and regulations.

Senator Brown stated that it is “always”.

Mr. Angel Marquez stated that in part, most of these buildings are delayed for occupancy permit because GEPA is the last one to sign off because of the testing requirements.

Senator Brown pointed out the Southern High School as an example. Prior to occupancy on the first day of school, there was high lead content that showed up in the water testing. There was a concern about the piping and the fixtures as well, and the fact that the surface water in the south is most corrosive ended up having high lead content. Her understanding from the information she received was that it costs over \$800,000 to refit the school and inquired who paid for the retrofitting.

Mr. Longa responded he did not know.

Senator Brown asked Senator Kasperbauer if he can follow up with the \$800,000 to refit the school being that it is under his oversight. She wanted to ensure that we do not end up in the same situation with any new school construction.

Mr. Brian Mullen stated that in answer to that would be establishing a contractor’s liability fund prepaid deposits prior to the construction that would be refunded upon completion if they pass the standards. If not, it can be used so that the government agency does not get stuck with the tabs.

Senator Brown stated it was a very good point and asked Senator Kasperbauer to look into that for school construction, renovation, or expansion of existing schools as it is something that can be worked with GEPA. Once this legislation is passed, we want to ensure that standards and testing requirements become islandwide.

Mr. Brian Mullen stated the suggestion was for the government in particular.

Mr. Young commented on a question from the University standpoint and inquired if there were any other testing agencies on island. He heard mention of the Marine Lab as being a testing agency. The concern was the level of construction going on, and could get into a log jam in trying to get testing accomplished. He does not know of any simple test that could be done on site.

Senator Brown asked Mr. Marquez if there were any other private testing companies aside from WERI where consumers can get their water quality tested or even regular homeowners.

Mr. Marquez responded that WERI is certified to do the business.

Senator Brown stated that the committee would inquire of WERI of what their workload is. She knew that they would be providing written testimony to the committee and would inquire of the question, if there were someone else doing water quality testing, or would they be overstaffed or burdened if they have a bunch of people coming to require testing. She brought up another legislation which is the bottle drinking water and inquired if the machines dispensing drinking water are lead free.

Mr. Brian Mullen inquired if the machines were considered an end fitting.

Senator Brown responded it would be something that they would need to look at. She stated that there are not a lot of answers that we have so far, and would go to Public Health to check on this. A lot of people are under the impression that when they buy bottle water, they are purchasing a pure product or clear or healthier product. They are spending many times over the cost of a gallon of water than what they will buy from Guam Waterworks and do not necessarily think that we know what we are getting for the price we are paying. Do you know if the machines that are being used are lead free.

Mr. Angel Marquez responded that he is looking at this new bill and any fittings to dispense drinking water, the point of device that comes from GWA which goes into the tap. I assure you it is covered in this bill.

Senator Brown commented that when you look at the machines at the back end, they are hooked up to the Guam Waterworks pipe. She inquired if GEPA knows if these vending machines are lead free or have they tested for that.

Mr. Angel Marquez responded that there is a need to regulate the bottling companies because with minimal operation and maintenance, the contaminants were being concentrated in the sealed equipment and instead of releasing good quality water, it releases high concentrated water.

Senator Camacho inquired if lead can be removed by filtration?

Mr. Angel Marquez responded that most of the machines are using reverse osmosis which could remove lead.

Senator Camacho inquired if using strictly filtration can remove lead. If he was to put a filtered system in his residence, would that reduce the lead.

Mr. Angel Marquez responded that some of these we call a point of use device, or the counter top. They are equipped with activated carbon which are not designed to remove lead. It is only used to remove chlorine which is the disinfectant used to treat the water, and if the chlorine is not there, chances are the bacteria might grow within the unit and eventually contaminate the drinking water.

Senator Brown inquired if Public Health has a certified lab for water testing.

Mr. Angel Marquez responded that Public Health has labs but they are not required to be certified. The only time a certified lab is required is when they are running samples for compliance.

Senator Brown commented that it is ironic that we test from the tap, but do not test bottle water, because most people consume bottle water for drinking purposes versus showering or cleaning.

Mr. Longa responded that GEPA will supply the committee with the information with regard to the treatment supply for water. He stated most of the equipment also has to meet with NSF certification.

Senator Brown asked which type of fixtures was Mr. Longa referring to.

Mr. Longa responded the water dispensing machines have to meet the NSF certification before they are put on the market.

Senator Brown inquired if GEPA knows where the machines are coming from and what standards are they meeting. She stated that GEPA does not regulate the machines at all.

Mr. Longa responded that GEPA would have to inspect these treatment machines because there should be a decal that states they meet NSF standards.

Senator Brown inquired if this was something GEPA can do now, because once this bill is passed, GEPA will have direct oversight over the machines as a fixture. She asked if GEPA would be able to test and certify for that.

Mr. Angel Marquez responded that the state of California has a law that allows for certified treatment device that could be used in every facility in the state. What GEPA needs on this island is to regulate the bottle water. There are only five (5) processes in the system depending on how they use it, and depending on how it is manufactured. Some meet the claim which they say can remove, but the majority of the treatment devices cannot remove what they claim.

Senator Brown commented that the committee will come back and deal with the bottle water on another piece of legislation. The main thing on the mark-up is to take into consideration all testimonies both written and verbal and look at their amendments. She will run them by GEPA so that the bill can be ready for session in a couple of weeks. The other point that was of concern with the bill were the penalty provisions, which will be negotiated to amend the legislation. Aside from the testimonies that have been provided, she did not have anything else, and asked if anyone else has any final comments.

Mr. Longa stated he would like to make some input with reference to the

discussion on the owner constructing a plumbing system within their home. He suggested an inspector go on site prior pouring and inspect the material being used.

Senator Brown inquired into the percentages of GEPA's inspection on these constructions, and if GEPA inspects every home prior to the foundation being poured, in terms of piping being put into the homes.

Mr. Angel Marquez responded that Public Works does the inspections.

Senator Brown asked how effective are Public Works inspectors with regard, particularly, to the use of lead.

Mr. Angel Marquez responded that GEPA used to have workshops with Public Works, but with the old inspectors that have retired. Most of these requirements are in the Uniform Planning Code or what we call now the International Planning Code.

Senator Brown inquired if DPW is enforcing it as GEPA does random checks just to ensure that Public Works is complying.

Mr. Angel Marquez responded that DPW does not have the experts to do the work. The only thing that is not in there is the importation. It is illegal to use according to the Building Code, but it does not say it is illegal to import, which is the primary goal of the bill.

Senator Brown reiterated that when the legislation is passed, the existing contractors who have the material in stock may want to use it up. She asked if there was anything that GEPA can do to work with Public Works and look at random testing because once the bill is passed, it will mandate for all occupancy permits that testing be done. This bill will become effective once it is passed into law. She also asked the following:

- If a house is completed in August, would the homeowner be required to meet the testing requirement so that this gap can be caught?
- Is GEPA going to inspect the hardware stores to see if they are in compliance with what they have on their shelf?

- How is GEPA going to deal with the enforcement aspect of this?

Mr. Angel Marquez responded that one of GEPA's 2000 objectives is to have a phase out program to ensure that the materials are not on the shelf. He mentioned that during GEPA's conference, he inquired if the NSF certification logo is required in the fittings itself, and was told by USEPA that there is no requirement, except on the box. The only way to ensure that there is no material other than the NSF product would be to remove them completely off the shelf.

Senator Brown stated the committee would follow up with the agency to see how GEPA is going to be able to do enforcement. She asked Mr. Longa to contact the Director of Public Works and coordinate another workshop, if required, between GEPA personnel, the Water division and Public Works inspectors to see if they are up in knowledge and in compliance to ensure that lead free materials are used before they allow the next phase of construction to occur so that lead material is not being put into the homes.

Mr. Longa commented that if GEPA had additional personnel and funding they can do their own in-house inspection as a safety factor for the homeowner.

Senator Brown stated that her colleagues are hearing his comments.

- The committee does have a bill for public hearing with the oversight for GEPA that would re-create positions which were eliminated two (2) months ago with the budget.
- She does not know how successful it is going to be because of the competition of the other demands in government including meeting payroll the next few months with existing employees.
- Will take note of Mr. Longa's concern, and is aware that the agency operationally is on a very dangerous position with regards to enforcement, not just on the Water division, but the Ordot Landfill situation in compliance with the Solid Waste Division as well as the Air pollution control issue that if we do not get personnel in there, our cost is going to go up substantially for our power bill.
- It can be discussed next week at the hearing and you can plead your case to the mercy of all her good colleagues. She also stated that if there were any additional comments or contributions, to feel free to

provide them in written form so that it can be reviewed and if they are of value, they could be consolidated in the bill.

Senator Kasperbauer inquired how would he know if a spool of solder that he purchased is less than .2%.

Mr. Longa responded that the label on the solder spool indicates the percentages of lead content. If the solder contains 50% tin on silver combination, it is more expensive.

Mr. Angel Marquez stated that in addition the label should state lead free. The hardware stores are required to identify on the shelf what is lead free and what is not.

Senator Brown stated that the Department of Commerce submitted written testimony and did point out that the importation of these types of materials into Guam impacted by this legislation is less than 28% of their imports, which is about \$1.7M. They were not overly concerned with regards to the economic impact on this particular legislation. She thanked everyone present for their time in allowing the committee to address the mark-up of Bill No. 81. Most people do not know how this bill is going to impact them, but once it is passed we will follow-up with the agency to see how they have progressed with compliance and enforcement. She reiterated the educational outreach which GEPA would have to work with their PIO in getting the information out to the community so they are more aware.

Mark-Up Meeting adjourned at 10:15 a.m.



DEPARTMENT OF THE AIR FORCE
PACIFIC AIR FORCES

Colonel Mark J. D. Gehri
Commander, 36th Air Base Wing
Unit 14003, Box 28
APO AP 96543-4003

17 MAY 1999

The Honorable Joanne M. Salas Brown
Guam Legislature
Suite 200, 130 Aspinall Street
Hagåtña, Guam 96910

Dear Senator Brown

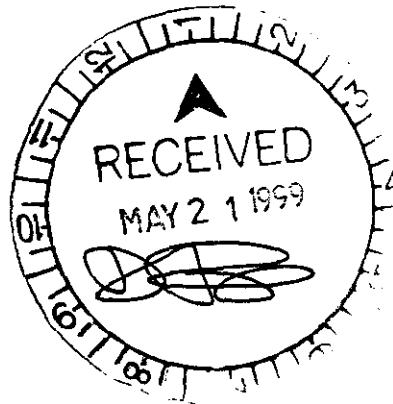
Thank you for your consideration to include us in your discussions about the use of lead in the island's water systems. We all know this is an important topic, especially for the safety of our children.

We are pleased to inform you Andersen Air Force Base is fully compliant with the proposed Bill 81. We have been "lead free" for some time now, and enforce this standard on our contractors. We follow up with sampling and have not exceeded the lead standard.

Although we were unable to attend on 6 May 99, we hope the Public Hearing was successful.

Sincerely


MARK J. D. GEHRI, Colonel, USAF



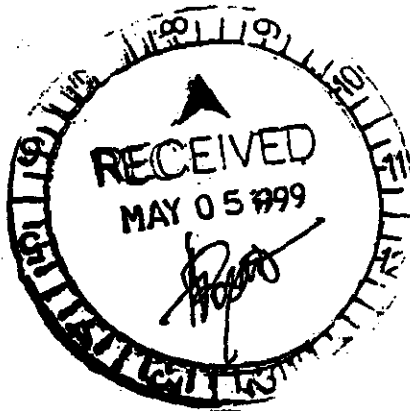


DEPARTMENT OF THE NAVY
U.S. NAVY PUBLIC WORKS CENTER
PSC 488, BOX 198
FPO AF 96540-2937

IN REPLY REFER TO:

5090
Ser 900/14157
05 MAY 1999

Senator Joanne M.S. Brown
Chairperson
Committee on Natural Resources
Suite 200
130 Aspinall Street
Hagatna, Guam 96921



Dear Senator Brown:

Thank you for your letter of April 28, 1999 advising us of the Public Hearing for Bill No. 81: An Act Relative to Prohibiting the Use of Lead Pipes, Solder and Flux, and Plumbing Fittings and Fixtures, on or into Guam. We appreciate the opportunity to review and provide comments to Bill No. 81.

For your information, the U.S. Navy has implemented procurement procedures, product/material specifications, and usage controls to prohibit the use of lead pipes, solder and/or fittings in its water distribution systems in accordance with the Lead Ban requirements of the 1986 Safe Drinking Water Act since its promulgation.

Bill No. 81 is not expected to impact the Navy's operations. Therefore, we respectfully decline the invitation to appear and provide further comments at the Public Hearing on May 6, 1999.

Please contact Mr. Tony R. Roberson of our Environmental Services Department at 339-3711, if you have any questions.

Sincerely,

J. M. BARRETT
Captain, Civil Engineer Corps, U.S. Navy
Commanding Officer



DIPATAMENTON KUMETSIO DEPARTMENT OF COMMERCE

GOBETNON GUAHÄN



Carl T.C. Gutierrez
Magalåhi
Governor
Madeleine Z. Bordallo
Tiñente Gubetnadora
Lt. Governor

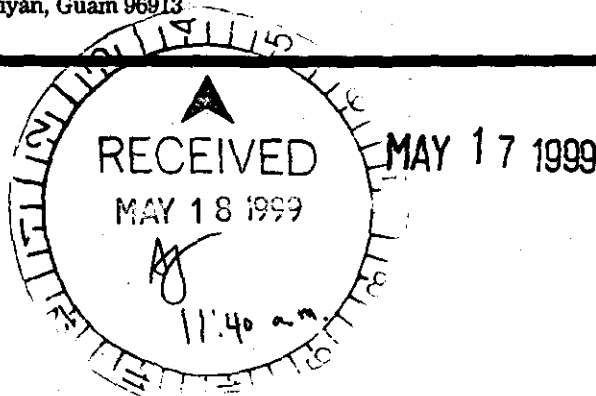
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Senator Joanne M.S. Brown,
Chairperson
Committee on Natural Resources
Suite 200
130 Aspinall Street
Hagatna, Guam 96910



Dear Senator Brown:

We apologize for the late submittal of our testimony regarding **Bill No. 81 – An Act Relative to Prohibiting the Use of Lead Pipes, Solder, Flux and Plumbing, Fittings and Fixtures, on or Into Guam.** However, we have just completed our analysis of our import data on the subject commodities. Our findings are as follows:

- Total imports on lead pipes, solder, flux, plumbing fittings and fixtures for 1998 amounted to approximately \$1,716,996.
- Total amount for all imported commodities recorded in 1998 were \$603,362,780.
- The subject commodities were only about 0.28 percent of total imports.

In view of the aforementioned data, we do not expect the passage of Bill No. 81 to have any significant negative effects on Guam's economy.

Should you have any questions, please feel free to contact my office at 475-0321.

Sincerely,

Joseph C. Cruz
Director

cc : Chairman, Legislative Review Committee
Governor's Legal Counsel
Administrator, Guam Environmental Protection Agency



Commonwealth Now!



DEPARTMENT OF EDUCATION

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Michael J. Reidy
Director of Education, Acting

Fred Nishihira
Legal Counsel

May 17, 1999

Senator Joanne M. Sajas Brown
Legislative Secretary
Suite 200
130 Aspinall Street
Hagatna, Guam 96910



RE: Testimony on Bill No. 81

Dear Senator Brown:

Hafa Adai I apologize for not being able to attend the public hearing scheduled for May 6, 1999. The Director has requested my review and comment on Bill No. 81 as introduced. Therefore, I am submitting for your consideration the Department's testimony in favor of Bill No. 81 with a few recommendations:

1. **Section 4:**
 - (a) the words "any pipe" are repeated
 - (b) subsection (i) as written does not prevent the use of lead materials to install or repair our public water systems. It prevents the use of pipes, plumbing fixtures... from being used to repair our public water system. The Bill needs to be reworded to clearly state that lead pipes and materials may not be utilized in the repair of our public water system.

2. **Section 7:**
 - (a) "copper levels" Bill No. 81 prohibits the use of lead products. Copper products should be addressed in a new section or deleted all together.
 - (b) Is GEPA sufficiently staffed and funded to implement these provisions if this Bill becomes a law? If the answer is no then the effect would be that the process of issuing occupancy permits would take longer to issue to the building owner. Perhaps DPW inspectors are the more appropriate personnel as they are in the field already.

COMMONWEALTH NOW!



standard. Guam is required under Federal Law to uphold and implement these lead ban requirements.

A voluntary standard, NSF International's consensus Standard 61, (ANSI/NSF Standard 61: Drinking Water System Components-Health Effects), including in line and endpoint devices has been established. The criteria for lead in the NSF Standard limits the amount of lead that can leach into the water from a particular product. Some manufacturers modified their manufacturing process to meet the NSF Standard.

NSF Standard 61, Section 9 relates to the amount of lead leached from a product while definition of "lead free" for pipe and pipe fitting corresponds to a maximum of 8% lead content. It covers endpoint devices which include kitchen and bar faucets, lavatory faucets, water dispensers, drinking fountains, water coolers, glass fillers, residential refrigerator ice makers, supply stops and endpoint control valves. Some brass fittings and plumbing fixtures containing 8% or less lead have been found to contribute high lead levels for a considerable amount of time after their installation, even in contact with relatively non-corrosive waters.

There has been a significant problem in Guam with high lead levels in the water. In many cases, this is because of inferior plumbing materials- specifically, in many cases, end line devices (faucets and taps) which have leached large amounts of lead into the water. Not only is this law required, but it will protect public health from lead and copper poisoning.

The Southern High School; the old UPI elementary school, and other public and private school plumbing systems just to mention a few were determined to contain high concentrations of lead from the kitchen sinks, lavatory sinks, drinking fountains and shower heads which were primarily due to inferior endpoint fixtures, inline device and lead solder. New buildings that contain such fixtures and fittings oftentimes fail the required testing. All these unnecessary waste of money and materials can be avoided with the passage of bill 81.

Lead causes adverse development effects in children (slows cognitive development) and hypertension in adults. It is also a probable human carcinogen. Medical research shows lead to be toxic metal which can be harmful to human health even at low exposure levels. Young children, infants, and fetuses are particularly vulnerable to lead because the physical and behavioral effects of lead occur at lower exposure levels in children. Over exposure has been linked to damage to the central and peripheral nervous system, learning disabilities, shorter stature, impaired hearing, and impaired

formation and function of blood cells.

We must take action where we can avoid or minimize such health risks. Bill 81 is one way to ensure this on Guam.

We applaud your effort at introducing Bill 81. We hope that you will act favorably and expeditiously.

On behalf of the Board of Directors and employees of the Guam Environmental Protection Agency, thank you for the opportunity to testify in support 81. I would be pleased to answer any questions that the Chair or members of this Committee may have.

MINA' BENTE SINGKO NA LIHESLATURAN GUAHAN
Committee on Natural Resources

PUBLIC/CONFIRMATION HEARINGS
THURSDAY, MAY 6, 1999
9:00 A.M.

A G E N D A

1. Introduction of Committee Members
2. Commencement of Confirmation Hearing of:
 - a. **Mr. Jesus P. Cruz - Member, Board of Directors, Guam
Waterworks Authority**
 - b. **Mr. Jose E. Javellana, Jr., - Member, Board of Directors, Guam
Waterworks Authority**
 - c. **Mrs. Maria C. Quinata - Member, Board of Directors, Guam
Environmental Protection Agency**
3. Public Hearing:
 - a. **Bill No. 81 - An Act Relative to Prohibiting the Use of Lead Pipes,
Solder, and Flux, and Plumbing Fittings and Fixtures,
on or Into Guam.**
4. Public Comment
5. Adjournment

MINA' BENTE SINGKO NA LIHESLATURAN GUAHAN



Committee on Natural Resources

Senator Joanne M. S. Brown

Chairperson

Notice of Public Hearing

The Committee on Natural Resources will be conducting a Public / Confirmation Hearing on Thursday, May 6, 1999 at 9:00 a.m. in the Legislative Public Hearing Room, 155 Hesler St., Hagatna on the following:

Bill No. 81 - "An act Relative to Prohibiting the use of Lead Pipes, Solder, and Flux, and Plumbing Fittings and Fixtures, on or into Guam".

Maria Quinata, Board Member, Guam Environmental Protection Agency

Jesus P. Cruz, Board Member, Guam Waterworks Authority

Jose E. Javellana, Jr., Board Member, Guam Waterworks Authority

ADA Coordinator: Mrs. Toni Gumataotao at 472-3450/51

The public is invited to attend.

FISCAL NOTE
BUREAU OF BUDGET AND MANAGEMENT RESEARCH

BBMR-F7

Bill Number: 81 Date Received: March 8, 1999
 Amendatory Bill: Yes Date Reviewed: March 9, 1999
 Department/Agency Affected: Guam Environmental Protection Agency
 Department/Agency Head: Jesus T. Salas
 Total FY Appropriation to Date: 587,922 (General Fund)
 Bill Title (preamble): An act relative to prohibiting the use of lead pipes, solder and flux, and plumbing fittings and fixtures, on or into Guam.
 Change in Law: No.

Bill's Impact on Present Program Funding:

Increase X Decrease _____ Reallocation _____ No Change _____

Bill is for:

Operations _____ Capital Improvement _____ Other X

FINANCIAL/PROGRAM IMPACT

ESTIMATED SINGLE-YEAR FUND REQUIREMENTS (Per Bill)

PROGRAM CATEGORY	GENERAL FUND	OTHER	TOTAL
Health and Welfare		1/	

ESTIMATED MULTI-YEAR FUND REQUIREMENTS (Per Bill)

FUND	1st	2nd	3rd	4th	5th	TOTAL
GENERAL						
OTHER	1/					
TOTAL						

FUNDS ADEQUATE TO COVER INTENT OF THE BILL? N/A - IF NO, ADD'L AMOUNT REQUIRED \$ _____

AGENCY/PERSON/DATE CONTACTED: _____

ESTIMATED POTENTIAL MULTI-YEAR REVENUES

FUND	1st	2nd	3rd	4th	5th	TOTAL
GENERAL FUND						
OTHER	1/					
TOTAL						

ANALYST Dina P. Chock

DATE 3/10/99

DIRECTOR Joseph E. Rivera, Acting

DATE MAR 16 1999

FOOTNOTE(S): If enacted, the Bill may generate revenues from the collection of fines and fees as imposed in the Act. Note that according to this Bill, all funds collected or received pursuant to this Act shall be deposited into a Lead Ban Fund and used for the administration and implementation to protect our drinking water: for public education, outreach programs, and advertisement promotions aimed at increasing awareness of the dangers of using pipe, plumbing fittings or fixtures containing lead over the acceptable limit.

**Committee on Natural Resources
Public Hearing on**

Bill No. 81

Thursday, May 6, 1999

9:00 a.m.

Summary of Committee Report

The Committee on Natural Resources chaired by Senator Joanne M. S. Brown held a Public Hearing on Bill No. 81 - **An Act Relative To Prohibiting the Use of Lead Pipes, Solder and Flux, and Plumbing Fittings and Fixtures, on or Into Guam**, on Thursday, May 6, 1999 at 9:00 a.m.

Present were: Senator Joanne M. S. Brown
Senator Alberto Lamorena
Senator Carlotta Leon Guerrero
Senator Vicente Pangelinan
Senator John C. Salas

Senator Brown continued the hearing and informed the public present that Bill No. 81 was introduced in the 24th Guam Legislature towards the end of the term. It was reintroduced in the 25th Guam Legislature, and Guam Environmental Protection Agency (GEPA) would like to provide some amendments. She sent out notices to every hardware store, major construction companies, and the Contractor's Licensing Board at the request of GEPA, who provided the listing with regard to this particular piece of legislation. This bill is perhaps going to financially impact some companies that have inventory on board, either in the hardware stores or contractors that may have materials that do not meet these requirements and is sure would be an issue in the next few months, if this piece of legislation is adopted. She appreciated those who were present to testify and began with Mr. Jesus Salas, Administrator, of GEPA. She extended the invitation to those who desire to testify on Bill No. 81 to sign in.

Mr. Jesus Salas read his written testimony and stated that GEPA re-examined the piece of legislation submitted to the Chairperson's office and found some discrepancies. Therefore, he would like to submit a revised version of Bill No. 81. The additions and deletions focus on definitions (Section 3), Occupancy Permit (Section 7), and Enforcement/Penalties (Section 8). The revision was necessary to clarify the definition of terms, include testing protocols and standards, and add wordings to the title of the act. An appendix was also included to further clarify the occupancy permit requirements. **(Please refer to attached written testimony for full details).**

Senator Brown questioned the significant changes and purposes for the increase and asked the Administrator to provide justifications. The penalties reflects fines of \$1,000.00 a day for a misdemeanor to potential imprisonment for three (3) years. With regards to compliance side, GEPA is looking at civil penalties of not more than \$27,500 per day.

Mr. Jesus Salas responded that GEPA staff pointed out that the message needs to get across that our children are important. The administrative penalties, which are those fines of \$10,000 to \$125,000 have a recourse to contest through an appeals process before the Board at Guam EPA. On the civil side, \$27,500 a day is considered a reasonable sum because it has to be a significant infraction in order to get to the civil side of the house.

Senator Brown inquired if this piece of legislation was in place, would this type of penalty be applied to the contractor for the Southern High School, who purchased all the fixtures and GEPA found the fixtures had lead content.

Mr. Jesus Salas responded it was the exact case in point. The total cost while still to being ascertained is within \$700,000-\$800,000. It is a significant amount of money to refit the lines and fixtures.

Senator Brown inquired who paid for the lines and fixtures.

Mr. Jesus Salas responded that the contract had said they would assumed the liabilities, but something happened and now it is back on Department of Education's (DOE) court. At one point in time, it had been going back and forth

from Department of Public Works (DPW) to contractor to DOE.

Senator Brown inquired if GEPA would not be able to ensure regulations on lead fixtures coming into Guam without this legislation.

Mr. Jesus Salas responded that the agency needs to start adding “teeth” to all their rules and regulations in order for GEPA to make sure that people protect the environment.

Senator C. Leon Guerrero inquired if this piece of legislation would apply to the military project?

Mr. Jesus Salas responded that the military should not be exempted from this legislation. GEPA goes into the military installation and inspects everything that they do. At one time, they had used the sovereign territory as an excuse from being looked at by local government.

Senator C. Leon Guerrero commented that the reason why she brought up the military issue was:

- She wanted her colleagues to know the military’s feelings about lead because she had tried to get playground equipment from Naval Air Station (NAS) into the villages and was informed it could not be released because of the lead paint.
- She thought the military was just pulling a fast one, so she called up GEPA and asked them to do some testing. GEPA tested the paint and gave a list of numbers and was told not to let the equipment come into the community because the leads of paint on the playground equipment is 26,000 times above acceptable levels.
- The Navy removed all the playground equipment on flatbed and moved them off NAS.
- She felt that the military has a different version of what is acceptable levels of contaminants versus the local government.

Mr. Jesus Salas stated as a “fallback”, federal laws apply to the military and GEPA is more stringent of federal law.

Senator Lamorena inquired on a few concerns:

- What is GEPA doing with hardware stores who presently have inventory on lead pipes; and
- Are the hardware stores going to be compensated or assisted because the legislation shows no “grandfather” clause in it.

Mr. Jesus Salas responded:

- He attempted to put a “grandfather” clause during their deliberations; however, the discussion among the staff was that there may not be as many devices or fixtures that are lead free and a transition period was an acceptable way of allowing the retailers to get rid of their inventory on lead fixtures.
- A lot of these items have already been identified with a safety inspection tag of NSF Standard 61.
- There are not as many fixtures out there and;
- Some of the retailers who still have lead pipes in their inventory have probably already made their profits.

Senator Lamorena inquired if Southern High School was still using lead fixtures

Senator Brown commented:

- The contractor had to go back and retrofit and pull out brand new fixtures from a school that was just built three (3) years ago because of the massive problem of lead in the water.
- There is a need to be concerned because some contractors do not invest their money in the fixtures, but are looking at the cheaper quality fixtures that do not meet the standards.
- Most residents do not know when they build or renovate their existing home whether or not the fixtures they are purchasing may be contributing to a contamination of themselves and their families.

Senator Lamorena suggested that a stipulation should be put in the legislation that the contractor must inform the homeowner or whoever they are building for and offer them the item of their choice. This gives the retailers the opportunity to

sell their inventory of pipes to use it strictly for plumbing.

Mr. Jesus Salas stated GEPA wants this law to reach out into the individual homes so that if they want to use the fixtures, it will be at their discretion.

Senator Lamorena stated that GEPA should add a section in the bill to read: until the exhaustion of inventory, the contractor must notify or give the homeowner or whoever they are building for, the option of using non-lead or lead fixtures.

Mr. Jesus Salas stated that was his position when the discussion took place.

Senator Brown stated:

- She does not want to endorse the continued use of lead fixtures.
- This was the most announced hearing she has ever had in terms of sending correspondences for people to testify, including the Contractor's Licensing Board, every hardware store and major contractor to provide testimony so that the committee can entertain their concerns whether or not this was something they had in their inventory and how will we deal with that in the interim.
- Should the six (6) months grace period be allowed for retailers to exhaust their inventory.
- She would not want to continue to contribute to the health problems of our community for the continued use of these fixtures that do not meet standards.
- She felt that there is still another week or two before this bill may go before the Legislature to allow these businesses to come forth with their testimonies.
- She does not know through policy how to accommodate what may not be a significant group of people or inventory to endorse this through statute for such a grace period.

Mr. Jesus Salas stated that the procedural way of minimizing the risk is to issue a word of warning. The process of immersing the fixture in a vinegar solution decreases the likelihood of lead leaching into the water.

Senator Brown commented that most people do not know that.

Mr. Jesus Salas stated that the bigger problems will be on the high end fixture items that the normal household would not buy. In the transition period, GEPA could possibly protect the retailers given the grace period. It would have been helpful if retailers had come out to testify.

Senator Brown stated that the lead testing is not a new issue. Normally before occupancy is granted, one of the things that GEPA is supposed to do, is require a test on the water quality. Once a home or building has been constructed and water hooked up, it is tested for that purpose.

Mr. Jesus Salas stated that water testing is the second safeguard.

Senator Brown inquired if existing regulations in the agency is not adequate for the new standards because this is not the first time the lead testing issues are being dealt with.

Mr. Jesus Salas responded that GEPA never had the Safe Drinking Water Act apply for lead and copper corrosion. With this bill, GEPA will have that second safeguard of the occupancy permit for residential homes.

Senator Brown inquired as to what people should be looking for in terms of the marking to let them know that the fixtures they are purchasing meets the lead quality standards.

Mr. Jesus Salas responded that NSF Standard 61 itself, is in the law. The smaller print is the procedural way to minimize the risk.

Senator Brown asked Mr. Angel Marquez to explain the labeling or marking of the NSF 61 Standard so that everyone will know what to look for before making a purchase.

Mr. Angel Marquez identified himself for the record as the Safe Drinking Water Act Administrator for Guam EPA. He explained the logo for the NSF 61 Standard is like a circle, resembling a nickel or dime size with the word NSF clearly identified, mostly on the boxes, and is not in the fixture itself. Most of

these products are available in the store.

Senator Brown reiterated that she will look for a box with an NSF marking to indicate that the particular fixture meets these requirements nationally.

Mr. Jesus Salas added if GEPA goes into the transition period, GEPA will require the retailer to put up that sign that says NSF, and also the procedures to minimize the risk.

Senator Lamorena stated that the bill addresses lead piping, but the point is being brought up about copper piping. A lot of people have switched from lead piping into copper because of that reason, especially for hot water.

Mr. Jesus Salas explained that unless residential homeowners have a big system like the Southern High School, they would experience the same problem with copper. The household may use copper piping of 5-8 feet; however, the copper tubing is not significant enough to provide that kind of leachate to the standards where GEPA would go in and regulate. With copper, the corrosive water situation is dealt with; however, it is proving that in the residential homes, there is not enough corrosion to cause the copper level to rise significantly for the homeowners to worry about.

Senator Lamorena added if there is a need for addressing lead, maybe there is a need to address copper at this time.

Mr. Angel Marquez stated the main concern is the lead leaching from the fixtures and endline devices, such as the gate valves, couplings, or the water meters itself. Materials that are made of brass actually contain 8% lead. The reason for certification of NSF product in such a way that the leaching of lead with the 8% lead content is minimal, or not at all, even though, it is exposed to corrosive water. All other fixtures contain lead, particularly those with fixtures with lead free of 8%. One product can be certified, and the other not. Anything that is certified by NSF, although it contains 8% lead can guarantee that it would not leached more than 11 parts per billion lead compared to the other containing fixtures containing 8% that could leached 10 or 20 times that much.

Senator Lamorena inquired about the components in copper.

Mr. Angel Marquez responded that if you have numerous amounts of copper in your system, corrosive water is present, then leaching of copper will occur.

Senator Lamorena commented that Guam has a lot of corrosive water.

Mr. Angel Marquez stated that most of the problems are the home treatment devices that homeowners use, such as the water softener that makes the water corrosive. The reverse osmosis makes the water corrosive. If you have a water softener system in your home and a copper pipe with brass fixtures, the presence of high copper and lead leaching from your tap is likely to occur.

Senator Brown inquired what can homeowners do to ensure that their water is safe to drink either by initially constructing a new home, or after refurbishing their old homes and installing new pipes with copper fittings?

Mr. Angel Marquez responded that a request can be made for special testing by a commercial laboratory. GEPA's recommendation to customers who have requested to have their water tested is to replace the new fittings or change the pipe from copper to PVC.

Senator Lamorena inquired if there was a concern to let people know about copper piping now.

Mr. Jesus Salas responded that the tubing size used in the homes are not enough to warrant this kind of regulation, but should be worked on continuously. GEPA is dependent on the Safe Drinking Water Act as far as the levels are concerned.

Senator Lamorena stated he just heard that houses with copper tubing and brass fittings could in fact have a high level.

Mr. Angel Marquez interjected saying it depends on how much copper pipes you have in your house.

Senator Lamorena inquired whether a house that is entirely lined with copper is safe or not. A lot of people have switched from lead to copper piping because of the high cost of PVCs and for health factors.

Mr. Jesus Salas responded, testing will prove it.

Senator Lamorena commented that if we are going to prove lead now, the copper issue should be addressed as well. He does not want to come back after using copper to find out it is not safe and have to rip it out and replace it with PVC.

Mr. Jesus Salas responded that was the problem at Southern High School. It was tubes of copper that were quite extensive.

Senator Lamorena inquired if there are conclusive studies to show that copper is in fact as dangerous or slightly dangerous.

Mr. Jesus Salas responded that GEPA does not have the capability to run *extensive studies for each particular component* of the Safe Drinking Water Act, but USEPA does. They will eventually address the issue, but it has not come to GEPA with the stipulation.

Senator Lamorena inquired if there were any federal numbers or research on copper.

Mr. Jesus Salas responded there is.

Senator Lamorena requested a copy of the research. He recommended that GEPA might as well do copper and lead and just go strictly PVC.

Changing the subject, but still addressing the issue of piping, he mentioned that he was touring all the various aquaculture facilities on the island because it is under his oversight. There is an aquaculture facility in Yona that has huge pipes leading from the various ponds into a underground cavern, all the wastewater, and asked at the time, one of GEPA's inspectors if a permit was issued and the response was they were still testing to see if the cavern leads out into the ocean. He inquired about the discharge from the ponds into this supposedly underground cavern and also asked if the test has been completed with that site.

Mr. Jesus Salas responded there was one attempt made, but it was inconclusive and GEPA is trying to schedule another one.

Senator Lamorena stated the business has been opened for years.

Senator Brown inquired if Senator Lamorena was referring to the one below Yona that has been in operations for four (4) years and has been improperly permitted. She asked if that matter is still before the Attorney General's office that GEPA cannot discuss the status of, even though, it's part of an oversight hearing.

Senator Lamorena stated he was thinking of pipes and that came to mind because he remembered those big pipes.

Mr. Jesus Salas responded that he recalled Mr. Victor Wuerch, the hydrogeologist who went out and attempted to do the dye study.

Senator Lamorena inquired if the dye showed up in the bay.

Mr. Jesus Salas stated the reason why the dye did not show up in the bay was because of the conditions the waves that were coming in and dissipating the dye. Mr. Wuerch wanted to do another test, but could not do it on his own because of the lack of specialized equipment that can only be provided by a professor from New York who had come out to help him in that dye test. GEPA is trying to schedule another test.

Senator Lamorena inquired how the dye test is done.

Mr. Jesus Salas added that the concentrations would have to be picked up, read, and analyzed. This professor apparently has the type of equipment that would expedite that.

Senator Lamorena reiterated about the huge pipes and is concerned about the discharge of those ponds into the waters.

Mr. Jesus Salas stated that GEPA should be concerned if it is an illegal discharge and is polluting the waters of the territory.

Senator Brown suggested to put the issue on the list for the oversight hearing for discussion.

Senator Lamorena suggested that GEPA do a research on USEPA's studies on copper piping and addressed the issue as well. If copper is a problem also then GEPA should take care of it.

Senator Brown stated:

- Senator Lamorena has a very good point and should request that GEPA do the research on the copper piping.
- She will not hold back on the lead regulations because it has been in abeyance for quite some time.
- To address his concerns on the contractors again, she said she made an extra effort and hand delivered a number of the letters to have them present. If they cannot be here, they can fax their written testimonies with regard to their concerns to my office. We were concerned with those businesses who have lead pipes in their inventory and how we were going to address the issue.
- That we do a six (6) month period, or one (1) year period before this piece of legislation come into place. If the businesses can provide us additional testimonies in the next week or two, we can take their inputs into consideration and have a mark-up meeting on this particular issue and deliberate it further.

Senator Pangelinan inquired who was going to conduct the test that is required for the issuance of the occupancy permit.

Mr. Angel Marquez responded that it will be a joint effort between the contractor, owner, and a GEPA staff.

Senator Pangelinan inquired where will the samples be sent to and what will the cost be.

Mr. Angel Marquez responded that the samples will be sent to a commercial laboratory and would cost \$25-\$30 per test, per endpoint, per faucet.

Senator Pangelinan inquired why would GEPA require the endpoints to be tested if there was proof of certification that the products installed already met the NSF test standards.

Mr. Angel Marquez responded because sources of lead could be from the endline such as the gate valves, the other fittings within the line, or the pipe itself.

Senator Pangelinan affirmed that GEPA is banning lead pipes.

Mr. Angel Marquez responded in the affirmative.

Senator Pangelinan inquired that if GEPA was saying that we can not install lead pipes or lead couplings, where will the lead come from other than endpoint devices or gate valves. He also inquired if the gate valves were NSF certified.

Mr. Jesus Salas responded:

- If a new home has pipes installed, then you should be reasonably comfortable that they did not use what is banned.
- Even lead free fixtures has 8% lead. This is what causes the leachate on new installations.
- If that particular fixture is tested, and in fact it does leach and fell within the parameters where it has to be cleaned, there is a fairly simple procedure where the fixture is taken and immersed in a solution. This procedure will take care of the problem.
- He sees Senator Pangelinan's point on whether GEPA is testing just for the sake of testing when we already know that there is nothing there to cause the problem.

Senator Pangelinan asked why is there GEPA testing if they have the Safe Water Drinking Act standards and all the devices that have been installed have met the standards.

Mr. David Longa commented that the test is also like a quality control inspection. Even if the product meets NSF requirements when it is installed, another part is to ensure the homeowner with the test, other than the product itself.

Senator Pangelinan stated:

- That is why you have Underwriters Laboratories to ensure that the manufacturing process and the end result in the market meets the

- quality control standards.
- He does not know if he has to or should be required to pay another \$125.00 for testing of his endpoint devices if everything that is installed by the contractor are reasonably concluded through certification or presentation of materials used in the building inspection process are standards that comply with what GEPA is putting in place.

Mr. Jesus Salas stated that the greatest risk is with the younger children, and for health and safety reason, even if a fixture meets standards, there is still that possibility of 8% lead content being there.

Senator Pangelinan suggested that the standard of lead be 6%.

Mr. Jesus Salas stated the problem is that is what is manufactured too.

End of first tape Side B.

Beginning of Tape 2, Side A

Senator Pangelinan stated that 8% is safe.

Mr. Jesus Salas responded this is not always the find, because if the waters were tested, and you get 15 parts per billion, even with the fixture in place, and it contains 8% lead free, there is a problem and it would have to be corrected because that is the level of posing health risk to whoever ingests the water.

Senator Pangelinan questioned the confidence in the independent criteria that has been set by federal government with regard to lead, and lead content within the endline devices.

Mr. Jesus Salas responded some confidence, but not 100% in that reality. Situation after situation, has shown that some lead still leaks out.

Senator Brown commented that part of it could be the solder that is used in the joints that are put together.

Senator Pangelinan stated that if you solder copper, it is supposed to be safe because you would have the 2% flux or .2% ban, and inquired if that was standard and what is the margin or error of 8% lead fixture certification of lead free?

Mr. Jesus Salas responded that he does not know and GEPA does not have empirical data. This is the reason why GEPA puts it in there for margin of safety.

Mr. Angel Marquez responded to Senator Pangelinan's question about the required testing.

- Some sources of lead could be on the solder. It is not yet illegal to sell lead solder on the island because it could be used for air conditioners and other purposes.
- The contractors could not police everyday and these solders are used to weld the pipe that will be buried underground.
- The only way GEPA could ensure that all the materials being used are lead free is to require testing.

Senator Brown commented Mr. Marquez brought up a very good point:

- There are times when a home is in construction that the contractors have to go back and pull the piping because they have been covered in concrete.
- It does happen because not all contractors are credible and there has been a problem of having them use lead solder on the fixtures and then pouring concrete over it.

Senator Pangelinan stated that this bill will not allow the use of lead pipes nor lead couplings. When copper is used and the couplings are put on, lead solder would be used.

Mr. Jesus Salas responded in the affirmative; Mr. Marquez added that there is a possibility that the contractor would use lead solder.

Senator Pangelinan inquired what is the standard operation product to use for joining copper pipes. Is it lead solder or not?

Mr. Jesus Salas responded that at the moment lead solder is being used.

Mr. Angel Marquez stated there is lead free solder available, but what he was trying to point out, is that lead solder is still available on island, and chances for the contractor to use it is there.

Senator Pangelinan asked if GEPA is going to ban lead solder.

Mr. Angel Marquez responded in the affirmative.

Senator Brown stated that lead solder is going to be banned in the use of pipes, but it can be used in other things like air conditioning.

Senator Pangelinan commented that once this law is passed, you cannot go to the hardware stores and purchase lead solder with flux over .2% because the importation of it is going to be banned.

Mr. Angel Marquez clarified that the law exclusively prohibits the importation, selling of product that are not NSF certified, but it excludes any lead solder. He was referring to the use of lead solder. Use and importation are two different issues.

Senator Pangelinan inquired how could lead solder be used if it is illegal. He understood what Mr. Marquez was referring to and stated that if everything was met, GEPA is trying to test for testing sake. Either the agency has some confidence in the standards that it is setting, or it does not, then we change those standards with regard to brand new endpoint devices. The only thing he was concerned with was the gravity of the fines which, in his opinion, does not get implemented. How much of the fines has GEPA ever collected of citations issued of \$10,000 a day up to \$125,000.

Mr. Jesus Salas responded that GEPA does not even collect \$1,000 or \$500 because the court system turns it back.

Senator Pangelinan stated that the point he was trying to make is in the law. The law shows the “teeth”, but unless, it “bites”, he is uncertain that the fines are going to be upheld by the way they are set up.

Mr. Jesus Salas responded that GEPA could probably live with the sliding scale he spoke of earlier. GEPA wants high end fines to be applicable to construction projects such as the Southern High School so that it does not happen again.

Senator Brown commented that there will be a mark up meeting on the bill and if GEPA can present additional recommendations with regard to amending for smaller end violations versus the larger end. The ability of the agency to actually enforce and take it to court and get this fine paid are rare.

Senator Pangelinan stated he will be in favor of littering fees. It will be more deterrent if GEPA issued 100 littering tickets and collected \$50.00 than if it issued one ticket at \$500.00.

Senator Brown agreed; however she stated there is no job description at GEPA of anyone who has that responsibility of issuing littering tickets.

Senator Salas inquired what is GEPA referring to as fixtures because he did not understand. He commented that he spent 6 years working in commercial plumbing and cannot remember lead being used on water lines.

Mr. Jesus Salas responded, faucets.

Senator Salas stated that the fixtures have been certified since 1960 to be constructed of non-lead material.

Mr. Jesus Salas stated he did not know the date when they were certified as non-lead, but it could include as much as a percentage lead. He further stated that this is the whole point that GEPA has been discussing.

Senator Salas agreed that maybe the concern is not so much on the residential side, but the commercial side, such as the Southern High School. He went on to inquire of the following:

- Has the supply side been looked at? As an example, the water lines that go from the pumps or the wells to the storage tank under Guam Waterworks.
- Have those water lines been certified as lead free? They were built in an era where lead was highly accepted. The gate valves on the distribution side and the tanks themselves are painted regularly. Once they are emptied, they are refurbished to inhibit rust and filled with drinking water. Those are then supplied through commercial distribution lines, 16" lines, out into the villages.
- Are those commercial lines from Waterworks also certified as lead free coming into the homes?
- Then you look at the service connection of the home that you have a gate valve that is on the government side of the water meter, is GEPA a part of the inadvertent process?
- The lines went from galvanized pipe to copper piping, then copper piping, and now are moving into PVC primarily because of the cost, but as an example, his house went from galvanized 10 years ago now completely redone in copper, now he hears that it is not safe, maybe that's why every time we get close to metal it becomes a nightmare.
- It would seem that if we are going to cause commercial rules like this to be applied, it would seem that the government be ready to be certified clean and free before we start casting stones at private industry.

Mr. Jesus Salas responded :

- That GEPA does tests on individual lines but upon occasions.
- When the typhoon hits, GEPA tests the schools, and the lines that come from the distribution systems. GEPA sometimes finds lead traced to water coolers, as opposed to the distribution lines.
- GEPA tests the homes sometimes and empirically come up with lead. This is cleaned by taking care of the fixture which frees the home from potential contamination from the distribution line.
- GEPA cannot be reasonably sure this is true of all the lines under the government distribution system.
- Senator Salas' point is well taken; however, if we are talking of the whole island in general, we're talking massive scale that is cost

prohibitive.

Senator Salas stated he is not suggesting that the entire island be tested. GEPA should measure randomly or measure a pilot or do sampling to establish a baseline across the island representative of different locations for safe drinking water standards rather than the entire population.

Mr. Jesus Salas stated that GEPA can be reasonably sure that at the start of the distribution system, the waters are clean because GEPA requires Waterworks to test on a quarterly basis. What happens from there to the rest of the distribution system would have to be looked at on how to most efficiently test it.

Senator Salas stated that could be true because depending on the lens, levels rises on ebbs, the rainy season or the climatic conditions. There would be times when the recharging would occur with less of an influence coming in because it is the dry versus the rainy season where everything leaches into the lens.

Mr. Jesus Salas stated that the reason why GEPA tests on a quarterly basis is to catch it for a whole year. At this point what is used in the house as far as the tubing size is not enough to warrant this kind of regulation, but should be worked on continuously. GEPA is dependent on the Safe Drinking Water Act amendment as far as exactly what the levels are.

Senator Salas stated that this would raise a lot of questions and commented:

- Is the government prepared to certify that we are beyond reproach before we start imposing these regulations on private enterprises?
- Senator Pangelinan has pointed out that GEPA is adding a minimum of \$200.00 in cost to the homeowner.
- With the impending mechanics lien that is coming on, major suits may be taking place on property liens, simply because the plumbing subcontractor may not or may have used appliances that were in compliance with the Safe Water Drinking Act.

Mr. Jesus Salas acknowledged that Senator John Salas' question is a good one. It is going to be a significant task that would require cooperative effort on a lot of different agencies. GEPA does not probably need to look at the new lines that are

being put in because they know that they are being laid with ductile steel or PVC. GEPA needs to look at the records to find out when certain distribution lines were put in and find out how extensive the lines are. He agreed with Senator Salas' statements that we can't point a finger with three of them pointing back.

Senator Salas stated that what he just laid out could essentially be the justification to increase GEPA's staffing under the new budget.

Mr. Jesus Salas stated it was music to his ear, and would go back to Senator Lamorena's question about the comprehensive study.

Senator Salas stated that now it is clearly in the public good.

Senator Brown stated it has always been in the public good, it's just how her colleagues are becoming aware of how important in the public good it is. She is glad Senator Salas is adding to her list. I will ask for his support.

Senator Salas ended his comments with a little anecdote about the patient that was waiting for his operation in the operating theater. As he was wheeled into the theater, he heard two surgeons, Surgeon A and Surgeon B arguing about who's technique was going to be used in surgery. Surgeon A was saying, "no, my technique was better than yours", and Surgeon B was saying, "no, no, no, mine is better than yours, it is going to prove better, you watch. Just as the patient was anesthetized and going under, he heard Surgeon A say, "ok, let's stop arguing, it's time to do the operation, but you just watch, the autopsy will bear out that I was right". We do not want to wait til the autopsy is to be performed.

Senator Brown stated that there are a lot of issues and concerns with regard to this Bill No. 81, but would like to use the Southern High School as an example because it is more recent and familiar and commented on the following:

- GEPA had to require testing at the point of connection to the Southern High School as well as testing the fixtures in the Southern High School, to determine if the water coming out of there was the source of the lead.
- GEPA did the testing at the time and it was determined that it was not through Guam Waterworks system. Their water test came out clean

- and it was actually through the fixtures of the Southern High School.
- GEPA needs to test the point of entry even in homes to ensure that it is not coming from the water line connecting the home.
- Experiences in the past have shown that there are some contractors who are not reputable and look for the cheapest supplies to cut their costs.
- There have been situations where stop-work orders have to be issued and plumbing pulled out because contractors rushed to pour the concrete and foundation before the inspections occurred.
- The Water Division needs additional inspectors to go out and inspect individual home constructions to ensure proper materials are being installed.
- Understood the cost of testing, but additional requirements need to be put in place.
- Even if this bill is passed, it may be a few years before thorough enforcement is in place to implement.

She noted the following concerns brought up by committee members in reference to:

- Copper piping and fixtures;
- Add section in the bill to read: “the contractor must notify or give the homeowner whoever they are building for, the option of using non-lead or lead fixtures.”
- The penalty provisions;
- The implementation date to take effect six (6) months or 12 months after passage of bill and how to address it if there is a legitimate concern;
- The government has to be ready to be certified clean and free before commercial rules be applied; and
- Another piece of legislation to address the copper issue

Will see if any of the businesses or contractors have submitted any testimony.

She was disappointed because she went out of her way to relay the public hearing to the businesses and contractors and did not show up to testify. She appreciated the list that Mr. Angel Marquez provided to the office as to who to write to. Her office provided a copy of the bill and asked for their input and asked for their

presence at the hearing this morning. It is hard for me to stand up and fight for them or justify their concerns if they are not here to relay that.

Mr. Jesus Salas stated that he will staff those questions and give the committee members GEPA's proposals whenever.

Senator Brown stated:

- She will try to have the mark-up meeting within a week or two. It depends, because the Legislature is going into session on the 17th. She will work around that, but if these concerns can be addressed, she will allow another round of discussion.
- If anyone of the committee members or the private sector has input with regard to Bill No. 81 would provide that opportunity, so that if it goes to the floor, she can get a consensus of support to pass it into law.

She asked Mr. Angel Marquez and Mr. David Longa if they had anything to add, or asked anyone in the audience if they wished to testify.

She mentioned that Dr. Galt Siegrist was present, but would check if WERI has any testimony. She thanked the Chairman of GWA for staying to listen to the testimony and discussion on the bill. Guam Waterworks Authority can also look into their overall system. She commented on the following:

- Does not know what the water lines are made of and what is in them, but it may be something for GWA to go back and check in the system in the new construction through their testing and requirements under the Safe Water Drinking Act to ensure that the utility system is in compliance with the type of piping on the system.

There being no further testimony or questions, the hearing was concluded. She reiterated that the first oversight hearing for this term will be held next month to discuss the other issues that the committee members wanted to bring up. She thanked GEPA representatives for their time and testimony.

Public Hearing on Bill No. 81 concluded at 11:10 a.m.