BR. DODAL D. LAFLEUR, UR. DEFICING TOR OFFICE OF INTERNATIONAL PROGRAMS U.S. NUCLEAR REGULATION

year and a

. Tanks

. . .

THIS REFERE TO YOUR CABLE OF SERT 20. 1984.

1. THE PRODUCTS SOLD BY TAI-YANG CO. TO SHORT LINE LTD AS MEN-TIONED IN OUR PREVIOUS CABLE TO MR. SUNG HAVE EXPORT LATES FEB 11 AND MARCH 1 RESPECTIVELY. AFTER TAI-YANG FURTHER INVESTIGATED THEIR DELIVERY BILL AND PRODUCTION RECORD, THE PRODUCTS (21 ITEMS, ABOUT 9 TONS) SHIPPED ON THE DATES INDICATED ABOVE WERE IDENTIFIED AS MANUFACTURED DURING THE PERIOD JAN 27 - FEB 8. SINCE THE MELTING FURNACE AT TAI-YANG HAS SMALL CAPACITY (ABOUT 750 KG) BUT WITH CONSIDERABLY LARGE VOLUME OF FLOW, THEREFORE. THE DILUTING RATE OF RADIATION CONTAMINATION IS FAST, AND HENCE CONTAMINATED PRODUCTS AMONG THESE 9 TONS SHOULD BE RELATIVELY FEW.

2. ANALYSIS MADE BY THIS COUNCIL FOR SAMPLES FROM ITEMS MANU-FACTURED BEFORE JAN 27 AND HALF A YEAR AFTER FEB S HAS FOUND NO CONTAMINATION. FROM THIS IT CAN BE SAID THAT THE CONTAMINATION FROBLEM OCCURRED ONLY WITH PRODUCTS MANUFACTURED BETWEEN JAN 27 AND FEB 8, 1983.

BEST REGARDS YU HAO LEE SECRETARY GENERAL AECTROL 9/24/84 NRC BHD WSH GGWYFJUSINDATOM DDDDDD Time: 01:20 09/24/84 999 Connect Time: 289 seconds

9404120233 930629 PDR FOIA KAWATA93-203 PDR Rev: @21M/2.03080 Line: 2A ATTACHMENT C

1.4

. 1

1

# ANALYTICAL LABORATORY RESULTS FROM U. S.

AND

TAIWAN ANALYSES OF CONTAMINATED

PIPE FINTINGS

State of Calif- nia

To

## Memorandum

Radiologic Health Branch. Sacramento

Date : September 11, 1984

Subject.

VIA : B. R. Tamplin, Ph.D., Chief 512 Sanitation & Radiation Laboratory Jection

From George Uyesugi Research dadiochemist Sanitation & Radiation Laconatory Section

> 20 pieces each--soupling duts and " inct "T" joint pipe fittings--ware delivered by Federal Express on Ceptember 1, 1984. Except for 1 coupling nut which was in a plastic bog and marked "4 x 2Kg", others were loosely packed in a carton box. There were no sampling slips or other identifying information. Each nut and "T" were numbered 1 through 20. Each piece was monitored with a survey meter before counted on two Ce(Li) gamma spectrometers. The nuts were counted flat side down and the "Ts" numbered size up. Sample No. 2 was also counted numbered side down and is marked with an '.

Although the activity appeared to be uniform, because of the difference in geometry, the reported values of the "T" are on the conservative side. All pieces were contaminated with Co-60 and 1.332 MeV photopeak was used in reporting the results. Co-60 counting efficiencies for Je(Li) #1 and #2 at 1.332 MeV are 0.96% and 1.95%, respectively. The geometry of the callorated standards is a 2" diameter by %" thick plastic petri dish filled with Drierite (annydrite calcium sulfate density 2.96) and radionuclide standards ended.

#### Je(Li) Detecto ( cCi/ea)

| Sample No.   | Coucling nut (stg time)     | "T' jouat 'sta time) |
|--------------|-----------------------------|----------------------|
|              | 20210 <u>-</u> 380 (15 min) | 267 + 51 mini        |
|              | 2070 : 225 (40 min)         |                      |
|              | 1102 1 36 (10 mi)           | 5" : "4 (jil ~in)    |
|              |                             | -3 3 - 33* (61 min)  |
| 7-18 (betch) | 1794 ± 33 (100 min)         |                      |
| 7-8 0        |                             | 15+1 ± 56 (100 min)  |
| 9*4 H        |                             | 1415 = 32 (100 min)  |
| 15-22 "      |                             | 943 ± 75 (100 min,   |

Sach bleee was subsequently counted for 30 minutes on a 4' x 4" NaI(T1) detector connected to a ND-65 mulci-channel analyzer. 1.732 NeV thotopeak was bracketed between 2 markers and the net peak counts were letermined by subtracting the Compton table (including background) from the fital counts. The counting efficiency of Do-60 at 1.375 HeV was 5.206.

Don Honey

W. SHORE ST MARGER M.T.

- Aller - Constant

٩

4" x 4" Mal(21) Detector (pC1 ca)

| Sample No. | Coupling out    | "T" joint       |
|------------|-----------------|-----------------|
| 1          | 20430 + 340     | 266 + 24        |
| 2          | 1171 + 3:       | 522 + 33        |
|            |                 | 547 : 34*       |
| 3          | 558 ± 37        | 4-19 ± 33       |
|            |                 | 473 ± 54*       |
| 4          | 740 + 35        | 549 : 33        |
| 5          | 552 ± 38        | 177 - 24        |
| 6          | 263 ± 24        | 146 ± 22        |
| 7          | 54 ± 22         | 307 ± 24        |
| 8          | 1100 <u>+</u> 3 | 3*5 ± 24        |
| 9          | 145 ± 21        | 202 : 23        |
| 10         | 2:0 ± 24        | 322 <u>+</u> 27 |
| ·•         | 868 - 43        | 464 ± 35        |
| 12         | 137 ± 21        | 189 <u>+</u> 32 |
| 17         | 119 : 22        | 200 ± 19        |
| :4         | 1028 ± 46       | 23 ± 23         |
| 15         | 178 ± 26        | 26 : 23         |
| 16         | 909 <u>+</u> 4* | 162 - 22        |
| 17         | 717 ± 76        | 20- ± 3         |
| 18         | 10°-C _ '+-     | 3*4 ± 13        |
| 19         | 667 - 79        | 217 + 32        |
| 20         | 287 : 14        | 966 2 32        |
|            |                 |                 |

Western American Manufacturing, Inc. Investigation #082984

Cn August 29, 1984, Don Honey (Head, RHB) called our office to report the discovery in Sam Diego of a plumbing tee (1" equal) that contained an estimated 0.2 to 0.5 microcuries of Co-60. This was determined by Frank Bold of Gulf Atomics. The tee had been purchased from a Handiman Store in Solano Beach. Handiman had obtained the tee from Western American Manufacturing Inc. (WAMI) located at 25395 Rye Canyon, Valencia, California 91355.

Jir Rowles called WAMI and talked with Mr. Gene Mayfield (Vice President and eneral Manager) and set an appointment for 8:00 a.m., August 30, 1984. The problem was described to Mr. Mayfield.

Mr. Rowles arrived at 8:00 a.m. on August 30, 1984 and met with Mr. Mayfield who introduced Mr. S.Y. Hong, their international representative. Mr.Hong produced a telex from Coin Brand, Taiwan, the manufacturer (copy attacked). Mr. Mayfield described WAMI's operation as that of a major wholesaler to distributors throughout the United States. WAMI distributes black pipe, galvanized pipe, clean iron pipe and plastic pipe up to 2 inches. They also package and number the fittings to customer specifications.

The building WAMI occupies is a square shell about 300 feet on a sile and 30 feet high. Offices are on a second floor. The main floor is partitioned into several functional areas; metal filtings (parts), plastic filtings (parts), packaged parts such as faucet kits, toilet kits, etc., a pockaging area where items and orders are shrink wrapped and/or boxed and a machine shop area where pipe is cut and threaded. Pipe storage is outside. A sign with the name Conart Products, Inc. is displayed on the south and west sides of the building.

Mr. Rowles used a Eberline Rascal (#267) with a SPA-3 NAI Scintillation probe set to accept photon energies from 900 kV to 1120 kV. The complete building and grounds were surveyed by walking slowly along aisles and piles of material and pointing the probe towards boxes at about 1 foot distance. The steaker was "on" and the selector switch was set on fast rate mode (D) to obtain opm rates. The probe was held at a distance of about one foot from the boxes for several seconds. The only items that read above background (120-140 cpm) by a factor of two or more were one pallet of 23 boxes (100 each) of 1" pipe tees of galvanized iron and a box (320 items, and a half (134 left of 100 items) of 14" pipe locknuts (backnuts). The boxes were individually moved about one meter from each other/pallet in an isolated area and counted for one minute. The probe and was held in contact with the surface of the top and each of the four sides. Results are attached. The 23 boxes of tees (top counts only) had a gross count range from 216 opm to 474 opm with the average being 348 cpm and a standard deviation of 86 cpm. The full int of 320 locknuts counted 2286 opm gross. The Rascal gives 50 opm net for 1.0 microroentgen per hour.

Mestern American Manufacturing, Inc. Investigation #082984 Page 2

.....

The boxes were all placed on the pallet and Mr. Mayfield was instructed to isolate and secure these items until released by our office. The radioactivity appeared below the levels requiring placarding so this was not required of Mr. Mayfield. A letter (copy attached) from Al Ferguson to Mr. Mayfield documented the segregration and hold order.

Mr. Mayfield could not date the receipt of the tees. He felt they could be 2-3 years old since they were so dusty. He pointed out that an employee fills an order by taking items from stock that is handy. He said they have no way of referencing which customer received parts from a given purchase order or batch of stocked items. Mr. Mayfield said the number of the tee (1591-1727) from the Handiman Store is from a discontinued system. Thus, the tee found by GA had to be at least 6-8 weeks old.

Mr.S.Y. Hong pointed out that one order from Coin Brand (WAMI 1084-1) which was received in March 1984 identified 320 locknuts by the number 1092. This number was found stamped on the box of 320 locknuts. This same order shows 2300 one inch tees (banded, equal) but all 2300 tees were found. This suggested that the radioactive tee found by GA came from a different box or lot. See attached copies of 2 orders in 1984.

Mr. Mayfield said they sell many tees (thousands per conth) but few lockmuts (tens per year). He also said theyship all over the U.S. and would have to go through individual invoices to establish the get 1" tees or 10" lockmuts. Mr. Mayfield said he would get Mr. dong to supply the information on these boxes to the Coin Brand representative, Mr. Rocky F.C. Lui, Specco Co., Ltd. Hao Ran Mansion, 4th floor, #10, Land 180, Kuong Fu South Read, Taipei. Taiwan. This would help Coin establish the source of radioactivity.

On September 4, 1984, Mr. Mayfield was contacted and said that Coin brand had matched the box numbers of the tees to an order which was received by WAMI on March 2, 1983. Jim Rowles asked Mr. Mayfield how many tees were in that order. Mr. Mayfield said he would have to call back.

Don Honey (California, RHB-Sacramento) had wanted 20 tees and 20 locknuts for their lab to analyse. On August 50, 1984, Jim Rowles obtained 21 tees from box 262 (a poor choice) and 21 locknuts from box 1092. The additional one of each was for LACDHS use. Mr. Rowles had viewed the powers of tees to have sufficiently uniform count rates to sample from the single open box rather than open 19 boxes to take one out of each.

Before the samples were shipped to Secramento on August 51, 1984 at 3:00 p.m. Jim Rowles counted each tee and locimut for one minute in contact with the face of the SPA-3 probe. Only one locknut counced above twice background, which was at 5x background. This locknut was bagged reparatoly with the others sent to Sacramento. See attached list of gross counts. Western American Manufacturing, Inc. Investigation #082984 Page 3

41 - 14 - 400 Janarasan

After return to the office, Jim Rowles calibrated the Rascal against a Co-60 standard and determined, for the setting used, that the instrument produced 50 cpm net for each 1.0 microroentgens per hour. It was also determined that Mr. Rowles had used the instrument off the Co-60 peaks. See attached.

On September 4, 1984, Don Honey, Al Ferguson and Jim Rowles discussed the incident. On September 4, 1984, NRC, Region V people (Jack Horner and Bob Thomas) called Mr. Ferguson and Mr. Rowles and also discussed the incident.

On September 6, 1984, Don Honey called and identified the manufacturer of the tees and lockmuts as a Tai Yang Company. Mr. Honey stated the batch of contaminated tees and locknuts were made in January/February 1983 and shipped to Cohart, the sole U.S. customer, in February/March 1983 (the tees) and April 1984 (the locknuts).

On September 6, 1984, Jim Rowles called WAMI and talked with Mr. Mayfield and Mr. Wong. They tied the two shipments of the 1000-series and 200-series tees to two April 1983 received orders. One shipment had 2400 tees and one shipment had 3800 tees. Mr. Hong stated that WAMI sells about 3500 tees a month so they are long gone. Mr. Mayfield stated that the three largest customers by a wide margin are ACE, COTTER and National Lumber.

Mr. Hong said he received over 8 calls from Taiwan from the scared people there. He was relieved to hear that the Taiwan Atomic Bureau had checked the whole plant and a mountain of scrap and did not find anything. But the people there are very scared.

|                    | A Company and | akili ara | w             | -52             | T I                                     |
|--------------------|---|-----------|---------------|-----------------|---|
|                    | 15 withow 110   | Frole     | pointed totas | h box<br>Doubet |   |
| HOI Three Star     | tow Attain  |           | ~             | Sich 3          | Sele 4                                  |
| <b>**</b> #        | rop   | Sole 1    | Sale Z        |                 | 1 4 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| 120x - 10-18       | 440   | 368       | 330           | 364             | 363                                     |
| 30 1054            | 4 50  | 3.6       | 330           | 37.6            | 38                                      |
| ~ 264              | 303   | 245       | 221           | 261             | 246                                     |
| 59/039             | 417   | 349       | 380           | 380             | 314_                                    |
| 1050               | -166  | 370       | 354           | 355_            | 340                                     |
| 10 259             | 251   | 254       | 268           | 248             | 229                                     |
| 10 261             | 373   | 232       | 269           | 276             | 233                                     |
| 10 276             | 229   | 258       | 22)           | 241             | 24                                      |
| -10 266            | 256   | 251       | 23)           | 266             | 250                                     |
| 30 1043            | 4.19  | .351      | 3.59          | 37-1            | 362                                     |
| 309/045            | -123  | 3/76      | 356           | -171 .          | 312                                     |
|                    | 474   | 271       | 314           | 328             | 369                                     |
| 10 269             | 350   | 253       | 235           | 256             | 278                                     |
| 721/051            | -208 -  | 375       | 349           | 319             | . 340                                   |
| -, 281             | جالتي   | 212       | 275           | 231             | 231                                     |
| 1.0 263            | 237   | 246       | 233           | 361             | 240                                     |
| 710265             | 269   | 259       | .\$25         | 226             | 227                                     |
| 10 262             | 825   | 259       | 26            | 252             | 215                                     |
| 110 2 58           | 368   | 354       | 334           | 352             | 247                                     |
| 35/047             | 417   | 399       | 416           | 386             | 308                                     |
| 17/052             | 391   | 301       | 352           | 373             | 364                                     |
| 10 230             | 357   | 7.4       | .240          | 313             | 395                                     |
| 1040 m             | 388   | 379       | 376           | 336             | 345                                     |
|                    | A.  |           |               |                 |   |
| En . Backjut       | 6   |           |               |                 |   |
| HPOX NO 12         | 1 ( F.  | 1084      | 165           | 1209            | 530                                     |
| Picity Pig 29 1092 | 22.36   | 2214      | 246           | 2185            | 1550                                    |
| . L'imper          |   |           |               |                 |   |
|                    |   | • 1       | 10".          | hig 22" Com     | وستنه ۲                                 |
| Egl 17/134         | 0-  | ź_G       |               | 3/20184         |   |
| fr- stal           | 1   |           |               | 1,20191         |   |

1.31

MinCourt Cross@Contact

I min Cant Gross @Contact

| - Towner with |                   | ****                                    | e managa sa ta di              | Chang allerted  |
|---------------|-------------------|---|--------------------------------|---|
| Bust 1        | 305               | THEE                                    |                                | 250   |
| 2             | 1142              |   | 2                              | 325   |
| 3             | 290               |   | 3                              | 261   |
| 4             | 239               |   | 9                              | 239   |
|               | 314               |   | 5                              | 229   |
|               | 303               |   | 6                              | 291   |
|               | 304               |   | 7                              | 254   |
| 8             | 285               |   | 8                              | 9.76  |
| 9             | 982               |   | 9                              | 270   |
|               | 29                |   | 10                             | 248   |
| <u></u>       | 397               |   | !1                             | 254   |
| 12            | 53                |   | 12                             | 252   |
| 13            | 325               |   | 13                             | 251   |
| 14            | 285               |   | 14                             | 272   |
| . 15          | 250 -             |   | 15                             | 2201  |
| . 16.         | 252               |   | 16                             | 303   |
| П.            |                   |   | /7                             |   |
| 12            | 252               |   | 13                             | 247   |
| 19            | 24                |   | <i>n</i>                       | the second |
| W             | 257               |   | 20                             | dog   |
| 24            | _ 2LR             |   |                                | 249   |
| i.k           | 294 /245/239 /273 |   |                                | =31/24: 261/2-2/235   |
| ~ .           |                   | n ann ann a' ann an ann ann ann ann ann | · · · m · main interest in the | R 8/31/87   |
|               |                   | 3 there is                              | the Red                        | ne ralienter Co-60 source<br>2028 + 5194-3 will detect<br>roventgen/in.   |

LFIEF 495; 7- 9-84;11:56PM

OF 11 1 55 ATOMIC ENERG. COUNCIL F.O.C.

70193687221978;# 1

CABLE ADDRESS SINOATOM TAIREL ATOMIC ENERGY COUNCIL, EXECUTIVE YUAN 會員委能子原院政行

. .

67. LANE 146 KEELUNG ROAD. SECTION 4 TAIPEI TAIWAN. 107 REPUBLIC OF CHINA

Mr. Yu Sung Director Science Division CCNAA

September 8, 1984

Dear Mr. Sung:

On September 4 and 5 we collected then suspected samples, selected by preliminary surveymeter measurements, with production dates spanning January 27 - February 8, 1983, for analysis by National Laboratory. As indicated by an analysis report coming out of the laboratory on September 5, no surface contamination was found of all the samples. Four samples have been found clean by surveymeter at the plant and confirmed so in the lab. However, six of the samples showed trace content of radiation which as determined by analysis is of Co-60, with one of the samples showing a maximum surface dose rate of 0.104 mrad/hr. For detail please see attached

We are exploring the origin of the source material from which the samples were produced and will keep you informed of any further information.

Please let me know about the actions NRC is taking concerning this matter.

Sincerely,

Hao Lee

Secretary General

| Sample No. | Sample Collected<br>From | Sample<br>Specification | Radioactive<br>Nuclei |                       | Sample dose    |
|------------|--------------------------|-------------------------|-----------------------|-----------------------|----------------|
| 1          | Taiwan Speco Co.         | TEE 1-1/4" (500g)       |                       | (uCi)                 | rate (mrad/hr) |
| 2          | Tai Yang Co.             |                         |                       | LLD                   | 0.026-0.026    |
| 3          | Tai Yang Co.             | CROSS 3/4* (275g)       |                       | LLD                   | 0.026 - 0.026  |
| 4          |                          | SOCKET 3/4" (110g)      | <sup>60</sup> Co      | 1.67x10 <sup>-2</sup> | 0.104-0.026    |
| 5          | Y-Sheng Co.              | SOCKET 3/4" (110g)      | 60 <sub>Co</sub>      | $1.68 \times 10^{-2}$ | 0.087-0.026    |
|            | Y-Sheng Co.              | SOCKET 3/4" (110g)      | 60 <sub>Co</sub>      | 1.58x10 <sup>-2</sup> | 0.087±0.026    |
| 6          | Y-Sheng Co.              | BRS 3/4"x1/2" (111g)    |                       | 1.98×10 <sup>-4</sup> |                |
| 7          | Y-Sheng Co.              | UNION 1/2" (195g)       | 60 <sub>Co</sub>      |                       | 0.026-0.026    |
| 8          | Y-Sheng Co.              |                         | Co                    | $1.91 \times 10^{-2}$ | 0.104-0.026    |
| 9          | Y-Sheng Co.              | SOCKET 3/4" (110g)      |                       | LLD                   | 0.026-0.026    |
| 10         | Y-Sheng Co.              | TEE 1* (310g)           |                       | LLD                   | 0.026-0.026    |
|            | a oneng co.              | BRS 2-1/2"x1-1/2" (8    | 70g) <sup>60</sup> Co | 3.54x10 <sup>-3</sup> | 0.026-0.026    |
|            |                          |                         |                       |                       |                |

Note: 1. LLD =  $5.08 \times 10^{-5}$  uCi

563

P. D. C.

ENERGY COUNCIL

A TOM C

80 1

39

, ee,

2. Background = 0.026 + 0.026 mrad/hr

ATTACHMENT D

NOTES ON EVENTS DURING INCIDENT



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20055

AUG 5 1 1984

Note to John G. Davis Donald B. Mausshardt

SUBJECT: STEEL CONTAMINATION WITH COBALT-60 IMPORTED FROM TAIWAN: PRELIMINARY NOTES ON FOLLOW-UP ACTIONS

A PN from Region V is to address what is presently known about very lowlevel cobalt-60 contamination in plumbing fixtures imported from Taiwan.

On August 31 a conference call was held with participants from NMSS, IE, Region V, IP, SP, PA and EDO. The following actions were agreed upon.

- Region V to prepare the PN which in addition to reporting the facts will compare the level of contamination in the steel products to NRC decontamination criteria for facilities and equipment. PN to be sent to the Commission on August 31.
- 2. IP to notify the Taiwanese of the contamination with two objectives:
  - a. Point out that they might have a more severe radiological hazard in their manufacturing plants, and
  - b. To begin looking for the source of contamination and the scope of contamination problem.

Taiwanese contact to be made by August 31.

- 3. Region V to participate with the State of California in analysis of samples to assure timely results and appropriate analysis. If the California efforts are not sufficient, Region V to obtain an independent analysis (perhaps at Livermore).
- Region V to join the State of California in determining from the importer the scope of distribution of products that are potentially contaminated.
- 5. NMSS to notify Customs at Washington office of what has transpired.

9309130296

 IE, through emergency response system, to notify DOE, FEMA, EPA, HHS, and Commissioners' assistants of what has happened. John G. Davis Donald B. Mausshardt

AUG 3 1 1934

٠.

- 7. IP to notify State Department.
- To date, no press release by California has been issued, nor to our knowledge any inquiry from the press. Obtained agreement from all parties that inquiries from the press will be referred to PA who would respond and seek assistance from technical staff, as necessary.

- 2 -

9. Bill Thompson to be designated Project Manager for NMSS to compile records of the incident. NMSS volunteered to prepare the report, however, IE apparently has some problem with that. The issue has yet to be settled. However, FC is proceeding on the assumption that we will prepare the report.

REC

Richard E. Cunningham

cc: R. G. Page LW. T. Thompson R. Wilde



# UNITED STATES NUCLEAR REGULATORY COMMISSION

AUG SI 1

Note to: Files

TELEPHONE CONVERSATION WITH TOM WYNKOWSKI, U.S. CUSTOMS SERVICE (PHONE NUMBER 566-5354)

I phoned Tom Wynkowski at about 2:00 p.m. on August 31, 1984 to inform him of the most recent Co-60 contamination incident involving pipe fittings apparently imported from Taiwan. I explained to Mr. Wynkowski that the radiation measured on the pipe fittings was very low, perhaps 3-4 times background radiation levels, and in no way presented any hazard to the public. I told him that the detected contamination raises a question, however, of whether other products are contaminated at possibly higher levels.

I gave Mr. Wynkowski the facts as we presently have them concerning how the contamination was detected by G.A. and the tracing of the contaminated " pipe fittings to imported items from Taiwan. I explained that the NRC and the State of California are working closely together in this matter and the NRC is about to notify the Department of State and intend to contact Taiwan government authorities to obtain available information concerning whether other contaminated products may have been sent to the U.S. and if so, what levels of contamination may possibly be present in them.

I informed Mr. Wynkowski that the NRC has not notified the local customs people in California and suggested that he provide such notification if he believed the Regional Customs Office should be informed. Mr. Wynkowski did not indicate whether he planned to notify them or not.

Mr. Wynkowski thanked me for the call and asked us to keep him informed of developments. I told him that we would do so.

RABay R. G. Page

9309130315

cc: Mr. Cunningham Mr. Thompson

#### FIXED COBALT-60 CONTAMINATED PLUMBING FITTINGS STATUS REPORT AS OF SEPTEMBER 6, 1984

## 1. International Programs (IP)

1

IP has been in contact with the Taiwan government. In addition to the pipe fittings found in California, IP reported that another customer SLP (Short Line Products) Inc., Sharon, Mass. orders pipe fittings from the same exporter in Taiwan that are exported directly to SLP customers. SLP does not maintain any stock of fittings except for 3 pieces for show that were not contaminated; they are a sales office. The Commonwealth of Massachusetts sent personnel to SLP to gather invoice information to determine the whereabouts of the fittings and follow up with surveys. They found only invoices numbers; other records (with names) are kept by customers and Speco of Taiwan. Also, the Mass. Co. does very little business with Taiwan. Because of the low probability of significant contamination, R I is not going to pursue the matter any further unless they can get customer names. IP stated that Taiwan is still investigating the situation. As of this date the origin is not known of the Co-60 or what foundries in Taiwan are involved. (See attached telex from Taiwan to IP.)

#### 2. Laboratory Analysis of Pipe Fittings in California.

Analysis of 20 pieces of fittings obtained from the California distributor indicated a maximum of 0.08 mR/hr of Co-60 on one 350 gram fitting ("T") or about one nanocurie/gram. The remaining 19 pieces had about 1/5 as much as the "T". (The 20 pieces were taken from one box out of 23 boxes at Western American Manufacturer - all boxes were unopened).

#### Radioactivity Limits.

So far, the fittings surveyed are releasable for unrestricted use. NMSS has established a release limit of 0.2 mR/hr. However, because the fittings may be inscalled in remote locations or the unlikeliness of persons being exposed to significant amounts of radiation, each case will be treated on a case-by-case basis. The 0.2 mR/hr limit is, at present, a theoretical number and the limit could be raised in an individual case.

#### Continuation

4,

2

### 4. Time of Exports.

It was learned on 9/5/84 that the fittings were shipped to California in February - March, 1983. SLP has ordered few fittings.

### 5. California.

The licensee that returned a "T" to the hardware store in California reading 0.05 - 0.07 mR/hr, surveyed the other fittings imported from Taiwan. No contamination was detected. This, coupled with the lab analysis of 20 other pieces, has led California to believe there is no health and safety problem. According to Region V, California is not very anxious about survey-ing fittings at customers facilities. The Region volunteered but California said no. It was their area of jurisdiction.

#### 6. Contacts.

The office of Public Affairs, State Programs, NMSS, and the involved Regions have been kept informed.

SEP 1 2 1984

MEMORANDUM FOR: John G. Davis, Director Office of Nuclear Material Safety and Safeguards

FROM: Richard E. Cunningham, Director Division of Fuel Cycle and Material Safety

SUBJECT: STATUS REPORT ON CONTAMINATION INCIDENT INVOLVING IMPORTED PIPE FITTINGS CONTAINING SMALL AMOUNTS OF COBALT-60

On August 31, 1984, we were notified by IE of a report that they had received from Region V concerning a contaminated plumbing pipe fitting found by General Atomics at La Jolla, California. The pipe fitting had not been used and the contamination was detected in a routine health physics survey to clear the material for release from the plant site. The sequence of events in this incident is as follows:

August 29, 1984 - Contamination in one unused pipe fitting detected by GA (less than 0.2 mrads/hr at surface).

- GA reported contamination (identified as cobalt 60) to State of California (Radiation Control Program) and Region V.
- State inspectors found no additional contaminated fittings at local hardware store where GA had purchased their fitting.

August 30, 1984 - Inspectors found and embargoed several boxes of contaminated fittings at wholesale supplier:

> Western American Manufacturing Valencia. California

- Western American Manufacturing identified 110 purchasers of this type of pipe fittings.
- 40 samples of contaminated fittings were sent by the State to a Laboratory at Berkeley for analysis.

9309120223

| -     |  |
|-------|--|
| Price |  |
|       |  |
| DATE  |  |
|       |  |

ę . .

 Western American Manufacturing identified their supplier as Taiwan Speco Co., Ltd., Taipei, Taiwan., (first identified as Taiyang, Ltd.; but Taiyang was the manufacturer, Speco was the exporter).

- Region V reported the incident to Headquarters.
- Incident noted on Region V morning report (computer print out) for August 31.
- Conference call with Region V, IE, NMSS, SP, PA and IP to obtain latest information.
- Lafleur notified the Taiwanese Coordinating Council for North American Affairs (Taiwan has no embassy) who sent a cable to Taiwan about the incident.
- R. G. Page notified U. S. Customs of the incident.
- Duty Officer at Operations Center notified Commissioners' Assistants, plus DOE, FEMA, EPA and HHS.
- September 4, 1984 IE reported that analyses of 40 samples showed one pipe fitting with a concentration of 0.23 nanocuries per gram; all others were lower. Confirmed that the contaminant was cobalt-60.
  - Cunningham talked with Scarano (Region V) and learned that 23 boxes of fittings had been embargoed at Western American Manufacturing and that the fittings were 1-inch tees and lock nuts (pipe unions). One more box of 100 fittings apparently had been sold.
- September 5, 1984 Lafleur identified the manufacturer as Taiwan Industrial Co., and their exporting subsidiary as Taiwan Speco Company, Ltd. Only one other shipment to the U.S. was made to

Short Line Products, Ltd. 128 Tond Street Sharon, Massachusetts 02067

Shipments took place in February and March of 1984.

| */cs.\$                                 |   |
|---|---|
| NAME .                                  | *************************************** |
|   |   |
|   | ······································  |
| 2 4 2 4 1 2 1 2 1 0 5 0 1 A C 1 0 2 1 0 | OFFICIAL RECORD CORV                    |

John G. Davis

 Region I located importing company under new name and address:

SLP Inc. #12-B Pond Street Sharon, Massachusetts Telephone (617) 784-9699.

Company is only a sales office. Shipments are made directly to customers. SLP has no warehouse or stock on hand.

- IE reported that shipments of contaminated pipe fittings from Taiwan were made in February-March 1983, not 1984 as originally reported.
- September 6, 1984 IP received telegram from Taiwan stating that contaminated fittings are 1-inch tees and lock nuts manufactured in January and February 1983. Inspections at the plant and warehouses in Taiwan discovered a few hundred slightly contaminated pieces made in January-February 1983. Stocks of products made after January-February 1983 show no trace of contamination.
  - California Radiation Control Program had agreed to trace purchasers of contaminated fittings imported by Western American Manufacturing, with Region V closely following progress. Upon looking into this matter further, California did not believe the level of contamination justified the effort that would be required to locate purchasers and check every fitting that was purchased. Also, they objected to Region V doing the checking. Discussions between Region V and the State continuing.
  - Region I tried to trace purchasers of possibly contaminated fittings imported from Taiwan by SLP Inc. However, SLP had no records of who the pipe fittings were to be delivered to. Region I and the State of Massachusetts believed no further action indicated.

| - White this are been addressed in the design of the design of the design of the section of the |   |
|---|---|
| == cz >i  |   |
|   |   |
|   |   |
|   | *************************************** |
| F2 F0 #11 218 10 20 1. R01/ 0040  | OFFICIAL RECORD CORY                    |

John G. Davis

100

- IP maintaining close contact with Taiwan to obtain information on source of contamination, dates and destinations of contaminated steel shipments, and other information which may require follow-up action.
- September 7, 1984 IP sent a cable to Taiwan requesting additional information concerning how the contamination occurred and whether additional products may have been contaminated.

- 4 -

Late in the day a conference call was held involving Region II, III, IV and V, NMSS, SP, and IP, which disclosed the following information:

- On further investigation at Western American Manufacturing in Valencia, California, the State inspectors found that shipments of pipe tees of the type found to be contaminated with cobalt-60 had been sent to:

77 Handyman Hardware stores in four states

14 National Lumber hardware stores

Ace Hardware distribution center, in - Oakbrook, Illinois

SaP Industries, distributors in Louisville, Kentucky.

- Region V notified states where hardware stores are located concerning possibility of radioactive contamination in pipe fittings.
- Region III will visit the Ace Hardware distribution center at 2200 Kensington Court, Oakbrook, Illinois, to see whether they have contaminated fittings on hand. (It was found that this is only a billing office which has no stock on hand.)
- Region II will check with the S&P Industries in Louisville. (S&P reported that they had received no Taiwanese fittings since December 1983, and all fittings from the December 1983 order had been sold to hardware stores.)

|          | <u>الا</u>                            |             |
|----------|---------------------------------------|-------------|
| - AME    | · · · · · · · · · · · · · · · · · · · |             |
| - ANIE P |                                       |             |
| DATEN    | •                                     |             |
|          |                                       | SECODD CODY |

- Region I will be asked to send inspectors to check with the importer in Sharon, Massachusetts. (They obtained names and addresses of customers to whom fittings had been shipped directly from Taiwan.)
- No radioactive fittings have been found other than the one tee originally found by GA and the 23 boxes embargoed at Western American Manufacturing.
- Len Cobb, IE, prepared another PN which was issued on Monday, September 10.

Original Signed by Richard E. Cunningham

Richard E. Cunningham, Director Division of Fuel Cycle and Material Safety, NMSS

DISTRIBUTION: RECunningham RGPage GATerry WEThompson FCUF R/F FCTA R/F NMSS R/F FC Central File RWilde DRChapel1

FCTA

AP. 9/ 1/84

Herry

CE> FCTA

=> 9/ / /84

WEThompson:rf

DECODO CODV OFFICIAI

91/2/84

an

DRChape 11

FC

FC.

. .

RECunningham

31/284

FCUF

RAPage

11/84

91