

The Little-Known Story **of the** **1978 Death of IAEA Inspector, Pierre Noir**

by

John E. Foley¹
Draft: 09/27/2026

Preface

Nearly 50 years ago, on 30 January 1978, an experienced International Atomic Energy Agency (IAEA) nuclear safeguards inspector, Pierre Noir, died while installing a video surveillance camera at a nuclear power station in Taiwan. The reported cause of death was heart attack.

At the time of Noir's death, I was a 37-year-old nuclear engineer working in the Department of Safeguards at the IAEA Headquarters in Vienna, Austria. I worked with the IAEA's video surveillance equipment.

A colleague of Noir's was skeptical of the heart attack diagnosis. He asked me if Noir could have been electrocuted by the video surveillance equipment. In response, I examined the electrical wiring of an identical video surveillance unit and, much to my surprise, I discovered electrical design flaws that would have exposed Noir directly to 230 volts AC.

Noir possibly died by accidental electrocution, not by heart attack.

The story of Noir's death is little known. To my knowledge, a comprehensive investigation into the cause of his death has not been done. His death has rarely been mentioned or discussed in the press, in books, or online. Some examples:

1. Elizabeth Roehrich, in her 2022 book, *Inspectors for Peace*, mentions two possible causes of death: heart attack or intentional foul play (e.g. deliberate electrocution).

Robert Jungk, an Austrian writer and nuclear critic, suggested during a public talk that Noir had detected irregularities at the inspected facility and was subsequently assassinated after reporting the inconsistencies. The IAEA rebutted the claim, stating that Noir had died of a heart attack, which seems to be confirmed by the now available historical record. Nonetheless, the rumors about Noir's supposedly suspicious death continue to this today. (Roehrich, 2022)

¹ Los Alamos National Laboratory, 1969-1993. Group leader of Nuclear Assay Research Group, 1980-1985. Associate Director of the Laboratory, 1986-1993. On leave-of-absence from Los Alamos to the IAEA Department of Safeguards, 1977-1978. Ph.D. Nuclear Engineering, Univ. of Arizona, 1969. B.S. Physics, New Mexico State University, 1962.

2. On 28 July 1981, three and one-half years after Noir's death, the *Baltimore Sun* published an article, "Mystery Surrounds On-the Job Death of One Nuclear Inspector", which discussed possible causes of Noir's death: heart attack or accidental electrocution.

The American doctor who observed the autopsy in Taiwan is sure he [Noir] died of a heart attack.

"They looked at the body for evidence of [electrical] burns—for contact—and we didn't find anything like that," says Dr. John J. Anderson, a former Naval pathologist asked by the U.S. Embassy to observe the autopsy in Taiwan. . .

"The autopsy was consistent with death by coronary arteriosclerosis"—a thickening of the arteries and a frequent cause of heart attacks."

However, Leslie Thorne, head of IAEA safeguards inspections for the Far East, suggests a different cause of death, i.e., accidental electrocution because of faulty equipment:

Mr. Thorne says the IAEA was only too happy to accept the explanation of heart attack. . . He now says the heart attack idea is wrong. He says Mr. Noir was electrocuted by a faulty IAEA [video surveillance] camera.

"We were able to establish quite conclusively that it was a design defect," he says.

. . . Mr. Noir touched a live 220-volt contact by chance, a contact that shouldn't have been on the camera console.

3. In 2012 about a dozen documents from 1978, many of them U.S. diplomatic cables, that addressed Noir's death were discovered by Jeffrey Lewis and his colleagues at the Middlebury Institute of International Studies, Monterey, CA, via Freedom of Information Act (FOIA) requests. Because these cables had been labeled "Confidential" or "Secret" when they were written, they had limited distributions. Lewis posted these documents (now unclassified) on the Internet blog, *Arms Control Wonk*, and stored them for public access on the digital library, *Scribed*. These documents include discussions of the three possible causes of Noir's death: heart attack, accidental electrocution, or deliberate electrocution. Quite by accident, I learned of these documents in 2022.

I view the approaching 50th anniversary of Noir's death as a fitting time to: (1) assemble the information concerning his death into one place, (2) review the possible causes of his death, and (3) document his story.

I posted a pdf copy of this monograph on <johnfoley.com>

I can be contacted at: jefethics@aol.com

Introduction

“Could He Have Been Electrocuted?”

As I left the International Atomic Energy Agency’s (IAEA) Headquarters building in downtown Vienna, Austria² in late-January 1978 on my way home from work³ I ran into a colleague, Uldis Barda (Australia). Barda was an experienced nuclear safeguards inspector who I’d gotten to know during the six months I’d been at the IAEA. He worked in the Far East Section, which is responsible for inspections of nuclear facilities in Japan, Korea, and Taiwan. Barda told me he had just received word that our colleague, Pierre Noir (France), had died during an inspection at a nuclear reactor in Taiwan, apparently of a heart attack. He understood Noir was working with the coax cables of the IAEA’s closed-circuit television surveillance system (CCTV) when he died.

And after a thoughtful pause, Barda asked, “Could he have been electrocuted?”

I’d been working with the IAEA’s CCTV system for several months and had no reason to suspect it had an electrical safety problem. However, even though I knew a lot about how to operate and maintain the system, I knew very little about the electrical circuitry inside the system. I told Barda I’d look to see if I could find anything wrong.

Barda’s question was deeper and more fraught than it might seem. During my time at the IAEA⁴ I’d learned of an underlying fear that many inspectors had: what would happen to them if they uncovered evidence that a country was diverting nuclear material from a peaceful to a nuclear weapons program? Would they be in danger? Should they say anything to anyone at the facility about what they had discovered? Should they leave the country as soon as possible?

When Barda asked me if Noir could have been electrocuted, he was not only wondering if Noir had died by accidental electrocution because of faulty equipment, but he was also wondering if Noir had been deliberately electrocuted because he had discovered a problem at the facility.

Over the next few days, I searched through the electrical wiring inside a CCTV system. And much to my surprise, I discovered two serious electrical flaws. I was able to show that Noir could have been accidentally electrocuted.

² The IAEA was originally located in central Vienna before moving across the Danube River to the Vienna International Center (VIC) in 1979.

³ Probably 30 January 1978.

⁴ I was on a one-year appointment (starting June 1977) to the IAEA Department of Safeguards as a “cost-free expert” under the U.S. Program of Technical Assistance (POTAS) to help improve IAEA’s technical capabilities. I went to the IAEA to help improve nuclear material measurement techniques, but after arriving in Vienna my assignment was changed to work on the CCTV system (see 1978 U.S. State Department cable 147422, Paragraph 1). In June 1978 I returned to the Los Alamos National Laboratory (LANL) in New Mexico.

Then in 2022, nearly 45 years later, quite by chance I stumbled onto the Internet blog, *Arms Control Wonk*,⁵ founded by Jeffrey Lewis of the Middlebury Institute of International Studies, Monterey, CA. This blog has lively academic discussions of arms control, disarmament, and nonproliferation issues, some involving the IAEA. I discovered that ten years earlier on this blog, in 2012, Lewis had posted a dozen or so U.S. diplomatic cables and other files from 1978 concerning the death of IAEA inspector Pierre Noir. These cables circulated among the U.S. Department of State in Washington, D.C. and the American Embassies in Vienna and Taipei.

A diplomatic cable from the American Embassy in Vienna (3 March 1978) caught my attention:

[redacted, but it is Thorne⁶] went from Japan to Taiwan, on learning of Noir's death, to help complete Noir's task there and make necessary arrangements. Thorne says that, while in Taipei, a note was slipped under his hotel room door stating that Noir had been deliberately electrocuted while working on the surveillance camera at the reactor. (Vienna 01989, Paragraph 2)

The suggestion that Noir could have been deliberately electrocuted was disturbing.

I was also surprised because I'd never heard of this note suggesting Noir had been deliberately electrocuted.

And this U.S. diplomatic cable from Vienna continued:

[redacted, but it is Thorne]'s current assessment is that the note under his door was probably not rpt [i.e., repeat] not accurate insofar as the cause of death being "deliberate", but that there is a very real possibility that accidental electrocution might have occurred . . . (Vienna 01989, Paragraph 3)

It was clear I was going to have to dig into these diplomatic cables and the other files to fill in the gaps in my understanding of the cause of the tragic death of Pierre Noir.

In Part 1 of this monograph, I'll briefly summarize what I learned in my 1978 investigation in Vienna into the electrical hazards of the IAEA's CCTV surveillance system. In Part 2, I'll review what I learned about Noir's death from the 1978 U.S. diplomatic cables and the other files. And in Part 3, I'll summarize the story of Noir's death.

I've also attached copies of all the diplomatic cables and other files concerning Noir's death that I used in writing this monograph.

⁵ www.armscontrolwonk.com

⁶ Leslie Thorne (England), an experienced inspector, was Noir's supervisor and Head of the Far East Section in the Department of Safeguards.

Part 1

My Hazards Analysis of the CCTV Surveillance System

On the morning after Barda had asked me if Noir could have been electrocuted I tried to get a copy of the electrical circuit diagrams of the CCTV system so I could study the circuitry to see if I could find anything amiss. Yury Konnov (USSR) of the Technical Development Section, who had overseen the development of the CCTV system with the Viennese company Psychotronic Elektronische Geräte, didn't have the diagrams. And Psychotronic wouldn't give them to me because they were proprietary.

So, I did the only thing I could: I began physically tracing the electrical wiring inside a Control Unit identical to the one Noir had been working with (I had several Psychotronic CCTV systems in my office undergoing testing). And within a few days I uncovered two *serious electrical flaws* that would expose an inspector directly to 230 VAC.⁷

Overview of the Surveillance System

The Psychotronic CCTV system (Fig. 1) consists of four major parts: (1) a Control Unit, (2) one or two remote video cameras, (3) three long coax cables⁸ that are routed to each remote camera, and (4) a cable adapter (i.e., an interface) that connects the cables from each remote camera to the 29-pin video socket on the front panel of the Control Unit.

I have described the CCTV unit in greater detail in Appendix A.

(There are also power cables that run from the Control Unit to the video cameras, which supply electric power to the cameras, but I didn't include them in Fig. 1 as they played no role in the analysis.)

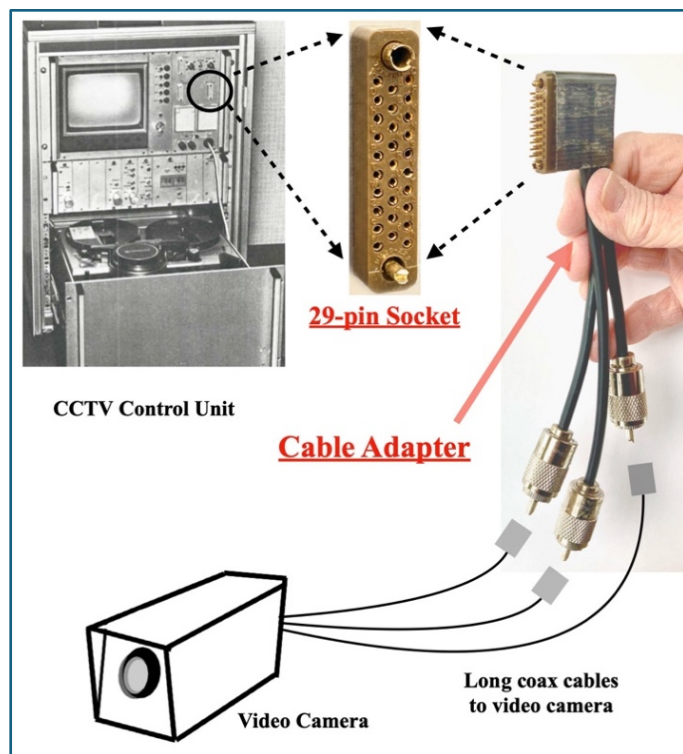


Fig. 1. The IAEA CCTV system. The 29-pin socket and the cable adapter, **labeled in red**, play a critical role in the electrical hazard.

⁷ VAC is volts alternating current.

⁸ The circa 1975s analog video cameras required three coax cables for: (1) vertical and (2) horizontal sync pulses and (3) video out. The voltage of analog video signals is low, typically ~ 1 volt (peak-to-peak).

The photo⁹ of the CCTV Control Unit (Fig. 1) is of an actual mid-1970s Psychotronic unit, but the photos of the socket, plug, and cable adapter are not from an actual system. I purchased the matching vintage plug and socket on the Internet and put together the mockup of the cable adapter to demonstrate what it looks like. The plug and socket are identical in size and shape to the ones used in the Psychotronic system, but the coax cables of this mockup are shorter than the original ones, typically 12” to 24” long.

The Control Unit houses the video recording and control/timing electronics. The reel-to-reel video recorder is located at the bottom of the cabinet.¹⁰ An eight-inch video monitor and the 29-pin sockets (one for each camera) are at the top. When the inspectors are absent from the nuclear facility the cabinet door (not shown) of the Control Unit is locked and sealed to prevent unauthorized access to the video tape.

IAEA inspectors position the video cameras to provide long-term surveillance of key activities going on at the nuclear facility, such as the loading and unloading of fuel assemblies in a nuclear reactor, the movement of fuel assemblies in a spent fuel pool, etc. The time-lapse video recorder archives short video segments (e.g., 5 seconds) at fixed intervals of time (e.g., 5 minutes), which are reviewed later to provide continuous monitoring of activities when inspectors are not present.

Electrical Hazard

I discovered two electrical design flaws in the Psychotronic CCTV system. The combination of these two flaws would expose an inspector to 230 VAC. I’ve summarized these flaws in Fig. 2 and have also described them in greater detail in Appendix B.

The first flaw: the bottom pin¹¹ (female) of the middle column of pins of the 29-pin video socket was wired for 230 VAC. Because this socket is for video signals *it should not have been wired for electrical power*. This flaw was built into all of the Psychotronic CCTV units, i.e., it was hard-wired into the design.

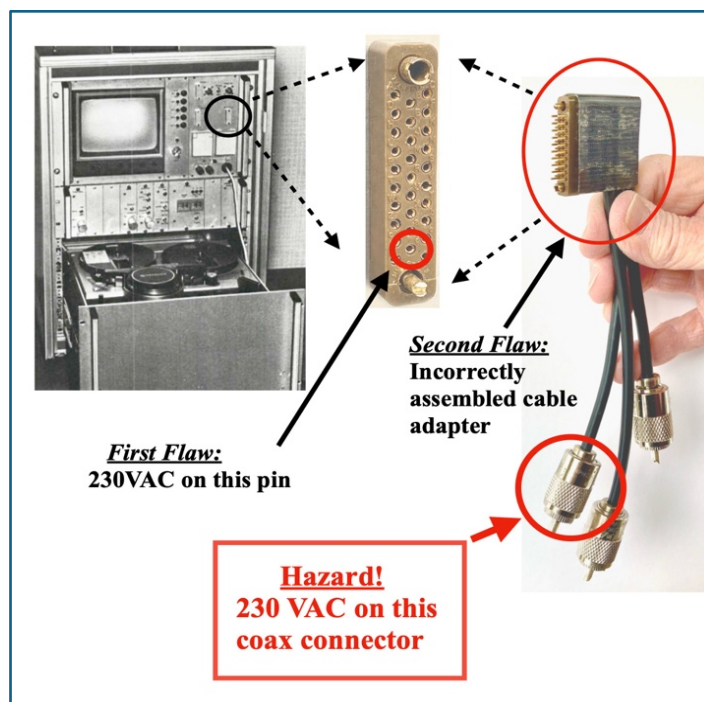


Fig. 2. Serious electrical hazard caused by two electrical flaws in the Psychotronic CCTV system.

The second flaw: if the cable adapter was assembled incorrectly (i.e., the 29-pin plug was installed upside down in the shell of the cable adapter—see Appendix B) then the exposed surface

⁹ See References: *IAEA Bulletin*, vol. 19, No. 5, October 1977, p. 23.

¹⁰ The cabinet is about 20” wide x 30” tall, typical of 19-inch-wide rack-mounted electronic instruments of the 1970s.

¹¹ See Appendix B for discussion of pin combinations that could lead to an electrical shock.

of one of the coax connectors on the short lengths of coax cables would be at 230 VAC, rather than electrical ground potential, i.e., 0 volts.

Eureka! If the cable adapter that Noir was handling in Taiwan had been assembled incorrectly then he would have received a serious electrical shock.

I've illustrated in a simple flow chart, Fig. 3, how the design flaws could lead to an accidental death. The faded or grayed-out paths in Fig. 3 are alternate paths that also could lead to death. I'll discuss these later in this monograph.

My supervisor, Ed Kerr (Canada), head of the Technical Services Section, and I were so alarmed about this potential hazard we got the word out to the inspectors in the field to immediately stop work on all the CCTV systems. The IAEA had about 20 of the Psychotronic CCTV systems in various stages of installation and operation at nuclear facilities all over the world.

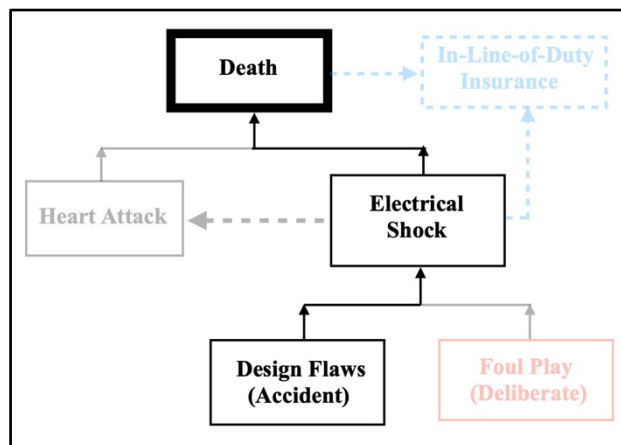


Fig. 3. Flow chart of accidental electrocution due to an incorrectly assembled cable adapter.

At this point in my investigation Kerr and I didn't know if the cable adapter Noir had been working with in Taiwan was correctly or incorrectly assembled.

We needed to examine it.

Leslie Thorne (England), who was head of the Far East Section and was Noir's supervisor, was in Japan at the time of Noir's death. He immediately flew to Taiwan to deal with the situation.

Thorne returned to Vienna several days later¹² with the actual cable adapter that Noir had been handling when he died. We examined it and verified:¹³

- *The cable adapter was assembled incorrectly.*
- *230 VAC would have been present on the bare exterior surface of one of the coax connectors of that cable adapter (Fig. 2).*

The Answer to Barda's Question

I now had the answer to the question Barda had asked me a few days earlier in front of the IAEA Headquarters building, i.e., "Could he [Noir] have been electrocuted?"

¹² Probably soon after 6 February 1978.

¹³ Ed Kerr and Leslie Thorne were present when I examined the cable adapter.

My answer:

Yes. Noir was most likely accidentally electrocuted because of the electrical design flaws in the Psychotronic CCTV system.

Could It Have Been Deliberate?

I also had a reasonable answer to the important underlying question:

“Could Noir have been deliberately electrocuted?” (Fig. 4)

My answer:

No. It was an accident.

My reasoning:

- No one in Taiwan had access to the circuit diagrams of the electronics or to the interior circuitry of the Control Unit itself. It would therefore be highly unlikely for someone to know that 230 VAC was present on a pin of the 29-pin video socket on the front panel of the Control Unit.
- It would also be highly unlikely for personnel at the nuclear reactor to figure out that by turning the 29-pin plug in the cable adapter upside down that 230 VAC would be present on the bare exterior surface of a coax connector of the cable adapter.
- And, finally, if the personnel were clever enough to figure this out and deliberately try to electrocute Noir, why didn't they restore the cable adapter back to its original “safe” configuration to hide the crime? Why leave the “smoking gun” at the scene?¹⁴

Immediate Action

The word of Noir's death and the likelihood that he had been accidentally electrocuted spread like wildfire throughout the Department of Safeguards.

Over the next days and weeks, I had countless conversations with inspectors about the accident and what I had learned in my investigation. The inspectors, of course, were intensely interested

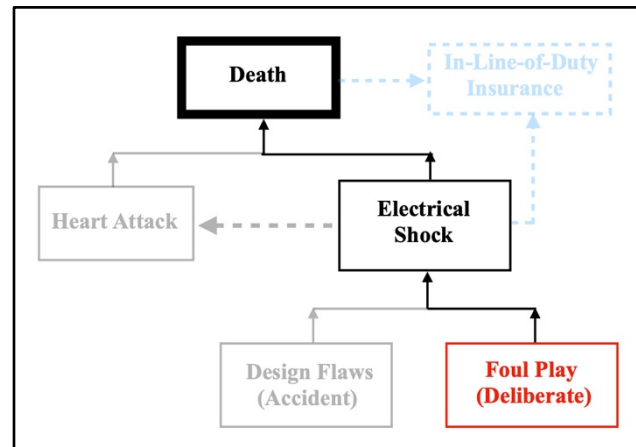


Fig. 4. Flow chart of foul play, i.e., deliberate electrocution.

¹⁴ Between the time of the accident and when Thorne arrived, probably 18-24 hours later, the CCTV Control Unit was not secure. Chin-Shan personnel would have had unfettered access to the Control Unit and the video cables.

in every detail: How did it happen? Was it an accident? Could it have been deliberate? Is the Psychotronic CCTV system safe to work with?

And while these important conversations were going on I also had to make sure the Psychotronic CCTV units currently in use in the field were not a hazard. I wasn't concerned as much about the units that were operating properly—their cable adapters had to be assembled correctly or they wouldn't be working—but with the units that were being installed or serviced. I also worried about the possible existence of spare cable adapters that could be lying around and inadvertently put into use in the future.

I decided the best *temporary fix* to the Psychotronic CCTV system was to cut/remove the 230 VAC wires inside the Control Unit that connect to the bottom pin of each of the 29-pin sockets, thus removing the electrical hazard. I wrote instructions for inspectors on how to safely remove these wires in the field and taught several of them how to do this using a Control Unit in my office. In March 1978 I made a quick trip¹⁵ to the Pickering Nuclear Power Station in Canada to cut/remove the wires inside two CCTV units (a total of four video cameras) that were being used in an ongoing verification exercise involving the transfer of spent fuel assemblies between CANDU reactor fuel storage pools.

I believed the sensible *long-term fix* to the Psychotronic units was to remove the 29-pin video sockets on the front panel of the Control Unit and replace them with standard panel-mount female coax sockets.¹⁶ The cable adapters would no longer be needed. The coax cables from the remote video cameras would connect directly to the Control Unit. By the time I left the IAEA in June 1978 no decision had been made as to the long-term fix. (My guess is my temporary fix became the long-term fix.)

Several times in the winter/spring 1978 I met with John May (U.S. Mission to the IAEA) and Leon Green (POTAS)¹⁷ to keep the Mission up to date on the status of my investigation into the accident and to discuss the impact of the accident on the concerns and fears of the inspectors.

John May encouraged me to continue my discussions with the inspectors for as long as necessary. He was aware that many inspectors felt they had difficult jobs and they didn't get sufficient support from the IAEA's upper management. Listening to their concerns and suggestions was imperative. And our response to this accident was important in demonstrating the U.S. was serious in helping improve the lives of the inspectors.

Leon Green quickly initiated a program with Sandia National Laboratory (SNL) in Albuquerque, NM to develop a U.S. designed CCTV system to replace the Psychotronic units. Doug McGovern (USA), an electrical engineer from SNL, came to Vienna for several months in the spring 1978 to gather ideas from inspectors about what they needed in the CCTV system.

¹⁵ A 9 June 1978 diplomatic cable (State 147422, Paragraph 4) stated that “cost-free experts can not accompany inspectors into the field”. I was a U.S. cost-free expert. Perhaps this policy was not yet in place in March 1978.

¹⁶ Standard SO239 UHF Female Panel Mount connectors (sockets).

¹⁷ The U.S. Program of Technical Assistance to IAEA Safeguards (POTAS), established in 1977 and coordinated by the Brookhaven National Laboratory (BNL), provides technical assistance to the IAEA. Leon Green was the Vienna Liaison Officer of POTAS while I was at the IAEA (June 1977-June 1978). He later became the head of the International Safeguards Project Office at BNL.

The SNL program¹⁸ turned out to be very successful and became the “seed crystal” for the IAEA’s modern day CCTV systems.

The replacement of the Psychotronic CCTV units took longer than expected because of the poor reliability of commercially available video recorders (Gaertner, 1985). A few Psychotronic units were still in use as late as 1987 (Gaertner, 1987), nearly a decade after the fatal accident.

And, finally, sometime in the spring 1978 (I don’t remember the date) I testified at a hearing held by an Austrian insurance board¹⁹ (6-8 people) that was looking into the in-line-of-duty insurance issues of Noir’s death, i.e., the Noir family would be entitled to additional insurance benefits if his death was due to an on-the-job accident rather than to natural causes (Fig. 5).

The hearing was held in a conference room at the IAEA Headquarters building in Vienna. I spoke to the board about: (1) the design flaws in the Psychotronic CCTV system, (2) our verification that the cable adapter that Noir had been working with (and Thorne had brought back from Taiwan) had been assembled incorrectly, and (3) how Noir would have been accidentally electrocuted.²⁰

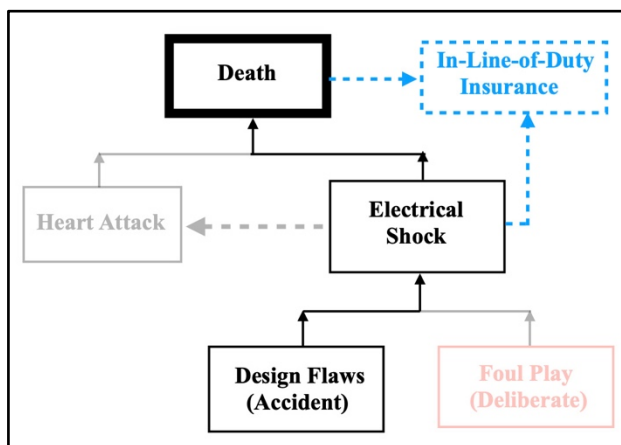


Fig. 5. In-line-of-duty insurance benefits (blue box) could be awarded to the family of an inspector who was injured or died because of an on-the-job accident.

¹⁸ To develop a “Simple, Highly Reliable CCTV System.” (Gaertner, 1986)

¹⁹ I don’t remember the official name of this board.

²⁰ I never learned what this board decided.

Part 2

The Wonk Files

As I'd mentioned in the Introduction, unbeknownst to me while I was dealing with the Psychotronic CCTV system, a series of diplomatic cables concerning Noir's death circulated among the U.S. Department of State in Washington, D.C. and the American Embassies in Vienna and Taipei. The U.S. Government was, of course, very concerned about the on-the-job death of an IAEA inspector, and even though it had no official obligation regarding Noir's death (Noir was a French citizen), it was drawn into an inquiry about his death at the request of both the IAEA and the Republic of China (ROC).²¹ And because these cables had limited distribution (most were labeled "Confidential" or "Secret") the U.S. involvement in the inquiry was little known.

Fortunately, these diplomatic cables became publicly available in 2012 because of Freedom of Information Act (FOIA) requests by Jeffrey Lewis and his colleagues at the Middlebury Institute of International Studies. They also obtained files of the late Paul Leventhal of the Nuclear Control Institute concerning his inquiries in the fall 1978 into Noir's death.

Lewis posted these U.S. diplomatic cables and the Leventhal files on the Internet blog *Arms Control Wonk*²² and on *Scribd*,²³ a digital document library, accessible online.

For convenience, I'll refer to the collection of these cables/files as the *Wonk Files*. I didn't learn of their existence until 2022, ten years after they were posted on the Internet.

The relevant *Wonk Files* consist of seven U.S. diplomatic cables, three documents in the Leventhal files, and a reference to a *Baltimore Sun* newspaper article. Also, by my own Internet search (in 2025) I located three additional U.S. diplomatic cables that are relevant and I have included these with the *Wonk Files*.

I've cataloged all these cables/files in Table 1. And I've included complete copies of the U.S. diplomatic cables in Attachment 1. The Leventhal files and the *Baltimore Sun* article are in Attachment 2.

²¹ The Republic of China (ROC) is also known as Taiwan. The U.S. was the only country in North America or Europe (except for the Holy See) that had an embassy in Taiwan in 1978. It was closed on 1 January 1979.

²² www.armscontrolwonk.com

²³ www.scribd.com (There is a subscription fee, but free limited downloads.)

Table 1: The 2012 *Wonk Files*

(See Attachments 1 and 2)

No.	Document I.D.	Date	Notes:
1	Vienna 00879	31 January 1978	1 page, unclassified
2	Taipei 00745	03 February 1978	1 page, confidential
3	Vienna 01989	01 March 1978	2 pages, confidential
4	Taipei 01547	14 March 1978	5 pages, secret
5	Taipei 03104	18 May 1978	2 pages, confidential
6	Vienna 04772	24 May 1978	2 pages, confidential
7	Taipei 03314	26 May 1978	2 pages, confidential
8	State 147422*	09 June 1978	2 pages, unclassified. A brief comment (Paragraph 1) that upon my arrival in Vienna I (John Foley) had been directed to work on a “higher priority” task, i.e., the CCTV system. Also, “cost-free experts can not accompany inspectors into field.” (Paragraph 4)
9	State 159153*	22 June 1978	2 pages, confidential
10	Vienna 05872*	27 June 1978	1 page, confidential

*These diplomatic cables were not in the *Wonk Files*. I found them via an Internet search in 2025.

Leventhal Files

No.	Document I.D.	Date	Notes:
11	ROC* Autopsy Report (1 page)	~ 03 February 1978	Incomplete, only one page.
12	ROC Accident Report (1 page)**	~ 14 February 1978	Incomplete, only the first page.
13	Dr. Anderson <i>Memorandum</i> (3 pages)	10 May 1978	Complete: 3 pages

*ROC: Republic of China (Taiwan)

**An important missing paragraph from this report (Paragraph 3) is quoted in Taipei 01547 (Paragraph 5).

Baltimore Sun

No.	Document I.D.	Date	Notes:
14	Newspaper article: “Mystery Surrounds On-the-Job Death of One Nuclear Inspector”	July 28, 1981	Quotations of Leslie Thorne (IAEA) on the cause of Noir’s death.

Prior to the 30 January Accident

The single page from the *Report on the Accident of Mr. Pierre Noir, IAEA Inspector*, which was given to the American Embassy Taipei by Victor Cheng (ROCAEC)²⁴ on 14 February 1978, describes where Noir was and what he was doing on the day of the accident, Monday, 30 January 1978.

Noir was at the Chin-Shan Nuclear Power Station²⁵ in Taipei, Taiwan.

In the fall, 1977, IAEA inspectors had installed a Psychotronic CCTV surveillance unit in the nuclear reactor building at Chin-Shan:

IAEA had sent representatives here and installed closed circuit TV to scrutinize the system before fuel loading and requested the provision of reliable power source. The Electrical Division of Chin-shan Project Office had extended the vital AC 110 V circuit to the top of the stairway at the fifth floor, the location where IAEA had selected to install the CCTV control panel. The circuit was tested by IAEA representatives on Oct. 19, 1977 and it was found that camera No. 1 was faulty, but camera No.2 functioned normally and was put into operation.²⁶ (ROC Accident Report, Paragraph 2)

The “CCTV control panel” mentioned above is the Psychotronic Control Unit (Fig. 1). It was installed at “the top of the stairway at the fifth floor” of the reactor building. This location was probably chosen because it would be out of the way of daily activities on the refueling floor of the reactor building. Earlier, Chin-Shan personnel had routed electrical power (110 VAC) to this location to provide electricity for the Control Unit.²⁷

Chin-Shan personnel also had routed the long video coax cables and AC power cables from the CCTV Control Unit location on the fifth-floor stairwell to the two remote video cameras located on the refueling floor.

²⁴ Victor Cheng is the chairman of the Atomic Energy Council (AEC) of the Republic of China (ROC). He is the main contact with the American Embassy Taipei concerning Noir’s death.

²⁵ Chin-Shan was ROC’s first Nuclear Power Station. It is a boiling water reactor (BWR), designed and built by General Electric Corp. Construction started in 1972 and the initial criticality of the reactor took place on 16 October 1977. Electrical power generation began a month later. After a year of testing and evaluations, full commercial operation began in December 1978. And after 40 years of operations, it was permanently shut down in 2018. (Ref: World Nuclear Data Base).

²⁶ The Chin-Shan nuclear reactor went critical three days before the IAEA put the CCTV system into operation. The CCTV system was not in operation while the reactor was being fueled.

²⁷ Because the IAEA’s CCTV system was designed and built in Europe (i.e., Austria) it operates on 230 VAC. And when used in non-European countries (such as Taiwan) the voltage is stepped up inside the Control Unit via a power transformer from 120-volts AC to 230-volts AC.

Fig. 6 is a photo of what the refueling floor at Chin-Shan probably looked like. This photo (Brunswick, 2011) is not of the Chin-Shan reactor but of a typical General Electric BWR reactor of the era.²⁸ The shielding above the reactor vessel (the gray octagonal structure) is at the center-left of the photo and the spent fuel storage pool is at the center-right.

Two video cameras (No. 1 and No. 2) were installed at locations on the refueling floor (Fig. 7) to provide time-lapse video surveillance of activities such as fuel loading and unloading of the nuclear reactor via the refueling crane and the movement of fuel assemblies within the spent fuel pool.

Because camera No. 1 had been found to be faulty the IAEA shipped a replacement video camera from Vienna to Taipei.

Noir arrived at the Taipei, Taiwan airport on the afternoon of Sunday, 29 January 1978 and was met by ROCAEC personnel. He discussed his plans with them about carrying out the inspection tasks at Chin-Shan and other facilities. One of his tasks was to review the “recordings of Camera No. 2 from Oct. 19, 1977 to Jan. 30, 1978.” The second task was “to install TV camera No. 1,” the replacement video camera.

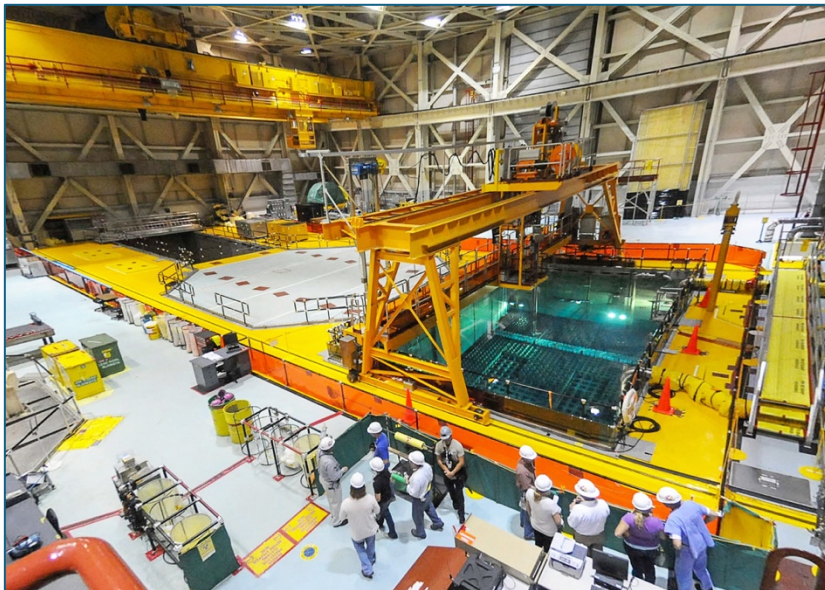


Fig. 6. Typical refueling floor of General Electric BWR reactors built in the 1970s.

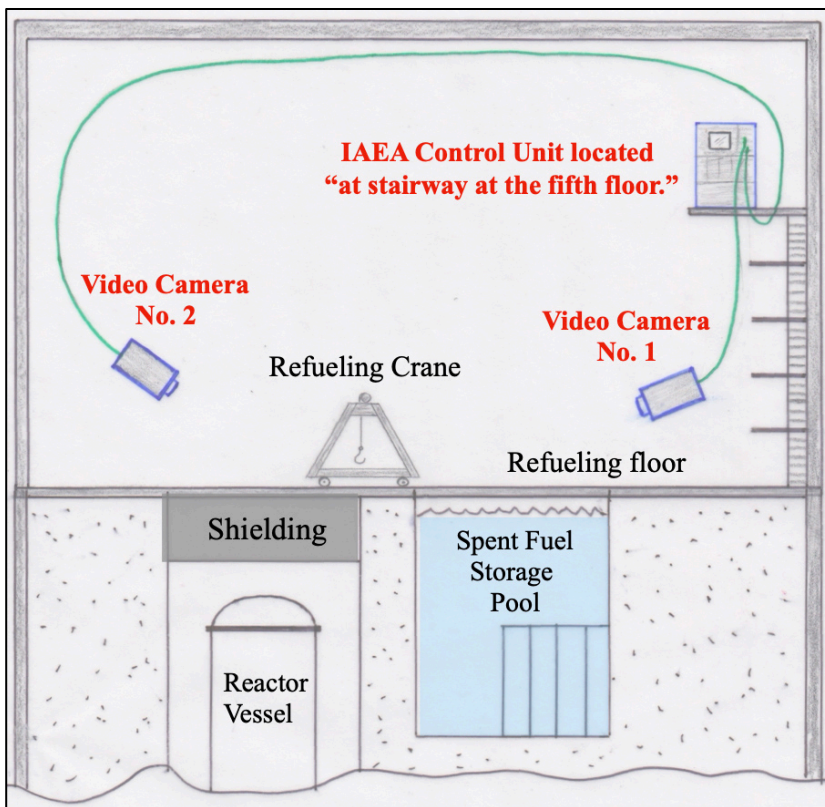


Fig. 7. Sketch of how two video cameras might be positioned on refueling floor to provide surveillance of activities of fuel movement.

²⁸ Photo is of the BWR refueling floor of Brunswick Nuclear Power Station, Unit. 2 in the U.S. (Brunswick, 2011).

On Monday morning (Fig. 8), 30 January 1978, Noir picked up the replacement video camera from a representative of the ROCAEC. He arrived at Chin-Shan at 9:05 AM and was escorted to the office of the deputy station superintendent, Mr. Chang. Noir “told Mr. Chang his main items of inspection work and requested man-power to assist in installing camera.”

1978													
January							February						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7				1	2	3	4
8	9	10	11	12	13	14	5	6	7	8	9	10	11
15	16	17	18	19	20	21	12	13	14	15	16	17	18
22	23	24	25	26	27	28	19	20	21	22	23	24	25
29	30	31					26	27	28				

Fig. 8. Calendar for January/February 1978. Noir died on Monday, 30 January. The autopsy was performed on Friday, 3 February.

The Accident

The first mention of Noir’s death that I found in the *Wonk Files* is in the 31 January 1978 cable,²⁹ written by the American Embassy Vienna. The reported cause of death was a heart attack:

Mission has learned that Pierre Noir (France), an IAEA safeguards inspector in the Far East Section, died during an inspection of TRR in Tiawan.³⁰ Reported cause of death was a heart attack³¹. . . Mission would appreciate further information on this matter . . . (Vienna 00879)

The earliest descriptions of the accident are verbal narratives received by personnel at the American Embassy Taipei. Unfortunately, these narratives are not first-hand, eyewitness accounts, i.e., they are more akin to hearsay, i.e., verbal information passed from individuals with contacts within Chin-Shan to personnel at the American Embassy Taipei.

The first verbal account indicated Noir had received an electrical shock while checking cables to a video camera. The American Embassy Taipei obtained this account on 1 February, but it was not documented until the 14 March 1978 diplomatic cable:

On 1 February 1978, a reliable source with contacts in the Taiwan power company (Taipower), stated that. . . [Noir] begin work at the Chin-Shan power reactor site installing a TV camera and checking the cables to it. The work was completed by noon, and Noir had a big lunch. Immediately thereafter he returned to the refueling floor to re-examine the power cables leading to the camera. In the process he had to climb several series of steps. When he arrived at the camera site, he touched what was believed to be a 110 volt cable, at which point his face suddenly contorted, the workers did not wish to touch him for fear of also receiving the shock. But after a few moments one of them was able to kick Noir’s

²⁹ This cable was sent approximately 30 hours after the accident.

³⁰ The American Embassy Vienna mistakenly understood the accident to be at the TRR, the Taiwan Research Reactor, when, in fact, it was at the Chin-Shan Nuclear Power Station.

³¹ The suggestion that Noir had died of a heart attack surfaced soon after the accident and several days before the autopsy.

hand away from the cable. . . He died on the way to the Veterans General Hospital in Taipei. (Taipei 01547, Paragraph 2)

A 3 February 1978 diplomatic cable indicated that personnel at the American Embassy Taipei had discussed Noir's death with both Victor Cheng and Leslie Thorne:

[The American Embassy Taipei] has been in contact with Victor Cheng of ROC AEC and Thorne of IAEA regarding death of safeguards inspector Pierre Noir. According to Cheng, death occurred around 1400 H Monday, after Noir had returned to the refueling floor of the Chin-Shan nuclear power reactor (not the TRR) to check the installation of cables to a television camera. Cheng has indicated that the cause of death was probably heart attack although he has also stated there were "rumors" stating that Noir may have suffered a shock from the television or related cables. Details of the accident have not yet appeared in local press, and ROC officials are treating the matter confidentially at this time. (Taipei 00745, Paragraph 1)

It is important to note that Cheng was advancing the idea "that the cause of death was probably heart attack" before the autopsy had been done.³² Cheng was in position to control the narrative of Noir's death.

And the cable continued:

At AEC and IAEA request, Embassy has asked pathologist Dr. John Anderson of the Naval Military Research Unit to observe the autopsy to be performed at the Veterans General Hospital on the afternoon of 3 February. To date there have been no reports on the result of this autopsy. (Taipei 00745, Paragraph 2)

The final verbal account of the accident, also documented in the 14 March 1978 diplomatic cable, likewise suggested Noir had received an electrical shock:

On 5 February . . . Simmons was called by [redacted] and a reliable source of information on Taipower's Chin-Shan power reactor [redacted] stated that a 'very reliable source' in [redacted] had told him that Noir has received an electrical shock while servicing a surveillance camera . . . According to the source, Noir had returned unexpectedly to the camera site after lunch, and had attempted to test a cable to the camera with a voltmeter . . . and then [Noir] touched the cable. At this point his face became contorted and he was stricken. (Taipei 01547, Paragraph 4)

³² It is likely, I think, that doctors at the Veterans General Hospital would have done a preliminary visual examination of Noir's body when it arrived at the hospital on 30 January, prior to the formal 3 February gross autopsy. Information from this examination could explain why Cheng adopted the "heart attack" stance and downplayed electrical shock to "rumors." During the 3 February autopsy no lesions (i.e., burns) were found on Noir's hands or feet, suggesting Noir had not been electrocuted. However, as Dr. Anderson stated, a low-voltage (<500 to 1000 volts) electrocution cannot be ruled out just because there are no lesions.

Interestingly, even though these descriptions of what Noir was doing at the time of the accident are somewhat different they all indicate he was working with the video cables when he died. The mention in the final verbal account that “Noir had attempted to test a cable to the camera with a voltmeter” suggests he might have been having problems getting the replacement video camera working.

The only written description of the accident I found in the *Wonk Files* is a single paragraph from the 14 February *ROC Accident Report*. This paragraph is quoted in the 14 March 1978 diplomatic cable.³³ Noir was working with the video cables (i.e., cable adapter) at the CCTV Control Unit when he was stricken:

On 14 February, Victor Cheng, Secretary-General of the Chinese Atomic Energy Council, passed an English-language translation of the ROC Accident Report to . . . Simmons. Paragraph three of this report states in part as follows: “Quote . . . at about 14:40 working together with Mr. Noir of IAEA at the fifth floor stairway platform were [redacted] at that time Mr. Noir considered that inspection and adjustment were complete and prepared to stop work. Suddenly he considered the lead wire (co-axial cable) connected to the TV was too long and prepared to change a shorter one. He first turned off the key switch and in conjunction with [redacted] took down the long lead wire and connect on the short lead wire (at this moment the TV side was not connected on, because the wire has two connectors at both ends). It was at this instant that Mr. Noir’s expression suddenly changed, both hands trembled, suddenly grabbed on cable, slanted towards the right side and then turned to slant left. Then [redacted] held his body and laid on the floor . . . End Quote.” (Taipei 01547, Paragraph 5. The quoted section is from Paragraph 3 of the ROC Accident Report.)

The *ROC Accident Report* did not mention electrical shock. (Taipei 01547, Paragraph 6)

This written description³⁴ of what Noir was doing is somewhat different from those in the verbal accounts. It indicates Noir had succeeded in getting the replacement No. 1 video camera working and “that inspection and adjustment were complete.” He was ready to stop work, but at the last moment he decided the “lead wire (co-axial cable) connected to the TV was too long and prepared to change to a shorter one.” The long and short “lead wires” mentioned here are cable adapters (Fig. 1). The coax cables of the cable adapters came in various lengths,³⁵ typically about 12” to 24” long. Noir had decided to exchange the long-length cable adapter to a short-length one.³⁶

³³ Only the first page of the *ROC Accident Report* is in the *Wonk Files*. But fortunately, a paragraph describing the accident in this report is included in Taipei 01547, Paragraph 5. A year ago, I filed a FOIA request to the U.S. Department of State get a complete copy of the *ROC Accident Report*, but I have had no response.

³⁴ Portions of this description are somewhat difficult to understand, possibly because it was an “English-language translation of the ROC accident report”.

³⁵ I don’t know why the lengths of the coax cables on cable adapters varied.

³⁶ A possible reason Noir decided to switch the cable adapters: If the cables of a cable adapter are too long, they extend outside the cabinet of a locked and sealed Control Unit. The coax connectors on these cables would then be accessible by personnel at the nuclear facility, giving them access to the video signals, which they could tamper with. To prevent unauthorized access, the coax connectors must remain inside the sealed cabinet.

And he was stricken while exchanging the cable adapters. This suggests the long-length cable adapter was assembled correctly (Fig. 1), and the CCTV system operated properly, but the short-length one was incorrectly assembled causing an electrical shock (Fig. 2).

It is important to note that the IAEA lost “chain of custody” of the CCTV system from the time of the accident until Thorne arrived, probably 18-24 hours later. During this period Chin-Shan/ROC personnel had unfettered access to it, i.e., they had time to perform a limited electrical hazards investigation (carefully, with voltmeters, oscilloscopes, etc.) of the cables and connectors allowing them to understand better the cause of death.³⁷

How the U.S. Became Involved in the Inquiry into Noir’s Death

The American Embassy Taipei became involved in the inquiry into Noir’s death because of the concern that Noir had been deliberately electrocuted (Fig. 4).

In the introduction I’d mentioned that a diplomatic cable from the American Embassy Vienna had caught my attention, the one in which Thorne said:

. . . a note was slipped under his hotel room door stating that Noir had been deliberately electrocuted. (Vienna 01989, Paragraph 2)

This diplomatic cable went on to say that Thorne had discussed this note with Mr. Rob Simmons at the American Embassy Taipei. Thorne apparently was so concerned about this note he wanted help from the U.S. for an independent confirmation of the autopsy on Noir’s body (to be performed on 3 February 1978):

[redacted but is Thorne] discussed the situation with Mr. Simmons of the AmEmb [American Embassy] Taipei and requested help in assuring independent confirmation of autopsy. [redacted] reports Simmons was extremely helpful and readily grasped the situation. (Vienna 01989, Paragraph 2)

The American Embassy Taipei was fully aware of the political and diplomatic importance of possible foul play at Chin-Shan:

Although the American Embassy has no reason to expect foul play in what appears to be an unfortunate accident, we are mindful of the implications of this accident and will continue to keep [State] Department and the [American Embassy] Vienna informed of whatever information develops regarding Noir’s death. (Taipei 00745, Paragraph 3)

³⁷ Such a hazards investigation is speculation on my part, but I expect the ROC would want to understand its liability (economic, political, diplomatic) in the cause Noir’s death.

I'm not an expert in nuclear arms control or non-proliferation diplomacy, but I was somewhat aware at the time that U.S. diplomats were working to normalize U.S. relations with the People's Republic of China (PRC) and, as a result, the U.S. was exerting pressure on the ROC not to develop nuclear weapons (actually, to shut down its existing secret nuclear R&D programs):³⁸

Any developments suggesting that Taiwan was doing nuclear weapons research could cause unwanted tensions in U.S.-China and China-Taiwan relations and, at the worst, put to the test U.S. security guarantees for Taiwan. (The Nuclear Vault, 2007)

This note suggesting Noir had been deliberately electrocuted implied foul play on the part of the ROC, i.e., Noir had been deliberately electrocuted because he had discovered suspicious nuclear activities at Chin-Shan. This could muddle the ongoing negotiations with the PRC.

The U.S. quickly arranged to have an American pathologist, Dr. John Anderson, observe the autopsy. (Taipei 00745, Paragraph 2)

It was at the request of *both the ROC (Cheng) and the IAEA (Thorne)* that the U.S. became involved in the 3 February 1978 autopsy. This means Cheng was aware of the note under Thorne's hotel room door even as he was advocating that the "cause of death was probably a heart attack" (Taipei 00745, Paragraph 1). For Cheng, the heart attack narrative was a convenient "no fault" explanation for the cause of death.

Surprisingly, rumors of "the note" did not circulate among the staff at the IAEA Headquarters in Vienna. Somehow, Thorne and the ROC and U. S. officials successfully kept the knowledge of it quiet. And even though I was deeply involved in the investigation into Noir's death in Vienna and I had frequent contacts with Thorne and personnel at the U.S. Mission, I didn't learn of the note until I read about it in the *Wonk Files* decades later.

At the time of the accident, the Chin-Shan Nuclear Power Station would not have been of immediate safeguards concern because the nuclear reactor was new and was still undergoing initial startup testing (see Footnote 25). Full commercial operations didn't begin until 10 months later, December 1978.

The Psychotronic CCTV unit the IAEA installed in the fall 1977 was the beginning of long-term video surveillance of reactor operations and refueling activities for the next 40 years. The first refueling of the Chin-Shan reactor would not occur for a couple of years. The spent fuel pool was probably empty at the time of the accident.

3 February 1978 Autopsy

The autopsy was performed by ROC doctors on the afternoon of 3 February 1978 at the Veterans General Hospital in Taipei. Dr. Anderson attended.

³⁸ See (David Albright and Andrea Strickler, 2018.)

The single page from the *ROC Autopsy Report*³⁹ indicated Noir had:

Ischemic heart disease. . . Atherosclerosis of left anterior descending and of right coronary arteries, moderate. . . (ROC Autopsy Report)

It also mentioned Noir had been doing strenuous activities prior to his death, implying these activities were a factor in his death:⁴⁰

[Noir had a] history of climbing up and down several flights of steep staircase before his sudden death (ROC Autopsy Report, Paragraph 1.2)

Additional comments about the possible role of strenuous activity in Noir's death are mentioned several times in the *Wonk Files*. (e.g., *Memorandum*, Paragraph 2; Taipei 01547, Paragraphs 2, 3, and 7)

Dr. Anderson gave a preliminary verbal report (via telephone) of the autopsy results to Simmons at the American Embassy Taipei, but this was not reported on until the 14 March 1978 diplomatic cable:

On 3 February 1978, Dr. John Anderson . . . observed the complete gross autopsy performed by ROC doctors . . . According to his preliminary report, rendered verbally . . . the autopsy was performed in a very complete and very professional manner . . . there was no evidence to suggest that Noir died from anything but a heart attack. . . Dr. Anderson did not find any lesions of the hands or feet, which would almost certainly have existed in the case of Noir's receiving a high-voltage shock. Anderson indicated, however, that these lesions would probably not be in evidence if a low voltage shock was received . . . To date Anderson has not completed his study of the remains and, because of an emergency leave, will probably not provide the Embassy with a final written report for several more weeks. (Taipei 01547, Paragraph 3)

It is important to note that Dr. Anderson reported he did not find lesions, i.e., electrical burns, on "hands or feet, which would almost certainly have existed in the case of Noir's receiving a high-voltage shock." But he also stated, "these lesions would probably not be in evidence if a low voltage shock was received."⁴¹

The existence of lesions on hands or feet would indicate a high-voltage electrical shock, but the absence of lesions would not rule out a low-voltage electrical shock.

³⁹ Only a single page of the autopsy report is in the Leventhal files.

⁴⁰ There is confusion in the *Wonk Files* about the location of the remote video cameras and the CCTV Control Unit. The remote cameras were on the refueling floor of the reactor building. The Control Unit, where Noir was working at the time of the accident, was at "the top of the stairway on the fifth floor." Noir would have had to climb up and down several flights of stairs as he moved between these two locations. See Fig. 7.

⁴¹ An Internet search indicates pathologists arbitrarily define low voltage as less than 500-1000 volts, high voltage greater than 500-1000 volts. Dr. Anderson would not have known that the Psychotronic CCTV system operated with 230 volts, i.e., low voltage.

Because the Psychotronic CCTV system operates on 230-volts AC (see Footnote 27), Noir could only have received a low-voltage shock from the faulty cable adapter, and thus, as Dr. Anderson stated, “lesions would probably not be in evidence.”

Three months after the autopsy, on 10 May 1978, Dr. Anderson wrote a *Memorandum For The Record*,⁴² in which he describes his involvement in the autopsy:

On about 1 February 1978, I received a telephone call from a Mr. Rob Simmons, Economic Advisor, Nuclear Energy Advisor, U.S. Embassy. Mr. Simmons related to me information pertaining to the death of Mr. Pierre Noir. . . It was suspected that the deceased had suffered a heart attack, however, there was a question of possible electrocution. He also informed me that they would like to have an American pathologist witness the autopsy. (Memorandum, p. 1)

The language here suggests Dr. Anderson’s role was to be a witness at the autopsy. And, similarly, the earlier 3 February 1978 cable (Taipei 00745, Paragraph 2) indicated his role was “to observe the autopsy.” However, Dr. Anderson and personnel at the American Embassy Taipei understood his role to be more than a mere witness or observer, i.e., he was a consultant, an independent authority, who would write a report on the cause of Noir’s death. Later, the U.S. Department of State in Washington, D.C. officially clarified Dr. Anderson’s role to be a witness, not an independent authority, and, in effect, terminated his study before he could write a final report. (State 159153, Paragraph 1)

In his *Memorandum*, Dr. Anderson wrote that after the 3 February 1978 autopsy he reported (via telephone) to Mr. Simmons of the American Embassy Taipei that:

The opinion from the gross examination⁴³ was that the deceased most probably died from heart attack, pending microscopic examination of tissue and toxicology results. (Memorandum, p. 2)

Interestingly, Dr. Anderson also wrote:

Prior to the autopsy, I spoke with one of the crew members working with him [Noir] at the site just prior to death. He explained to me that there was no possibility that an electric current was passing through the cable. (Memorandum, p. 1)

I’m not surprised by this comment, i.e., the exposed surfaces of coax connectors are always at electrical ground potential, 0 volts. Unfortunately, because of the electrical wiring flaws in the CCTV system, that was not true in this case, i.e., the surface of a connector was at 230 VAC.

⁴² This 3-page *Memorandum* contains the only direct statements we have from Dr. Anderson.

⁴³ A gross autopsy is a macroscopic, naked-eye examination of the body and organs. Dr. Anderson also wanted to examine the tissue samples at the microscopic level (histology) and review medical history and toxicology results before making a final opinion of the cause of death.

Approximately two weeks after the autopsy (i.e., ~mid-February 1978) Dr. Anderson returned to the Veterans General Hospital and examined the microscopic slides of the heart and coronary arteries:

The result of that examination was moderately severe atherosclerosis with marked narrowing of the lumen. These findings were also consistent with death from arteriosclerotic heart disease. (Memorandum, p. 2)

At that time, Dr. Anderson asked:

. . . the doctors at the Veterans General Hospital if they would please send the microscopic slides to my office so that I would spend more time looking at all of the details of the tissue. (Memorandum, p. 2)

In addition, he asked Mr. Simmons at the American Embassy Taipei:

. . . for the medical history of the deceased and informed him that I would need the gross autopsy report, microscopic tissue sections and toxicology report in order to write an opinion as a consultant. (Memorandum, p. 2)

It is important to note that Dr. Anderson never made a definitive statement on the cause of Noir's death. He always qualified his opinions with a tone of "pending," maintaining he needed to do additional analyses of tissue samples and reviews of toxicology report, medical history, etc. before he could write a final report.

In mid-March Dr. Anderson temporarily left Taiwan on emergency leave. He permanently left and returned to the U.S. on 12 May 1978, just two days after he wrote the *Memorandum*.

It appears Dr. Anderson believed he would be able to finish his inquiry into the cause of Noir's death after he returned to the U.S. At the conclusion of his 10 May 1978 *Memorandum*, he stated he had sent a formal request to the Veterans General Hospital to send the gross autopsy report, toxicology report, tissue samples, etc. "as a package" to the American Embassy Taipei. He had the expectation the Embassy would forward this package to his new permanent address in the U.S. He indicated, "On receipt of the previously stated materials, a consultant report from me will be forthcoming."

A diplomatic cable written on 26 May 1978 (Taipei 03314, Paragraph 2) stated the "package" from the Veterans General Hospital was received at the American Embassy Taipei on 25 May 1978. However, this package was never forwarded to Dr. Anderson. Instead, it was forwarded to the U.S. Department of State in Washington, D.C. and "will be reviewed and filed pending possible future IAEA request for further action or disposition." (State 159153, Paragraph 2)

Unfortunately, Dr. Anderson was not able to complete his inquiry. He never wrote a final report.

Different Views on the Cause of Death

By mid-March 1978 the various parties concerned with Noir's death (Cheng/ROC, Thorne, IAEA, and the U.S.) had formed their opinions as to the cause of death:

- **The official Cheng/ROC view** was Noir died of a heart attack (Fig. 9). Period.

As far as the ROC was officially concerned, Noir simply suffered a heart attack and died as a result. (Taipei 01547, Paragraph 6)

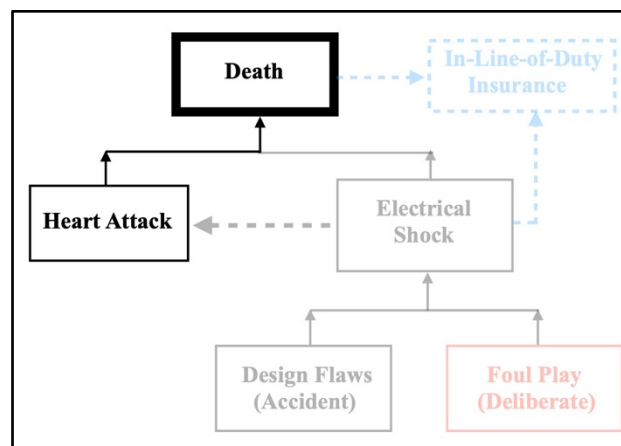


Fig. 9. The position of Cheng of the ROCAEC is that Noir died of natural causes, i.e., a heart attack.

The *ROC Accident Report* did not mention: (1) the “rumors” that Noir may have suffered an electrical shock or (2) the note slipped under Thorne’s hotel room door suggesting Noir had been deliberately electrocuted. On 8 March 1978, Simmons of the American Embassy Taipei talked to an ROC official (probably Cheng) about these omissions:

On 8 March, while talking with [redacted] . . . Simmons asked briefly how [redacted] intended to handle the “rumors” about Noir’s electrocution . . . and whether he intended to change the official accident report to reflect these “rumors”. [redacted] indicated that because of the “matter of insurance” he did not wish to rule out the possibility that Noir received a shock, but that the official report would not be changed. (Taipei 01547, Paragraph 6)

This is interesting: the official narrative of Cheng/ROC is that Noir died of a heart attack, but because of a concern over in-line-of-duty insurance Cheng did not want to rule out an electrical shock. He appears to have some sympathy for Noir’s family receiving insurance benefits, but he is not willing to mention the “rumors” of electrical shock.

The American Embassy Taipei suggests a reason why Cheng would not mention the rumors:

While we expect that the ROC will probably not alter their original accident report, to include discussion of ‘rumors’ and the note, we do not believe that their motivation in this regard has anything to do with the cover-up of a deliberate act, rather, it is probably based on their own desire to play down some still unresolved and relatively minor circumstances of an unfortunate and accidental death which could be used unfairly against them by the international media and their enemies. (Taipei 01547, Paragraph 7)

But without an electrical shock there is no path to in-line-of-duty insurance benefits (Figs. 9).

- **Thorne's view** was summarized by the American Embassy Vienna:

[Thorne]'s⁴⁴ current assessment is that the note under his door was probably not rpt not accurate insofar as the cause of death being "deliberate", but that there was a very real possibility that accidental electrocution might have occurred which may have been difficult or impossible to detect during autopsy. (Vienna 01989, Paragraph 3)

This diplomatic cable was written on 1 March 1978, about three weeks after Thorne, Kerr, and I had established conclusively that the cable adapter Noir had been working with had been assembled incorrectly. I had first discussed the faulty cable adapter with personnel at the U.S. Mission to the IAEA in Vienna in early February 1978. Yet the language in this cable is vague: "there was a very real possibility that accidental electrocution might have occurred." But there is no mention of the faulty cable adapter.

- **IAEA view.** I found nothing in the diplomatic cables about an IAEA "official" view of the accident. However, in the *Baltimore Sun* article, written 3-1/2 years after the accident, Thorne is quoted as saying "the IAEA was only too happy to accept the explanation of a heart attack." (*Baltimore Sun*, p. 278)

Similarly, Roehrlich mentions that in response to a 1978 accusation by a nuclear critic that Noir had been assassinated after reporting inconsistencies (at Chin-Shan) the IAEA rebutted the claim "stating that Noir had died of a heart attack." (Roehrlich, 2022).

For the IAEA, as well as the ROC, the heart attack narrative was a convenient "no fault" cause of Noir's death. Sadly, this narrative does not support in-line-of-duty insurance benefits for Noir's family, i.e., the family of an IAEA employee.

- **And the U.S. view** was similar to Thorne's, but it included speculation that an electrical shock had initiated Noir's heart attack (Fig. 10):

We are in complete agreement with [redacted but it is Thorne's] assessment that the cause of death of safeguards inspector Pierre Noir was not repeat not deliberate, but that there is a very real possibility accidental electrocution might have occurred. We base our judgement on receipt of information from a variety of sources indicating that Noir did

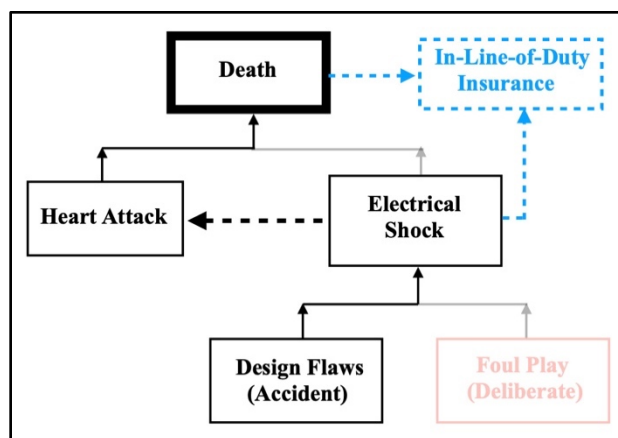


Fig. 10. An electrical shock initiated the heart attack leading to death. In-line-of-duty insurance benefits would apply.

⁴⁴ The name was redacted, but it had to be Thorne.

receive a low voltage jolt which, under the circumstances, was sufficient to initiate a heart attack-type reaction. Evidence of this, however, has not yet been obtained by autopsy, and may never be obtained . . . (Taipei 01547, Paragraph 1)

And this cable summed up the U.S. position:

In summary, we believe that there is sufficient evidence to suggest that Noir did receive an electrical shock of some sort while working on the Chin-Shan site, and that this shock probably precipitated his death. However, the circumstances of Noir's own physical condition and activity prior to the accident also played an important role in his death. We believe that the autopsy will probably be inconclusive on this point. (Taipei 01547, Paragraph 7)

Thus, the U.S. position was that the combination of (1) an electrical shock, (2) Noir's recent physical activity (i.e., climbing up and down the fifth-floor stairway steps), and (3) his physical condition (i.e., coronary heart disease) all contributed to his death:

. . . Noir may have over-extended himself so that when he received a shock from the low-voltage cable, it precipitated the heart attack. (Taipei 01547, Paragraph 2)

"The Note"

Interestingly, the important matter of the note under Thorne's hotel room door suggesting Noir was deliberately killed was not seriously addressed in the *Wonk Files*. I found no evidence, discussions, or explanations as to why the note was not accurate. There were only vague statements:

We have no evidence, beyond the mention of the note (which we have not seen) slipped under [redacted but it is Thorne's] door, that Noir's death was deliberately caused or that there was any foul play involved on the part of the ROC. (Taipei 01547, Paragraph 7)

[redacted but it is Thorne's] current assessment is that the note under his door was probably not rpt not accurate . . . (Vienna 01989, Paragraph 3)

We are in complete agreement with [redacted but it is Thorne's] assessment that the cause of death . . . was not repeat not deliberate . . . (Taipei 01547, Paragraph 1)

In-Line-of-Duty Insurance

There were no U.S. diplomatic cables written in April. But in mid-May 1978, after a two-month gap, there was a flurry of activity (Dr. Anderson's *Memorandum* and three U.S. diplomatic

cables) related to “in-line-of-duty” insurance, i.e., Noir’s family would be entitled to insurance benefits if his death was because of an accidental electrocution rather than natural causes, i.e., heart attack.

The 18 May 1978 cable from the American Embassy Taipei (Taipei 03104) indicated that on 10 May 1978, Simmons received a long-distance telephone call from Thorne⁴⁵ stating he had received information that Noir’s death “had not repeat not been entirely from natural causes”⁴⁶ and he asked if he could have a copy of Dr. Anderson’s report on the 3 February 1978 autopsy (Taipei 03104, Paragraph 1). Simmons told Thorne he had not yet received a final report from Dr. Anderson, but “he would look into the matter.”⁴⁷

But, Dr. Anderson had not written a final report because: (1) he had been away from Taiwan on emergency leave and (2) he had not received the microscopic tissue slides he had requested from the Veterans General Hospital in mid-February (*Memorandum*, pp. 2-3).

The 24 May 1978 cable from the American Embassy Vienna (Vienna 04772) indicated that John Hall, Deputy Director General (DDG) of the IAEA⁴⁸, had mistakenly understood that Dr. Anderson had collected his own tissue samples at the autopsy for independent U.S. analysis and evaluation. And DDG Hall “wondered what this evaluation had yielded” (Vienna 04772, Paragraph 1). Dr. Anderson had not taken independent samples, but he wanted to do further study of the tissue samples taken by the ROC doctors before he would write his report.

DDG Hall indicated that the IAEA’s interest at this point:

... is in regard to establishing whether Noir died “in line of duty,” in which case additional insurance benefits would be paid to his family. Hall feels that lack of examination of body tissue samples leaves picture incomplete, and if insurance company lawyer were to pursue matter, he might come to same conclusion. Hall recognized possibility of Agency requesting slides from ROC for analysis for evidence of electrocution, although he did not see any basis for questioning ROC doctors report if they had specifically looked for such evidence. (Vienna 04772, Paragraph 3)

Dr. Anderson’s preliminary observation from the gross autopsy, given verbally to Simmons (via telephone about 3 February), was that there was no physical evidence of electrocution, i.e., no lesions on hands or feet,⁴⁹ but he said he could not make a final judgement on the cause of death

⁴⁵ Thorne’s name was redacted in this diplomatic cable, but I was able to verify the name as Thorne when I obtained an unredacted copy of 1978 Taipei 03104 via a FOIA request from the U.S Department of State.

⁴⁶ Thorne knew by early February 1978 that Noir was electrocuted by the faulty cable adapter.

⁴⁷ Apparently, staff at the American Embassy Taipei failed to keep track of the progress of Dr. Anderson’s inquiry into Noir’s death, i.e., they dropped the ball.

⁴⁸ John Hall (USA) was the Deputy Director General for Administration of the IAEA. He reported directly to Sigvard Eklund (Sweden), the Director General (DG) of the IAEA. Hall was essentially the second-in-command of the IAEA.

⁴⁹ As I discussed earlier, Dr. Anderson had stated in his verbal report of the 3 February 1978 autopsy (Taipei 01547, Paragraph 2) that “lesions would probably not be in evidence if a low voltage shock was received.” At the time of his death Noir was working at the CCTV system, which operated from “low voltage,” i.e., less than 500-1000 volts.

without further examination of the microscopic tissue samples. Thus, “no final report will be possible from him unless the microscopic slides are sent to the U.S. for examination.” (Taipei 03104, Paragraph 2).

The Bureaucratic End to the U.S. Inquiry

Both the American Embassy Taipei and American Embassy Vienna began to realize that further examination of the tissue samples might not provide an answer to the question if an electrical shock played a role in Noir’s death.

The American Embassy Taipei expressed growing impatience with the investigation into Noir’s death and questioned whether it should continue:

We believe that a judgement must first be made as to whether the USG [U.S. Government] in general, and this mission in particular, should continue to devote itself to a case in which the question of ROC foul play seems already to have been resolved⁵⁰ and in which it appears that only the satisfaction of insurance requirement remains. (Taipei 03104, Paragraph 4)

The American Embassy Vienna expressed similar impatience:

We are not convinced it is necessary for the USG [U.S. Government] to pursue matter further unless independent samples were in fact taken by Dr. Anderson which have yet to be evaluated and reported by him . . . (Vienna 04772, Paragraph 4)

By late June 1978 the matter of the U.S. inquiry into the cause of Noir’s death had risen to the highest levels of the U.S. Department of State in Washington, D.C. On 22 June a diplomatic cable was sent from Cyrus Vance,⁵¹ the U.S. Secretary of State, to the American Embassies in both Vienna and Taipei:

Involvement of U.S. Navy Dr. Anderson in the autopsy of Noir was, at the request of the IAEA, in the role of witness to the proceedings and not, repeat not, as an independent authority. Although Dr. Anderson has departed Taiwan, the US wishes to continue to fulfill Dr. Anderson’s role as witness in cooperation with the IAEA to the fullest extent possible. (State 159153, Paragraph 1)

This cable officially clarified Dr. Anderson’s role in the autopsy: he was a witness, not an independent authority, i.e., not a consultant.

⁵⁰ There is absolutely no information or evidence in any of the U.S. diplomatic cables to suggest the “question of ROC foul play” had been resolved.

⁵¹ Cyrus Vance was the U.S. Secretary of State in the Carter Administration from Jan. 1977-April 1980.

In addition, Sec. Vance directed the American Embassy Taipei to forward the microscopic tissue sections and other materials (i.e., “the package”) they had received from the Veterans General Hospital to J. Menzel of ACDA⁵² in Washington, D.C.

*Upon receipt, this material will be reviewed and filed pending possible further IAEA request for further action or disposition.*⁵³ (State 159153, Paragraph 2)

Sec. Vance also requested the U.S. Mission to the IAEA in Vienna:

. . . to convey substance of above to Thorne or Hall and inquire as to whether further assistance is desired. (State 159153, Paragraph 3)

Five days later, on 27 June 1978, the American Embassy Vienna responded to Sec. Vance’s request:

DDG Hall appreciates U.S. willingness to pursue matter further, but after consideration and discussion with Dirgen [DG] Eklund, he says Agency requires no RPT no further assistance. (Vienna 05872)

And, thus, the U.S. assistance in the inquiry into the cause of Pierre Noir’s death came to a bureaucratic end.

The Cable Adapter: “That Which Is Not Mentioned”

While studying the U.S. diplomatic cables in the *Wonk Files*, I was puzzled as to why the incorrectly assembled cable adapter was never mentioned.

And, as I’d noted in Part 1, I had discussed the cause of the accident with personnel at the U.S. Mission to the IAEA in Vienna several times. They knew I had uncovered strong evidence that Noir had most likely received an electrical shock by the faulty cable adapter. Thorne, of course, knew because he had brought the cable adapter back to Vienna and was present when we verified it was a hazard.

The cable adapter is a strong evidence of the cause of Noir’s death.

Embassy personnel could have strengthened their argument that Noir’s death was by accident and not by foul play (on the part of the ROC) if they had included discussions of the faulty cable adapter. I’ve argued in Part 1 that it would have been highly unlikely that personnel at Chin-Shan/ROC could have figured out how to tamper with the cable adapter to deliberately kill Noir. And, if by some extremely remote chance they had figured out how to do this, why would they leave the “smoking gun” at the accident site for Thorne to retrieve and bring back to Vienna for

⁵² Both Joerg Menzel and I had worked together in the Nuclear Assay Research Group in the early 1970s at the Los Alamos National Laboratory. ACDA is the U.S. Arms Control and Disarmament Agency.

⁵³ In reading this diplomatic cable I was reminded of the amusing ending to the movie, *Raiders of the Lost Ark*, when the Ark of the Covenant is stored for safekeeping in a gigantic U.S. Government warehouse, never to be seen again!

testing? Chin-Shan/ROC personnel could have restored the cable adapter to its “safe” configuration to conceal the evidence they had tampered with it. And because they were in control of the accident site (for maybe 18 to 24 hours) before Thorne arrived from Japan, they had plenty of time to stage the accident scene to their benefit.

Instead of mentioning the faulty cable adapter, the American Embassy personnel resorted to vague language: “there was a very real possibility that accidental electrocution might have occurred” and “we base our judgment on receipt of information from a variety of sources indicating that Noir did receive a low voltage jolt . . .”

It wasn't until 3-1/2 years after Noir's death that faulty equipment was finally mentioned as the cause of Noir's death. On 28 July 1981 the *Baltimore Sun* newspaper published an article about Noir's death: “Mystery Surrounds On-the-Job Death of One Nuclear Inspector.” This article included statements from Thorne:

Mr. Thorne . . . says Mr. Noir was electrocuted by a faulty IAEA camera. He says the defect was entirely the fault of the agency.

“We were able to establish quite conclusively that it was a design defect,” he says. . . Mr. Noir touched a live 220-volt contact by chance, a contact that shouldn't have been on the camera console.

Says Mr. Thorne, “It was proved absolutely conclusively that the equipment was defective.”

I am not surprised by Thorne's forceful statements. He had personally hand carried the faulty cable adapter back to Vienna from Chin-Shan and was present when we determined it had been assembled incorrectly. He knew what he was talking about.

Blank page

Part 3

Summary

Three possible causes of Pierre Noir's death are discussed in the *Wonk Files*:

- Deliberate electrocution,
- Heart attack, and
- Accidental electrocution.

And the issue of “in-line-of-duty” insurance is also discussed, i.e., the Noir family would be entitled to benefits if his death was due to an accident rather than a natural cause, i.e., heart attack.

I'll summarize what I know about these issues, starting with background information.

Background

On 19 October 1977, IAEA inspectors installed a Psychotronic CCTV surveillance system at the Chin-Shan Nuclear Power Station, Taipei, Taiwan. The Control Unit, which houses the video recording and control/timing electronics, was placed at “the top of the stairway at the fifth floor”. Two remote video surveillance cameras were installed on the refueling floor (Fig. 7). Video camera No. 2 operated properly and was put into operation, but camera No. 1 failed to work. A replacement video camera was shipped from Vienna to Tawain.

Because the Chin-Shan reactor was a new nuclear reactor the diversion of nuclear material from it would have been of little safeguards concern in January 1978. The reactor was still in initial startup testing and would not go into commercial operations until December 1978, nearly 10 months after the accident. The first refueling of the reactor would not occur for a couple of years.

Noir was met at the Taipei airport on Sunday, 29 January 1978, by ROCAEC personnel. He told them that one of his inspection tasks was to review the surveillance video recordings of Camera No. 2. A second task was “to install TV camera No. 1”, the replacement for the video camera that had failed. He arrived at the Chin-Shan power station at 9:05 a.m. the next day, Monday, 30 January 1978 and met with the deputy station superintendent to discuss the upcoming inspection tasks and “requested man-power to assist in installing camera”.

Noir died that afternoon (at about 2:40 p.m.) while working with the video cables at the CCTV Control Unit.

Leslie Thorne, Noir's supervisor, was in Japan at the time of the accident. He immediately flew to Taipei to deal with the situation. A note was slipped under his hotel room door⁵⁴ in Taipei saying Noir was deliberately electrocuted. The suggestion that Noir was killed because he had uncovered something suspicious concerning the diversion of nuclear materials was disturbing.

An autopsy on Noir's body was performed on Friday, 3 February 1978 at the Veterans General Hospital. At the request of both the IAEA and the ROC an American pathologist, Dr. John Anderson, was present.

After learning of Noir's death⁵⁵ I uncovered serious electrical design flaws in the Psychotronic CCTV system involving an incorrectly assembled cable adapter (Fig. 2 and Appendix B) that would expose an inspector to 230 VAC. Thorne brought the cable adapter that Noir had been working with at Chin-Shan back to Vienna. We examined it. It had been assembled incorrectly. Noir had been exposed to 230 VAC.

Even though Thorne and personnel at the U.S. Embassies knew about this incorrectly assembled cable adapter in early February 1978, it was never mentioned in the *Wonk Files*.

Deliberate Electrocution, i.e., Foul Play (Fig. 4)

I found no direct information in the *Wonk Files* to refute or support the suggestion of deliberate electrocution on the part of the ROC. There were no facts, no reasonable explanations, and no evidence, only vague statements and personal opinions.

But I can make arguments as to why foul play was unlikely:

- In Part 1 of this *Monograph*, I argued it would have been essentially impossible for Chin-Shan/ROC personnel to know about the electrical flaws in the Psychotronic CCTV system and to understand how to sabotage the cable adapter to make it lethal. And, even if the Chin-Shan/ROC personnel had figured out how to do this, why would they leave the "smoking gun" at the scene of the crime? Because Thorne didn't arrive at Chin-Shan until probably 18-24 hours after the accident, Chin-Shan/ROC personnel would have had plenty of time to return the cable adapter to its safe configuration to cover up the deliberate electrocution.
- Noir arrived at the Chin-Shan Nuclear Power Station on the morning of 30 January 1978 at 9:05 am. He died around 2:40 pm that afternoon, about 5-1/2 hours later. During this time period Noir supervised the installation (by Chin-Shan technicians) of the replacement video camera No. 1 and set it into operation. He also took a 2-hour lunch break.⁵⁶ The foul-play scenario implies that while installing the video camera (or while reviewing the video tape

⁵⁴ There is no information in the *Wonk Files* as to when this note was slipped under Thorne's hotel room door. There were only four days between Noir's death (Monday afternoon) and the autopsy (Friday afternoon). In those four days, Thorne traveled from Japan to Taiwan, the note was slipped under his hotel room door, the IAEA and ROC requested help from the U.S., the U.S. arranged to have Dr. Anderson witness the autopsy, and Dr. Anderson attend the autopsy.

⁵⁵ Probably on the evening of 30 January 1978 in Vienna (see Introduction).

⁵⁶ Taipei 01547, Paragraph 2 and *Memorandum*, page 1.

from the No. 2 camera⁵⁷) Noir had discovered something irregular at the facility. He then would have discussed/questioned this irregularity with Chin-Shan/ROC personnel. The Chin-Shan/ROC personnel would then have had to plan, approve, and stage the execution. It is difficult to believe they could have accomplished such a complicated scheme in a short time period.

- At the time of the accident, the Chin-Shan Nuclear Power Station would not have been of immediate safeguards concern because the nuclear reactor was new and was still undergoing initial startup testing. Full commercial operations didn't begin until 10 months later, December 1978.

Interestingly, rumors of “the note” did not spread among the staff at the IAEA Headquarters in Vienna. Somehow, Thorne and the ROC and U.S. officials were able to keep its existence quiet. And even though I was deeply involved in the investigation into Noir's death and I had frequent contacts with Thorne and personnel at the U.S. Mission in Vienna, I didn't learn of the note until I read about it in the *Wonk Files* decades later.

The reason for the note remains a mystery.

Heart Attack (Fig. 9)

Immediately after the accident, and several days before the autopsy, Victor Cheng (ROC) stated that “the cause of death was probably heart attack”.⁵⁸ The official *ROC Accident Report* did not mention the “rumor” of electrocution or the note under Thorne's hotel room door. Only heart attack.

Heart attack was a convenient “no fault” cause of death for the ROC.

I found credible information in the *Wonk Files* that Noir had serious coronary heart disease (i.e., arteriosclerotic heart disease)⁵⁹ and that he had been working strenuously (climbing up and down steep stairs while installing the replacement video camera) before he died. Additional information indicated:

- Dr. Anderson did not find lesions (i.e., electrical burns) on Noir's hands or feet, but he said they “would probably not be in evidence” if Noir had received a low-voltage shock (<500-1000 volts). Noir was working with low voltage (230 volts).

⁵⁷ There was no mention in the *Wonk Files* if Noir reviewed the video tape from the No. 2 video camera. This tape would have provided surveillance information of activities on the refueling floor during the previous three months.

⁵⁸ This is speculation on my part, but it seems reasonable that when Noir's body arrived at the Veterans General Hospital on 30 January 1978 the ROC pathologists would have done a preliminary examination. And because no lesions were found on the hands and feet, the pathologists could have dismissed electrical shock as a cause of death. However, they did not know that Noir was working with low voltage 230 VAC, which according to Dr. Anderson, “lesions would probably not be in evidence if a low voltage shock was received.”

⁵⁹ Arteriosclerotic heart disease occurs when plaque builds up inside the coronary arteries restricting blood and oxygen flow to the heart muscle. It's a leading cause of heart attacks.

- Dr. Anderson was not prepared to make an independent determination on the cause of death until he could analyze further the microscopic tissue samples and review the gross autopsy report, medical history, and toxicology reports.

- By late June 1978, senior IAEA officials (the Director General and the Deputy Director General of the IAEA) said they did not need further help from the U.S. on the matter of Noir's death. Senior U.S. Department of State officials (i.e., Secretary of State) in Washington, D.C. emphasized that Dr. Anderson's role was that of a witness, not an independent authority. In effect, they stopped Dr. Anderson's review by taking possession of the tissue samples, gross autopsy report, toxicology report, etc. "to be reviewed and filed pending possible future IAEA request for further action or disposition." (State 159153, Paragraph 2)

What I learned from the *Wonk Files* about Dr. Anderson's (curtailed) participation in the inquiry into Noir's death is: (1) Noir had serious coronary heart disease, (2) he had been working strenuously before the accident, and (3) his death was "consistent with death from arteriosclerotic heart disease" (*Memorandum*, p. 2). The fact that Dr. Anderson did not find lesions on Noir's hands or feet is probably moot because Noir was exposed only to a low, but lethal, voltage (230 volts).

Accidental Electrocutation (Fig. 3)

I found verbal (hearsay) accounts in the *Wonk Files* from Chin-Shan personnel at the accident site that suggested Noir had received an electrical shock from the video cables. There also were opinions from staff at the American Embassies in Taipei and Vienna that Noir "did receive a low voltage jolt which, under the circumstances, was sufficient to initiate a heart attack-type reaction."

After learning of Noir's death, I discovered (Fig. 11) serious electrical design flaws in the Psychotronic

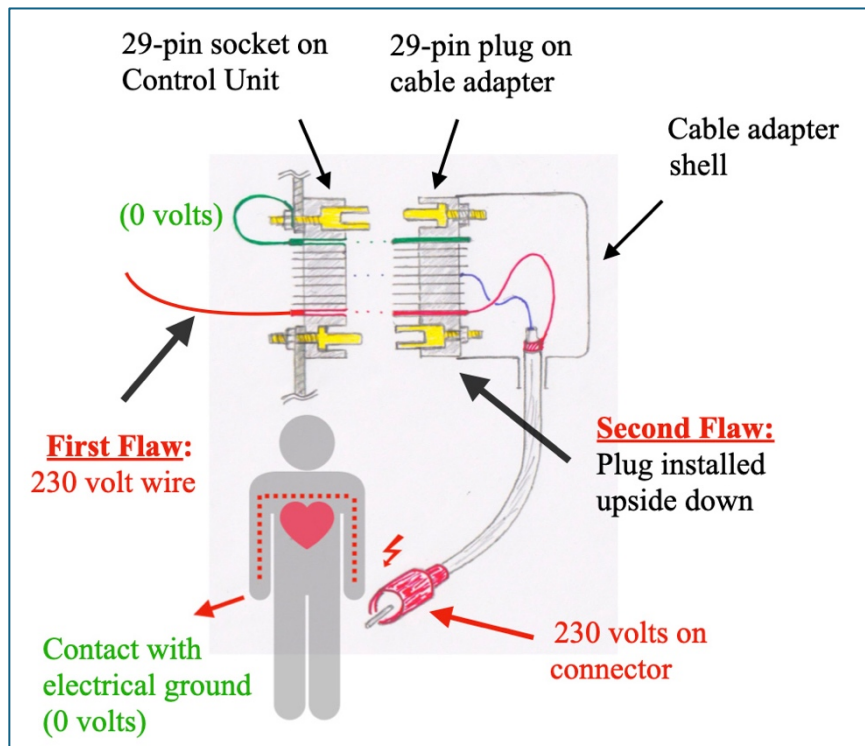


Fig. 11. Sketch: Accidental electrocution due to incorrectly assembled (faulty) cable adapter.

CCTV system involving an incorrectly assembled cable adapter that would expose an inspector to 230 VAC.

The first design flaw was an error in the wiring of the 29-pin video socket on the front panel of the CCTV Control Unit (Fig. 2). The bottom pin of the middle column of pins of this socket was wired for 230 VAC. Because this socket was for video signals (typically ~ 1 volt) it should not have been wired for 230 VAC electrical power.

The second design flaw involved the symmetry of the pin pattern of both the video socket on the Control Unit and the video plug of the cable adapter (Appendix B). The plug in the cable adapter could be installed upside down causing the pin that would normally be the top pin (electrical ground, 0 volts) of the center column of pins to become the bottom pin (230 VAC). The bare surface of one of the coax connectors of the cable adapter would then be at 230 VAC (Figs. 2 and 11).

Thorne brought the cable adapter that Noir had been working with at Chin-Shan back to Vienna. We tested it. It had been assembled incorrectly. Noir had been exposed to 230 VAC.

Noir most likely died by accidental electrocution, not by heart attack.

Coronary heart disease and strenuous activity may or may not have been a factor in his death, but the 230 VAC electrical shock was the underlying cause his death.

Three and one-half years after the accident (July 1981) Thorne is quoted in the *Baltimore Sun* newspaper:

. . . Mr. Noir was electrocuted by a faulty [CCTV] camera . . . “We were able to establish quite conclusively that it was a design defect,” he [Thorne] says. . . Mr. Noir touched a live 220-volt contact by chance, a contact that shouldn’t have been on the camera control.

In-Line-of-Duty Insurance

In the spring 1978 I testified at a hearing held by an Austrian insurance board that was looking into the in-line-of-duty issues concerning Noir’s death. I spoke to the board about the design flaws I had discovered in the Psychotronic CCTV system and how Noir could have been accidentally electrocuted.

I found no information in the *Wonk Files* as to whether or not Noir’s family received in-line-of-duty insurance benefits.

Blank page

Postscript

Switzerland in the Spring

I don't want to end this monograph by leaving the impression that the Psychotronic CCTV system was a failure. It did have serious electrical design flaws, but it also generally worked well, considering it was a first-generation CCTV surveillance system.

In November 1977 I participated in a verification exercise at the Beznau Nuclear Power Plant (which has two reactors) in Switzerland.⁶⁰ The nuclear plant operators were going to move highly radioactive spent fuel assemblies (containing large quantities of plutonium) from the storage facility at one nuclear reactor to the storage facility at the nearby reactor. The IAEA needed to monitor the transfer operation to verify that spent fuel traveled only from the first storage facility to the second facility, and not to somewhere else. The spent fuel assemblies would be transported in very large, heavy containers ("casks"), which shield personnel from the extremely radioactive fuel. A large crane would load the fuel cask onto a flatcar. A locomotive would then transport the cask the short distance to the second reactor, where another crane would unload it and move it into the second facility. Because of the size and weight of the casks, each transfer of spent fuel from one facility to the other would take several hours. The entire operation to transfer all the assemblies from the first facility to the second one would take several months.

The IAEA would monitor these transfers using time-lapse video recording. Normally, the inspector responsible for such a surveillance exercise would have taken care of the installation of the Psychotronic CCTV surveillance system, but in this exercise the video cameras had to be installed outdoors, and the IAEA had never done an outdoor surveillance exercise before.

Alberto Lumetti (Italy), the inspector responsible for this exercise, asked me to adapt the video cameras to work during the Switzerland winter. This exercise provided an opportunity for me to help with a unique inspection. I would use heated, temperature-controlled camera enclosures to keep ice from freezing on the glass windows of the enclosures. I ordered two enclosures with heated windows (much like the video enclosures you see today in parking lots of "big box" stores) from a vendor in the United States and, fortunately, they arrived in Vienna in the nick of time, just a week before the fuel transfer operation was to begin. I had barely enough time to put the cameras/enclosures through a few days of tests—outdoors, on a ledge outside the window of my office—before we shipped them to Switzerland.

I met Lumetti in Switzerland. And the installation went smoothly. The facility operators had installed the power and video cables prior to our arrival. We aimed one of the outdoor cameras towards the loading area of the first spent fuel storage facility and pointed the second camera,

⁶⁰ See footnote 15: Cost-free experts can not accompany inspectors into the field. Again, this rule must have been flexible!

located some distance away, at the unloading area at the second facility. The views of the two cameras overlapped so we could monitor the entire transfer path.

Lumetti and I would return in the spring 1978 after the fuel transfer operation had finished to see how the system had worked and to review the videotape.

As I left my hotel the next morning to catch my flight back to Vienna, I slipped on a thick layer of ice on the sidewalk, from the overnight freezing rain. Winter weather had arrived in Switzerland—and I crossed my fingers for those heated camera enclosures!

Sometime that spring—I don't remember exactly when it was—I returned to Beznau to follow up on our outdoor surveillance exercise. The spent fuel transfer operation had finished, and I met Lumetti at the facility to review the video tape. When we entered the small room in which we'd set up the Psychotronic CCTV Control Unit, the room was full of people—maybe a dozen or more. They were executives and high-level managers from the power station, representatives of the Swiss atomic energy and nuclear regulatory agencies/commissions, etc. They had come to witness the time-lapse video of the spent fuel transfer operation.

I hadn't expected a crowd! When we had installed the system in November 1977 we had the help of a single technician from the plant.

After introductions were made all around, it was showtime. I unlocked the door of the Control Unit and turned on the TV monitor.

Fortunately, we had video images from both cameras. I quickly checked the video recorder and saw the take-up reel was almost full and the supply reel almost empty. So far, so good.

I rewound the video tape and began playing the recordings—and we had good quality time-lapse images. The heated camera enclosures had worked!

We watched as days and nights came and went. We saw sunshine and snow and rain and fog and ice. And we saw the locomotive transfer the spent fuel cask along the train track from the first building to the second, over and over again.

And after about 15 minutes, our distinguished visitors politely excused themselves and left. They had seen enough. I was somewhat amused how quickly they had lost interest. Our 15 minutes of fame was over.

But that's the way it is with a successful verification exercise. If the inspector does his/her job professionally and the safeguards equipment performs as designed, then no one notices.

For me, there is a quiet satisfaction in this.

Appendix A

IAEA CCTV System

Overview

I was in Vienna (June 1977-June 1978) as a “U.S. cost-free-expert” (see Footnote 4) to help IAEA inspectors implement non-destructive assay techniques for the measurement of fissile materials used in nuclear weapons, i.e., plutonium and highly-enriched uranium (Foley, 1971, 1972, 1973, 1980). However, when I arrived at the IAEA my job assignment was changed⁶¹ to work on the Psychotronic CCTV surveillance system:

Foley was directed to another kind of work considered by Division of Development and Technical Support to have higher priority at the time. (State 147422, Paragraph 1)

And it was because of this change in assignment that I was in the unique position to investigate the cause of Noir’s death (30 January 1978, Taipei, Taiwan).

Ed Kerr, head of the Section for Technical Services, and who was also my supervisor during the year I was at the IAEA, wrote an interesting history of the IAEA’s photo and video surveillance systems (Kerr, 1999). He notes:

The IAEA installed its first video surveillance unit in the mid-1970s. It was built by the electronics lab at Seibersdorf,⁶² with the involvement of the Safeguards Development Division. . . . However, the mass production of surveillance units was not the business of the Seibersdorf Laboratory, and so a Viennese firm named Psychotronic was given a contract to manufacture these systems using the Seibersdorf circuit.

I do not know if the electrical design flaws that I discovered in the Psychotronic system involving the 29-pin video socket/plug were in the original Seibersdorf circuit or were because of changes made by Psychotronic Elektronische Geräte.

⁶¹ On my first day at the IAEA, I met with my “big boss,” the Director of the Division of Development and Technical Support. Much to my surprise, he changed my job assignment to work on the Psychotronic CCTV Surveillance System, an assignment that was quite different from working with neutron assay techniques, which I had been recruited to do. He said the Agency’s CCTV surveillance efforts needed more help. My sense of the tone of this meeting was that the Director was doubtful of the value of the new U.S. Program of Technical Assistance. The U.S. already had too much influence in the IAEA and the U.S. cost-free-experts, like me, were just another example of U.S. overreach. I came away from the meeting with the suspicion I had been reassigned to work on the CCTV Surveillance System *specifically* because I was not an expert in surveillance techniques and, thus, I probably wouldn’t accomplish much during my year at the IAEA. However, as it turned out, I had a wealth of practical experience as a nuclear engineer at Los Alamos that proved invaluable to me in figuring out the cause of Noir’s death.

⁶² The Seibersdorf Laboratory is the IAEA’s technical and analytical laboratory located in Seibersdorf, Austria near Vienna.

Appendix A—continued

An IAEA description of the CCTV system is given below (IAEA Bulletin):

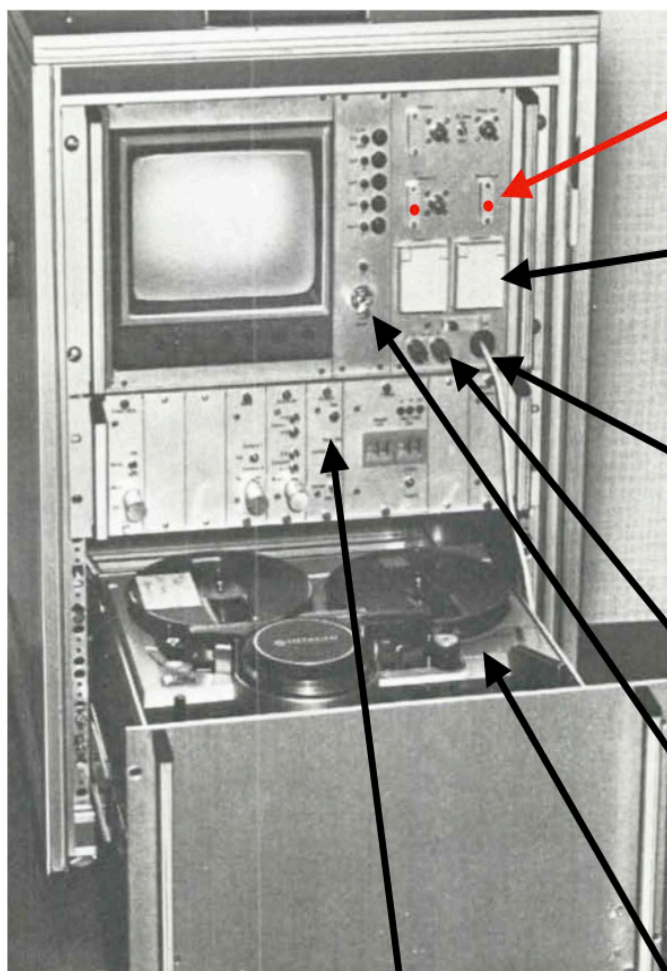
In general, a TV surveillance system consists of a camera remotely operated by the control unit. The latest versions allow the use of two cameras per control unit, with a built-in video "splitter" which divides the screen into two parts whose relative areas are adjustable. Each camera can be located as far as 500 metres from the control unit. The Hitachi HV-16 camera was modified to increase the light sensitivity by 80 times; it automatically adjusts to the light changes and gives acceptable quality of the picture in the range 0.5–100,000 lux. The multidiode target vidicon is sensitive not only to visible light, but also to the infrared range (800–1100 nm). This feature enables cameras to be equipped with infrared emitters which will illuminate the area and allows the recording of events even if the regular light is switched off completely. The use of self-illumination, such as flash, for camera surveillance was considered a long time ago, but the idea was not pursued on the grounds that the flashes might disturb operating personnel. It is likely that the use of infrared will not be intrusive and will help to solve a few problems. The camera is designed to work reliably under environmental temperature conditions from -10°C to $+50^{\circ}\text{C}$.

All the components of the control unit (video recorder, triggering device, video calendar/clock, emergency power supply etc.) are built into a sealed housing. The Hitachi SV-612 time lapse video recorder has been modified for this purpose and permits the recording of 180,000 single frames on a standard 720-metre magnetic tape. This means that, on average, a single tape can be used for a plant area under surveillance for about a year. The built-in crystal-controlled clock system superimposes on each picture the month, date, hour, minute and second, when it was taken. An electronic triggering device enables a wide range of interval between pictures or groups of pictures, to be selected. The system can operate on European and American power supplies as well as on 24-volt batteries. The power requirement of the system is relatively low, approximately 250 watts. It was found that dependency on the facility's main power supply is not a crucial problem in using a TV system because the control unit for the system can be located in any convenient location where it can be connected to the facility emergency power supply, which would restore power to the system a few minutes after interruption of main supply. Rechargeable batteries built into the control unit of TV systems automatically supports the system for a few hours in any event.

The principal advantages of the TV surveillance system are:

- it has a very large frame capacity;
- no film processing is required;
- the recorded information can be obtained without entering a contaminated area;
- the recorded information is always ready for evaluation on the spot or at headquarters;
- it incorporates on each picture the date and time when it was recorded;
- it is more resistant to radiation than film cameras;
- it has the ability to record events under a wide range of lighting conditions and the use of infrared illumination promises to provide the capability of recording events even when there is no visible light.

Appendix A- continued



Video Sockets* (2)

230 VAC European outlets (2) to power remote video cameras (with door covers)

230/120 VAC cord to power entire CCTV system

Fuse holders (2)

ON/OFF key switch

Time-Lapse Video Recorder

Control and Clock Modules

*Because of a design/wiring error 230 VAC is present on a pin of each (2) low-voltage video socket.

Blank page

Appendix B

Hazards Analysis: The first sign of trouble

After searching inside the Psychotronic Control Unit cabinet for a few days I noticed that a 230 VAC wire was connected to the bottom pin (female) of the middle column of pins of the video socket on the front panel. Using a voltmeter, I verified there was 230 VAC on the bottom pin, i.e., this pin was electrically “hot”.

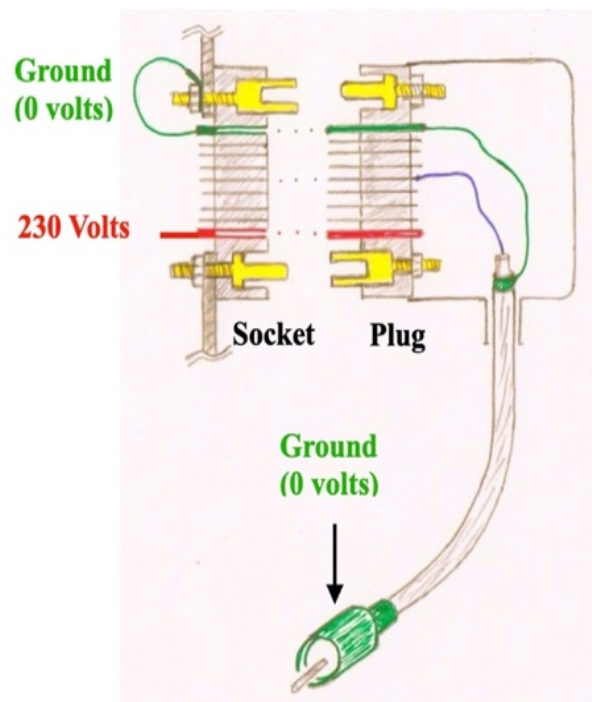
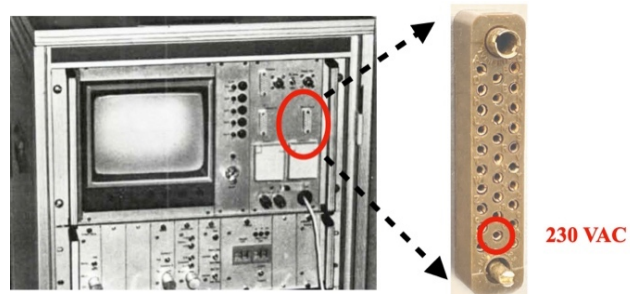
This “hot” pin was the first sign of trouble.

To understand why this pin was wired for 230 VAC I disassembled the cable adapter and examined the wiring to the corresponding pin (male) of the plug. There was no connection (n.c.) to this pin! The “hot” 230 VAC wire just dead ended inside the plug.

While I was examining the cable adapter I noticed—and *this turns out to be very important*—that the top pin of the middle column of pins of the socket connects to the electrical ground (0 volts) of the Control Unit.

The sketch is an “X-ray” side view of the *middle column of pins* of the Control Unit socket and the cable adapter plug.

I’ve labeled 230 VAC pins the color **red** and ground potential (0 volts) pins **green**. The braided shield of the short length of the coax cable and the exposed surface of the coax connector are at ground potential (0 volts). The center wire of the coax cable carries a video signal (**purple**). It plays no role in the hazards analysis.



Appendix B—continued: Hazards Analysis: The second sign of trouble

The guide pins, which ensure the proper alignment of the plug of the cable adapter with the socket on the Control Unit, are removable. Generally, guide pins are firmly anchored with the plastic pin insert so the orientation of the plug and socket cannot be changed. Unfortunately, these were removable.

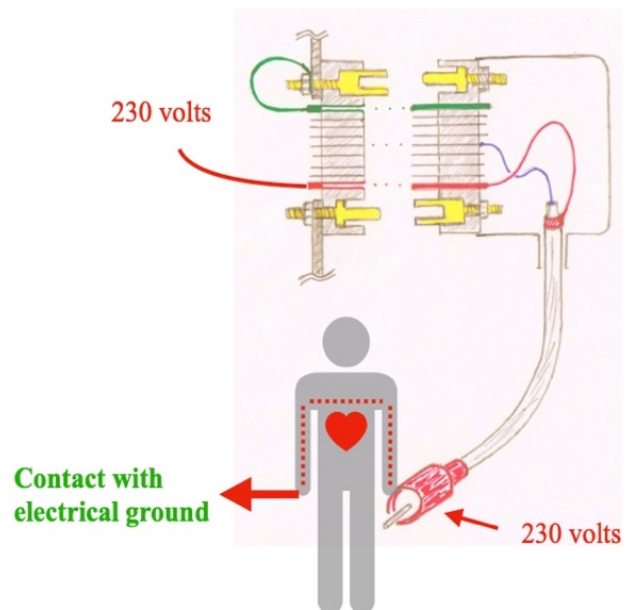
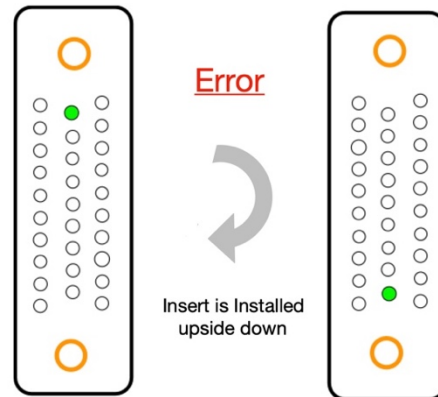
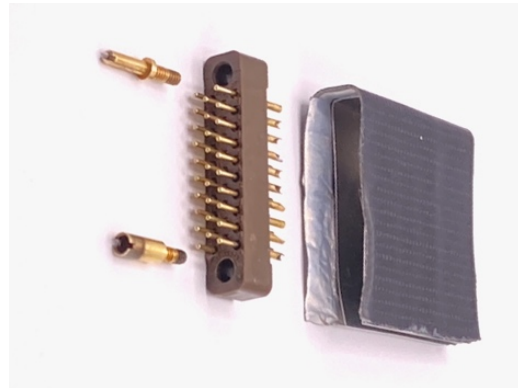
The pin pattern of the plastic pin insert has rotational symmetry. If an error is made in the assembly of the cable adapter and the *plastic insert is rotated 180 degrees*, i.e., turned upside down, the pin pattern remains the same, however the top pin of middle column of pins will now become the bottom pin. This pin, which originally plugged into the electrical ground of the system now plugs into 230 VAC.

This is the second sign of trouble.

The sketch is an “X-ray” view of the *middle column of pins* of the Control Unit socket and the cable adapter plug. The plug has been assembled incorrectly, i.e., the guide pins have been replaced correctly but the plastic pin insert has been installed upside down.

The exposed bare surface of the coax connector on the short length of coax cable is now at **230 VAC**, rather than ground potential (**0 volts**).

An inspector handling this incorrectly assembled cable adapter is in danger of receiving a 230 VAC electrical shock.

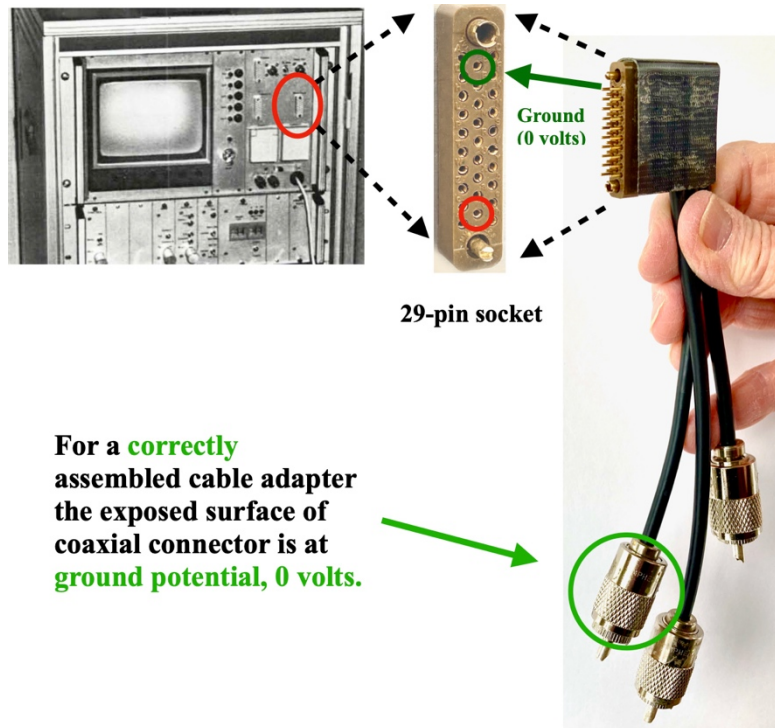


Appendix B—continued: Summary of Hazards Analysis

Correctly and Incorrectly Assembled Cable Adapters

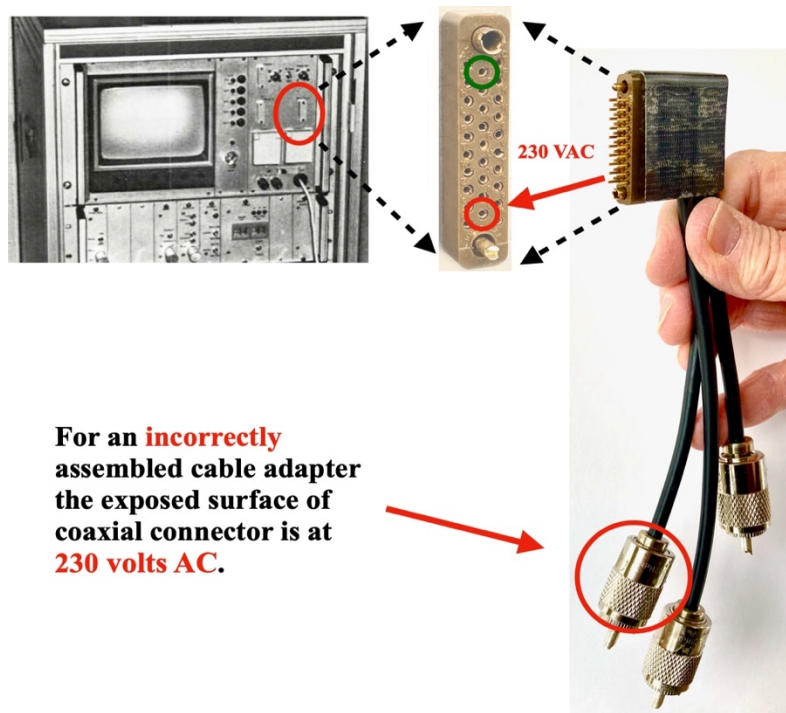
Correctly Assembled Cable Adapter

The inspector handling a correctly assembled cable adapter is in no danger. The exposed bare surface of the coax connector is at ground potential (0 volts).



Incorrectly Assembled Cable Adapter

The inspector handling an incorrectly assembled cable adapter is in danger of receiving an electrical shock. The exposed bare surface of the coax connector is at 230 VAC.



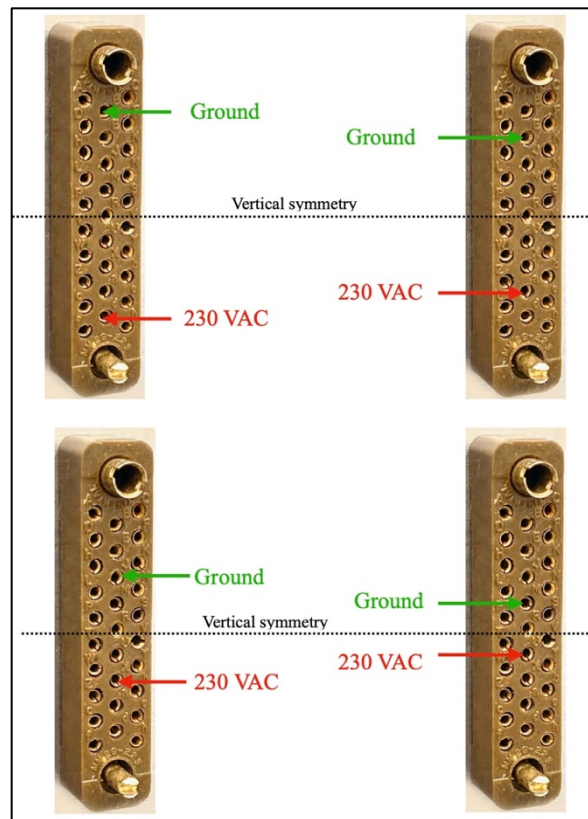
Appendix B—continued: Bad choice of 29-pin socket/plug for video cables

The underlying cause of the electrical accident was the unfortunate choice of the 29-pin socket/plug for connecting the video cables from the remote video cameras to the Control Unit.

Normally, an electronics designer would use standard design practices in connecting the video cables to the Control Unit, i.e., use standard panel mount female coax connectors (Footnote 16). Also, the designer would never apply 230 VAC to such a micro-miniature socket.

Because of the (1) symmetry of the socket and (2) interchangeable guide pins, the plug connecting to the video cables could be inserted into the socket upside down. The Figures to the right show several combinations of pins that could cause a fatal accident. The top-left drawing is how the Psychotronic CCTV system was wired. The Ground connection for the socket for one of the coax cables was the top pin, center column of pins. The bottom pin was mistakenly wired for 230 VAC. When the plug of the cable adapter is inserted upside down into the socket the Ground of the coax cable is unfortunately connected to the 230 VAC pin (at bottom) rather than the Ground pin (at top). The combination of the top pin of the plug being inserted into the bottom pin of the socket proved to be fatal.

Because of the vertical symmetry of the middle column of pins other fatal combinations could occur, e.g., in the top-right drawing the combination of the next-to-top pin (Ground) with the next-to-bottom pin (230 VAC) would also be fatal. Addition fatal combinations are shown in the lower two drawings.



Attachment 1

Wonk Files 2012

Cable 1: Vienna 00879, 31 January 1978, from American Embassy Vienna

Cable 2: Taipei 00745, 3 February 1978, from American Embassy Taipei

Cable 3: Vienna 01989, 1 March 1978, from American Embassy, Vienna

Cable 4: Taipei 01547, 14 March 1978, from American Embassy Taipei

Cable 5: Taipei 03104, 18 May 1978, from American Embassy Taipei

Cable 6: Vienna 04772, 24 May 1978, from American Embassy Vienna

Cable 7: Taipei 03314, 26 May 1978, from American Embassy Taipei

Cable 8: State 147422, 9 June 1978, from U.S. State Department, Washington D.C.

Cable 9: State 159153, 22 June 1978, from U.S. State Department, Washington D.C.

Cable 10: Vienna 05872, 27 June 1978, from American Embassy Vienna

Cable 1

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183946 Date: 09/27/2012

UNCLASSIFIED

RELEASED IN FULL

PAGE 01 VIENNA 00879 311616Z
ACTION IO-14

INFO OCT-01 EUR-12 EA-12 ISO-00 ACDA-12 CIAE-00 INR-07
L-03 NSAE-00 NSC-05 EB-08 NRC-07 OES-07 SOE-02
DODE-00 SS-15 SP-02 PM-05 /112 W
-----102173 311706Z /43

P 311517Z JAN 78
FM AMEMBASSY VIENNA
TO SECSTATE WASHDC PRIORITY 4969
INFO USDOEHQ WASHDC PRIORITY
USDOEHQ GERMANTOWN PRIORITY
AMEMBASSY TAIPEI PRIORITY

UNCLAS VIENNA 00879

USIAEA
DEPT PASS IO/SCT, OES/NET AND ACDA FOR MENZEL

E.O. 11652: N/A
TAGS: IAEA, PARM, TECH, PERS
SUBJECT: DEATH OF IAEA SAFEGUARDS INSPECTOR PIERRE NOIR

MISSION HAS LEARNED THAT PIERRE NOIR (FRANCE), AN
IAEA SAFEGUARDS INSPECTOR IN THE FAR EAST SECTION, DIED
DURING AN INSPECTION OF TRR IN TAIWAN. REPORTED CAUSE
OF DEATH WAS A HEART ATTACK. NOIR, A P4, WAS 43 YEARS
OLD AND HAD BEEN WITH THE IAEA AS A SAFEGUARDS INSPECTOR
SINCE 1969. MISSION WOULD APPRECIATE FURTHER INFORMATION
ON THIS MATTER AVAILABLE TO AMEMBASSY TAIPEI. STONE

UNCLASSIFIED

REVIEW AUTHORITY: Samuel Smith, Senior Reviewer

NNN

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183946 Date: 09/27/2012

Cable 2

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183947 Date: 09/27/2012

CONFIDENTIAL

PAGE 01 TAIPEI 00745 030929Z
ACTION IO-14

INFO OCT-01 EA-10 ISO-00 PM-05 EUR-12 ACDA-12 CIAE-00
INR-07 L-03 NSAE-00 NSC-05 EB-08 NRC-05 OES-07
SOE-02 DODE-00 DOE-11 SS-15 SP-02 /119 W
-----025684 030931Z /10

P 030858Z FEB 78

RELEASED IN FULL

FM AMEMBASSY TAIPEI
TO AMEMBASSY VIENNA PRIORITY
INFO SECSTATE WASHDC PRIORITY 6340

REVIEW AUTHORITY: Samuel Smith, Senior Reviewer

C O N F I D E N T I A L TAIPEI 0745

E.O. 11652: XGDS-1

TAGS: IAEA, PARM, TECH, PERS, TW

SUBJECT: DEATH OF IAEA SAFEGUARDS INSPECTOR PIERRE NOIR

REF: VIENNA 00879

1. EMBOFF HAS BEEN IN CONTACT WITH VICTOR CHENG OF ROC AEC AND THORNE OF IAEA REGARDING DEATH OF SAFEGUARDS INSPECTOR PIERRE NOIR. ACCORDING TO CHENG, DEATH OCCURRED AROUND 1400 H MONDAY, AFTER NOIR HAD RETURNED TO THE REFUELING FLOOR OF THE CHIN-SHAN NUCLEAR POWER REACTOR (NOT THE TRR) TO ECHECK THE INSTALLATION OF CABLES TO A TELEVISION CAMERA. CHENG HAS INDICATED THAT THE CAUSE OF DEATH WAS PROBABLY HEART ATTACK ALTHOUGH HE HAS ALSO STATED THERE WERE "RUMORS" STATING THAT NOIR MAY HAVE SUFFERED A SHOCK FROM THE TELEVISION OR RELATED CABLES. DETAILS OF THE ACCIDENT HAVE NOT YET APPEARED IN LOCAL PRESS, AND ROC OFFICIALS ARE TREATING THE MATTER CONFIDENTIALLY AT THIS TIME.

2. AT AEC AND IAEA REQUEST, EMBASSY HAS ASKED PATHOLOGIST DR. JOHN ANDERSON OF THE NAVAL MILITARY RESEARCH UNIT TO OBSERVE THE AUTOPSY TO BE PERFORMED AT THE VETERANS GENERAL HOSPITAL ON THE AFTERNOON OF 3 FEBRUARY. TO DATE THERE HAVE BEEN NO REPORTS ON THE RESULT OF THIS AUTOPSY. THORNE AND CONFIDENTIAL

CONFIDENTIAL

PAGE 02 TAIPEI 00745 030929Z

OTHER MEMBERS OF THE IAEA TEAM HERE HAVE COMPLETED THE WORK THAT NOIR WAS TO HAVE PERFORMED AT CHIN-SHAN AND PLAN TO LEAVE EARLY THIS SATURDAY MORNING.

3. ALTHOUGH EMBASSY HAS NO REASON TO EXPECT FOUL PLAY IN WHAT APPEARS TO BE AN UNFORTUNATE ACCIDENT, WE ARE MINDFUL OF THE IMPLICATIONS OF THIS ACCIDENT, AND WILL CONTINUE TO KEEP DEPARTMENT AND VIENNA INFORMED OF WHATEVER INFORMATION DEVELOPS REGARDING NOIR'S DEATH.
UNGER

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183947 Date: 09/27/2012

Cable 3

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183948 Date: 09/27/2012

CONFIDENTIAL

RELEASED IN PART B6

PAGE 01 VIENNA 01989 011728Z
ACTION OES-02

INFO OCT-01 SS-14 ISO-00 IO-06 EA-06 ACDA-10 SOE-02
CIAE-00 DODE-00 EB-04 INR-05 L-01 NSAE-00 NSC-05
SP-02 PM-03 /061 W

-----076585 020226Z /64

R 011650Z MAR 78
FM AMEMBASSY VIENNA
TO SECSTATE WASHDC 5397
INFO USDOEHQ WASHDC
USDOEHQ GERMANTOWN
AMEMBASSY TAIPEI

REVIEW AUTHORITY: Samuel Smith, Senior Reviewer

CONFIDENTIAL VIENNA 01989

LIMDIS **DECAPTIONED**

USIAEA

DEPT PASS IO/SCT, S/AS, OES/NET FOR BORIGHT, ACDA FOR
MENZEL

DOE PASS AMMONS, IA

E.O. 11652: XGDS-4
TAGS: IAEA, PARM, TECH, PERS
SUBJECT: DEATH OF IAEA SAFEGUARDS INSPECTOR P. NOIR

REF: TAIPEI 745

1. [] (PROTECT), [] IAEA
SAFEGUARDS OPERATIONS DIVISION HAD FOLLOWING INFORMATION
TO REPORT ON SUBJECT.

B6

2. [] WENT FROM JAPAN TO TAIWAN, ON LEARNING ON
NOIR'S DEATH, TO HELP COMPLETE NOIR'S TASK THERE AND
MAKE NECESSARY ARRANGEMENTS. [] SAYS THAT, WHILE
CONFIDENTIAL

CONFIDENTIAL

PAGE 02 VIENNA 01989 011728Z

IN TAIPEI, A NOTE WAS SLIPPED UNDER HIS HOTEL ROOM DOOR
STATING THAT NOIR HAD BEEN DELIBERATELY ELECTROCUTED WHILE
WORKING ON THE SURVEILLANCE CAMERA AT THE REACTOR.
[] DISCUSSED SITUATION WITH A MR. SIMMONS OF AMEMB
TAIPEI AND REQUESTED HELP IN ASSURING INDEPENDENT CONFIRM-
ATION OF AUTOPSY (REFTEL). [] REPORTS SIMMONS WAS
EXTREMELY HELPFUL AND READILY GRASPED THE SITUATION.

3. []'S CURRENT ASSESSMENT IS THAT THE NOTE UNDER HIS
DOOR WAS PROBABLY NOT RPT NOT ACCURATE INsofar AS THE

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183948 Date: 09/27/2012

CAUSE OF DEATH BEING "DELIBERATE", BUT THAT THERE WAS A
VERY REAL POSSIBILITY THAT ACCIDENTAL ELECTROCUTION MIGHT
HAVE OCCURRED WHICH MAY HAVE BEEN DIFFICULT OR IMPOSSIBLE
TO DETECT DURING AUTOPSY. TAIPEI MAY WISH COMMENT ON
THIS ASSESSMENT. LABOWITZ

CONFIDENTIAL

NNN

Cable 4

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183949 Date: 09/27/2012

SECRET

RELEASED IN PART B6

PAGE 01 TAIPEI 01547 01 OF 02 150249Z
ACTION OES-02

INFO OCT-01 SS-14 ISO-00 IO-06 EA-06 ACDA-10 SOE-02
DOE-11 DOEE-00 CIAE-00 DODE-00 EB-04 INR-05
NSAE-00 NSC-05 SP-02 PM-03 MED-01 /072 W
-----112425 150355Z /63

P 140615Z MAR 78
FM AMEMBASSY TAIPEI
TO SECSTATE WASHDC PRIORITY 6732
AMEMBASSY VIENNA PRIORITY

REVIEW AUTHORITY: Samuel Smith, Senior Reviewer

SECRET SECTION 1 OF 2 TAIPEI 1547

LIMDIS DECAPTIONED

USIAEA

E.O. 11652: XGDS-2
TAGS: IAEA, TW
SUBJECT: DEATH OF IAEA SAFEGUARDS INSPECTOR P. NOIR

REFS: (A) VIENNA 01989, (B) TAIPEI 745, (C) VIENNA 879

1. WE ARE IN COMPLETE AGREEMENT WITH []'S ASSESSMENT
THAT THE CAUSE OF DEATH OF SAFEGUARDS INSPECTOR PIERRE NOIR
WAS NOT REPEAT NOT DELIBERATE, BUT THAT THERE IS A VERY
REAL POSSIBILITY ACCIDENTAL ELECTROCUTION MIGHT HAVE
OCCURRED. WE BASE OUR JUDGEMENT ON RECEIPT OF INFORMATION
FROM A VARIETY OF SOURCES INDICATING THAT NOIR DID RECEIVE
A LOW VOLTAGE JOLT WHICH, UNDER THE CIRCUMSTANCES, WAS
SUFFICIENT TO INITIATE A HEART ATTACK-TYPE REACTION.
EVIDENCE OF THIS, HOWEVER, HAS NOT YET BEEN OBTAINED BY
AUTOPSY, AND MAY NEVER BE OBTAINED BECAUSE OF THE SUDDEN-
NESS OF NOIR'S DEATH. THIS INFORMATION IS PROVIDED BELOW
FOR ADDRESSEES' USE BUT, BECAUSE OF THE UNEVALUATED
NATURE OF THE MATERIAL, WE URGE THAT IT NOT BE PASSED
BEYOND OFFICIAL U.S. CHANNELS WITHOUT PRIOR NOTIFICATION
SECRET

B6

SECRET

PAGE 02 TAIPEI 01547 01 OF 02 150249Z

OF AMEMBASSY TAIPEI. ADDRESSEES MAY, HOWEVER, NOTIFY
IAEA THAT WE CONCUR COMPLETELY WITH []'S ASSESSMENT
CONTAINED IN PARAGRAPH 3 OF REFTEL A.

B6

2. ON 1 FEBRUARY 1978, A RELIABLE SOURCE WITH CONTACTS
IN THE TAIWAN POWER COMPANY (TAIPOWER), STATED THAT
NOIR ARRIVED IN TAIPEI AT ABOUT 1800H SUNDAY, JANUARY
29, 1978. THE FOLLOWING MORNING HE LEFT THE HOTEL
EARLY TO BEGIN WORK AT THE CHIN-SHAN POWER REACTOR SITE
INSTALLING A TV CAMERA AND CHECKING THE CABLES TO IT.

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183949 Date: 09/27/2012

THE WORK WAS COMPLETED BY NOON, AND NOIR HAD A BIG LUNCH. IMMEDIATELY THEREAFTER HE RETURNED TO THE REFUELING FLOOR TO RE-EXAMINE THE POWER CABLES LEADING TO THE CAMERA. IN THE PROCESS HE HAD TO CLIMB SEVERAL SERIES OF STEPS. WHEN HE ARRIVED AT THE CAMERA SITE, HE TOUCHED WHAT WAS BELIEVE TO BE A 110 VOLT CABLE, AT WHICH POINT HIS FACE SUDDENLY CONTORTED. THE WORKERS DID NOT WISH TO TOUCH HIM FOR FEAR OF ALSO RECEIVING THE SHOCK. BUT AFTER A FEW MOMENTS ONE OF THEM WAS ABLE TO KICK NOIR'S HAND AWAY FROM THE CABLE. WHEN HE HAD FALLEN ON THE FLOOR, AND ONE OF THE WORKERS ASKED IF HE WAS ALRIGHT, HE SEEMED TO RESPOND TO THE QUESTION, BUT THEN CLOSED HIS EYES. HE DIED ON THE WAY TO THE VETERANS GENERAL HOSPITAL IN TAIPEI. SOURCE WAS OF THE OPINION THAT NOIR MAY HAVE OVER-EXTENDED HIMSELF SO THAT WHEN HE RECEIVED A SHOCK FROM THE LOW-VOLTAGE CABLE, IT PRECIPITATED THE HEART ATTACK.

3. ON 3 FEBRUARY 1978, DR. JOHN ANDERSON OF THE U.S. NAVAL RESEARCH UNIT IN TAIPEI, A QUALIFIED PATHOLOGIST, OBSERVED THE COMPLETE GROSS AUTOPSY PERFORMED BY ROC DOCTORS OF THE ROC VETERANS GENERAL HOSPITAL. ACCORDING TO HIS PRELIMINARY REPORT, RENDERED VERBALLY TO SECRET

SECRET

PAGE 03 TAIPEI 01547 01 OF 02 150249Z

EMBOFF SIMMONS, THE AUTOPSY WAS PERFORMED IN A VERY COMPLETE AND VERY PROFESSIONAL MANNER. DR. ANDERSON WAS ALLOWED TO VIEW THE CORPSE BEFORE AND DURING THE AUTOPSY. MXHYTATED THERE WAS NO EVIDENCE TO SUGGEST THAT NOIR DIED FROM ANYTHING BUT A HEART ATTACK. HOWEVER, HE STATED THAT THE GROSS AUTOPSY CAN BE INCONCLUSIVE ON THIS POINT IF DEATH IS VERY SUDDEN. DURING THE PHYSICAL EXAM DR. ANDERSON DID NOT FIND ANY LESIONS OF THE HANDS OR FEET, WHICH WOULD ALMOST CERTAINLY HAVE EXISTED IN THE CASE OF NOIR'S RECEIVING A HIGH-VOLTAGE SHOCK. ANDERSON INDICATED, HOWEVER, THAT THESE LESIONS WOULD PROBABLY NOT BE IN EVIDENCE IF A LOW VOLTAGE SHOCK WAS RECEIVED. ANDERSON NOTED THAT NOIR WAS HEAVILY BUILT AND SOMEWHAT OVER-WEIGHT, THAT HIS STOMACH WAS VERY FULL AT THE TIME OF EXAMINATION AND THAT HIS AGE GROUP WAS THAT OF THE TYPICAL HEART ATTACK VICTIM. TO DATE ANDERSON HAS NOT COMPLETED HIS STUDY OF THE REMAINS AND, BECAUSE OF AN EMERGENCY LEAVE, WILL PROBABLY NOT PROVIDE THE EMBASSY WITH A FINAL WRITTEN REPORT FOR SEVERAL MORE WEEKS.

4. ON 5 FEBRUARY, EMBOFF SIMMONS WAS CALLED BY [REDACTED] (PROTECT), [REDACTED] AND A RELIABLE SOURCE OF INFORMATION ON TAIPOWER'S CHIN-SHAN POWER REACTOR [REDACTED] [REDACTED] STATED THAT A 'VERY RELIABLE SOURCE' IN [REDACTED] HAD TOLD HIM THAT NOIR HAS RECEIVED AN

B6

ELECTRICAL SHOCK WHILE SERVICING A SURVEILLANCE CAMERA ON THE REFUELING FLOOR OF THE CHIN-SHAN REACTOR. ACCORDING TO THE SOURCE, NOIR HAD RETURNED UNEXPECTEDLY TO THE CAMERA SITE AFTER LUNCH, AND HAD ATTEMPTED TO TEST A CABLE TO THE CAMERA WITH A VOLTMETER. APPARENTLY THE VOLTMETER WAS NOT FUNCTIONING PROPERLY, AND A TAIPOWER REPRESENTATIVE ASKED IF THEY COULD GET ANOTHER ONE. NOIR STATED THAT IT WOULD NOT BE NECESSARY, AND THEN TOUCHED THE CABLE. AT THIS POINT
SECRET

SECRET

PAGE 04 TAIPEI 01547 01 OF 02 150249Z

HIS FACE BECAME CONTORTED AND HE WAS STRICKEN.

SECRET

NNN

SECRET

PAGE 01 TAIPEI 01547 02 OF 02 150333Z
ACTION OES-02

INFO OCT-01 SS-14 ISO-00 IO-06 EA-06 ACDA-10 SOE-02
DOE-11 DOEE-00 CIAE-00 DODE-00 EB-04 INR-05 L-01
NSAE-00 NSC-05 SP-02 PM-03 MED-01 /073 W
-----112904 150357Z /63

P 140615Z MAR 78
FM AMEMBASSY TAIPEI
TO SECSTATE WASHDC PRIORITY 6733
AMEMBASSY VIENNA PRIORITY

SECRET SECTION 2 OF 2 TAIPEI 1547

LIMDIS **DECAPTIONED**

5. ON 14 FEBRUARY, VICTOR CHENG, SECRETARY-GENERAL OF THE CHINESE ATOMIC ENERGY COUNCIL, PASSED AN ENGLISH-LANGUAGE TRANSLATION OF THE ROC ACCIDENT REPORT TO EMBOFF SIMMONS. PARAGRAPH THREE OF THIS REPORT STATES IN PART AS FOLLOWS: QUOTE
CONDITIONS AT THE TIME OF THE ACCIDENT:
AT ABOUT 14:40 WORKING TOGETHER WITH MR. NOIR OF IAEA AT THE FIFTH FLOOR STAIRWAY PLATFORM WERE [REDACTED]

[REDACTED] AT THAT
TIME MR. NOIR CONSIDERED THAT INSPECTION AND ADJUST-
MENT WERE COMPLETE AND PREPARED TO STOP WORK. SUDDENLY

HE CONSIDERED THE LEAD WIRE (CO-AXIAL CABLE) CONNECTED TO THE TV WAS TOO LONG AND PREPARED TO CHANGE A SHORTER ONE. HE FIRST TURNED OFF THE KEY SWITCH AND IN CONJUNCTION WITH [REDACTED] TOOK DOWN THE LONG LEAD WIRE AND CONNECT ON THE SHORT LEAD WIRE (AT THIS MOMENT THE TV SIDE WAS NOT CONNECTED ON, BECAUSE THE WIRE HAS TWO CONNECTORS AT BOTH ENDS). IT WAS AT THIS INSTANT THAT MR. NOIR'S EXPRESSION SUDDENLY CHANGED, BOTH HANDS TREMBLED, SUDDENLY GRABBED ON SECRET

B6

SECRET

PAGE 02 TAIPEI 01547 02 OF 02 150333Z

CABLE, SLANTED TOWARDS THE RIGHT SIDE AND THEN TURNED TO SLANT LEFT. THEN [REDACTED] HELD HIS BODY AND LAID ON THE FLOOR, AND [REDACTED] QUESTIONED "ARE YOU ALRIGHT?" HE NODDED HIS HEAD, OPENED HIS EYES, BUT DID NOT SAY ANYTHING. AT THAT MOMENT IT WAS FELT THAT HE WAS BREATHING, FACIAL EXPRESSION NORMAL. A FEW SECONDS LATER HIS BREATHING CHANGED TO BE HEAVY AND THE FOUR PERSONS THAT WERE WITH HIM HELPED TO UNTIE HIS NECK BUTTON. END QUOTE.

6. ON 8 MARCH, WHILE TALKING WITH [REDACTED] ABOUT ANOTHER MATTER EMBOFF SIMMONS ASKED BRIEFLY HOW [REDACTED] INTENDED TO HANDLE THE "RUMORS" ABOUT NOIR'S ELECTROCUTION WHILE IN VIENNA, AND WHETHER HE INTENDED TO CHANGE THE OFFICIAL ACCIDENT REPORT TO REFLECT THESE "RUMORS". [REDACTED] INDICATED THAT BECAUSE OF "THE MATTER OF INSURANCE" HE DID NOT WISH TO RULE OUT THE POSSIBILITY THAT NOIR RECEIVED A SHOCK, BUT THAT THE OFFICIAL REPORT WOULD NOT BE CHANGED. AS FAR AS THE ROC WAS OFFICIALLY CONCERNED, NOIR SIMPLY SUFFERED A HEART ATTACK AND DIED AS A RESULT.

7. IN SUMMARY, WE BELIEVE THAT THERE IS SUFFICIENT EVIDENCE TO SUGGEST THAT NOIR DID RECEIVE AN ELECTRICAL SHOCK OF SOME SORT WHILE WORKING ON THE CHIN-SHAN SITE, AND THAT THIS SHOCK PROBABLY PRECIPITATED HIS DEATH. HOWEVER, THE CIRCUMSTANCES OF NOIR'S OWN PHYSICAL CONDITION AND ACTIVITY PRIOR TO THE ACCIDENT ALSO PLAYED AN IMPORTANT ROLE IN HIS DEATH. WE BELIEVE THAT THE AUTOPSY WILL PROBABLY BE INCONCLUSIVE ON THIS POINT. WE HAVE NO EVIDENCE, BEYOND THE MENTION OF THE NOTE (WHICH WE HAVE NOT SEEN) SLIPPED UNDER [REDACTED]'S DOOR, THAT NOIR'S DEATH WAS DELIBERATELY CAUSED OR THAT THERE WAS ANY FOUL PLAY INVOLVED ON THE SECRET

SECRET

PAGE 03 TAIPEI 01547 02 OF 02 150333Z

PART OF THE ROC. WHILE WE EXPECT THAT THE ROC WILL PROBABLY NOT ALTER THEIR ORIGINAL ACCIDENT REPORT, TO

INCLUDE A DISCUSSION OF THE 'RUMORS' AND THE NOTE, WE
DO NOT BELIEVE THAT THEIR MOTIVATION IN THIS REGARD
HAS ANYTHING TO DO WITH THE COVER-UP OF A DELIBERATE
ACT. RATHER, IT IS PROBABLY BASED ON THEIR OWN DESIRE
TO PLAY DOWN SOME STILL UNRESOLVED AND RELATIVELY MINOR CIRCUMSTANCES
OF AN UNFORTUNATE AND ACCIDENTAL DEATH WHICH COULD BE
USED UNFAIRLY AGAINST THEM BY THE INTERNATIONAL MEDIA
AND THEIR ENEMIES.
UNGER

SECRET

NNN

Cable 5

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183950 Date: 09/27/2012

CONFIDENTIAL

RELEASED IN PART B6

PAGE 01 TAIPEI 03104 210708Z
ACTION OES-02

INFO OCT-01 SS-14 ISO-00 EA-06 IO-06 INR-05 CIAE-00
SP-02 L-01 /037 W

-----070736 210710Z /14/46

R 180910Z MAY 78
FM AMEMBASSY TAIPEI
TO SECSTATE WASHDC 7477
AMEMBASSY VIENNA

REVIEW AUTHORITY: Samuel Smith, Senior Reviewer

CONFIDENTIAL TAIPEI 03104

LIMDIS DECAPTIONED

CORRECTED COPY (TEXT PARA 2 CORRECTED)

E.O. 11652: GDS
TAGS: IAEA, TW
SUBJECT: DEATH OF IAEA SAFEGUARDS INSPECTOR PIERRENOIR

REF: (A) TAIPEI 1547, (B) VIENNA 01989

1. ON 10 MAY 1978, EMBOFF SIMMONS RECEIVED A LONG-DISTANCE TELEPHONE CALL FROM IAEA [REDACTED] REGARDING THE DEATH OF IAEA SAFEGUARDS INSPECTOR PIERRE NOIR IN TAIWAN LAST JANUARY. [REDACTED] STATED HE HAD RECEIVED INFORMATION WHICH INDICATED NOIR'S DEATH HAD NOT REPEAT NOT BEEN ENTIRELY FROM NATURAL CAUSES. HE THEN ASKED IF HE COULD HAVE A COPY OF THE PATHOLOGIST'S REPORT PREPARED FOLLOWING THE GROSS AUTOPSY CONDUCTED ON 3 FEBRUARY 1978. EMBOFF SAID HE HAD NOT RECEIVED A FINAL REPORT FROM THE PATHOLOGIST, BUT THAT HE WOULD LOOK INTO THE MATTER.

B6

2. EMBOFF HAS SINCE LEARNED THAT A FINAL REPORT ON THE NOIR DEATH HAS NOT BEEN WRITTEN BECAUSE THE U.S. PATHOLOGIST HAS YET TO RECEIVE MICROSCOPIC SLIDES OF CONFIDENTIAL

CONFIDENTIAL

PAGE 02 TAIPEI 03104 210708Z

BODY TISSUE FOR DETAILED EXAMINATION FROM THE CHINESE VETERANS GENERAL HOSPITAL. AES PATHOLOGIST'S INITIAL JUDGEMENT, GIVEN IN A VERBAL REPORT THAT EMBOFF PASSED TO [REDACTED] DIRECTLY, WAS THAT THERE WAS NO EVIDENCE OF ELECTROCUTION, BUT THAT FINAL JUDGEMENT COULD NOT BE MADE WITHOUT CLOSE EXAMINATION OF THESE SLIDES. THE CASE HAS BEEN FURTHER COMPLICATED BY THE FACT THAT THE PATHOLOGIST (DR. ANDERSON MENTIONED IN PARAGRAPH 3 REFTTEL A.) LEFT TAIPEI ON EMERGENCY LEAVE IN MARCH AND DEPARTED TAIWAN ON PERMANENT CHANGE OF STATION TRANSFER

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183950 Date: 09/27/2012

ON 12 MAY 1978. THUS, NO FINAL REPORT WILL BE POSSIBLE FROM HIM UNLESS THE MICROSCOPIC SLIDES ARE SENT TO THE U.S. FOR EXAMINATION.

3. WE UNDERSTAND THERE IS A POSSIBILITY [REDACTED] IS TRYING TO ESTABLISH THAT NOIR DIED OF A HEART ATTACK PRECIPITATED BY AN ELECTRIC SHOCK IN ORDER TO OBTAIN CERTAIN INSURANCE BENEFITS FOR THE DECEASED'S FAMILY. THE GROSS AUTOPSY DID NOT SHOW ANY EVIDENCE OF THIS AND, ACCORDING TO DR. ANDERSON, SUBSEQUENT EXAMINATION OF THE SLIDES MAY NOT SHOW THIS TO BE THE CASE EITHER. IN A MEMORANDUM FOR THE RECORD DATED 10 MAY 1978, DR. ANDERSON STATES: QUOTE: THE RESULTS OF THE GROSS EXAMINATION SHOWED NO EVIDENCE OF ELECTROCUTION ON EXTERNAL EXAMINATION. THAT IS, NO ELECTRICAL BURNS WERE PRESENT ON THE BODY. THERE WAS EVIDENCE OF RESPIRATORY INSUFFICIENCY WITH CYANOSIS OF THE LIPS, FINGER NAILS AND TOE NAILS. THE FEET BILATERALLY SHOWED A GREY HUE. THE GENERAL BUILD OF THE DECEASED WAS STOCKY WITH MODERATE OBESITY (ESTIMATE APPROXIMATELY 100 KG). THE MAJOR FINDING ON THE GROSS EXAMINATION WAS CORONARY ATHEROSCLEROSIS WITH NARROWING. THERE WAS NO GROSS EVIDENCE THAT WOULD BE CONCLUSIVE FOR ELECTROCUTION. UNQUOTE.
CONFIDENTIAL

B6

CONFIDENTIAL

PAGE 03 TAIPEI 03104 210708Z

4. WHILE THERE ARE SEVERAL COURSES THAT MAY BE PURSUED, WE BELIEVE THAT A JUDGEMENT MUST FIRST BE MADE AS TO WHETHER THE USG IN GENERAL, AND THIS MISSION IN PARTICULAR, SHOULD CONTINUE TO DEVOTE ITSELF TO A CASE IN WHICH THE QUESTION OF ROC FOUL PLAY SEEMS ALREADY TO HAVE BEEN RESOLVED AND IN WHICH IT APPEARS THAT ONLY THE SATISFACTION OF INSURANCE REQUIREMENTS REMAINS. PARA 3 OF REFTTEL B SUGGESTS THAT [REDACTED] IS WELL AWARE OF PECULIAR CIRCUMSTANCES OF THIS CASE, AND REFTTEL A CERTAINLY SUPPORTS HIS UNDERSTANDING. WE WONDER IF HE CANNOT MAKE A JUDGEMENT ON THE BASIS OF INFORMATION ALREADY AVAILABLE TO HIM, ESPECIALLY SINCE IT DOES NOT APPEAR THAT AN AUTOPSY WILL PROVIDE HIM WITH THE DEFINITIVE ANSWER THAT HE IS SEEKING. PLEASE ADVISE. UNGER

CONFIDENTIAL

NNN

Cable 6

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183951 Date: 09/27/2012

CONFIDENTIAL

RELEASED IN PART B6

PAGE 01 VIENNA 04772 241446Z
ACTION OES-02

INFO OCT-01 SS-14 ISO-00 EUR-08 EA-06 IO-06 INR-05
CIAE-00 SP-02 L-01 /045 W
-----101362 250132Z /14

R 241440Z MAY 78
FM AMEMBASSY VIENNA
TO SECSTATE WASHDC 6518
AMEMBASSY TAIPEI

REVIEW AUTHORITY: Samuel Smith, Senior Reviewer

CONFIDENTIAL VIENNA 04772

LIMDIS DECAPTIONED

USIAEA

DEPT PASS IO/SCT

E.O.11652: GDS
TAGS: IAEA, TW
SUBJECT: DEATH OF IAEA SAFEGUARDS INSPECTOR PIERRE NOIR

REF: (A) TAIPEI 3104, (B) TAIPEI 1547, (C) VIENNA 1989

1. ACCORDING TO DEPUTY DIRECTOR GENERAL HALL, IAEA REQUEST FOR US PATHOLOGIST REPORT (VIA TELECON REPORTED PARA 1 REF A) WAS BASED IN PART ON UNDERSTANDING, WHICH HE HAD REPORTED IN WRITING TO HALL, THAT AT TIME OF AUTOPSY DR. ANDERSON "HAD HAD HIS OWN INDEPENDENT SAMPLES TAKEN" OF PERTINENT BODY TISSUE. ACCORDING TO HALL, AGENCY CONCLUDED THAT THIS MEANT SAMPLES FOR INDEPENDENT US ANALYSIS AND EVALUATION AND HE WONDERED WHAT THIS EVALUATION HAD YIELDED.

B6

2. BASED ON PARA 2 REF A, MISOFF TOLD HALL THAT IT DID NOT APPEAR THAT ANDERSON HAD IN FACT RECEIVED INTO HIS POSSESSION "INDEPENDENT SAMPLES", BUT THAT HE EXPECTED

CONFIDENTIAL

PAGE 02 VIENNA 04772 241446Z

TO OBTAIN MICROSCOPIC SLIDES OF PERTINENT BODY TISSUE FROM ROC VETERANS GENERAL HOSPITAL IN TAIWAN. (MISSION WOULD APPRECIATE CONFIRMATION BY TAIPEI THAT DR. ANDERSON HAS NO "INDEPENDENT SAMPLES".) MISOFF NOTED HIS UNDERSTANDING THAT DETAILED EXAMINATION OF THESE SLIDES MIGHT GIVE EVIDENCE OF ELECTROCUTION BUT, IF NOT, WOULD STILL PROBABLY NOT RULE OUT THAT POSSIBILITY.

3. CONFIRMING REF A PARA 3, AGENCY INTEREST AT THIS POINT IS IN REGARD TO ESTABLISHING WHETHER NOIR DIED "IN LINE

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183951 Date: 09/27/2012

OF DUTY", IN WHICH CASE ADDITIONAL INSURANCE BENEFITS WOULD BE PAID TO HIS FAMILY. HALL FEELS THAT LACK OF EXAMINATION OF BODY TISSUE SAMPLES LEAVES PICTURE INCOMPLETE, AND IF INSURANCE COMPANY LAWYER WERE TO PURSUE MATTER, HE MIGHT COME TO SAME CONCLUSION. HALL RECOGNIZED POSSIBILITY OF AGENCY REQUESTING SLIDES FROM ROC FOR ANALYSIS FOR EVIDENCE OF ELECTROCUTION, ALTHOUGH HE DID NOT SEE ANY BASIS FOR QUESTIONING ROC DOCTORS REPORT IF THEY HAD SPECIFICALLY LOOKED FOR SUCH EVIDENCE.

4. MISSION COMMENT: WE ARE NOT CONVINCED IT IS NECESSARY FOR USG TO PURSUE MATTER FURTHER UNLESS INDEPENDENT SAMPLES WERE IN FACT TAKEN BY DR. ANDERSON WHICH HAVE YET TO BE EVALUATED AND REPORTED BY HIM, OR UNLESS THERE IS SOME BASIS TO CONCLUDE THAT INDEPENDENT EVALUATION BY DR. ANDERSON (AS OPPOSED TO ANY OTHER PATHOLOGIST) OF ROC VETERANS GENERAL HOSPITAL SLIDES MIGHT BE UNIQUELY AUTHORITATIVE IN VIEW OF HIS FAMILIARITY WITH CASE.

5. PLEASE ADVISE. KIRK

CONFIDENTIAL

NNN

Cable 7

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183952 Date: 09/27/2012

CONFIDENTIAL

PAGE 01 TAIPEI 03314 260827Z
ACTION OES-02

INFO OCT-01 SS-14 ISO-00 EA-06 IO-06 INR-05 CIAE-00
SP-02 L-01 /037 W

-----123306 261312Z /75

R 260824Z MAY 78
FM AMEMBASSY TAIPEI
TO AMEMBASSY VIENNA
INFO SECSTATE WASHDC 7567

RELEASED IN FULL

CONFIDENTIAL TAIPEI 03314

REVIEW AUTHORITY: Samuel Smith, Senior Reviewer

LIMDIS DECAPTIONED

USIAEA

DEPT PASS IO/SCT

E.O. 11652: GDS
TAGS: IAEA, TW
SUBJECT: DEATH OF IAEA SAFEGUARDS INSPECTOR PIERRE NOIR

REFS: (A) VIENNA 04772, (B) TAIPEI 3104, (C) TAIPEI 1547

1. REGARDING PARA 2 REFTEL (A) REQUEST, DR. ANDERSON DID NOT REPEAT NOT RECEIVE INTO HIS POSSESSION "INDEPENDENT SAMPLES" OF PERTINENT BODY TISSUE. AT 1600H ON 3 FEBRUARY 1978, HE PERSONALLY OBSERVED THE GROSS AUTOPSY. APPROXIMATELY TWO WEEKS LATER HE WENT TO THE VETERANS GENERAL HOSPITAL AND WAS SHOWN THE MICROSCOPIC SLIDES OF THE HEART AND CORONARY ARTERIES. THE RESULT OF THAT EXAMINATION WAS MODERATELY SEVERE ATHEROSCLEROSIS WITH MARKED NARROWING OF THE LUMEN. DR. ANDERSON STATED THAT THESE FINDINGS WERE CONSISTENT WITH DEATH FROM ARTERIO-SCLEROTIC HEART DISEASE. NEITHER HE NOR ANY OF THE CHINESE DOCTORS NOTED ANY EVIDENCE OF "VIOLENT OR ELECTRIC TRAUMA."

CONFIDENTIAL

CONFIDENTIAL

PAGE 02 TAIPEI 03314 260827Z

2. AT THE TIME HE OBSERVED THE MICROSCOPIC SLIDES, DR. ANDERSON CLAIMS THAT HE ASKED IF THEY COULD BE SENT TO HIS OFFICE FOR FURTHER EXAMINATION. HOWEVER, IT WAS ONLY AFTER HE WROTE A LETTER TO THE HOSPITAL ON 10 MAY 1978 THAT THE WHOLE SET OF MICROSCOPIC SECTIONS, A PATHOLOGY REPORT, GROSS DIAGRAMS, AND TWO 2X2 SLIDES OF THE HEART WERE FORWARDED. THEY ARRIVED AT EMBASSY 25 MAY 1978. UNFORTUNATELY, DR. ANDERSON HAD ALREADY DEPARTED TAIWAN ON EMERGENCY HOME LEAVE AND PERMANENT CHANGE OF STATION.

UNCLASSIFIED U.S. Department of State Case No. F-2012-28523 Doc No. C05183952 Date: 09/27/2012

SINCE HE INTENDS TO LEAVE THE U.S. NAVY AND SET UP PRACTICE IN UTAH, HE WILL NOT RETURN TO TAIWAN. THEREFORE, ANY FURTHER INVOLVEMENT HE HAS WITH THIS CASE, AND HE HAS VOLUNTEERED TO CONTINUE WORK, MUST TAKE PLACE IN THE U.S. AND MUST INVOLVE FORWARDING MATERIALS TO HIM THERE. UNGER

CONFIDENTIAL

NNN

Cable 8

UNCLASSIFIED

PAGE 01 STATE 147422
ORIGIN DOE-15

INFO OCT-01 EUR-12 ISO-00 SOE-02 OES-07 IO-14 ACDA-12
NRC-07 CIAE-00 INR-10 L-03 NSAE-00 NSC-05 EB-08
DODE-00 SS-15 SP-02 CEQ-01 PM-05 /119 R

DRAFTED BY W BARTELS/DOE
APPROVED BY OES/NET/EST: R.C. LIIMATAINEN
A. JILLSON/IO/SCT
J. MENZEL/ACDA
P. MORROW/NRC
L. GREEN/ISPO

-----015851 100345Z /20
P 092211Z JUN 78
FM SECSTATE WASHDC
TO AMEMBASSY VIENNA PRIORITY

UNCLAS STATE 147422

USIAEA ALSO FOR EMBASSY

E.O. 11652: N/A

TAGS: PARM, TECH, IAEA

SUBJECT: DEVELOPMENT OF NDA INSTRUMENTATION AND
TECHNIQUES FOR IAEA SAFEGUARDS

L. U.S. TECHNICAL STAFF HAS REPORTED ON IAEA SAFEGUARDS
MEETINGS ON NDA DURING MARCH AND MAY 1978. VON BAECKMANN
AND OTHERS FROM OPERATIONS RECOMMEND THAT U.S. PROGRAM OF
TECHNICAL ASSISTANCE TO IAEA SAFEGUARDS (POTAS) BECOME
MORE INVOLVED IN HELPING THE AGENCY TO IMPLEMENT
APPLICATIONS OF NONDESTRUCTIVE ASSAY. POTAS PROVIDED JOHN
FOLEY TO DO THIS UNDER TASK A.3 BUT AFTER HIS ARRIVAL,
FOLEY WAS DIRECTED TO ANOTHER KIND OF WORK CONSIDERED BY
DIVISION OF DEVELOPMENT AND TECHNICAL SUPPORT TO HAVE
UNCLASSIFIED

UNCLASSIFIED

PAGE 02 STATE 147422

HIGHER PRIORITY AT THE TIME. ISPO IS NOW SEEKING A POSSIBLE
CANDIDATE TO HELP THE AGENCY IMPLEMENT APPLICATIONS OF
NONDESTRUCTIVE ASSAY (TASK A.30).

2. MISSION IS REQUESTED TO RECONFIRM IAEA NEED AS DESCRIBED
BELOW. MISSION IS ALSO REQUESTED TO EXPLORE WILLINGNESS
OF DEPARTMENT OF SAFEGUARDS TO COMMIT SOME PERMANENT STAFF

TIME TO EFFORT. U.S. TECHNICAL STAFF REPORT THAT THERE IS NEED TO ESTABLISH HOW INSTRUMENTS ACTUALLY ARE BEING, OR WILL BE USED, MEASUREMENTS MADE AND DATA REDUCED DURING INSPECTIONS, INCLUDING ENOUGH DETAIL SO EXPERTS CAN IDENTIFY SOURCES OF MEASUREMENT ERROR AND SPECIFIC REQUIREMENTS FOR

WR N PROCEDURES AND TRAINING. SINCE INSPECTORS ARE CALLED ON TO USE NDA EQUIPMENT UNDER TRYING, AND SOMETIMES UNFAMILIAR CIRCUMSTANCES, CONSIDERATION CAN BE GIVEN TO U.S. PREPARATION OF VERY COMPLETE WRITTEN PROCEDURES FOR INSTRUMENTS AND TECHNIQUES. SINCE THE AGENCY IS ALSO WILLING TO CONSIDER THE USE OF SOPHISTICATED INSTRUMENTATION INSTALLED IN-PLANT, THERE WOULD BE A CORRESPONDING NEED FOR COMPLETION OF DETAILED TEST AND EVALUATION PLANS PRIOR TO DELIVERY OF SUCH EQUIPMENT. FOR ALL INSTRUMENTS U.S. DELIVERS, FOLLOW-ON ACTIVITIES HAVE BEEN PROGRAMMED IN ATTEMPT TO CORRECT MEASUREMENT TECHNIQUES WHICH ARE TRANSFERED TO IAEA. THIS INCLUDES THE SIMULATION IN U.S. LABORATORIES AND OTHER FACILITIES OF MEASUREMENT ACTIVITIES BY IAEA INSPECTORS. HOWEVER, NO FOLLOW-UP COMMENTS FROM ANY INSPECTOR FIELD EXPERIENCE HAVE BEEN RECEIVED.

3. U.S. PRIMARY CONCERN IS TO IMPROVE IAEA SAFEGUARDS EFFECTIVENESS. INSPECTOR PERFORMANCE CONSIDERED OF MAJOR IMPORTANCE. U.S. DESIRES TO ASSIST IN CORRECTING ANY UNCLASSIFIED

UNCLASSIFIED

PAGE 03 STATE 147422

IDENTIFIED AREAS OF WEAKNESS.

4. WILLINGNESS OF SAFEGUARDS TO COMMIT SOME PERMANENT STAFF TIME TO EFFORT OF IDENTIFYING SPECIFIC DIFFICULTIES EXPERIENCED BY INSPECTORS IS ESSENTIAL TO SUCCESS OF SUCH AN UNDERTAKING. SINCE COST-FREE EXPERTS CAN NOT ACCOMPANY INSPECTORS INTO FIELD, TECHNICALLY QUALIFIED MEMBERS OF AGENCY STAFF MUST PROVIDE INFORMATION IDENTIFIED ABOVE. COST-FREE EXPERT UNDER TASK A-30 CAN COORDINATE EFFORT OF IAEA PERMANENT STAFF TO PROVIDE THIS INFORMATION.

5. DOE AND ISPO ARE TO REVIEW ACTIONS NEEDED FOR PREPARATION OF VERY COMPLETE PROCEDURES FOR NDA INSTRUMENTS AND TECHNIQUES. MISSION SHOULD CONTACT DEVELOPMENT AND OPERATIONS DIVISIONS AND SEEK TO IDENTIFY MAJOR AND PRESSING NEEDS WARRANTING EARLY OR IMMEDIATE ACTION. REQUEST AVAILABLE INFORMATION BE CABLED BY COB WED. JUNE 14 FOR USE AS INPUT FOR MEETING AT DOE/GERMANTOWN, NEXT DAY ON SUBJECT MATTER. VANCE

Cable 9

CONFIDENTIAL

PAGE 01 STATE 159153
ORIGIN ACDA-12

INFO OCT-01 EUR-12 EA-10 ISO-00 OES-07 IO-13 SS-15
SP-02 L-03 INR-10 CIAE-00 DODE-00 /085 R

DRAFTED BY ACDA/NP/NS: J.MENZEL
APPROVED BY ACDA/NP/NX: R.WILLIAMSON
EA/ROC: D.BROWN
OES/NET: D.COOPER

-----022803 230129Z /61

R 221847Z JUN 78
FM SECSTATE WASHDC
TO AMEMBASSY TAIPEI
AMEMBASSY VIENNA

C O N F I D E N T I A L STATE 159153

USIAEA

E.O. 11652:GDS

TAGS:MNUC, IAEA, TW

SUBJECT:DEATH OF IAEA SAFEGUARDS INSPECTOR PIERRE NOIR

REF: TAIPEI 3314

1. AS INDICATED REFTEL, INVOLVEMENT OF U.S. NAVY DR. ANDERSON IN THE AUTOPSY OF NOIR WAS, AT THE REQUEST OF THE IAEA, IN THE ROLE OF A WITNESS TO THE PROCEEDINGS AND NOT, REPEAT NOT, AS AN INDEPENDENT AUTHORITY. ALTHOUGH DR. ANDERSON HAS DEPARTED TAIWAN, THE US WISHES TO CONTINUE TO FULFILL DR. ANDERSON'S ROLE AS WITNESS IN COOPERATION WITH THE IAEA TO THE FULLEST EXTENT POSSIBLE

2. IN ABSENCE OF ANY REQUEST FROM IAEA FOR CONTINUED INVOLVEMENT OF DR. ANDERSON, DEPARTMENT REQUESTS AMEMBASSY
CONFIDENTIAL

CONFIDENTIAL

PAGE 02 STATE 159153

TAIPEI FORWARD THE ITEMS LISTED IN PARA 2 OF REFTEL TO ATTENTION OF J. MENZEL. UPON RECEIPT, THIS MATERIAL WILL BE REVIEWED AND FILED PENDING POSSIBLE FUTURE IAEA REQUEST FOR FURTHER ACTION OR DISPOSITION.

3. VIENNA: MISSION IS REQUESTED TO CONVEY SUBSTANCE OF ABOVE TO THORNE OR HALL AND TO INQUIRE AS TO WHETHER FURTHER ASSISTANCE IS DESIRED. YY VANCE

Cable 10

CONFIDENTIAL

PAGE 01 VIENNA 05872 271521Z
ACTION ACDA-12

INFO OCT-01 EUR-12 EA-10 ISO-00 OES-07 IO-13 SS-15
SP-02 L-03 CIAE-00 INR-10 NSAE-00 DODE-00 /085 W
-----054045 280459Z /23

R 271519Z JUN 78
FM AMEMBASSY VIENNA
TO SECSTATE WASHDC 6987
INFO AMEMBASSY TAIPEI

C O N F I D E N T I A L VIENNA 05872

USIAEA

DEPT PASS IO/SCT

E.O. 11652: GDS
TAGS: MNUC, IAEA, TW
SUBJECT: DEATH OF IAEA SAFEGUARDS INSPECTOR PIERRE NOIR

REF: STATE 159153

RE REFTEL, DDG HALL APPRECIATES U.S. WILLINGNESS TO
PURSUE MATTER FURTHER, BUT AFTER CONSIDERATION AND
DISCUSSION WITH DIRGEN EKLUND, HE SAYS AGENCY REQUIRES
NO RPT NO FURTHER ASSISTANCE. LEAHY

CONFIDENTIAL

NNN

Attachment 2

Additional Wonk Files (Leventhal Files)

1. *ROC Autopsy Report*, ~ 3 February 1978 (one page)
2. *ROC Accident Report*, 14 February 1978 (one page)
3. Dr. John Anderson, *Memorandum For The Record*, 10 May 1978
4. *Baltimore Sun*, “Mystery Surrounds on-the-job Death of One Nuclear Inspector”, July 28, 1981.
from:
Hearings before the Subcommittees on International Security and Scientific Affairs and on International Economic Policy and Trade of the Committee on Foreign Affairs House of Representatives, Ninety-Seventy Congress, Second Session, March 3 and 18, 1982, U.S. Government Printing Office, Washington, D.C., 1982, pp. 277-78.

1. ROC Autopsy Report

解剖日期: 1978 年 2 月 3 日 午 5 时

Anatomical Diagnoses

Primary

1. Ischemic heart disease (weight: 395 gm):
 - (1) Atherosclerosis of left anterior descending and of right coronary arteries, moderate
 - (2) Waviness and elongation of myocardial fibers of left and right ventricles, moderate (history of climbing up and down several flights of steep staircase before his sudden death)
 - (3) Interstitial myocardial fibrosis, focal, of left ventricle, moderate with hypertrophy of individual myocardial fibers, slight
 - (4) Interstitial hemorrhages of myocardium, focal, slight
 - (5) Dilatation of both ventricles, moderate.
2. Pulmonary congestion and edema, advanced with areas of intra-alveolar hemorrhages, slight in right lower lobe and moderate in the left lung.
3. Congestion of spleen, kidneys, brain, and small intestine, advanced; and of liver, pituitary, thyroid, and adrenals, moderate.
4. Interstitial hemorrhages, focal, of pancreas, moderate.

Accessory

1. Hyaline arteriosclerosis of both kidneys, slight
2. Stromal fatty infiltration of heart, slight
3. Fatty metamorphosis of liver (1790 gm), slight
4. Stromal fatty infiltration of pancreas, slight
5. Diverticula (3) of rectum
6. Fecalith impaction of appendix with fibrotic change.

Head of Dept. of Path.: Ben-yu Chu, M.D.

Section Chief: Ching-ye Tsou, M.D.

Chief Resident: Donald M. Lee, M.D.

管師: _____

7-316 (210x272) mm

2000-9-60(4)

This is the only page of the *Autopsy Report* found in the Leventhal Files.

2. ROC Accident Report

Report on the Accident of Mr. Pierre Noir, IAEA Inspector

(1) Arrival at Taiwan

Messrs Liu Kung-Chi and Chiao Mu of ROCAEC met Mr. Noir at Sungshan airport upon his arrival on Jan. 29 by flight PR 407 from Tokyo around 17:30 hour, and escorted him to the Grand Hotel at 18:00. On the way Mr. Noir told them his proposed schedule. He will visit Chin-shan on the first day to install the recording camera, the second and third day audit accounts of ROCAEC research Center, the fourth day inspect fuel element plant. It was also decided that they will meet at 08:00 hour the next(30) morning at the Golden Dragon Hall and proceed together to Nuclear Station No. 1. Mr. Noir then registered at room 1420 after arrival at Grand Hotel

Mr. Liu Kung-Chi reached ROCAEC at 07:30 hour on the morning of Jan. 30 and took with him the recording camera (sent earlier from IAEA) to Grand Hotel arriving at 07:55. About 10 minutes later Mr. Noir came out from his room and they drove to Chin-shan.

(2) Work at Site prior to Accident

Arrived at gate of construction site at 09:05 and phoned Mr. Chang, deputy station superintendent. Then entered station area and coordinated with Mr. Chow, also deputy station superintendent, to send an escort to enter station (visitor's badges No. 51 and 52) and proceeded to the deputy superintendent's office on the second floor. Mr. Noir told Mr. Chang his main items of inspection work and requested man-power to assist in installing the camera. IAEA had sent representatives here and installed closed circuit TV to scrutinize the system before fuel loading and requested the provision of reliable power source. The Electrical Division of Chin-shan Project Office had extended the vital AC 110 V circuit to the top of the stairway at the fifth floor, the location where IAEA had selected to install the CCTV control panel. The circuit was tested by IAEA representatives on Oct. 19, 1977 and it was found that camera No. 1 was faulty, but camera No. 2 functioned normally and was put into operation. This visit to the nuclear station have three purposes. One is to observe the recordings of camera No. 2 from Oct. 19, 1977 to Jan. 30, 1978. The second is to install TV camera No.1,

Unfortunately, this is the only page of this report found in the Leventhal Files. The remaining pages are missing.

3. Dr. John Anderson

Memorandum For The Record, May 10, 1978

10 May 1978

MEMORANDUM FOR THE RECORD

On about 1 February 1978, I received a telephone call from a Mr. Rob Simmons, Economic Advisor, Nuclear Energy Advisor, U. S. Embassy. Mr. Simmons related to me information pertaining to the death of Mr. Pierre Noir, IAEA (International Atomic Energy Agency) Safeguard Inspector at the Chin-Shan Nuclear Station in northern Taiwan. He requested an appointment with me for that day which I acknowledged and he arrived at my office shortly thereafter. Mr. Simmons gave me what information he had at the time on the background to the death. It was suspected that the deceased had suffered a heart attack, however, there was a question of possible electrocution. He also informed me that they would like to have an American pathologist witness the autopsy.

On the afternoon of Friday, 3 February 1978, the autopsy commenced at approximately 4 p.m. I was present during the gross examination of that autopsy. Prior to the autopsy I obtained the following history part of which was related to me by Mr. Simmons in a previous visit. The deceased was out late the night before. He worked the morning of death and had lunch approximately 12:30. He returned to work approximately 2:30 p.m. and finished the job. The deceased had allegedly been climbing up and down several different levels at the Nuclear Station prior to the terminal event. He decided to go back to the refueling level to shorten the television cable on the recently installed camera. He was standing; the expression on his face suddenly changed; his hands trembled; he staggered; and was caught by another man and laid on the floor. He was asked if he was alright. In response, he opened his eyes and nodded affirmatively. A few minutes later, there was difficult breathing, the face changed color and lips turned blue. He then urinated. He was given artificial resuscitation. Dr. Hsu on the site heard no heart beat and no pulse. Later, he was pronounced dead at the Veterans General Hospital. Prior to the autopsy, I spoke with one of the crew members working with him at the site just prior to death. He explained to me that there was no possibility that an electric current was passing through the cable.

The autopsy was conducted by Dr. Chu and his assistants. It was witnessed by Dr. Fang, Forensic Pathologist from the Taita Hospital, the Coroner from Taipei District Court, the District Attorney (Judge) from Taipei District Court and various assistants and myself.

The results of the gross examination showed no evidence of electrocution on external examination. That is, no electrical burns were present on the body. There was evidence of respiratory insufficiency with cyanosis of the lips, finger nails and toe nails. The feet bilaterally showed a gray hue. The general build of the deceased was stocky with moderate obesity (estimate approximately 100 kg). The major finding on the gross examination was coronary atherosclerosis with narrowing. There was no gross evidence that would be conclusive for electrocution.

Subsequent to the autopsy, I was telephoned by Mr. Simmons of the American Embassy and related this information to him. The opinion from the gross examination was that the deceased most probably died from a heart attack, pending microscopic examination of tissue and toxicology results. I was in agreement with that opinion, pending microscopic examination of tissue and toxicology results. Mr. Simmons at that time informed me that written report by me was unnecessary at the present time. I informed him that I would be most interested in the medical history of the deceased, the results from the toxicology analysis, the gross autopsy report and the microscopic slides from the body tissue if consultation was requested from me. I informed him that I would need that information to make a written report as a consultant.

Approximately 2 weeks later, I went to the Veterans General Hospital with Dr. Fang from the Taita Hospital and was shown the microscopic slides of the heart and coronary arteries. The result of that examination was moderately severe atherosclerosis with marked narrowing of the lumen. These findings were also consistent with death from arteriosclerotic heart disease. At that time I asked the doctors at the Veterans General Hospital if they would please send the microscopic slides to my office so that I would spend more time looking at all of the details of the tissue. Following those observations, I related that information to Mr. Rob Simmons of the American Embassy. At that time, I also asked Mr. Simmons for the medical history of the deceased and informed him that I would need the gross autopsy report, microscopic tissue sections and toxicology report in order to write an opinion as a consultant.

In mid-March 1978, I left on an emergency leave to the United States and prior to the departure I called the Embassy and explained to Mr. Simmons' secretary that I was leaving on an emergency leave and that I had not received any further word or requests on this case. I informed her that if they wished for me to be a consultant on this case would they notify me and make a formal request to the Veterans General

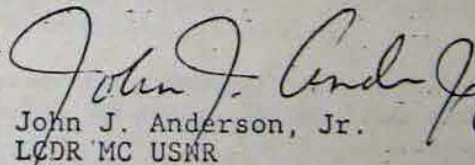
Hospital for the materials. Upon my return from my emergency leave I had no messages pertaining to this case.

On 10 May 1978, I received a telephone call from Mr. Simmons asking me for a written report on this case. At that time, I told him that I am awaiting the microscopic sections, toxicology report, gross autopsy report and clinical history, medical history records of the deceased. I also informed Mr. Simmons that I was returning to the United States on emergency leave on Friday, 12 May 1978. I gave Mr. Simmons my emergency leave address and also my next permanent address which should be effective about 20 June 1978. I asked him to obtain these materials for me so that I may give a consultant report on this case.

Subsequent to Mr. Simmons' telephone call on 10 May 1978, I am sending a formal request to the Veterans General Hospital for this information and request they send to me as a package via the American Embassy for a consultation.

I would also recommend that the material including the paraffin blocks be sent to the Armed Forces Institute of Pathology in Washington, D. C. for their opinion. I personally would be interested in their opinion on this case.

On receipt of the previously stated materials, a consultant report from me will be forthcoming.


John J. Anderson, Jr.
LCDR MC USNR

4. Baltimore Sun Article

July 28, 1981

[From the Baltimore Sun, July 28, 1981]

MYSTERY SURROUNDS ON-THE-JOB DEATH OF ONE NUCLEAR INSPECTOR

The inspector died, that much is certain.

The American doctor who observed the autopsy in Taiwan is sure he died of a heart attack. The International Atomic Energy Agency is adamant that he was electrocuted.

Pierre Noir was found dead, whatever the cause, at a troubling time at a nuclear power plant at a troubling place. Because of the way it reacted, the IAEA caused its staff to wonder how hard the agency tried to learn what happened, and how much it really wants to know about the plants it inspects.

"It has all the ingredients of a thriller behind it," says Leslie Thorne, the IAEA official who investigated Mr. Noir's perplexing death in 1978, an event the agency has never publicly disclosed.

His death helps feed a melodramatic theory about how the IAEA's safeguards system will work in a crisis. Critics of the agency worry that if an inspector comes across evidence of a secret weapons program, the inspector will be killed and his death made to look like an accident.

"Imagine the incentive not to find something," says Paul Leventhal, who has investigated Mr. Noir's death and is head of the Nuclear Club, Inc., a Washington organization in favor of stricter proliferation controls. "Even if Noir's death is totally innocent, it shows inspectors are highly vulnerable."

His death raised questions in the agency and in Washington largely because Taiwan already had been the scene of a major nuclear controversy. In 1976, Taiwan established a small laboratory for reprocessing work, the process by which plutonium suitable for weapons or reactors is recovered from used reactor fuel.

"The United States stepped in, insisted these labs be closed," says Mr. Thorne, "and I personally remember going there to see the laboratory closed—the material was shipped away."

American officials were still uneasy about the Taiwanese program when Mr. Noir, a stocky, 44-year-old Frenchman, arrived in Taipei on a flight from Tokyo January 29, 1978.

As was usual when an inspector came there, he was met at the airport by two officials from Taiwan's atomic energy commission. They drove him to his hotel. Liu Kung-chi was one of the officials. The next morning he returned to the hotel with a camera that the IAEA had shipped earlier. Mr. Liu and Mr. Noir took the camera with them when they drove together to the Chin-sahn power plant.

It was supposed to be a relatively easy day. Mr. Noir supervised the installation of the camera on a fifth-floor landing until lunch. He returned to the landing at 2:10 p.m., according to a report obtained by the Nuclear Club from Taiwan's atomic energy commission. With him were Mr. Liu and three technicians. The inspector reached for the camera to change one of the electrical cables—and this report is the only available account of what followed:

"It was at this instant that Mr. Noir's expression suddenly changed, both hands trembled [and] suddenly grabbed one cable. . . ." Scared to touch him, workers kicked the cable away. Mr. Liu, the report says, helped him lie down.

When asked if he was all right, Mr. Noir opened his eyes, nodded his head but said nothing. His lips became purple. He did not arrive at a hospital until four hours later, at 6:15 p.m. He was immediately pronounced dead.

The reaction in Vienna, says an IAEA official who knew Mr. Noir, was "a case of management falling apart."

Mr. Thorne, the head of safeguards for the Far East, flew to Taiwan. The American Embassy in Vienna cabled its counterpart in Taipei, saying it "would appreciate further information."

Cables about Mr. Noir went back and forth the next three months, until Taipei sent these messages to Vienna: "As far as the ROC [Republic of China] was concerned Noir simply suffered a heart attack and died as a result * * * [T]he question of ROC foul play seems already to have been resolved. . . ."

Mr. Thorne says the IAEA was only too happy to accept the explanation of a heart attack. "The view of the agency at first was, 'What has this got to do with us?'" He now says the heart attack idea is wrong. He says Mr. Noir was electrocuted by a faulty IAEA camera. He says the defect was entirely the fault of the agency.

"We were able to establish quite conclusively that it was a design defect," he says. According to the agency Mr. Noir touched a live 220-volt contact by chance, a contact that shouldn't have been on the camera console.

A physician at the autopsy disagrees.

"They looked at the body for evidence of [electrical] burns—for contact—and we didn't find anything like that," says Dr. John J. Anderson, a former Navy pathologist asked by the U.S. Embassy to observe the autopsy in Taiwan.

"The autopsy was consistent with death by coronary arteriosclerosis"—a thickening of the arteries and a frequent cause of heart attacks.

Says Mr. Thorne, "It was proved absolutely conclusively that the equipment was defective."

References

David Albright and Andrea Stricker, Taiwan's Former Nuclear Weapons Program, Institute for Science and International Security Press, Washington, D.C., 2018, p. 68.

Baltimore Sun, *Mystery Surrounds on-the-job Death of One Nuclear Inspector*, July 28, 1981. found in the Hearings before the Subcommittees on International Security and Scientific Affairs and on International Economic Policy and Trade of the Committee on Foreign Affairs House of Representatives, Ninety-Seventy Congress, Second Session, March 3 and 18, 1982, U.S. Government Printing Office, Washington, D.C., 1982, pp. 277-78. (also see Attachment 2)

Brunswick, 2011, <https://www.flickr.com/photos/nrcgov/14676549844>.

J. E. Foley and M. M. Thorpe, *Random Source Interrogation: A New Nondestructive Assay Technique*, in Nuclear Safeguards Research and Development Program Status Report, January-April 1971, Los Alamos National Laboratory, LA-4705-MS, May 1971, pp. 10-12.

J. E. Foley, *Random Source Interrogation System*, in Nuclear Analysis Research and Development Program Status Report, September-December 1971, Los Alamos National Laboratory, LA-4883-PR, March 1972, pp. 9-11.

J. Foley, *Random Source Interrogation System*, United States Patent 3,736,429, May 29, 1973.

John E. Foley, *Measurement of Highly Enriched Uranium Metal Buttons with the High-Level Neutron Coincidence Counter Operating in the Active Mode*, LA-8556-MS, Los Alamos National Laboratory, October 1980.

K. Gaertner, B. Heaysman, P. Vodrazka, *Future Trends in Compact TV Surveillance Systems*, Proceedings INMM Meeting 1985, pp. 416-419.

K. J. Gaertner, B. Heaysman, R. Holt, C. Sonnier, *Program Plan For The Modular Integrated Video System*, Proceedings of the 1986 INMM Annual Meeting, pp. 339-341.

K. J. Gaertner, B. Heaysman, R. E. Kerr and D. E. Rundquist, *Transition to CCTV Surveillance for Safeguards*, Proceedings of 28th Annual Meeting of INMM, 1987, pp. 560-564.

IAEA Bulletin, *Surveillance and Containment Measures to Support IAEA Safeguards*, Vol. 19, No. 5, October 1977 pp. 20-26.

Edward Kerr, *IAEA Photo Surveillance: The First 30 Years*, Journal of the INMM, Volume XXVII, Number 3, Spring 1999, pp.53-56.

Elisabeth Roehrlich, Inspectors for Peace, John Hopkins University Press, Baltimore, 2022, pp.150-51.

The Nuclear Vault, National Security Archive, Electronic Briefing Book No. 221, <https://nsarchive2.gwu.edu/nukevault/ebb221/index.htm>, *The United States and Taiwan's Nuclear Program, 1976-1980: Intervention in the Nuclear Activities of a Vulnerable Ally*, The George Washington University, edited by William Burr, June 15, 2007.

World Nuclear Data Base, <https://world-nuclear.org/nuclear-reactor-database/details/chinshan-1>.