

Did Six Million Really Die?

Fred A. Leuchter, Jr.

[Fred A. Leuchter, Jr. was the twenty-first witness called by the defence. He testified on Wednesday, April 20 and Thursday, April 21, 1988. Leuchter was tendered as an expert in gas chamber execution technology. Doug Christie informed the court that Leuchter had been commissioned by Ernst Zündel to conduct an investigation of the alleged execution gas chambers at Auschwitz, Birkenau and Majdanek in Poland with a view to determining the capability of these installations to perform the functions attributed to them in Holocaust literature. Leuchter had travelled to Poland and from 25 February to 3 March 1988 had inspected the alleged gas chambers, taken photographs, drawn plans, and removed samples which had been subsequently chemically analysed. He had prepared a report containing his opinion on whether the alleged gas chambers in the three camps were capable of being used for multiple executions by hydrogen cyanide gas and whether the crematories at the same camps were capable of disposing of the numbers allegedly burned there during the war. After hearing Leuchter questioned in the absence of the jury, Judge Ron Thomas refused to allow the jury to see or hear of the report which Leuchter had prepared for Zündel, dated April 5, 1988: "An Engineering Report on the Alleged Execution Gas Chambers at Auschwitz, Birkenau and Majdanek Poland," which report summarized Leuchter's findings of his investigation of the three concentration camps.

Thomas held that Leuchter could give oral evidence but that the report itself was not going to be filed. (32-9032)

He held Leuchter was not a chemist or a toxicologist. (32-9034) He further held that Leuchter was an engineer because he had made himself an engineer in a very limited area. (32-9048)

Thomas stated that Leuchter's opinion in the report was that there were never any gassings or exterminations carried on in the facilities. He held that Leuchter was not capable of giving that opinion. (32-9049) Nor was he capable of testifying regarding the results of the analysis of the samples. His testimony was restricted to the taking of the samples and who he turned them over to. (32-9047, 9048) Leuchter was allowed to testify with respect to his own work, his observations of the camps and the information he had gathered concerning the facilities, and whether the facilities were feasible as gas chambers. (32-9054) Defence counsel was instructed not to refer to the Leuchter Report during the in-chief examination. Thomas held that Leuchter had no expertise whatsoever in crematories and disallowed any testimony relating to crematories. (32-9052, 9054)]

Fred A. Leuchter was qualified as an expert in the design, construction, maintenance and operation of execution gas chambers. He was allowed to give opinion evidence on the operation of gas chambers and the suitability of the facilities he inspected in Poland to operate as gas chambers. (32-9062, 9063)

Leuchter testified that he was a consultant to the states of South Carolina and Missouri with respect to the operation of gas chambers used for prisoner executions, and was currently under contract with the state of Missouri to completely reconstruct

their gas chamber. In the course of his work, he had studied all existing systems utilizing lethal gas and had consulted with large manufacturers of sodium and hydrogen cyanide. He held a medical research license from both state and federal governments in the United States which allowed him to carry drugs that were used in his work. (32-9056, 9057, 9058; qualified as expert witness, 32-9062)

Leuchter was retained by Zündel in February of 1988 to investigate three concentration camps in Poland: Auschwitz, Birkenau and Majdanek, for the purpose of determining whether or not the alleged execution facilities in those camps could have been utilized for executing human beings with hydrogen cyanide or Zyklon B gas. (32-9059 to 9061)

His investigation involved the inspection of the physical sites and study of the original plans of the facilities alleged to be gas chambers. The bulk of such plans and designs were obtained by Leuchter directly from the museum officials at the three camps. (32-9061) He obtained descriptions of the procedures allegedly used in these facilities from currently available Holocaust literature. He also referred to the German documents concerning the handling of Zyklon B as a pesticide and documentation from DEGESCH, the manufacturer of Zyklon B. (32-9062)

Prior to being asked to conduct the investigation, Leuchter had never had any contact with the revisionist view of the Holocaust. He had assumed that there were gas chambers and that many millions of people had died therein. Leuchter was not allowed to testify whether his opinion had changed after investigating the sites or whether information contained in either exterminationist or revisionist publications conformed to what he had observed. (32-9188 to 9192)

AUSCHWITZ I

Krema 1

Over a three day period (32-9078), Leuchter inspected, measured and photographed what was known as Krema I in the main Auschwitz I camp and which consisted of a crematory and an alleged gas chamber. He inspected the lighting, the electrical systems, the adjacency of the alleged gas chamber to the crematorium, and the physical layout of the crematorium. He also looked at the buildings in the immediate area of Krema I. These included the SS hospital about 40 feet away across the street and two SS headquarter buildings a stone's throw from the alleged gas chamber. (32-9065, 9066, 9123; Photograph of external view of Krema I showing proximity to SS hospital entered as part of Exhibit 145) He also removed forensic samples of the brick and mortar from various locations within the structure, making sure that all areas of the walls and the floor were covered in the sample-taking. (32 9078)

Leuchter's draftsman, who accompanied him in the investigation, drew up a plan of Krema I under Leuchter's supervision. The drawing was based on original blueprints of the building, and measurements taken at the site. (32-9066, 9067; Drawing of Krema #1, entered as Exhibit 135)

The building had two areas, a crematorium and the area alleged to be the gas chamber. There had been three furnaces with two retorts each in the crematory section of the building. The third furnace was not there on Leuchter's inspection. It had been

removed some years earlier, apparently while the building was being converted into a bomb shelter. (32-9067;

Photograph of one of the two ovens located in Krema I entered as part of Exhibit 145) When the area alleged to have been the gas chamber was converted into the bomb shelter, additional walls had been added to prevent any bomb blast from going throughout the entire area. These walls had subsequently been removed. The two walls at the end of the alleged gas chamber were permanent, however, and had been there at the time the building was utilized by the Germans until the Allies arrived and liberated the camp. (32-9067; Photograph of interior of alleged gas chamber at Krema I entered as part of Exhibit 145)

Leuchter observed no signs of any blue markings on the walls of Krema I, nor was there any indication that the walls had been treated or painted in any way. (32- 9194)

The door leading from the alleged gas chamber into the crematorium had been moved two and a half feet. Leuchter was able to determine the original location by measurements, marks on the wall and its placement in conjunction with two railroad tracks where a cart with the corpses had been rolled from the morgue (alleged gas chamber) into the crematorium and up to each retort for burning.

(32 9071; Photograph showing proximity of alleged gas chamber to crematory ovens entered as part of Exhibit 145)

The roof of the alleged gas chamber contained square vents with collars. These were not gasketed and they were made of wood. They had been recently rebuilt before Leuchter arrived. The purpose of these vents was to air the area since the facility was in fact a morgue where they stored the bodies prior to cremation. (32-9068, 9069) There was an old chimney on the roof which no longer had any function. It was originally for some type of stove that had been located in the mortuary (gas chamber) area. The roof also had small chimneys which were probably for the crematory furnaces. The third furnace had a large stack in the back of the building.

(32-9072; Photograph of roof of Krema I entered as part of Exhibit 145)

In Holocaust literature, the vents were allegedly used as the openings to drop in the Zyklon B, which produced the hydrogen cyanide gas after it reached the floor of the facility. Zyklon B was a special preparation of hydrogen cyanide gas where the gas was forced by compression into particles of chalk or wood pulp. These particles carried the gas and would, upon heating or being exposed to air, release the gas into the area where the gas was to be utilized. One of the main requirements for driving or evaporating the hydrogen cyanide gas out of the Zyklon B was excessive temperature. It had to be heated to above 78 or 79 degrees Fahrenheit. If the temperature was not near the 78 degree point, it would be released much slower and over a much longer period of time. Leuchter pointed out that of the four vents, one was in the area of a washroom and not in the presumed gas chamber at all. The alleged gas chamber room was extremely cold and damp. (32-9069, 9070)

The alleged gas chamber area had no exhaust system for removing the gas. It simply had three vents in the roof. Assuming the area was used as a gas chamber, it would

take the better part of a week to air it out before any humans could go in to remove anything that was inside the chamber area. (32-9071)

There were two drains in the area that was alleged to be the gas chamber. These drains were tied into the main drainage system of the camp. Leuchter testified that if the area were utilized as a gas chamber, liquid condensed hydrogen cyanide gas would get into the drains, mix with the water and eventually wind up coming out every storm drain and possibly every sink drain and toilet in the camp. The drains made the room a very dangerous place to utilize as a gas chamber. (32-9068; Photograph of drain on the floor of the alleged gas chamber at Krema I entered as part of Exhibit 145)

Leuchter testified that if the mortuary had been used as a gas chamber, there would have been a very high concentration of gas when the pellets were first dropped into the room, as much as 99 to 100 percent concentration. The doorway that led from the mortuary directly into the crematory was not gasketed. The furnaces in the crematory would have been operating at something around 1,500 or 1,600 degrees Fahrenheit. Leuchter stated that anything over 1,100 degrees would cause an explosion if the gas escaped from the gas chamber area into the crematory area. Thus, the juxtaposition of the two facilities in the same building was dangerous. (32 9073)

In Leuchter's opinion, if the building had in fact been used as a gas chamber, it should have been designed and prepared in a manner different than it was. The entire area that contained the gas should have been coated, both inside and out, with tar or pitch to prevent any gas leakage. It should have had some type of exhaust system to bring fresh air in and exhaust the gas present in the chamber. It did not have such an exhaust system. The exhausted gas would normally be sent through a 40-foot high chimney or stack and blown into the air where it was high enough above the surrounding buildings so the gas and air mixture could be harmlessly scattered. As it was, the vents were less than one foot high. It would probably have taken a week to air the room and the gas would have leaked out very close to the top of the roof. Undoubtedly, the gas would have blown towards buildings in the immediate vicinity of the alleged gas chamber, including the SS hospital and SS buildings, causing the death of people in those buildings. (32-9073, 9074)

Leuchter concluded that the alleged gas chamber at Krema I could not have been used, then or now, as a gassing facility for executing human beings. (32-9076) The facility would have been much too dangerous to operate because of gas leakage to the surrounding area and into the crematorium, where such leakage would have caused an explosion. Personnel operating the facility probably would have been killed. None of the walls, either inside or out, were coated in the normal manner. The normal manner prescribed for delousing chambers by the German military and health officials was tar or pitch painted both inside and outside. There was no 40- foot stack, so the gas would have come out of the building very low, and probably would have hovered immediately around the building. Since the nearest building was the SS hospital, which was higher, this would have stopped the wind from dissipating the gas. The storm drain connection to the drains in the floor of the alleged gas chamber would have allowed the gas out into the main area of the camp. In short, in Leuchter's opinion, the building would have been very dangerous to use not just for the inmates but for all camp staff and personnel. (32 9077)

BIRKENAU

In Birkenau, Leuchter examined four facilities, normally known as Krema II, Krema III, Krema IV and Krema V, each of which was alleged to have operated as a combination crematorium and gas chambers. His purpose was to determine whether the facilities could have been used in such a manner. (32-9079)

Krema II and Krema III

Leuchter examined plans of Krema II at Birkenau and had his own draftsman draw up a drawing of the site using his own on-site measurements and observations. (32 9079, 9080; Drawing of Krema II entered as Exhibit 136; Drawing of Krema III entered as Exhibit 137; Plan of Krema II entered as Exhibit 124) Leuchter obtained schematic floor plans of Kremas II and III (as well as Kremas IV and V) from the museum officials: these were not original plans. He assumed they were prepared from something, but was never told what the original material was. (32-9126)

Four dots on the drawing of Krema II (Exhibit 136) indicated where vents were supposedly located on the roof of the building wing normally designated as the gas chamber. After an examination of the roof, from both inside and outside, Leuchter found no holes in these locations. (32-9080, 9081)

For ventilation, the facility should have had some openings in the roof that could be closed during the operation and then opened after the gassing to allow the gas to ventilate. In this case, it would have taken more than a week to ventilate the area, since there was only normal convection, or air current, to bring the gas out of the building. (32-9081) This was the same thing that was done when a building was deloused. The buildings were sealed, and the chemicals placed on the floor. The windows were then opened and the facility was allowed to air for three to seven days, depending upon the size of the facility. This procedure was described in official German documents on the procedures to be followed for delousing buildings and materials. (32- 9082)

There was no ventilation capability for Krema II at all. Morgue no. 1 and morgue no. 2 where both underground and there were no structures above them. There was only one door going into the morgue. In Leuchter's opinion, there was no way of adequately venting the building. (32-9082, 9083)

Leuchter entered the alleged gas chamber at Krema II through a broken portion of the roof slab. Although there was not a lot of room below, he was able to walk amongst the piles of rubble and to make observations of the walls and roof area almost all the way around the facility. In particular, he was looking for anything which would indicate hydrogen cyanide use in the room. He saw no blue staining. He saw no evidence of any type of ventilation system. He removed samples from the walls, floor and roof. (32-9084; Photographs of roof slab and alleged gas chamber at Krema II entered as Exhibit 146)

Leuchter made computations of the amount of hydrogen cyanide it would have taken to use the facility as a gas chamber. The normal amount of gas that was required to kill one human being was a minimum of 300 parts per million. The normal amount of gas that was used by the Germans to delouse buildings and the amount of gas used to

kill human beings in the United States was the same, namely, 3,600 parts per million. (32-9086)

Krema II and Krema III were the same size, each having an area of 2,500 square feet. If 2,000 people were squeezed into this area, there would not be enough room for the gas to circulate. In Leuchter's opinion, there had to be sufficient room around the people for air to circulate, even by convection, which was the simple draft in any room moving the air around and carrying the gas. To do this, a minimum of 9 square feet would be required for each person. Based on the 2,500 square feet area, the most people which could have been gassed in Kremas II and III was 278 persons, requiring 5 lb. of gas and an approximate ventilation time of more than a week. (32 9087, 9088)

If 2,000 people had been crushed into the room, there would be no means of circulating the air or the hydrogen cyanide gas that was given off by the Zyklon B material. This would mean that it would take perhaps five to eight hours for the gas to totally permeate the chamber and kill the people therein. (32-9147)

There was no heating capability in any of the facilities which would have been required, firstly, to drive the gas from the Zyklon B and mix with the air, and secondly, to avoid condensation of the gas on the walls, floor and ceiling. When the hydrogen cyanide condensed into a liquid, it was absorbed by brick and by mortar. Condensation would have made the area very dangerous for anyone who came into the facility to remove corpses. (32-9088)

In proper gas chamber design, there must be intake air and exhaust air in an equal volume. The intake air was normally heated to an excess of 79 degrees Fahrenheit, being the minimum temperature required to prevent condensation and to make the chamber safe for those persons who had to enter and work in it. (32-9089)

During the time he had inspected the facility in February, 1988, the temperature in the room was 10 or 12 degrees Fahrenheit. In Leuchter's opinion, if Zyklon B pellets had been dropped into the chamber in such circumstances, with no heating capabilities, it would have taken more than several hours for the gas to leave the pellets and permeate the room. Holocaust literature alleged that gassings took place in winter. (32-9089, 9090)

Leuchter concluded that the facilities at Krema II could not have been used, then or now, as a gas chamber for executing human beings. (32-9085) The reasons for his opinion were essentially the same reasons that he concluded the mortuary at Krema I could not have been used as an execution gas chamber. The building was not sealed with tar or pitch in any manner. There was no ventilation system. There was no means at all for introducing the Zyklon B gas. There was no evidence of a hollow column which available Holocaust literature alleged was used to drop Zyklon B into the room. All of the columns were solid reinforced concrete. Anyone attempting to use the facility as a gas chamber for executing human beings would probably lose their life. (32- 9085)

Leuchter also inspected Krema III, a building which had been a mirror image of Krema II, located across the road from it. Samples were removed and drawings made of the facility. (32- 9091, 9092)

Leuchter was unable to determine whether there had been any roof vents in Krema III's alleged gas chamber, as the roof slab had been broken up and much of it removed. Information regarding the alleged vents came from copies of original German drawings received from Auschwitz Museum officials. (32-9092)

In Leuchter's opinion, the facility did not indicate even reasonable gas chamber design, it being identical to Krema II. It was not tarred or pitched. There was no ventilation. It was cold and damp. It had no means of introducing the Zyklon B material. (32-9093) Nowhere did he see any blue staining. (32-9195)

In his examination of Auschwitz-Birkenau, Leuchter obtained information from the Auschwitz Museum and the available Holocaust literature. The information in both appeared to be identical. (32-9093)

Krema IV and Krema V

Leuchter also examined Krema IV and Krema V, two additional facilities at Birkenau that were presumably mirror images of one another and were likewise considered to be combination gas chambers and crematories. Drawings were made based on floor plans provided by the Auschwitz Museum and on actual measurements made at the sites. (32-9094; Drawing of Krema IV entered as Exhibit 138; Drawing of Krema V entered as Exhibit 139)

He found that both buildings had been razed sometime earlier. Only the foundations were existing, and from these foundations, his team took measurements of the areas alleged to be gas chambers. He found no evidence of any tar or pitch sealant on either the inside or the outside of the facility. (32-9094)

It was alleged that in these facilities, there were slots in the wall where the Zyklon B was thrown. Leuchter stated that when such a material was introduced into a place, it should be dropped somewhere in the centre of the room so the gas, when it came out of the pellets, could travel throughout the room. If Zyklon B had been thrown in and fallen close to the wall, this would have certainly impeded circulation. (32-9095, 9096)

As the buildings were not there, however, Leuchter relied almost entirely on the plans provided by the museum in forming his opinion. These plans were floor plans and did not indicate location of electrical outlets or drainage. He found no evidence of any heating system in these buildings, no evidence of any ventilation system and no evidence of stacking. (32-9096, 9098)

He was able to determine from inspection of the sites that while Krema IV and Krema V were mirror images in that their outer shape and size were identical, the placement of the rooms internally was not the same. This was contrary to the plans, however, which indicated that the room placements were the same. Leuchter concluded that either the buildings had been remodelled before they were destroyed or were built differently from the original floor plans. (32- 9097)

In Leuchter's opinion, neither Krema IV nor Krema V was capable of being used as a gas chamber facility for executing human beings, for the same reasons given for

Kremas I, II, and III. (32-9097; photograph of alleged gas chamber at Krema III entered as Exhibit 147; Plan of Krema III entered as Exhibit 125)

"Burning Pits" at Birkenau

Leuchter examined the areas alleged on official maps of Birkenau to have been used as "burning pits" by the Nazis to dispose of corpses. Most of the Holocaust literature described these pits as being six feet deep or more; however, most of the pits examined by Leuchter were reasonably small. The most notable thing about all of them was the level of the water within one and a half feet of the surface. Leuchter pointed out that it was impossible to burn bodies under water. There was no reason to assume this had changed since the war because all of the Holocaust literature described Auschwitz-Birkenau as being built on a swamp. (32-9100, 9101; photograph of alleged burning pit entered as Exhibit 147)

Sauna Building

Leuchter also investigated the Sauna building at Birkenau. Inside he found delousing chambers which had utilized steam to delouse bedding and other materials. No allegation had ever been made, to Leuchter's knowledge, that people were gassed in these facilities. (32-9103, 9104; Photograph of Steam Delousing Chamber in Sauna Building, Birkenau entered as Exhibit 148; Photograph of external view of Sauna Building entered as Exhibit 149)

MAJDANEK

At Majdanek concentration camp, Leuchter examined a combination crematory and gas chamber facility, and a building known as "Bath and Disinfection no. 1" which was alleged to have contained two experimental gas chambers and one conventional gas chamber. (32-9105, 9144; Plan of Majdanek indicating location of new crematorium and alleged gas chamber and Bath & Disinfection Building no. 1 entered as Exhibit 143)

Combination Crematory and Gas Chamber

Information supplied by the Majdanek Museum indicated that at the end of or just shortly before the end of the war, this entire facility was levelled, with the exception of the cremation ovens. It was not explained how. After the war, the facility was rebuilt from plans that the museum officials said existed but which they no longer had and no longer knew the location of. (32-9105, 9106)

This building was made of precast concrete with reinforced steel rods and bars and covered with wood to make it look like the original. An extremely small area inside designated as the gas chamber contained two non-sealable doors and a non-sealable window that led directly into the crematory area. In Leuchter's opinion, if the room had been utilized as a gas chamber, an explosion would have resulted from gas leaking from the chamber into the crematory area. (32- 9106)

At this point, Judge Thomas directed defence counsel to stop further questioning about this building since it was a reconstruction and he would not have evidence in the court about "tourist attraction[s]." (32-9107)

Bath & Disinfection Building No. 1: Delousing Chamber

The interior of the first alleged gas chamber was mortar with an unpainted stucco surface, covering an underlining of red brick. There were two holes in the ceiling

through which it was alleged the Zyklon B had been dropped into the chamber. These vents went through the roof but had no stacks. There was simply a 6-inch collar around the top where a cover fitted, much like the vents at Krema I. (32-9110; Drawing of Delousing Chamber, Bath & Disinfection Building no. 1 entered as Exhibit 140)

Two ducts were located on one wall approximately two feet apart, each being under one foot in diameter. Leuchter noted that for an air circulation system, the ducts were in very strange locations. Normally, an intake duct would be located at one end of the room and an exhaust duct at the other end of the room, one located high and the other low, to guarantee complete air circulation. These two ducts were placed much too close together to give proper air circulation. The ducts vented into a sealed area of the building which Leuchter was unable to enter. (32-9112)

The room contained 7,657 cubic feet of volume and 806 square feet of area. Venting of the room would have required about one week. (32-9113)

In Leuchter's opinion, the room could not have been used as a gas chamber. It had improper venting capability. It was not coated with any tar or pitch. The room was cold and damp and had no capability of circulating gas in the room. (32-9113)

Experimental Gas Chambers

The building also contained two allegedly experimental gas chambers. (32-9114; Drawing of Experimental Gas Chambers (Delousing) Bath & Disinfection Building no. 1 entered as Exhibit 140B)

The four doors in Chamber 1 were essentially the same. Each was made of heavy steel and was mounted on a steel frame containing a rabbet: a groove that was cut circularly around the aperture and would normally be used to hold a gasket. The doors had peep holes which were gasketed and made of heavy glass. Two doors had a chemical test cylinder which contained a chemical-test material. This material would have changed colour, depending upon the gas level in the facility. (32-9115, 9116, 9180; Photographs of large steel doors entered as part of Exhibit 151)

The walls showed characteristic blue staining which Leuchter found puzzling because there was no means of introducing Zyklon B into the facility. (32-9182)

Outside was a booth that, according to the official allegation, was used by an SS officer who would turn on the valves of the two carbon monoxide cylinders to supply the gas through a piping system to the two chambers. The cylinders were too small in Leuchter's opinion; he pointed out that a barred window beside the cylinders had no glass in it and had been constructed in such a way that it could never have had any glass or gasketed material to stop the gas from leaking out of the chamber into the booth where the person operating the system stood. (32-9116, 9181; Photograph of two alleged carbon monoxide cylinders entered as part of Exhibit 151 at 32-9181)

In Leuchter's opinion, if carbon monoxide were used in a facility such as this, some 60,000 parts per million of gas in the air would be required to effect the death in one half hour. Before that much gas could be pumped into a chamber that housed that many people, the people would probably exhaust the available air supply and suffocate strictly from the lack of oxygen. (32-9117)

Leuchter testified that to get 60,000 parts per million of gas into the room, the room would have to be pressurized to approximately two and a half atmospheres, or 55 pounds per inch. These chambers could not hold that pressure without leakage at the doors, the vents and cracks in the brick. Leuchter believed that the facilities might have been experimental delousing chambers using carbon monoxide gas. (32 9116, 9117)

Chamber 2 was alleged to have used Zyklon B gas. But Leuchter, upon inspecting the vent in the roof through which the pellets were allegedly thrown, found that while the vent was cut through the ceiling, it had never been cut through the roof of the building. If this room had been used as a gas chamber, Leuchter testified, there would have been a problem in venting it. The alleged vent did not open through the roof and the only other means of venting the air was through a single door. (32 9118)

The outside of the building was surrounded by a depressed concrete walkway that was about two and a half feet deep below grade. In Leuchter's opinion, utilizing hydrogen cyanide gas in the building, a structure which had no coating of pitch or tar or anything else to prevent gas leakage, would inevitably have resulted in the gas leaking through the brick and foundation and mixing with any rain water which might be in the walkway. This would make the entire facility a death trap for anyone approaching it at any distance around the building. (32-9120)

Leuchter concluded that none of the facilities were used for homicidal gas chambers. Owing to the design and the inherent construction of the buildings, they would have been extremely dangerous and difficult at best to use, and anyone using them probably would have been endangering his own life and others in the area. (32-9121)

There was no means of venting, no means of distributing the air and no means of adding the Zyklon B material. (33-9145)

Samples Removed from the Alleged Gas Chambers

Samples collected by Leuchter at the gas chamber sites at Kremas I, II, III, IV and V and from Delousing Facility No. 1 in Auschwitz and Birkenau were placed in plastic zip-lock bags and the bags marked. Samples 1 through 7 were removed from Krema II. Samples 8 through 11 were removed from Krema III. Samples 13 through 20 were removed from Krema IV. Samples 21 through 24 were removed from Krema V. Samples 25 through 31 were removed from Krema I. Sample 32 was a control sample taken from Delousing Facility No. 1 in Birkenau. The locations from which the samples were taken were indicated on the drawings prepared of each site. Samples were collected from the walls and all available surface areas that possibly could have come in contact with hydrogen cyanide gas. Leuchter personally carried the samples from Poland and delivered them to Alpha Laboratories in Ashland, Massachusetts. (32-9124, 9125; 33-9157, 9158, 33-9172)

The only area in Birkenau which indicated any blue staining was Delousing Facility No. 1, from which control sample 32 was removed.

Cross-Examination

Leuchter testified that he had graduated in 1964 with a Bachelor of Arts degree. (32-9196) Asked who had determined that he was an engineer, he stated that the Commonwealth of Massachusetts had done so when they issued him a medical research licence, the Department of Drug Enforcement when they issued him his medical licence, and the United States Navy in all of the work he had done with them on navigational instrumentation. (32-9198)

Leuchter had used his medical research licence when he designed and built a precise lethal injection system that took into consideration the poor vascular systems of the people on whom the instrument was to be used. (32-9199) The licence was required because the handling of anything that had to do with intravenous injection required a medical licence. (32-9200)

Leuchter testified that he had never conducted an execution, (32-9200) nor had he witnessed an execution using poison gas. (32-9202) He agreed that he was not a professional chemist, a professional toxicologist, or a professional architect. (32-9212)

Since 1979, Leuchter had been involved with execution hardware. He designed and built the gallows now in use in the state of Delaware. He had designed the gas chamber at the Missouri State Penitentiary. It had not yet been completed; the hardware was presently being shipped and fabricated. (32-9201)

The Crown challenged Leuchter on this statement, suggesting that the truth was that Leuchter had only proposed modifications to the existing gas chamber. Leuchter disagreed, stating that he had "completely altered the design" and that a new system was being installed. The entire gas chamber, originally built in 1932, was being replaced with the exception of the steel. (32-9202)

Calculations to determine the amount of Zyklon B gas required to execute a human being were based upon the quantity required on a cubic foot basis which was about a half pound per thousand feet. The calculation was the cubic footage of the room multiplied by half a pound. Depending upon the density of the air at the given time, the concentration of hydrogen cyanide in the air would reach approximately 3,200 to 3,600 parts per million. (32-9203)

Leuchter agreed that hydrogen cyanide was lethal for humans at 300 parts per million over approximately ten or fifteen minutes and that his calculations were based on the amount that was used in the United States to execute a condemned prisoner. (32-9204) The concentration of 3,200 parts per million killed the prisoner in approximately four minutes. This was the concentration that had been used in the United States for the past fifty or sixty years. (32-9205)

The calculations were also based on the executed person occupying 9 square feet of space. Leuchter stated this was the space necessary for air circulation and was a figure normally used by all air moving engineers throughout the world. (32-9205)

In the old gas chamber in Missouri, the hydrogen cyanide had been generated by dropping sodium cyanide briquettes into sulfuric acid. Leuchter had changed this to a procedure by which hydrogen cyanide liquid was vapourized. (32-9206, 9207) The

Crown suggested that this was the same as the vapourization of Zyklon B liquid described by Hilberg as the procedure of gassing used at Birkenau; Leuchter disagreed and pointed out there was no such thing as Zyklon B liquid. Zyklon B came in pellets. (32-9207)

Leuchter agreed that one of the goals of the state of Missouri in its execution procedures was to have an installation that was as safe as possible for all personnel other than the condemned person. He did not agree that another goal was to have an installation which killed the condemned person as quickly as possible and that this was the reason for the recommended 3,200 parts per million concentration of hydrogen cyanide. He agreed, however, that this concentration killed the prisoner quickly. (32-9207, 9208)

Leuchter was contacted by Robert Faurisson in February of 1988. Some of the Holocaust literature he had referred to in his testimony had been provided to him by Faurisson and by Zündel, and he read some of it in the three weeks before going to Poland. The museum literature, he had picked up himself while at the sites in Poland. He was also supplied with photocopies of Hilberg's publications. He had no need to read all three volumes of Hilberg's work. He believed he had read as much as he needed to in order to know what he was doing. Asked if he did research into the sources referred to by Hilberg, Leuchter replied that he did additional research but could not say where he had found the citations. (32-9207)

Leuchter did not tell the Majdanek camp officials in Poland why he was in the camp. He felt he had no need to. He was in a communist country and felt that it was better not to say anything. (32-9214) He agreed he did not inform camp officials that he was going to use the official museum publications as the basis for an opinion that he was going to give in a court of law. He agreed that he did not tell camp officials that he was taking the samples which he removed. (32-9216)

Leuchter agreed that he had designated one of the chambers at Majdanek a delousing facility. Asked why a delousing facility would require a peephole, he replied that it might be necessary to look into the chamber to see clothing being fumigated, but he could not know for what purpose the individual running the facility would be using the peephole. (32-9217) Leuchter pointed out that the standard procedure for delousing in most facilities was to place the Zyklon B material on the floor with whatever was in the room being deloused and then close and seal the door. The only provision for putting Zyklon B into this particular room was to place it on the floor by hand and close the door. He stated that it became very obvious that it could not have been an execution chamber because "no one is going to stand in a chamber while somebody with a gas mask puts poison gas pellets on the floor and then leaves." (32-9219)

Asked if he had conducted an extensive survey of Nazi fumigation techniques in Poland, Leuchter replied that he had read the instruction manual which had provided information on the handling of Zyklon B to the technicians doing the delousing. This document was published by the Allied powers, Office of the Chief Counsel for War Crimes, in Nuremberg as Document NI- 9912. Asked if it had been included in his report, Leuchter replied that it was included in the appendix. Asked if he couldn't

conceive of somebody just opening the door of the gas chamber and throwing the pellets in, Leuchter replied that he could not. (32-9220, 9221)

Leuchter testified that, according to DEGESCH, Zyklon B was manufactured and used until about three years ago. One of its uses was to fumigate the holds of ships. Ship fumigation was normally done with liquid hydrogen cyanide. Zyklon B, on the other hand, was designed for use in a facility where heated air could be blown over it. (32-9221)

The Crown showed Leuchter the DEGESCH manual which Leuchter had reproduced as an appendix to his report, and asked if a photograph did not show a person dropping solid items into the hold of a ship. Leuchter pointed out that the person was not dropping the Zyklon into the hold of a ship, but into a box on the ship's deck. (32-9222)

Leuchter stated that the alleged gas chamber at Krema I was converted into a bomb shelter in 1944, but did not agree that significant changes were made to the building. He pointed out the drains on the conversion plans and testified that the blueprint indicated that they had been pre-existing in the facility, and that nothing was being done to the floor during the conversion. The floor had not been dug up; there were no patches in it. In his opinion, the drains had been there for many years, including the time the room was allegedly used as a gas chamber. Asked if drains couldn't be plugged up, Leuchter replied that if the drains had been plugged, they would be plugged today, which they were not. To unplug the drain, the floor would have had to have been dug up and the pipe replaced. The floor had not been dug up. (32 9224 to 9226)

Leuchter agreed he had never worked for a client who considered the personnel who emptied the gas chamber to be expendable, and who was willing to wait up to half an hour for the condemned person to die. (32-9227, 9228)

Leuchter agreed that something had happened to the facilities, that they were no longer in the condition they had been in 1944, but did not know who had done it or when. (32-9229, 9230)

Krema II and Krema III were both subterranean. The roof of Krema II was fractured in several places but was essentially whole. It was partially collapsed. (32-9232)

The roof of Krema III had crumbled and was lying in bits and pieces in the basement area of what would have been the alleged gas chamber. (32-9232, 9233)

Kremas IV and V were totally demolished with the exception of the foundations. (32-9233)

He agreed with the Crown that an underground facility would have the benefit of good insulation. (32-9236)

Leuchter had not calculated the heat which would be generated by squeezing up to 2,000 people into a room of 2,500 square feet, but did not agree that it would be enough to vapourize the Zyklon B. He testified that a temperature rise of perhaps ten

to fifteen degrees would result, and that a temperature of 78.3 was required to vaporize Zyklon B. (32-9235, 9236)

He had not calculated the heat released by fifteen crematory furnaces working around the clock, and did not consider it necessary. (32-9235) The furnaces were in another wing of the facility, which had three wings. One was the crematory, one was the alleged gas chamber and one was the alleged undressing room. The furnaces were above and, on a diagonal, maybe 50 or 60 feet away from the alleged gas chamber. Leuchter asked what heat generated from these furnaces would have to do with a facility that was underground and well-insulated. (32-9237)

The Crown suggested that a red-hot brick had been thrown into the chamber to increase the temperature around the Zyklon B. Leuchter replied that bricks did not get red-hot, only metal did. A brick might be too hot for a person to handle, but would still not be of sufficient temperature to cause an explosion with the gas, although it would probably raise the temperature. (32-9238)

The sole purpose of Leuchter's research was to give him enough information on the operational procedures at the facilities, so that he could go to Poland and investigate what was there. He was not trying to apprise himself of all "Holocaust" literature. Raul Hilberg may have stated in his book that a ventilation system was delivered, but Leuchter could say that there was not one there and there was not one installed. He questioned whether Hilberg knew enough about the mechanics of ventilation systems, electric motors and fans to be involved in the question. He agreed he had not spoken to Hilberg to find the basis of the latter's conclusions. (32- 9239, 9240)

Crown counsel quoted from page 885 of Hilberg's book concerning a letter from SS Construction Management Auschwitz to Kammler, WVHA, January 29, 1943, reporting completion of Krema II. Based on this document, Hilberg had written:

In the meantime (January 29, 1943), the Zentralbauleitung reported to Kammler that after the commitment of all available manpower and in spite of tremendous difficulties (unsagbarer Schwierigkeiten), including freezing weather, one of the crematoria was now in place, except for minor construction details (bauliche Kleinigkeiten) and the pending delivery by Topf of the ventilation system for the Leichenkeller. The furnace, however, had been tried out in the presence of Engineer Prüfer and functioned perfectly...

Leuchter testified that he had not seen this document, but stated that Topf manufactured crematory equipment, and that the ventilation system being referred to was, in fact, the blower for the furnace and had nothing to do with ventilating the alleged gas chamber. (32-9241, 9242) On re-examination, Leuchter testified that he knew from the inspection of the facility that there was no ventilation system at Krema II of any type and no provision in the construction of the building for any. (32-9273) The Crown produced the Nuremberg translation [NO-4473, NMT vol. 5, p. 619] of the Kammler letter relied upon by Hilberg:

[Handwritten] SS Ustuf. (F) Kirschneck

COPY 29 January, 1943 Bftgb. [Journal] No. 22250/43/Bi/L. To the Chief of Amtsgruppe C, SS Brigadefuehrer and Brigadier General of the Waffen SS, Dr. Ing. Kammler, Berlin-Lichterfelde-West Unter den Eichen 126-135 Subject: Crematorium

II, condition of the building. Reference: Teletype letter of SS Economic and Administrative Main Office No. 2648 of 28 January 1943. Enclosure: Report on check up.

The crematorium II has been completed - save for some minor constructional work - by the use of all the forces available, in spite of unspeakable difficulties, the severe cold, and in 24-hour shifts. The fires were started in the ovens in the presence of Oberingenieur Pruefer, representative of the contractors of the firm of Topf and Soehne, Erfurt, and they are working most satisfactorily. The planks from the concrete ceiling of the cellar used as a mortuary [Leichenkeller] could not yet be removed on account of the frost. This is, however, not very important, as the gas chamber can be used for that purpose.

The firm of Topf and Soehne was not able to start deliveries of the installation in time for aeration and ventilation as had been requested by the Central Building Management because of restrictions in the use of railroad cars. As soon as the installation for aeration and ventilation arrive, the installing will start so that the complete installation may be expected to be ready for use 20 February 1943.

We enclose a report [not attached to document] of the testing engineer of the firm of Topf and Soehne, Erfurt.

The Chief of the Central Construction Management, Waffen SS and Police Auschwitz
SS Hauptsturmfuehrer

Distribution: 1-SS Ustuf. Janisch u. Kirschneck. 1-Filing office (file crematorium).

Certified true copy: [Signature illegible] SS Ustuf. (F)

Leuchter did not agree with the interpretation placed upon the letter by Hilberg. He pointed out that the letter said nothing about the ventilation system being installed in the Leichenkeller, and that the reference to the ventilation system was not even in the same paragraph. (32-9245; Letter entered as Exhibit 153)

Leuchter did not agree that it took a much higher concentration of hydrogen cyanide to exterminate insects than it did to kill human beings. (32-9245, 9246) He stated that he had never made computations for killing beetles. (32-9248)

The Crown quoted from the DEGESCH "Zyklon" manual at page 5 that:

Liquid HCN burns like alcohol. Gaseous HCN forms an explosive mixture with air under certain conditions. The lower explosion limit, however, lies far above the concentration used in practical fumigation work.

The Crown questioned Leuchter's opinion concerning the possibility of an explosion when the crematories were so far away. Leuchter replied that at the Zyklon B material, when the gas was given off, there was a percentage per volume of air of 90 to 100 percent. This meant there was almost pure hydrogen cyanide at the carrier. A spark could set it off. (32-9250 to 9253)

Leuchter agreed that hydrogen cyanide was slightly lighter than air and rose very slowly. He agreed that unquestionably it would take a matter of minutes before the gas reached the person who had thrown it down into the gas chamber. He pointed out, however, that at some point someone would have to do an inspection to determine whether the parties were deceased. (32-9253, 9254)

He disagreed that if 2,000 people were squeezed into 2,500 square feet that the required concentration of hydrogen cyanide to air would be reached far quicker than if

there were fewer people. He noted that "you're going to have hydrogen cyanide on the floor at the inert carrier and it's going to sit there because the room is going to be filled with solid material. And it would take hours for the gas on this side of the room to reach anyone at the other end." Asked if people running or stirring about would not cause the gas to circulate, Leuchter replied that 2,000 people in that room couldn't stir: "I'm not even sure how you could close the door on them." Asked if he had ever put 2,000 people in the room, Leuchter said: "No. But I'm sure I couldn't get them into that room." (32-9255)

Leuchter agreed that the symptoms of cyanide poisoning included vomiting, dizziness and headaches. He agreed that cyanide was not a cumulative poison, and did not stay in the body over the long term. (32-9257, 9258)