

CHAPTER III

The Biological Program at Rocky

For many years the arsenal was engaged in the production of a biological agent that affected wheat. The disease that the agent produced was called stem rust of wheat and was also known by its military terminology of TX. A wheat crop had to be infected, the spores resulting from the disease were harvested and after processing were stored under refrigeration as the spores were a viable organism and would die if subjected to heat. Some of the local residents may remember a number of years ago when there was a dearth of water in the area and yet the arsenal was watering their wheat crop every day. Upon questioning by some of the local populace the answer given was that the Department of Agriculture was conducting tests to determine how far wind blown particles of wheat would travel. This appeared to appease the questioners and no further queries were made. Rocky soon stopped producing the wheat in the north west portion of the arsenal and grew and reaped their product in other locations, the number and places will not be revealed here.

The fact that Rocky had engaged in this process was a well kept secret and many people that worked at the arsenal were not aware of it. To the best of my knowledge none of the local politicians were aware of it and when Governor Love was notified it came as a complete shock to him. It truly can be said that it was a well kept secret. This secret was revealed when the president decided to do away with the biological stockpile and made such a statement. It was first announced that Pine Bluff Arsenal would destroy all of its biological material which affected man. It was then decided to announce that all of the biological agent that affected animals and crops would also be destroyed. The two main military installations concerned with these items was Fort Detrick

located in Frederick, Maryland, and Rocky. It was decided that a news conference would be conducted after the various governors of the states involved had been notified that there were installations within their states that had biological agent stored there. Letters were to be sent to the governors through the local installation commanders. These commanders, or their representatives, were to be outside the door of the governors involved as they were to receive a phone call from the Pentagon notifying them that biological agent was stored at an installation within their state, and if they had any questions that the local installation commander, ^{or his representative,} was outside his door with a letter and would be available to answer his questions.

It was interesting to note that I was to carry a letter to the governor and be available to answer his questions when I did not have any idea as to what the letter to the governor contained. I decided that I was not about to place myself in the position of saying to Governor Love that I could not answer his questions because I was unaware of the contents of the letter. This, I believed, would have made both the military and myself look extremely bad. I proceeded to open and read the letter and had my secretary type another envelope, insert the letter and seal it. I then felt more secure in my being able to handle my assignment because I knew that Governor Love would want to read the letter and would have questions to ask.

It was not ^{long} after the governor had received his telephone call from the Pentagon before I was asked to go into his office. He read the letter and asked me some questions concerning the material at Rocky. One question was how bad was the stuff and how much should he be worried. I answered that in relation to the other material we had there it was innocuous and relatively harmless. He then asked me what else I was going to surprise him with as he had only recently learned that the arsenal had demilled some VX, a nerve agent

like that which had killed the sheep in Utah. The arsenal only had a small amount of VX on hand contained in unserviceable munitions which had been sent to Rocky for demilitarizing. I told the governor that if there were anything else there that even I would be surprised and that I had personally checked with the people at the arsenal and they guaranteed me there was nothing else, that everything the arsenal had had was now known.

When it was decided that the biological agents would be disposed of the overall coordination for the project was placed in the hands of a Lieutenant Colonel stationed at the Munitions Command located in Dover, New Jersey. He decided, at least this was the feeling of the people at Rocky, that he would be able to parlay this job into an early promotion to Colonel. The leader of Task Force Eagle had been selected for early promotion to Colonel and we felt that he was aiming for the same thing. Where the one was technically capable, reasonable and able to get along with others the one who handled the biological program, while smart, was totally unreasonable and had the ability to be able to alienate people with no great effort on his part. He became a bane to us at Rocky during the preparation for the bio demil program. There was one time that I became so perturbed with his overbearing and pompous attitude that I was about to call the Provost Marshall and tell him that from henceforth he was *persona non grata* and not to be allowed on the arsenal. Needless to say my better judgement prevailed and I did not make the call but it does give you an indication of my feelings.

It was decided that a news release covering the bio demil program would be made. Newsmen were to be allowed into Fort Detrick and Pine Bluff to see the actual facilities but no one was to be allowed to come onto Rocky. The statement was made that it, Rocky, had nothing different from Detrick but I

objected strenuously to this. My feeling was that if you let people come to see the operations at other places and wouldn't let them come to Rocky that the first impression would be that Rocky has something to hide and that is why they won't let us come there. I had originally requested that Rocky not be included in the news release at all. This was based on my feeling that all the local populace needed now was something like this after everything that had transpired in the recent pass. This was, of course, denied as it was the Presidents desire to make a clean breast of the whole affair.

A meeting was held at Fort Detrick chaired by our friend from MUCOM and attended by personnel from the installations involved in the demil as well as public affairs people from the Army Material Command and the Department of the Army. It was during this meeting that I recommended Rocky be allowed to make its own news release and to have the newspaper and television and radio people available. This was thought of as a good idea by the representatives from the Army Material Command and DA but was disagreed with by the MUCOM chairman. This in itself took a lot of gall as MUCOM was a subordinate command of the Army Material Command which in turn came under DA. When the chairman was summarizing points that had been brought up during the conference he dismissed my recommendation by stating that there was no sense in covering it as it would not be considered. Needless to say this sort of rankled me a bit and didn't raise him any higher in my esteem. I had to fly immediately to San Francisco to engage in a seminar and when I arrived I had a note to call the deputy at the arsenal which I immediately did. He told me that Rocky had been granted the right to have its own news release with the reporting media present. Needless to say I was overjoyed both at being able to present the release and as a personal triumph in that my recommendation was recognized

as valid by both the Army Material Command and the Department of the Army when it had not been so accepted by the Munitions Command coordinating officer. This was not the only time that I had made a recommendation that was not favorably considered at his level but was approved at higher levels.

The press briefing was held at the Officers Club at Rocky with representatives from the major newspapers, television stations and radio stations from within the metropolitan Denver area. A representative from MUCOM, from the Public Affairs organization, was also there and expressed his amazement at the number of persons attending the briefing and the interest shown. We at the arsenal were expecting the turnout received and this was just another instance where the people at MUCOM were not attune to the interest and the desire of the people in Colorado. I was to give the prepared briefing that had been cleared by DA and then we were open for a question and answer period. To help me during this time a biological expert from Fort Detrick, Maryland was on hand. One of the interesting questions asked was whether the agent would affect a major Colorado crop. The answer given was that being from Maryland he was not familiar with what Colorado considered a major crop. The question was then rephrased to ask if it affected a major US export crop and the answer given was yes. The rest of the questions were of the routine type except I was asked the same thing the governor had asked and that was what else did we have on the arsenal that people did not know about and my answer was the same, nothing. By this time the fact that mustard and nerve agent GB were to be destroyed, that nerve agent VX had already been disposed of, that phosgene was to be demilled and now, that the TX was there and would be disposed of, covered all of the agents in the arsenals inventory. There was nothing else.

We felt that the news briefing had gone along quite well and that we had answered the questions asked to the best of our ability and within the lines dictated to us. Armed with the hand-outs that had been prepared, pictures and narratives of the material that had been presented during the briefing, one of Denver's more enterprising TV newsmen took a trip to Greeley where he met with members of the faculty of Colorado State University. He presented the information concerning the agent described to them and asked them if they had any idea as to what it would be. After consultation they told him their ideas concerning the agent and the next day it was stated ^{in the paper} that the material at RMA was about a 99.4% possibility of being stem rust of wheat, which of course it was.

The demil of the TX was to follow the same criteria as the GB and mustard, total containment, incontrovertible evidence and impeccable safety. The facility at Rocky was not the only one involved as there was a small annex of the TX program located at Beale Air Force Base in California. We were to prepare the necessary schedules for completion of work, cost estimates and all of the other supporting documents that went along with a job like this. The first thing required was a schedule. When asked for one MUCOM was told that it would not be worth the paper it was written on as it was all estimates and that if we were given some time we could come up with some reasonably good figures. We were told that we had to submit the proposed schedule immediately which, of course, we did knowing that the times were pulled from the air. When we were not able to meet the times and dates scheduled we were berated as being inefficient and not knowing what we were doing. After all, the big wheels had been briefed and these figures had been presented to them and if the schedule were not met it would make the coordinator look bad in the eyes of those who

made out his efficiency report and whom he was trying to impress. I guess he did a good job ^{of bulling} at his level but ^{his superiors} they should have come to Rocky and asked what the people on the ground thought about how things were being run.

Let me now explain, briefly, the procedure for the demil of TX. The building in which the material was stored was completely sealed and the atmosphere inside was held at a negative pressure so if there should be a leak the air outside would come in and there would be no possibility of anything inside escaping to the atmosphere. The material was kept under refrigeration and when we asked if we could turn the cooling system off and allow the agent to die we were told no. It appeared that we had to have a living agent to destroy and this would be attested to by sampling each container. It would make people question the adviseability of the whole program if we couldn't prove by incontrovertable evidence that the material being killed was actually alive. Cabinets were constructed where the cans of agent would be introduced, opened, samples withdrawn, the can sealed and washed and then removed from the cabinet. The wash water, as well as all other water generated in the process, was to be contained in a holding tank and then burned. Rooms and showers were either built or modified so that individuals entering the building had to enter from the second floor into a room where they took off their clothes then went into another room where they were dressed in white garments and then into the building. When they left they had to go into an undressing room and then into a shower room and then into the dressing room where they would put on their clothes and leave the building. The white clothes used while within the building were to be placed in a clothes chute that went to the washer where they were washed. This water was also to be collected and burned. I left the arsenal before the project actually got underway but the thought at that time, from those above, not from the arsenal people, that this procedure would have to be followed even

if the individuals concerned with the process were to be leaving the building for a smoke break or for any other reason. I understand, and I certainly hope so, that cooler and wise heads prevailed and this was not instituted.

Prior to the actual destruction of the agent each of the containers was to be inoculated with a substance that killed stem rust of wheat spores. In order to be sure of killing the material the containers were to be inoculated twice, then sampled after a period of time, and then once determined to be inactive the agent was transferred from the container, placed in an airtight cabinet, by vacuum through a hose to the furnace, where it was burned. I may have missed a step or two but if so I believe they were relatively minor and of no major importance. What I wanted to convey to the reader was the extreme care in making sure that none of this agent was allowed to escape to the outside in any manner whatever because if it had nothing would have happened. I will explain that statement further on in my story.

I mentioned previously that there was a small amount of agent located in California. The agent had been grown and harvested there but had never been processed so most of the bulk of the material was chaff, dirt and other material accumulated in harvesting procedures. The most logical thing to have done with this material would be to have it loaded in the van that was there and driven to Rocky or even have the van loaded on a cargo aircraft and flown into Buckley and have the material combined with that which was at Rocky and have it all done together. When this was requested we were told absolutely not, that the facility at Beale would have to go through the same process as at Rocky. This meant that the small building there had to be modified and that a furnace had to be fabricated and all of the other necessary equipment and precautions had to be obtained and followed. An excessive waste of money.

Prior to the supposed starting date of the TX demil program it was decided by MUCOM that there should be another press interview. I recommended against such a repeat of what had already been accomplished. There was nothing new that could be mentioned and it would just be a repeat of what had transpired previously. I was told that there would be a press interview. My next recommendation was that the interview be held in the area surrounding the building in which the demil was to be conducted. I was told that the interview would be held in the officers club and that since I was so against it that the MUCOM representative would come out and preside at the interview. I often wondered if the local people ever thought anything about listening to people from the East tell them about how things were going to happen in their back yard when people from their backyard who were working on the program and much more knowledgeable of the program hevered in the background. I know that I would have felt more secure if I had heard what was going to happen from people that I knew, who had worked and been closely associated with the project, and had the same desire for doing a safe and good job, not dependent upon his looking good in the eyes of his superiors but because that was his job and he had done it well for years and wanted to complete it in a satisfactory manner.

Prior to the last TX news briefing the people at Pine Bluff had been allowed to release to the press the generic name of the items that they were disposing of. As I mentioned before Pine had primarily the agents that affected man and were more dangerous than the crop agents. I was discussing this on the telephone with an AMC representative in Public Relations *↓ recommended we give the generic name* and he thought that it was a good idea and asked me to write them direct and request approval for giving the generic name of TX. I sent a copy of this request to both Edgewood and MUCOM and needless to say it was not long before I received a call from my bane at MUCOM wanting to know why I had written AMC direct. I told him that they asked

to. To this he replied that I did not work for AMC. Basically he was right as I worked for Edgewood who worked for MUCOM who worked for AMC. I have always felt that when a major command requested something that it was best to accomplish what was asked for but to notify the intervening headquarters of what was going on and this I did by sending them a copy of my request. He then told me that he had been in contact with DA and Department of Defense and that they were not at all receptive to any suggestion of this type being proposed. I told him this was contrary to the information that I had received but he assured me that my efforts would be for naught as my recommendation would not be accepted. A short while later I was called from Washington to be told that my request for disclosing the generic name of TX had been approved and that it would be included in the press briefing to be held at Rocky. *(Another one for me!)*

The second press briefing covering the demil of the TX was held at the arsenal and it was conducted by the MUCOM representative and it was with great glee that I sat there and heard him state that the generic name for TX was stem rust of wheat. Once again I felt that I had achieved a triumph and it was doubly sweet as he was the one who had to make the disclosure. After the briefing the members of the news media were given a conducted tour of the facility where they were told and saw basically the same things that I have covered in this chapter. I am sure they had to be impressed with the precautions taken.

Since the process of producing TX was involved in growing wheat, inoculating the wheat with the agent and then harvesting, a number of commercial type pieces of farm equipment were used. The headers and other various pieces of the harvesters used that came in close contact with the agent were removed from the equipment and were subjected to a decontamination procedure. If the material was not able to be adequately cleaned then it was packaged in plastic until such time as it would be able to be taken to a furnace and burned. Each of the harvesters were numbered

and every piece of equipment that came from that item carried the same number. After decontamination the pieces were neatly placed in a row with the numbers showing and a certificate that they had been decontaminated and were clean. It was all very impressive to see and it made a good show when visiting dignitaries were visiting the arsenal to observe the demil process. It also was a complete waste of time and money and when I asked to have the pieces disposed of I was told that they would remain until such time as authority was granted for their disposal. It all seemed useless and silly to us at the arsenal.

I have made a number of statements regarding the undue amount of effort and precautions taken with the TX demil and I think I had better explain what I meant. There are a number of species of wheat and they are constantly being changed through hybrid breeding. Associated with the various species are races and the TX was produced so that it could be used against a certain race and species of wheat found in Russia. This wheat is not available within the United States and had to be specially procured for the program to be successful. In other words, the TX would not affect any of the wheat grown, not only in Colorado but anywhere else in the United States. In addition to this the amount of agent actually collected in relation to that which was grown was very small. The vast majority of the agent, during harvesting, either was deposited into the ground or was airborne and the actual yield was somewhere in the neighborhood of 10%. Yet there never was a reported case of stem rust of wheat in the area. The agent also had a tendency to die over a period of time. The agent was subjected to tests and when the viability of the agent reached a certain percentage it was not considered to be of any military significance and was disposed of. The way that thousands of pounds of still viable agent were disposed of was to take the agent and bury it about 12 to 18 inches deep. This was done over a period of years and caused no ill effects to any of the surrounding areas. Needless to say when this was brought

to light it caused a little consternation. The question then was what to do with the stuff. The biggest question really was where is it located in the area in which it was buried as there were no accurate records retained as to where it was put into the ground. It was also interesting to note that when some of the agent was found that it still retained almost the same viability that it had when buried. It seemed that the depth at which the agent was buried was the proper depth to sustain its life due to varying conditions. My remark to that piece of news was that we should bury it all and not have to worry about refrigeration or anything else. Whether they actually went through with the finding, digging up and demilling of the agent I do not know. However, if they did uncover the agent then how were they able to maintain their total containment policy that they had with the agent in the building?

All in all it was quite a project. There was an undue amount of caution exercised and quantities of money and time involved that were not, in my mind, warranted. When I was asked by the governor the best way to dispose of the TX I told him that it should be flushed down the toilet and that the sewage system would take care of it adequately as it was a relatively innocuous substance. I guess the reasons for all the precautions were that if something should have happened to someones wheat crop that they would have had a case against the government. One thing I failed to mention was that the ~~cmil~~ was also to be accomplished only during the non-growing wheat season in Colorado. Another precautionary measure to reduce the possibility of anyone being able to lay claim against the government for any crop failure. The cost of the project far exceeded any potential danger against the crops in Colorado since there ^{was basically no} ~~was little~~ possibility of anything happening. Was the cost involved worth it regarding the extremely small possibility of any harm being incurred if any agent were to be released, ² and historical and biological data indicate that no harm would have come to any wheat crops.

The point here is that there is still about 90,000 pounds of TX located in the northern portion of the arsenal. Considering the trouble and money involved in the demil of the TX it would seem stupid to ignore that agent. If the government decided to leave it there it would appear that this should be questioned due to the cost already expended and the amount of effort that had been expended. If the government were to say there was no danger with the TX then why was such effort taken to contain the already dead agent? The local people must request this agent be found and disposed of in the same manner as was the other. It is not known exactly where it is buried but we were able to limit its location to within 13 acres. Probably a lot of people at the arsenal aren't even aware its there.

When Shell's cooling tower sprung a leak the water used in cooling was mixed with the insecticide and carried back to the lake. The insecticide sunk to the bottom of the lake where it was ingested by ducks and fish which then died. Public opinion was so great that the lake was drained, the bottom scraped and the residue dumped across the road. The lake was filled and there was no further problem. However, the insecticide, an organo-phosphate similar to nerve agent, is still there and should be decontaminated. I know there are many people at the arsenal who are unaware of its location including the Public Information Officer until I told him about it.

If the arsenal is to be decontaminated who is to have the responsibility for determining the extent of the contamination? Most people there are fairly new and are unaware of how much, and where, contaminated items were buried. A large amount of mercury was inadvertently dumped. How many ~~there~~ are aware of the amount and the location?

I am picking the brains of some of the old timers who are aware of some of those items and hope to have more to report next month.

Any decontamination of the arsenal must be supervised by those who are aware of the extent of the problem and this does not include anyone in any of the higher headquarters. Those who know are here in Denver.