

**MINUTES OF THE ST. MARY'S COUNTY BOARD OF APPEALS MEETING
CENTER HALL * SOUTHERN MARYLAND HIGHER EDUCATION CENTER
44219 AIPIRT ROAD * CALIFORNIA, MARYLAND
Wednesday, December 8, 2004**

Present: Marie Underwood, Chairperson
George Allan Hayden, Vice Chair
Greg Callaway, Member
Ronald C. Delahay, Member
Michael Hewitt, Member
Joseph R. Densford, Attorney for the Board of Appeals
Denis Canavan, Director, Department of Land Use & Growth

Management
Yvonne Chaillet, Planner III, LUGM
Sharon Sharrer, LUGM Recording Secretary

Present as an observer was the Board's second Alternate, David Wayne Miedzinski. A sign-in sheet is on file in the Department of Land Use & Growth Management (LUGM). All participants were sworn in. The Chair called the meeting to order at 6:32 p.m.

PUBLIC HEARING

ZAAP #99-0093 – MCINTOSH SUBDIVISION APPEAL

Pursuant to Section 66.1 of the St. Mary's County Zoning Ordinance, adopted August 1, 1990, appeal of the St. Mary's County Planning Commission's February 28, 2000 decision to approve Section I, Phase I and the phasing plan for McIntosh Subdivision. The property contains 792.836 acres, is zoned Rural Preservation District (RPD), and is located on the west side of McIntosh Road approximately 3,800 feet southeast of MD Route 235 in Hollywood, MD; Tax Map 19, Block 18, parcel 59.

Owner: Robert S. Gollahon
Present: Gorman E. Getty, III, representing Robert Gollahon
John B. Norris, Jr., of NG&O Engineering, Inc.
Heidi Dudderar, Assistant County Attorney, representing St.
Mary's County
Joseph R. Densford, representing the Board of Appeals

Applicant's Exhibit A-17 Exhibit book with timeline created by Warren L. Parker
Applicant's Exhibit A-18 Curriculum Vitae for Warren L. Parker
County's Exhibit C-22 DOD Publication 6055.9

Testimony in this case began on December 7, 2004. The Applicant's attorney introduced Mr. Parker, and started the hearing with his testimony at that meeting. The County's cross-examination of Mr. Parker will continue from the point it left off at the previous meeting.

Ms. Dudderar reminded Mr. Parker of his statement at the previous meeting that the impact of a detonator would be similar to the impact of a firecracker. Ms. Dudderar asked him if a single blasting cap could cause injury. Mr. Parker said that it would have the ability to take off a finger. She asked if a single booster would cause injury. He responded that it could cause injury if you managed to get one detonated. Ms. Dudderar asked about a single squib. Mr. Parker said that it would have characteristics similar to that of a single match. She asked about a flash tube. He responded that all flash tubes he is aware of are empty, since they are designed to be clear and free passage for the explosive force from one detonator to reach another one. She asked

about a single rocket warhead, which was filled with high explosive. He said that it would have substantial explosive power. Ms. Dudderar asked about the impact of buckets full of detonators. Mr. Parker said that this had been his main concern, when he was initially contacted about this site.

Ms. Dudderar asked if Mr. Parker was aware of any accidental, or unplanned, incidents or explosions. Mr. Parker responded that he was informed of a couple of explosions, which were attributed to a static ignition at the time they occurred. He said that he had told both the Thiokol and the HFA representatives that static ignition didn't fit the circumstances, since the temperature and humidity were very high and it takes a level of humidity near 0% to generate static discharge. He said that he had advised them to look for another source.

Ms. Dudderar asked if Mr. Parker had ever had primary responsibility for the remediation of a site, in which he would have to certify the site for a specific end use. Mr. Parker responded that he had not. He said that he was not aware of any regulation which requires a certification for end use by an ordnance remediation person. She asked if he had ever drafted a work plan for remediation. Mr. Parker said that he had not. Ms. Dudderar asked Mr. Parker if most of his remediation experience related to remediation on active military installations. He said no.

Ms. Dudderar asked Mr. Parker about the depths DOD guidelines require for clearance of ordnance materials. She asked if his previous testimony had been that the guidelines require adherence to minimum assessment depths only when site specific information is not available. Ms. Dudderar distributed DOD publication 6055-9 to the Board. Mr. Getty asked if this would be marked as an exhibit. The publication was marked as County's Exhibit C-22. Citing a summary from page 061 of Applicant's Exhibit A-17, Ms. Dudderar read that "the depth to which the waste explosives might have been buried is unknown. However, they were allegedly buried at depths from 2 to 10 feet." Mr. Parker said that he didn't consider that to be site specific information. He said that the testimony of former employees is that the cans were buried at depths from 3 to 6 feet, and that nothing had been found at depths greater than 4 feet. Ms. Dudderar asked how many of the sites were cleared to 4 feet. Mr. Parker responded that he didn't think that any entire site was cleared to a depth of 4 feet. Ms. Dudderar asked, based on the UXB site certificates of clearance, what the certified clearance depth for most of the area had been. Mr. Parker said that they took off one foot of dirt where they found things, and then resurveyed.

Mr. Getty asked Mr. Parker if he had ever had the occasion to review the work plan that was approved by the State Fire Marshal and implemented by Apex. Mr. Parker responded that he had. Mr. Getty asked if that work plan, as approved by the State Fire Marshal, was implemented and executed by Apex. Mr. Parker said that it had been. Mr. Getty asked if the depth of excavation had been part of the terms of the work plan. Mr. Parker responded that it was. Mr. Getty asked, when talking about regulations and depth of clearance, if clearance was considered to be the physical removal of all of the earth to a certain depth or the investigation of the site to a specific depth. Mr. Parker said that clearance, in this situation, meant looking at the site using instrumentation that has the capability of looking at those specific depths, not excavation. Mr. Getty asked if HFA and UXB looked at the property to the clearance depths required. Mr. Parker responded that they had. Mr. Getty asked Mr. Parker to explain what search and grid lanes are, as they have application to geophysical surveys and mapping. Mr. Parker said that they are systematically laying out the property so no single part is left uncovered by your search implementation. Mr. Getty asked if there was any evidence that any explosives described previously remained on property, after the activities of HFA, Apex, and UXB. Mr. Parker responded that none of those items are still on property.

Ms. Dudderar reminded Mr. Parker that he had said, the previous evening, that a detonator or two might still be there. She asked how he could say now that none remained on the property. Mr. Parker said that he was talking about the lists of items previously recovered when he said that none of those exist any more. Ms. Dudderar asked if the State Fire Marshal, or

any other government agency, had ever certified or given clearance of this property for residential use. Mr. Parker responded that it was not part of the process.

Mr. Hewitt asked Mr. Parker what caused the explosion that blew up the concrete buildings. Mr. Parker responded that the building was called a blending building, where raw materials were being blended in their pure state, which is very hazardous. Mr. Hewitt said that a 750 acre fire burned in the swamp for days. He asked if the procedures used in 1992 and 1999, to test for the presence of explosives, are still the same ones being used today. Mr. Parker asked if he meant the hammer fall test and the burn test. Mr. Hewitt responded that he meant the procedures used to test to see what was underground. Mr. Parker explained that the survey equipment and instrumentation does continue to be refined and improved, but that same basic equipment is used. Mr. Hewitt asked about the millions of detonators buried in 5 gallon containers, and asked if all of the containers had been removed. Mr. Parker said that, to the best of his knowledge and considering all of his research, those 5 gallon containers are all gone.

Mr. Delahay asked if Mr. Parker made any allowance for human error. Mr. Parker explained that there were two remediation efforts, involving more than 40,000 man hours of effort and the best technology that could be placed on the site. He said that with the instrument surveys, the former employees' directions and guidance, and the physical findings of both HFA & UXB the areas where things were buried were all covered, some of them twice. Mr. Delahay asked why they couldn't have missed something, if they don't cover every square inch. Mr. Parker responded that you could miss one here and there, but you can't miss mass amounts. Mr. Parker said that the one or two that might have been missed would not be dangerous. Mr. Delahay asked about depths required for clearance. Mr. Parker responded that the depths of clearance didn't mean that all of the dirt had to be physically removed. Mr. Delahay asked what the government had said about this being a subdivision, and the difference in the standards required. Mr. Parker said that regulations are set up by DOD to establish procedures to clear areas in which they have operated. Mr. Delahay asked if it was explained to the government that this site would be a subdivision one day when the property was cleaned. Mr. Parker said that residential use was part of Thiokol's plan from the beginning. He said that UXB created a work plan based on the premise that they were clearing for residential use.

Mr. Hayden asked if any of the blasting caps discussed earlier were left on site. Mr. Parker responded that none of those, which were recorded, are still there. Mr. Hayden asked what the effect of time would be on these, after being under ground for 40 years. Mr. Parker said that most of these materials would become less sensitive, less reactive, over the years. He said that, for most of the materials involved, it would take a substantial quantity for them to react explosively, and then it must be initiated with the proper stimuli. Mr. Hayden asked, with residential use probable, how Mr. Parker can assure the Board that the site is actually safe for that residential use. He asked Mr. Parker to compare the safety of this site to the safety of the same size property located on the other side of MD Route 235. Mr. Parker said he could see no difference between the two properties, that there would be no greater or lesser degree of danger for residential development.

Ms. Underwood asked Mr. Parker how many of the sites he that he was a remediation expert on were planned to be residential sites. Mr. Parker said that most of his remediation efforts have been as a result of an explosion or accident on manufacturing sites. He said that he has not cleared any former defense sites for residential development. Ms. Underwood asked if, buried at a depth of 10 feet, the grid survey would have recognized flash tubes, blasting caps, and 2.75" rocket warheads as anomalies. Mr. Parker responded that the rocket warhead would have been recognized as an anomaly. He said that flash tubes are inert, merely empty steel tubes. He said that the grid survey would probably not find the blasting cap buried at 10 feet.

Mr. Callaway asked Mr. Parker to describe a hammer fall test. Mr. Parker said that it is a standard test used to ensure safety during transportation, testing the reactivity of the material to impact. He said that there is a steel bar with a sliding steel weight, at a predetermined distance

above a steel base. The item to be tested is placed on the steel base. The string is pulled and the weight falls on the item being tested. Mr. Callaway asked how far from the test people would stand when hammer fall test is being conducted. Mr. Parker responded that they generally would stand behind a shield, as they would be expecting an explosion. Mr. Callaway asked if there was any chance of the buried detonators crystallizing, and becoming very unstable. Mr. Parker said that would not be part of the process. Mr. Callaway asked if the only way that any remaining detonators could go off would be by fire. Mr. Parker responded that heat or flame, in his opinion, would be only way. Mr. Callaway asked if there was any record of how many lots were discarded. Mr. Parker said that best evidence was the testimony by the three former employees. He said that he had looked for manufacturing data, but could not find evidence of how many made lots were made or how many were discarded. Mr. Callaway asked how many detonators would be in a lot. Mr. Parker said that he couldn't find any evidence of lot sizes.

Mr. Hewitt asked about the age of the explosives, and if there was any chance that if you touch something it would explode. Mr. Parker said that he thinks that small detonators would be the only thing that could remain on the site, and that they are insensitive to impact.

Mr. Getty asked Mr. Norris to show the Board the concept plan plat, which was done as a part of the survey work by NG&O Engineering for the McIntosh Subdivision. Mr. Norris explained that it shows part of property, specifically Section 2, Phase 1. He pointed out the part of the plat showing the plant site and test area, which are deed restricted, and showed where this was in relation to the remainder of the property. Mr. Norris explained that his firm had physically surveyed the extremities of site. He said that perc testing was done, and that survey accurate locations for these tests are shown on the plat.

Mr. Getty presented a letter from John F. Taylor, Sr., written to the Board of County Commissioners at the time of the previous hearings. He said that the letter which contains a synopsis of the information presented to the Planning Commission, as well as the thoughts of the Planning Commission members, when the McIntosh Subdivision was originally reviewed by the Planning Commission. Mr. Getty explained that this had been refused as an exhibit at last Board of Appeals hearing of this case, and asked to have it included as an exhibit at this hearing. Ms. Dudderar said she thought that part of the rationale for the refusal at the last hearing was that the letter was marked confidential and personal. Ms. Underwood asked for the opinion of the Board members. Mr. Delahay said that it shouldn't be included since the letter was written from Mr. Taylor as an individual. Mr. Hewitt said that if it was relevant, Mr. Taylor would be at the hearing. Ms. Underwood explained that it was the feeling of the Board that the letter would not be considered. The letter was marked A-19, but was not accepted into the record as evidence.

Wayne Lewallen, part owner of Explosive Ordnance Technology, Inc. (EOTI), testified as an expert witness for the County. He said that his educational background is documented in his previous testimony. He explained that he has many years of experience with the military, attending the same schools as Mr. Parker. He said that he has about 24 years of experience, including both military and civilian, in explosive ordnance technologies. He explained that the last 7 ½ years of experience was specifically designed for site remediation.

Ms. Dudderar asked if Mr. Lewallen had ever been involved in the remediation of a site in which explosives or ordnance were manufactured and then buried as a means of disposal. Mr. Lewallen responded that he has been involved in 4 previous sites that have been turned around for potential residential usage. He explained that one site in New Jersey, which was previously 75mm ordnance site, had a detonation explosion on it. At a later time, the state wanted to build on the site, which has been done successfully. Mr. Lewallen said that he started out as a technician on that site, removing that ordnance. Another site, in Connecticut, was a civilian site which has evolved into a successful residential development. He said that on the third site, another site in New Jersey, the homebuilder has elected not to build. The fourth site, a manufacturing site, was in Joplin, Missouri.

Ms. Dudderar asked Mr. Lewallen what information was important for him to have in order to adequately locate, identify, remove, and dispose of varied Unexploded Ordnance (UXO). Mr. Lewallen responded that several items were required in order to do that. Mr. Lewallen told the Board that they always needed to keep in mind the end land usage, or what you are going to do with that land at a specific point in time. He said that the information you must have includes historical data, important geophysical data, and the future land usage of the site. In addition, he said that specific information from personnel who have been on the site, newspaper clippings, and anything else you can draw expertise from for the actions which previously occurred on that site. Mr. Lewallen said that the first thing he did when he analyzed this site was to look at the future usage of the property. Next, he went through paperwork including Thiokol reports, field reports, daily logs, correspondence, photographs, work plans, and final reports. He said that he consulted with the Army Corps of Engineers. He explained that his job was to take a look at everything and base his opinion on what had been conducted up to this point, for future end use of this property.

Ms. Dudderar asked Mr. Lewallen about the impact of various types of ordnance, and the injury they might cause. Mr. Lewallen said that Mr. Parker is correct on the impact of detonators. He said that there would be a limited amount of injury with a single detonator, but they could be catastrophic with in large amounts. Mr. Lewallen said that blasting caps contain more of an explosives component, and you could lose a finger or an eye if one were to go off. He said that military dynamite is not as sensitive as commercial dynamite, but if it were in a sack in conjunction with detonators it would boost the detonation process. Mr. Lewallen said that rocket warheads with high explosives were designed to shoot through a tank or an armored vehicle. He said that squib would cause minimal injury.

Ms. Dudderar asked Mr. Lewallen about HFA's daily operations journals. Mr. Lewallen explained that there was a reason that people withdrew from the site with dizziness and tightness of their chest, which is indicated in the daily operations journal. He said that there were two pronounced explosions, while preparing the worksite for sifting, which were not intentional explosions. He explained that the explosions were attributed to static. Mr. Lewallen explained that he is very concerned with the effects of time on these devices. He said that the effect of time depends on the type of explosives involved. Mr. Lewallen said that these detonators and primers are encased, and are designed to be protected from elements. He said that, since they are encased, he feels that they would still retain the ability to be susceptible.

Ms. Dudderar asked Mr. Lewallen about a Thiokol corporate document from a project manager to Mr. Parker. Mr. Lewallen explained that, in his experience, it was common practice to bury items, and to dump them at sea. He said he was very concerned by the last sentence of the document, which says that there are full up boosters large enough to kill, if exploded. Mr. Lewallen said that he feels that the project manager, who wrote the letter, even though he was not a DOD Unexploded Ordnance (UXO) Technician, would have a good idea of the potential effects because he worked with this stuff daily.

Mr. Lewallen expressed concern about another Thiokol document. This letter stated that some of the detonators may have had primer mixed charges, which would make them more stab sensitive. The letter went on to say that, with or without the primer mix, these must be considered extremely hazardous. Mr. Lewallen said that the item in this letter which concerned him the most was that Mr. Roper, who wrote the letter and who had intended to go to the site and locate some of the buried containers, abandoned his plan to find them due to the prospect of pushing a shovel into a can of detonators. He explained that the person who wrote this letter had a lot of experience with this particular site and knew the hazards that existed out there.

Ms. Dudderar asked Mr. Lewallen how many work plans were drafted, and by whom. Mr. Lewallen said that there was a work plan developed by HFA. He said that there was also an Apex work plan, with a UXB work plan as part of it, at a later date. Mr. Lewallen said that the HFA work plan showed no indication of future land use. He feels that UXB did have a future land

use in mind, but he feels that some of the critical components of developing the work plan were not put into action under the work plan. Ms. Dudderar asked if one of those critical components would be the adherence to the DOD guidelines. Mr. Lewallen said that adherence to the DOD guidelines would be the biggest component.

Mr. Lewallen said that he believed that the equipment and data available at the time was adequate, but that the way the geophysical operation was put into effect was not. He said that his geophysical contractors have told him that a geophysical survey done with 20 foot line spacing would only have detected large pits or large areas of disturbance. He said that he could not find any evidence that anyone used this geophysical technology to locate ordnance, except for those areas UXB returned to, to work on specific sites.

Ms. Dudderar asked Mr. Lewallen to walk the Board through the process of what he would have done if he had been hired by Thiokol to remediate this property. Mr. Lewallen said that the first thing he would have done would have been to ask Thiokol what they were planning to do with the property. Then he would have looked at the potential development, and the specifics of what was planned at each of the different sites. He said that he would have taken the information and would have made a site visit, looking at the historical data, looking at what had been recovered, talking to anyone he could find who had experience on the site, and then he would start formulating a plan based on all of the information. Mr. Lewallen said that he would have taken a specific portion of the area and done an overall investigation, as was done by Geophex. After completing this, Mr. Lewallen said that he would have devised a work plan based on items which may have been found during the survey of that specific area, the items that are known to have existed from historical data, and the items that are known to have existed from testimony. He said that he would have developed the work plan in accordance with DOD 6055.9 for what the requirements would be based on the worst case munitions probabilities. The table on 6055.9 specifies the depth of clearance needed for specific end land uses. Mr. Lewallen said that he has never seen the Army Corps of Engineers approve anything for residential development which did not go down to at least 4 feet.

Ms. Dudderar asked if Mr. Lewallen had ever worked on any sites with buried UXO that he would recommend ultimately for residential development after remediation. Mr. Lewallen responded that he had already done this. Ms. Dudderar asked Mr. Lewallen if, in his opinion given the history of this property, the potential for additional buried UXO poses an unreasonable risk of harm to people working, living, or playing on the property. Mr. Getty objected to the question, since this is the ultimate question that the Board has been tasked to answer. Ms. Underwood said that Mr. Parker had already expressed an opinion as to the fact that the site was completely safe. Mr. Lewallen explained that he has had almost 25 years in the business, not just from an explosives and ordnance standpoint but more in the last 7 ½ years from a remedial standpoint where he sees this everyday. He said that his children would not be on that site, not until the processes he has discussed have been completed. Ms. Dudderar asked, in his expert opinion, if this property should be developed for residential uses. Mr. Lewallen said that this property should not be developed for residential usage until some of these procedures have been put in place to follow the guidelines, which were written in to original work plan.

Ms. Dudderar asked Mr. Lewallen, if the Board of Appeals were to approve this development but impose some kinds of conditions or restrictions, what his recommendations would be with respect to conditions or restrictions to be placed on the property. Mr. Lewallen explained that any proposed residential areas should have to go through certain procedures. These procedures are to go back through and look at the historical documents and talk to people, and to follow the guidelines of DOD 6055.9 to write the work plan with the worst case scenario in mind. He said that if the area is not remediated by these guidelines, a deed restriction would have to be imposed.

Ms. Dudderar asked if it would be appropriate to enforce deed restrictions. He explained, in his opinion, that deed restrictions which do not restrict access can not be enforced. Mr.

Lewallen said that any deed restrictions should contain a requirement to contact construction support whenever it is necessary to go to any deeper depths than the original remediation depth for the area. Mr. Lewallen said that if, just access restriction was being imposed on an area where no construction was to occur, the entire area would have to have a geophysical survey and at least a one foot survey would need to be done throughout the area. He said that this would need to use geophysical technology that left no gaps in coverage.

Ms. Dudderar asked Mr. Lewallen if he would require, or recommend, additional survey of the property. Mr. Lewallen responded that he would. Ms. Dudderar asked if he would recommend that the restrictions requiring a construction support crew to be in place during construction be enforced. Mr. Lewallen said that he would require that, but that some of his recommendations would be based on the information received from the additional survey. Ms. Dudderar asked Mr. Lewallen what his recommendation would be if, during additional surveying, something was recovered on a lot. He responded that the next step would be to go back and make changes in the work plan based on DOD 6055.9 and send the amended work plan back in for approval.

Mr. Getty asked Mr. Lewallen if he would agree that the last manufacturing activity on this site took place approximately 48 years ago. Mr. Lewallen agreed. Mr. Getty asked if igniters and detonators were the primary items manufactured at the site. Mr. Lewallen said that these were the primary items manufactured, with a lot of boosters included. Mr. Getty asked Mr. Lewallen if there had been any incident of injury to any person documented due to exposure to explosive materials on the site. Mr. Lewallen said that there had been detonations, but no injuries that he could recall. Mr. Getty asked if there had been any report of property damage during that same timeframe. Mr. Lewallen responded that he could not recall any, except for the detonators which were embedded in trees.

Mr. Getty asked Mr. Lewallen if he knew of any UXO which have been found or recovered on this site since the conclusion of work by Apex and UXB. Mr. Lewallen said that he has no information that any have been found. Mr. Getty asked Mr. Lewallen if the discovery and the recovery have occurred in the areas of the plant and the test facilities. Mr. Lewallen responded that there has been some discovery and some recovery, but he said that he would not agree totally. Mr. Getty asked if Mr. Lewallen would agree that no UXO were recovered on the southern part of the property. Mr. Lewallen responded that no correct geophysical survey to recover UXO was done on the southern part of the property. Mr. Getty asked if Mr. Lewallen had any information from HFA, or from Apex, demonstrating that UXO was recovered on the southern part of the property. Mr. Lewallen said that he had not.

Mr. Getty asked Mr. Lewallen if he was aware that the County had withdrawn any objection to the development of 5 lots in the southeastern portion of the property. Mr. Lewallen responded that he was aware of that. Mr. Getty asked Mr. Lewallen if he was aware of any information that, in regards to the other 6 lots in the same area, is different in terms of the presence of UXO. Mr. Lewallen said that he is not aware of any information of the presence of discovered UXO in that area. Mr. Getty asked if Mr. Lewallen had found any historical data of the manufacture, testing, or disposal of explosives in the southern part of the property. Mr. Lewallen responded that he had not.

Mr. Getty asked Mr. Lewallen if he was aware that the records reflect that geophysical surveys were done on this property. Mr. Lewallen responded that there were two types of geophysical surveys done. He said that one was a preliminary survey, and one was a specific survey. Mr. Lewallen agreed that these surveys were done by Geophex and by Apex, or someone on behalf of Apex. He said that the first, preliminary, survey was done to acquire background information. He said that the second survey, done by UXB, would have been more site specific. Mr. Lewallen qualified that this second, more specific survey, was only done in certain areas.

Mr. Getty asked if the State Fire Marshal's office was the entity involved in the establishment of a work plan for this specific project. Mr. Lewallen responded that he did not know the required policy in the State of Maryland for that procedure. Mr. Getty asked Mr. Lewallen for confirmation that a work plan for the northern portion of the property was approved by the State Fire Marshal. Mr. Lewallen agreed that it was. Mr. Getty asked Mr. Lewallen if the end land use was made known to the State Fire Marshal. Mr. Lewallen responded that he believed this was the case, during the later remediation efforts.

Mr. Getty asked Mr. Lewallen if he had done any mapping showing the precise location of any unexploded, unrecovered ordnance on the property. Mr. Lewallen responded that he has not done a geophysical survey on the property, so he could not possibly have done so. Mr. Getty asked Mr. Lewallen if he had any specific evidence that the site remains unsafe. Mr. Lewallen responded that he could not provide specific evidence without a proper geophysical survey.

For clarification purposes, Ms. Dudderar asked Mr. Lewallen if the southern portion of the property has not been the subject of an appropriate geophysical survey for residential land use. Mr. Lewallen said that it had not been. Ms. Dudderar asked Mr. Lewallen if he was aware of any evidence that the State Fire Marshal has certified, or specified, that this site is safe for residential use. Mr. Lewallen responded that he was not.

Mr. Hewitt asked Mr. Lewallen if his primary point was that the recovery effort digging was not deep enough. Mr. Lewallen said that his primary point was that initially the proper geophysical survey was not conducted to make a determination of the required dig depths prior to doing a proper work plan and getting approval. Mr. Hewitt asked if the procedures used in 1992 and 1999 were no longer used. Mr. Lewallen said that these procedures have been upgraded to the point where the technology is much better, and there are other types of equipment that are better. Mr. Hewitt said that his primary concern is that Mr. Lewallen's testimony is unsupported and unsubstantiated. Mr. Lewallen said that it was supported, based on his familiarity with the procedures and the fact that he does remedial activities daily. He said that his basic premise is that the geophysical survey was not done to an effective level based on the items found in the documents. Mr. Lewallen said that, based on the list in evidence of the items removed from the site using a poor to low geophysical search to find these items, he would almost guarantee that there are items out there that could hurt, and possibly kill, someone which have not been found yet.

Mr. Hayden asked Mr. Lewallen to explain the type of explosive in the booster and how sensitive it is after being in the ground, in the moisture, for 40 years. Mr. Lewallen said that the booster is not as sensitive as the initiating explosives would be, but that it is probably slightly more sensitive than the secondary explosives at the end. He said that it is not uncommon for excess items, even if perfect, to be buried when a site was being closed down. He added that many items could be bagged together. Mr. Hayden asked how difficult it would be to miss a rocket warhead with a survey done using 20 foot line spacing. Mr. Lewallen said that, from his own experience on sites using new and better technologies, sites have failed because something as large as a 40mm grenade buried only one foot down was missed. Mr. Getty objected, based on the fact that Mr. Lewallen is not a geophysicist. Ms. Underwood explained that the Board is trying to gather as much information as possible. Mr. Hayden asked Mr. Lewallen why he had made the comment that HFA was not satisfied with Site 23. Mr. Lewallen said that Site 23 was the only site he could find that they had gone back and gone down to a 4 foot depth of clearance, for part of the site, and the fact that they went back raised a red flag for him.

Ms. Underwood asked Mr. Lewallen if, other than the risk of explosion, any of the chemicals which might be in the soil might be toxic. Mr. Lewallen said that he didn't feel that he could answer that question since that toxicity is not his expertise.

Mr. Callaway asked if anything was found in the "mystery" pits, and if there is any documentation of where these pits are located. Mr. Lewallen said that the "mystery" is that during

the preliminary and subsequent geophysical surveys, you would have assumed that they went deeper than one foot in depth but it never happened, except for portions of Site 23. Mr. Callaway asked to what depth the equipment used would be able to detect. Mr. Lewallen responded that it depends on the size of the item and your pass, in relation to the item. Mr. Getty objected stating that Mr. Lewallen is not a geophysicist. Mr. Lewallen said that he works on sites with geophysicists on sites all of the time, and he has seen this occur even with today's better technology.

Mr. Getty asked Mr. Lewallen if he was an expert in land use, in zoning, or if he was a planner with respect to the development of real estate. Mr. Lewallen said that he was not an expert in these areas. Mr. Getty asked if Mr. Lewallen if his expertise is site remediation. Mr. Lewallen agreed.

Mr. Getty asked if the County was finished. Ms. Dudderar explained that she was. Mr. Getty noted an objection to County's Exhibits C-20 and C-21, items of correspondence to Ms. Dudderar from the Office of the State Fire Marshal and from the EPA. He explained that there was no support in any testimony as to their relevance. He said that if the letter from Mr. Taylor was inappropriate, these letters are inappropriate as well. Ms. Dudderar said that she had no objection to removing these items from the record.

It was suggested that the Chairman open the hearing to the public before ending the hearing for the evening. The public hearing opened and closed with no public comment.

Ms. Dudderar reminded the Board that it had been agreed that she would have the opportunity to submit a memorandum to the Board prior to the time a decision is made by the Board.

The Board decided that the hearing would continue on Tuesday, December 28, 2004, in Room 14 of the Governmental Center in Leonardtown. Written closing arguments will be accepted from the attorneys prior to that time.

MINUTES APPROVED

The minutes of November 18, 2004 were approved as submitted.

ADJOURNMENT

The meeting was adjourned at 10:02 p.m.

Sharon J. Sharrer
Recording Secretary

Approved in open session: January 13,
2005

George Allan Hayden
Vice Chair