DEPARTMENT OF THE AIR FORCE
AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT
LACKLAND AIR FORCE BASE TEXAS

10 January 2011

MEMORANDUM FOR THE GALENA RESTORATION ADVISORY BOARD

FROM: AFCEE/EXC

SUBJECT: Nuclear Weapons Storage/Use at the Former Galena Forwarding Operating Location (FOL), Alaska

The purpose of this letter is to address concerns raised by the public during previous Restoration Advisory Board (RAB) meetings. The concerns relate to the possibility of nuclear weapons storage/use and associated releases at the former Galena FOL. The following comments or anecdotes were presented by the public:

1) An article was provided to the Air Force describing an October 27, 1962, incident where the Alaska Air Defense Command scrambled a pair of F-102 interceptors armed with nuclear warheads from Galena FOL to protect a U-2 reconnaissance plane in Russian air space (refer to http://www.gwu.edu/~nsarchiv/nsa/cuba_mis_cri/dobbs/maultsby.htm).
2) A Galena resident recalled an airplane accident, circa 1986, in which an F-16 crashed off the end of the runway. He suggested that the aircraft may have been carrying a nuclear weapon that went in the Yukon River.
3) A Galena resident was employed by an Air Force contractor and recalled that during field work conducted in 1986 a soil sample was collected that emitted high levels of radioactivity (Note: data from this 1986 field work is included in the administrative record at-- http://www.adminrec.com/TOC.asp?Base=Galena&Command=PACAF, AR IR 09-11).

The above concerns were forwarded to experts at the Air Force Safety Center (AFSC) and Air Force Radioisotope Committee Secretariat (AF RICS), along with a general request for any information regarding possible nuclear weapons storage/use, as well as related incidents or accidents at Galena FOL. The AFSC and AF RICS are experts in these matters and have access to Air Force historical records concerning incidents or accidents involving nuclear weapons. Below is a summary of the results from their records review and analysis:

1) The aircraft commonly used for fighter-interceptor missions from Galena FOL was the F-102, as mentioned in the article. While this type of aircraft could be armed for air-to-air "dog fighting" or close air support to ground forces, its internal missile bays were used to carry air-to-air missiles with the Falcon missile being the only missile carried by the F-102 with both nuclear and conventional variants. The nuclear variant carried a sealed-pit style nuclear weapon that would not have released any residual radioactive materials or radioactivity, unless there was a reportable aviation accident that involved conventional explosives detonations and/or fire. The only Air Force aviation accident reports associated

with the Galena FOL were for aircraft that were on training missions. It is highly unlikely that nuclear weapons would have been deployed for such training missions.

2) Throughout the Cold War era, the Air Force deployed nuclear weapons throughout the Contiguous United States (CONUS) and Outside the Contiguous United States (OCONUS) for defense purposes. Although aircraft like the F-102 or F-16 were operationally capable of carrying nuclear munitions, this does not necessarily mean that these aircraft always carried nuclear munitions. The only Air Force aviation accident reports associated with the Galena FOL were for aircraft that were on training missions. It is highly unlikely that nuclear weapons would have been deployed for such training missions. No Air Force nuclear weapons incidents or accidents, such as the loss of nuclear munitions in the Yukon River, have been reported for Galena FOL or even within the State of Alaska.

3) The radioactivity in the 1986 soil sample is not connected with nuclear weapons. The results of the AFSC investigation concluded that Galena FOL did not stockpile early, unsealed nuclear weapons that had the potential for radioactive maintenance wastes. No Air Force nuclear weapons incidents or accidents have been reported for Galena FOL or even within the State of Alaska.

a) The referenced soil sample with elevated radioactivity from the 1986 field work is not due to a release of weapons grade radioactive material. The Geiger-Muller Counter is a simple field screening tool that detects ionizing radiation, but it only detects the presence of ionizing radiation and does not identify which radioisotope is causing the ionizing radiation. The Geiger-Muller Counter readings are challenging to interpret if the source radioisotope is unknown; thus, these 1986 results were forwarded to an AF RICS Certified Health Physicist for expert analysis. To be conservative, the Certified Health Physicist reviewed the results assuming that the radioisotopes present could be associated with weapons grade radioactive material (e.g., Radium-226 or Caesium-137). This analysis indicated that the level of radioactivity was not elevated enough to be from the release of weapons grade material.

b) The maximum Geiger-Muller Counter reading of 90 counts per second (cps) was documented for one soil sample, collected 0-5 feet below ground surface, within the Petroleum, Oil, Lubricant yard (i.e., cleanup Site ST005). The maximum reading was less than two times the background levels (roughly 40-60 cps). Radioactivity at this level is not sufficiently above background level to raise any human health or safety concerns.

If you have any additional questions regarding the information provided, please do not hesitate to contact me at (210) 395-8239.

Regards,
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BEC Galena FOL

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