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Dr. M. J. Aldrich, Project Leader
Los Alamos National Laboratory
EES-1 Division, Mail Stop D462
P.O. Box 1663
Los Alamos, New Mexico 87545

Record of Bill Francis Interview for OU 1071 Work Plan

Dear Dr. Aldrich:

Enclosed is a record of the interview which was conducted with former Zia Company employee Bill Francis from 8:30 AM to approximately 11:00 AM on Thursday, May 9, 1991.

Please note that the interview record is a compilation of handwritten notes taken by the IT representatives during the course of the meeting. As such, the interview record should not be considered as a complete or accurate transcript.

Sincerely,

Carole A. Lojek

Carole A. Lojek
Task Leader

cc: A. Adams, EES-1
C. Harrington, EES-1

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RECORD OF BILL FRANCIS INTERVIEW FOR 1071 WORK PLAN

The following is a record of the interview which was conducted with former Zia Company employee Bill Francis from 8:30 AM to 11:00 AM on Thursday, May 9, 1991. The interview was conducted in order to obtain additional information on operations in, and potential wastes generated at Technical Areas (TAs) 0, 19, 26, 73, and 74 which are within Operable Unit (OU) 1071. Participants of the interview included: J. Aldrich, EES-1; C. Harrington, EES-1; C. Lojek, IT-Los Alamos; D. Filemyr, IT-Los Alamos; and K. Kaal, IT-Los Alamos.

At the beginning of the interview, Bill Francis mentioned that he worked at Los Alamos National Laboratory as a Zia Company employee from July 1947 until he retired in January 1983. During much of that time he was extensively involved in field work and therefore has a good knowledge of the entire site and he knew many people who worked at the Laboratory. The following represents Mr. Francis's response to specific questions about Solid Waste Management Units (SWMUs) located in OU 1071.

TECHNICAL AREA-0

X Mortandad canyon surface impoundments (SWMU 0-001) - Mr. Francis remembered a concrete weir being built possibly in Mortandad Canyon. The weir was used for stream flow and not as settling basins which was the intent of the surface impoundments. He had no specific information on the location and date of construction of the impoundments.

Container storage area/6th Street Warehouse (SWMU 0-004) - Mr. Francis said that the Zia Company housed their own materials including construction and maintenance materials (i.e., asphalt), lubricants, pesticides, herbicides, and solvents. He said that Zia primarily stored raw chemicals and that all wastes were sent to the airport dump.

Mortandad Canyon landfill (SWMU 0-005) - Mr. Francis had no specific information on the location of the site or the contents of the 55-gallon drums stored there. He had no information on studies involving radionuclide uptake in vegetation conducted at this site.

Surface disposal near MDA-B (SWMU 0-010) - Mr. Francis had no specific information on the location of the site or the operations associated with visible trenches and mounded earth at the site. He did recall that the area was formerly a trailer park which was relocated due to potential health hazards caused by stack emissions from TA-2. He also recommended contacting Mr. George Ponton who was formerly the operator of the contaminated laundry.

Mortar impact area at Barranca (SMWU 0-011d) - Mr. Francis had no specific information on the location or the operations of the site.

Mortar impact area at 37mm canyon (SWMU 011e) - Mr. Francis had no specific information on the location or the operations of the site. He mentioned that Mr. Carl Lyon

ordered 37mm tanks from Ft. Hood for the Protective Force (Pro Force). He noted that a 1964 letter from Ben Williams (Head of Laboratory Survey Department) suggested that 37mm canyon is an area that probably should be fenced. Since Mr. Robert Drake's name was in this letter, Mr. Francis felt that he may have more information on this site.

Mortar impact area near old firing range (possible new SWMU 0-011f) - With regard to this potential new SWMU located west of Guaje Pines Cemetery, Mr. Francis noted that ordnance (i.e., 40mm and 60mm) was fired by military artillery from Barranca Mesa into this area. He also mentioned that Mr. Robert Drake may know more about this activity.

X Western steam plant (SWMU 0-012) - Mr. Francis said that potential waste materials at this site would include analytical chemicals used for testing water. He said that the diesel and settling tanks may still be in place.

Pueblo and Bayo wastewater treatment plants (SWMU 0-018) - Mr. Francis doubted that these plants would have received contaminated wastes from TA-43 (Medical Laboratory) because there were two separate sewer systems at the Laboratory; one was used for domestic sanitary wastes and the other was used for contaminated wastes.

X Central wastewater treatment plant (SWMU 0-019) - Again, Mr. Francis doubted that this plant would have received contaminated wastes; it handled primarily sanitary waste. He reiterated that Laboratory personnel were instructed to dump waste chemicals into the acid sewer not the sanitary sewer. He also mentioned that a methane digester was in operation at the site, but he had no specific information on the settling tank or sludge drying bed operations. Mr. Francis did not know what operations were conducted in the building which remains at the site.

/ Tank mesa landfill (SWMU 0-025) - Mr. Francis had no specific information on the location or the operations of the site, however, he remembered earthen water storage tanks were located on top of this mesa which may be the reason it was called "tank mesa".

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X Gun mount landfill (SWMU 0-026) - Mr. Francis had no specific information on the location or the operations of the gun mount. He said that the North Mesa site was used for radio communications, and a directional antenna pointed at Ft. Sam Houston was constructed here. He described the radio poles at the site as being wooden poles over 100 feet tall which were installed in a rhombic array. The hutment at the site housed the generator; the generator was probably moved to a cement bunker behind Sigma building. A concrete building was constructed in this area for the telephone company. He also remembered that a cistern on North Mesa (not Barranca Mesa as described in SWMU 0-024) which was used to store discarded high explosive (HE) ordnance.

✓ DP Road storage area (SWMU 0-027) - Mr. Francis had no specific information on the location or the operations of the drum storage area at this site, however, he remembered operations at the fuel oil storage tank area. Tankers off-loaded from the north side of DP

✓ Road to several above-ground storage tanks. Fuel oil was diverted by gravity flow to smaller trucks for delivery to fill stations. He also recalled that a diesel fuel spill occurred at this tank farm. Although he had no recollection of drum storage at this location, Mr. Francis said that from 1945 until about eight years ago, a saw mill was located at the intersection of Trinity and DP Roads near the present Knights of Columbus. He also remembered that a chemical laboratory was located east of the DP laundry. Mr. Francis recalls that the laboratory had a tank approximately 10 feet in diameter and 10 feet high which might have held fuel.

✓ Golf course (SWMU 0-028) - Mr. Francis had no specific information on the irrigation of the golf course using effluent from Central and Pueblo Wastewater Treatment Plants. He estimated that the golf course was built in 1948 or 1949.

✓ PCB transformers (SWMU 0-029) - Mr. Francis had no specific information on the locations of these PCB transformers. Dr. Aldrich mentioned he had a verbal confirmation from another source that they were located on San Ildefonso Pueblo land.

X Septic systems (SWMU 0-030) - Mr. Francis had no specific information on the location, or buildings served by the septic systems. His opinion was that these systems received strictly sanitary waste, and that except for TA-32, most septic systems were located in areas where there were no laboratory operations. He recalled that there were two removal efforts for septic tanks, one was initiated in the late 1960s and the other in 1978. This activity was documented by Zia Company work orders; a microfiche of all work orders was supposedly sent to LANL archives.

✓ Former Zia warehouses (SWMU 0-033) - Mr. Francis said that the Zia warehouses contained a sheet metal shop, and electric line shop, and various utilities shops. The cold storage plant had rooms which were lined with 3-inch cork. Mr. Francis does not know the original purpose of the plant, but he thought that ice was produced here. The plant went out of business in the late 50's or early 60's and several small businesses moved in later. The plant still exists as an office building. Mr. Francis said that operations at the Materials Testing Laboratory included: solvent use; asphalt leaching; destructive testing of concrete cylinders; and sieve tests of aggregates for road work specifications. Several tough sheds are now constructed on the laboratory foundation which remains in place.

TECHNICAL AREA-19

✓ Septic tank(s) - Mr. Francis remembers that there were two septic tanks located at TA-19, one at the guard station and one at the laboratory building. He had no specific information on the removal of either tank.

X Control, source, and calibration buildings - Mr. Francis thought that the source building was located at the long leg of the L-shaped laboratory building. In this building the source was raised up to irradiate animals. He had no specific information on the control and calibration buildings, but he remembers that a building may have been located in the

loop of the access road.

Physics Division operations - Mr. Francis had no specific information about types of operation or materials which were used by the Physics Division at TA-19 from 1945 to 1947.

Animal irradiation experiments - Mr. Francis believed that monkeys were used in animal irradiation experiments at TA-19. He had no specific information on the types of radiation used for these experiments.

D&D activities - Mr. Francis had no specific information as to how and when the buildings at TA-19 were decontaminated and decommissioned. He felt that Zia would have bulldozed the foundation into the canyon, but not the structures themselves-these would have gone to the contaminated dump.

Spills - Mr. Francis had no specific information on spills that may have occurred at TA-19. He felt that there was little chance for spills since only experiments with radiation were conducted here.

TECHNICAL AREA-26

Vault - Mr. Francis said that the vault stored radioactive sources, and that Zia Company later used it to store HE. (Storage of HE later occurred at the bunkers east of the airport runway.) Mr. Francis had no specific information as to whether chemicals were stored in the vault. He had no specific information as to whether equipment or radioactive material used in conjunction with the atomic bomb was stored at the vault. Mr. Francis was also not sure if Zia ever owned the vault.

D&D activities - Although he had no specific information as to how and when the buildings at TA-26 were decontaminated and decommissioned, Mr. Francis thought that one reason for decommissioning was that the vault was in a bad location security-wise and that it had too much visibility.

Equipment room - Mr. Francis had no specific information on the equipment room, but he thought it could refer to a utility room on the outside of the vault.

Spills - Mr. Francis had no specific information as to what was spilled in the vault in 1940's or the 1950's which could not be completely decontaminated. He explained that "Ammercote" was a synthetic paint or varnish commonly used to stop alpha and beta radiation.

Septic system - Mr. Francis had no specific information as to how the septic lines and septic tank in TA-26 were decommissioned.

Soils - Mr. Francis had no specific information on spills that may have occurred at TA-73.

TECHNICAL AREA-74

Plutonium contamination - Mr. Francis had no specific information as to the origin of plutonium contamination in the stream beds of Pueblo and Bayo Canyons in TA-74. However, based on his knowledge of laboratory operations he felt that the most likely source of plutonium in TA-74 would be from former TA-45 and not former TA-10.

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