There is one hazardous material storage sheds at the site, adjacent to the OMS. In addition, there are two flammable storage cabinets located inside the OMS. All petroleum products and hazardous substances were properly stored in the hazardous material storage shed or flammable storage cabinets at the time of the inspection (see Attachments B and C).

No improper storage techniques or staining was noted in or around the hazardous materials storage sheds or flammable storage cabinets. In addition, no violations were noted in the EDR report relating to the facility's SQG hazardous waste permit. Based on a visual inspection, it appears that petroleum products and hazardous waste is being handled properly at the Property and the storage of these relatively small quantities does not appear to pose an environmental threat to the Property at this time.

6.4 STORAGE TANKS

6.4.1 On-Site AST/UST Systems

A visual inspection was undertaken to locate any aboveground storage tanks (ASTs) or underground storage tanks (USTs) on the Property. Evidence of USTs, including vent pipes, fill pipes, concrete pads, and access ways were investigated. Based on a visual inspection and an interview with Mr. Healey, Supervisory Staff Administrator for the 319th Quarter Master Battalion, there are no ASTs or USTs currently located on the Property. However, one waste oil UST existed on the Property in the past.

According to the *Closure Assessment Report for Waste Oil Underground Storage Tank as 2 LT WM S Huisman USARC Facility, Warrensville Heights, OH,* dated January 1999, one 550-gallon waste oil UST was located on the Property as part of an OWS system. Waste oil, collected after washing vehicles, drained into an OWS where the oil and water were separated by gravity and flotation. The oil, floating on top of water, flowed through a sloped PVC pie into the waste oil UST. The waste oil UST was removed by Harza Environmental Services, Inc. on October 29, 1998. Upon removal of the UST from the ground, the tank was observed in good condition and no holes were observed. A total of approximately 1,200 gallons of waste oil and water mixture, perched water in the excavation hole, sludge and rinsate were removed from the UST/excavation during removal activities.

Three soil samples were collected as part of the site assessment for permanent UST closure by removal. Two grab samples were collected from the excavation floor, one at each end of the UST, and one grab sample was collected from the excavated backfill material. All soil samples were analyzed for Volatile Organic Compounds (VOCs) using EPA Method 8260 and for Total Petroleum Hydrocarbons (TPH) using EPA Method 418.1R.

No VOCs were detected in any of the soil samples. TPH was detected in one of the soil samples at 210 mg/kg, below the action level of 904 mg/kg. According to the closure report, the action level of 904 mg/kg was determined using the Site Feature Scoring System (SFSS) Chart (see Attachment E).

Based on these laboratory results Harza Environmental Services, Inc. recommended no further action with regards to this UST. According to the Department

of Commerce, Leaking Underground Storage Tank database, a no further action letter was issued (see Attachment H). Based on this information it does not appear the former operation of this UST has negatively impacted the environmental condition of the Property.

6.4.2 Off-Site AST/UST Systems

A visual inspection was undertaken to locate any ASTs or USTs on properties adjacent to the Property. None were identified during the site reconnaissance of the adjacent properties.

6.5 OIL/WATER SEPARATORS

There is not an OWS system currently located on the Property. However, there was one OWS associated with the former wash rack, located adjacent to the OMS prior to February 2001. Based on a review of the *Final OWS System Closure Report, Huisman USARC (OH066), Warrensville Heights, Ohio*, dated October 2001, one 515 gallon OWS was removed by Jones Technologies, Inc. on February 6, 2001. The tank was constructed of steel and had several visible holes. After removal two soil samples were collected from the floor of the excavation and submitted for the following analyses:

- TPH (diesel range and gasoline range using EPA method 8015)
- VOCs (EPA method 8260)
- Metals – barium, cadmium, total chromium, lead, nickel, and zinc (EPA method 6010), and mercury (EPA method 7471)

No TPH or VOCs were detected in the soil above laboratory detection limits. Several metals were detected including arsenic (4.92 and 10.1 mg/kg), barium (5.22 and 23.7 mg/kg), total chromium (12.1 mg/kg), and lead (3.19 and 10.4 mg/kg). None of these metal concentrations exceeded the RCRA limits for soil. Jones Technologies, Inc. selected limits based on the most restrictive regulation because there is no specific regulation that covers flow-through devices such as an OWS.

Based on this information, it does not appear that the former operation of this OWS system negatively impacted the environmental condition of the Property.

6.6 TRANSFORMERS AND PCB-CONTAINING EQUIPMENT

Polychlorinated biphenyls (PCBs) were produced in the United States from 1929 to 1976, primarily for use as insulating material in electrical equipment such as transformers and lighting ballasts. Although PCBs are no longer being manufactured, electrical transformers, hydraulic equipment, and lighting ballasts containing PCBs may still be in service.

An *Asbestos, PCB, Lead Based Paint, and Radon Survey* was conducted in March 2004 for the Property by ITI of South Florida, Inc. (ITI). According to the survey, light ballasts in the USARC and OMS are assumed to contain PCBs based on several ballasts not having a "Non PCBs" label attached to it. The report stated that additional testing of the ballasts should be performed prior to disturbance or disposal.

The survey also identified three pole-mounted transformers behind the USARC. There were no markings on the pole-mounted transformers and they are presumed to contain PCBs. However, all transformers were noted in good condition and no leaks were evident from the units at the time of the inspection. According to Mr. Healey, the transformers are owned by First Energy and the oil in the units was replaced with non-PCB containing oil in the 1990s. The PCB survey concluded "an imminent PCB hazard was not present at the facility during the site visit". Based on this information, the operation of these transformers does not appear to negatively impact the environmental condition of the Property at this time.

6.7 RADON

According to the EPA Radon Zone for Cuyahoga County, areas tested were classified in Zone 2, defined as having an indoor average level equal to or greater than 2 pCi/L and less than or equal to 4 pCi/L. In June 1993, a radon survey was conducted for the facility by 83rd ARCOM. Results from this survey found radon levels < 4 pCi/L. In March 2004 an Asbestos, PCB, Lead Based Paint, and Radon Survey was conducted by ITI. Radon results were not available from this survey during the production of this EBS. According to the 88th RRC, the results would not be available until spring 2004. However, based on the information available, radon is not considered an environmental threat to the Property.

6.8 ASBESTOS CONTAINING MATERIAL

The 2004 Asbestos, PCB, Lead-Based Paint, and Radon Survey report was prepared for the USARC and OMS on the Property. Asbestos-containing Materials (ACMs) were identified at the following locations:

<u>USARC</u>

Confirmed Asbestos

- Thermal system insulation located through the building (pipes and fittings)
- Water tank insulation and associated pipes in boiler room
- 9" x 9" floor tile and mastic located throughout
- Exterior expansioin joints between bricks

Presumed Asbestos

- Cloth expansion joints
- Door putty
- Fire doors
- Electrical wiring

<u>OMS</u>

Presumed Asbestos

- Cloth wrap around flue pipe (6 inches) about bay door #2 (from left)
- Cloth expansion joint
- Exterior joint putty between bricks
- Fire doors

- Electrical wiring
- Roofing Materials

Localized damage of thermal system insulation was observed in some areas, especially at elbows and joints.

6.9 LEAD-BASED PAINT

The 2004 Asbestos, PCB, Lead-Based Paint, and Radon Survey was prepared for the USARC and OMS on the Property. Lead-Based Paint (LBP) was identified at the following locations:

USARC

- All metal door jambs located throughout, brown with red tint (good condition)
- All painted components of staircases, brown and cream on metal 9fair to damaged condition)
- All painted metal columns and beams and associated corrugated metal deck, cream color (good condition)
- Metal doors in the drill hall and copy entrance areas, brown with a red tint (fair condition)
- Chalk board in the drill hall (good condition)
- Exterior garage door frame/jamb, metal, grey (damaged condition)
- Ceramic tile walls in all restrooms, 1st and 2nd floor (good condition)
- Glazed block in room 209, janitor's closet (good condition)
- Green metal ladder in Rom 209, janitor's closet (good condition)

OMS

- Exterior metal door jambs on garage doors (damaged condition)
- Yellow paint on floor, west door (significantly damaged)
- All metal beams and columns, yellow and white in color (fair condition)

6.10 LEAD DUST

The Huisman USARC was equipped with an active indoor firing range (IFR) from the 1960s until the range was closed in 1991. According to the *Range Cleanup – OH066, 88th RSC, Huisman USARC, Warrensville Heights, Ohio, Final Report*, prepared by IT Corporation and dated February 2003, a four-position range with a manual target retrieval system was located on the first floor of the USARC. During the initial inspection in September 2001, the firing line partitions had been previously removed; the posts for the target retrieval system remained; sand was present in the bullet trap; no lead shot was observed; and the floor of the range was very dirty. IFR range cleanup activities commenced on May 13, 2002 and continued until July 3, 2002. Clearance wipe sampling was conducted on August 15, 2002. Analytical results from the clearance wipe sampling were summarized in the report as follows:

- After cleaning, the range had lead levels from <2.5 µg/sf (twelve ceiling and wall samples) to 82 µg/sf [firing line (floor), 003DT]. The floor outside the entrance door had a lead level of 78 µg/sf. These results indicate that the range floor lead levels were below the clearance criteria of 200 µg/sf.

A letter dated August 28, 2002 by IT Corporation certified that cleaning activities at the IFR successfully attained the project clearance objectives and the former range was approved for occupancy.

The Department of the Army has derived the value of 200 µg/sf to release former indoor firing ranges as rooms that can be reoccupied as non-lead work areas. Although the range has been cleaned to below 200 µg/sf, small amounts of lead dust may be present in the range. Any remodeling activities that may cause a release of dust on wall and floor surfaces should be undertaken in consideration of the Occupational Safety and Health Administration (OSHA) Construction Industry Standard for Lead (29 CFR 1926.62). This OSHA standard should be reviewed before any remodeling activities are conducted. The OSHA standard requires certain controls to reduce or maintain worker exposures less than the Permissible Exposure Limit (PEL) of 50 µg of lead per cubic meter. The employer must protect the worker from lead.

6.11 UNEXPLODED ORDNANCE

No indications were found during the site reconnaissance or records review to indicate the presence of unexploded ordnance at the Property.

6.12 RADIOACTIVE COMMODITIES

A locked storage area on the first floor of the USARC was designated "RADIOACTIVE". According to Mr. Healey, this area is for the storage of chemical agent monitors, IM-93s, radiological detectors, lensatic compasses, and wristwatches, which contain small amounts of radioactive material.

SECTION 7.0
ELECTRONIC DATABASE SEARCH AND REGULATORY REVIEW

An electronic database search of environmental records for the Property and surrounding properties was prepared by EDR. EDR focused on searching federal and state environmental databases and historical and current land uses to identify sites of potential environmental concern with addresses in the areas immediately surrounding the Property.

Based on a review of the 7.5-minute U.S.G.S. topographic map, groundwater flow in the vicinity of the Property is towards the southeast. It should be noted that this groundwater flow direction is not known with certainty and cannot be determined without the installation of monitoring wells and/or piezometers on the Property.

A review of the databases searched during the course of this investigation found that the subject property was listed on the inventory of Leaking Underground Storage Tanks (LUST). In addition, two other facilities were identified by the EDR database search as being within the ASTM-specified radii of the site. These sites are discussed below:

LUST — Three facilities, including the Property, were identified within the ½-mile ASTM search radius of the site on the inventory of leaking underground storage tanks (LUST). The Property was listed on the inventory due to the detection TPH in one of the soil samples collected during the permanent closure of the 550-gallon waste oil UST. According to the EDR report, a No Further Action letter has been issued for the Property (see Section 6.4.1). The remaining two facilities are related to the Cuyahoga Community College Campus, located at 4250 Richmond Road, and adjacent to the Property to the south. The Cuyahoga Community College Campus is located hydraulically downgradient from the Property (assuming a southeasterly groundwater flow direction in the vicinity of the subject site). Based on this information, it does not appear that a release from this facility poses an environmental threat to the Property at this time.

Full documentation of the EDR database review is provided in Attachment H.

SECTION 8.0
CONCLUSIONS

IMA-ARD prepared this EBS for the 88th RRC for the 2 LT William S. Huisman USARC (OH066). The Property is located at 25445 Harvard Road, on the north side of the road, approximately 1,000 feet west of the intersection of Richmond Road and Harvard Road, in Warrensville Heights, Cuyahoga County, Ohio. This EBS was developed in general conformance with the scope and limitations of ASTM Designation D6008-96, ASTM Designation E1527-00, and Army Regulation 200-1, and generally recognized industry practices. Any exceptions to, or deletions from, this practice are described in Section 2.3 of this report.

Based on the information revealed in this EBS, IMA-ARD identified **no recognized environmental conditions** that negatively impact the environmental condition of the Property. There were, however, two environmental concerns related to the Property. They are as follows:

Environmental Concerns

- Asbestos Containing Materials. An *Asbestos, PCB, Lead-Based Paint, and Radon Survey* (March 2004) was prepared by ITI of South Florida, Inc. (ITI) for the USARC and OMS on the Property. Asbestos-containing Materials (ACMs) were identified at the following locations:

  USARC

  Confirmed Asbestos
  - Thermal system insulation located through the building (pipes and fittings)
  - Water tank insulation and associated pipes in boiler room
  - 9" x 9" floor tile and mastic located throughout
  - Exterior expansioin joints between bricks

  Presumed Asbestos
  - Cloth expansion joints
  - Door putty
  - Fire doors
  - Electrical wiring

  OMS

  Presumed Asbestos
  - Cloth wrap around flue pipe (6 inches) about bay door #2 (from left)
  - Cloth expansion joint
  - Exterior joint putty between bricks
  - Fire doors
  - Electrical wiring
  - Roofing Materials

  Localized damage of thermal system insulation was observed in some areas, especially at elbows and joints.

- Lead-Based Paint. An *Asbestos, PCB, Lead-Based Paint, and Radon Survey (March 2004)* was prepared by ITI for the USARC and OMS on the Property. Lead-Based Paint (LBP) was identified at the following locations:

  USARC

  - All metal door jambs located throughout, brown with red tint (good condition)
  - All painted components of staircases, brown and cream on metal 9fair to damaged condition)
  - All painted metal columns and beams and associated corrugated metal deck, cream color (good condition)
  - Metal doors in the drill hall and copy entrance areas, brown with a red tint (fair condition)
  - Chalk board in the drill hall (good condition)
  - Exterior garage door frame/jamb, metal, grey (damaged condition)
  - Ceramic tile walls in all restrooms, 1st and 2nd floor (good condition)
  - Glazed block in room 209, janitor's closet (good condition)
  - Green metal ladder in Rom 209, janitor's closet (good condition)

  OMS

  - Exterior metal door jambs on garage doors (damaged condition)
  - Yellow paint on floor, west door (significantly damaged)
  - All metal beams and columns, yellow and white in color (fair condition)

Environmental Condition of Property

This EBS classified the Property into one of seven Department of Defense (DoD) Environmental Condition of Property (ECP) categories as defined by ASTM Designation D5746-98 (2002), *Standard Classification of Environmental Condition of Property Area Types for Defense Base Closure and Realignment Facilities.* Property classification categories are defined in Section 2.3 of this EBS.

The Property has been classified as category Type 2. This category is defined as *"an area or parcel of real property where only the release or disposal of petroleum products or their derivatives has occurred."* This classification was selected based on the identification of petroleum-impacted soils during the removal and closure of a 550-gallon UST. Total Petroleum Hydrocarbons (TPH) was detected in one of the soil samples at 210 milligrams per kilogram (mg/kg), below the determined action level of 904 mg/kg (see Section 6.4.1).

Michael P. Dickinson
IMA-ARD Contractor
Hydrogeologist/Environmental Property Assessor