



UNITED STATES

ENVIRONMENTAL PROTECTION AGENCY

REGION III

STATEMENT OF BASIS

ELLWOOD GROUP, INCORPORATED
(Former National Forge Company)

IRVINE, PENNSYLVANIA

EPA ID NO. PAD002101418

I. Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) to solicit public comment on its proposed remedy for the Ellwood Group, Inc. (EGI) facility, formerly known as the National Forge Company (NFC), located at One Front Street, Irvine, Pennsylvania (Facility or Site). In 2003, EGI acquired the assets of the NFC out of bankruptcy and restructured the former NFC facility into two subsidiaries with separate RCRA ID numbers, the Ellwood National Forge (PAR000508226) and the Ellwood National Crankshaft (PAR000508226). For the purpose of the SB, the EGI facility or Facility is referred to as the former NFC facility prior to the creation of the two subsidiaries or otherwise specified.

EPA's proposed remedy for the Facility is continued compliance with the PADEP Solid Waste Permit and institutional controls (ICs) that restrict certain land and groundwater uses at the Facility. ICs are non-engineered instruments such as administrative and/or legal controls that minimize the potential for human exposure to contamination and/or protect the integrity of the remedy by limiting land or resource use.

The Facility is subject to the Corrective Action program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. Sections 6901 to 6992k. The Corrective Action program is designed to ensure that certain facilities subject to RCRA have been investigated and that all releases of hazardous waste and hazardous constituents have been remediated. The Commonwealth of Pennsylvania (the Commonwealth) is not authorized for the Corrective Action program under Section 3006 of RCRA. Therefore, EPA retains primary authority in the Commonwealth for the Corrective Action program.

The Administrative Record (AR) for the Facility contains all documents, including data and quality assurance information, on which EPA's proposed decision is based. See Section IX, Public Participation, for information on how you may review the AR. Information on the Corrective Action program as well as a fact sheet for the Facility can be found by navigating through the EPA website <http://www.epa.gov/reg3wcmd/correctiveaction.htm>.

II. Facility Background

The Facility is formerly known as the National Forge Company (NFC). It is located in Irvine, Pennsylvania, a rural community about 60 miles southeast of Erie, PA. The facility encompasses 323 acres with 46 acres of developed property and 578,000 sq. ft. of plant/buildings under roof. The site is situated on the banks of Brokenstraw Creek and is located in the High Plateau Section of the Appalachian Plateaus Province of PA. An aerial view of the Facility is presented in Figure 1.

The Facility was founded in 1915 by Clinton Wilder. The Wilder family later sold the company to its employees in 1995. It remained as an employee-owned company until 2003 when the EGI acquired the assets of the NFC out of bankruptcy. EGI restructured the former NFC facility into two subsidiaries with separate RCRA ID numbers, the Ellwood National Forge (PAR000508226) and the Ellwood National Crankshaft (PAR000508226). EGI closed the steel

melting and forging operations at the facility and transferred the work to EGI's New Castle and Ellwood City plants.

The Ellwood National Forge facility creates products for a wide range of highly specialized applications, including hard target penetrators and artillery components, pipe molds, rotors for power generation, wind turbine shafts and other relatively high length/width ratio products with a bored interior diameter.

The Ellwood National Crankshaft facility manufactures of new and reconditioned crankshafts for medium speed engines in the 800 to 6000 horsepower range. These engines are used in a variety of applications including diesel-electric locomotives, marine use for propulsion and auxiliary power generation, stationary power, and gas compression.

Historically, wastes generated during production include slag and dust from the electric arc melting furnaces, scale from the forging and heat treating operation, and oil from the machining operation. Hazardous wastes consist of commercial cleaning and plating solutions and electric arc furnace baghouse dust. Presently, all hazardous and solid wastes are sent to offsite permitted facilities for disposal. Wastewater is treated at the National Pollutant Discharge Elimination System (NPDES) and Pennsylvania Department of Environmental Protection (PADEP) permitted wastewater treatment plant.

III. Summary of Environmental History

Prior to EGI's acquisition of the former NFC facility, NFC completed multiple environmental investigations under the direction of PADEP to evaluate site conditions as a result of releases from the Facility and to close out several solid waste management units (SWMUs) and storage tanks. PADEP approved the completion of the environmental investigations and any required remediation. Moreover, PADEP certified the closures of the listed storage tanks and SWMUs and approved the onsite groundwater investigation and remediation.

1. Underground Storage Tanks

All underground storage tanks (USTs) have either been removed or abandoned in place. Soil analyses indicated that the former USTs had minimal impacts to the surrounding subsurface soil. Contaminated soil was excavated and disposed offsite. The former UST areas were backfilled and re-graded with clean fill. Soil and groundwater analyses confirmed that the former USTs did not impact the groundwater.

2. Former Wastewater System Holding Pond

The holding pond collected sludge from the wastewater treatment plant. NFC removed and disposed the sludge offsite. The investigations consisted of identifying the impacted area, quantifying the extent and volume of the sludge, sampling/analysis of potentially affected media (sludge, subsurface soils, and groundwater). No constituents of concern in the collected samples exceeded the PA Statewide Health Standards.

3. The Former Brokenstraw Creek Bed/Fill Area

In 1995, NFC investigated the nature and extent of the post-manufacturing residual fill that was backfilled along Brokenstraw Creek between 1891 and 1941. The investigation indicated that a

section of the area contained debris associated with plant operations. The soil contained elevated PHC, BTEX, PCBs and lead concentrations. Groundwater samples indicated no exceedances of the PADEP Statewide Health Standards for the constituents of concerns. The contaminated soil was excavated and disposed offsite. The area was backfilled with clean fill and re-graded. PADEP issued an Act 2 release of liability protection for the investigated area.

4. Electric Arc Furnace Bag House Area

NFC conducted an investigation to determine the impact of fugitive emissions due to the operations of the baghouse to the surround soils and the immediate groundwater. Soil analyses indicated elevated soil lead concentrations. Contaminated soil was excavated and disposed of offsite. The excavated areas were backfilled with clean soil. The groundwater results verified that the bag house operations did not impact the groundwater.

5. The Former Residual Waste Slag Landfill

Since 1978, the landfill operation had been permitted as a solid waste disposal and/or processing facility by the PADEP under Permit No. 300624. In 1996, NFC initiated the termination and closure of the landfill operations. Between 1996 and 1998, approximately 80 percent of the fill materials (240,000 cy) were excavated and recycled. Due to unfavorable economic conditions for the recycled waste materials NFC terminated the recycling program and closed the landfill with the remaining 20 percent of the fill in place. The landfill was re-graded and capped with a vegetated two foot soil cover. NFC conducted post closure groundwater monitoring to assess the potential impact of the landfill operations to groundwater. Historic groundwater data from the monitoring wells indicated no constituents of concerns above the regulatory levels. In 2003, PADEP terminated the groundwater monitoring program for the residual waste slag landfill and approved the decommissioning of the wells. The Facility will continue to maintain the landfill cap under the PADEP Solid Waste Permit.

6. The Former Electric Arch Furnace (EAF) Dust Landfill

When the EGI acquired the assets of the NFC facility in 2003, the acquisition excluded the area of the former EAF Dust Landfill. NFC retains ownership of the former EAF dust landfill. NFC operated the landfill from the mid-1970s to 1980s. The landfill operation was initially designed as an interim status facility following the initial RCRA regulation but was never permitted as a hazardous waste site. In 1985, NFC ceased disposal of EAF dust on site and initiated closure of the landfill. In 1988, NFC entered into a Consent Order (Order) and Adjudication with PADEP to close out the landfill. Closures consisted of re-grading and backfilling with clean fill soil, capping with a geotechnical membrane and a final layer of vegetative soil cover. As part of the closure, NFC conducted post closure groundwater monitoring from 1990 to 2008. Historic groundwater data indicated no constituents of concerns above the regulatory levels. In 2008, PADEP terminated the post-closure groundwater monitoring program and certified the closure of the landfill. In 2009, PADEP issued NFC an environmental covenant that prohibits the disturbance of the landfill cap and restricts the property of the former landfill for non-residential use.

7. Sitewide Groundwater Investigation

In 1995, NFC notified PADEP regarding the releases of oil and fuel from non-specific events and sources at the facility during the history of the plant operations. The potential contamination

sources may be related to the general plant use of oils, including but not limited to: cutting oil use/storage in machining-lower boring area, fuel oil releases from tank/line leakage and/or accidental releases and quench oil releases.

The releases impacted soil and groundwater. The impacted soils were excavated and disposed offsite. The onsite groundwater plume consists of mineral/cutting oil, quenching oil and No. 2 fuel oil. The five dissolved constituents of concern were polycyclic aromatic hydrocarbons (PAHs), acenaphthene, anthracene, fluorene, phenanthrene, and pyrene. The onsite groundwater plume is contained within the facility property line. The nearest residential wells are located upgradient from the groundwater plume. The groundwater plume does not present a pathway to potential human receptors. The groundwater flow is north/northeast from the facility and discharges to the nearby Brokenstraw Creek.

In December 1995, NFC initiated the pump and treat/recovery system to recover free-phase product and to control groundwater plume migration. After years of pump and treat, the groundwater concentrations for the constituents of concern achieved Pennsylvania Act 2 non-residential Statewide Health Standard. In April 2001, NFC with PADEP's approval, discontinued the pump and treat system for two years to evaluate the groundwater plume under static conditions. The study consists of sampling 44 monitoring points for two consecutive years on a monthly basis. The study was conducted between April 2001 and March 2003. The objective of the study was to evaluate the plume under static conditions and to determine if the pump and treat system is still required to control contaminated groundwater migration. Based on the study, the assessment of the historic data, and given the characteristics of the constituents, PADEP concluded that the groundwater plume has remained relatively immobile for the last 70-80 years and is unlikely to migrate beyond its present location in the future. Subsequently, PADEP terminated the groundwater monitoring program and approved the decommissioning of the wells. NFC executed a deed notice that limits the property for non-residential use and restricts groundwater use for industrial purposes only.

IV. Corrective Action Objectives

EPA's overall Corrective Action Objectives for the Facility are the following:

A. Subsurface Soils

Wastes in the former residual waste slag and EAF dust landfills remain in place. Currently, the area of the former EAF dust landfill is under an environment covenant that prohibits the disturbance of the landfill cap and restricts this area to non-residential use. The Facility will continue to maintain the former residual waste slag landfill cap under the PADEP Solid Waste Permit.

B. Groundwater

The onsite groundwater plume is contained within the property boundaries and consists of mineral/cutting oil, quenching oil and No. 2 fuel oil. Historical groundwater data confirm that the groundwater plume is immobile and is unlikely to migrate beyond its present location. The current deed restrictions limits groundwater use at the Facility for industrial purposes only

V. Proposed Decision

EPA's proposed remedy for the Facility is continued compliance with the PADEP Solid Waste Permit and ICs that restrict certain land and groundwater uses at the Facility.

VI. Evaluation of EPA's Proposed Decision

This section provides a description of the criteria EPA used to evaluate the proposed remedy consistent with EPA guidance. The criteria are applied in two phases. In the first phase, EPA evaluates three remedy threshold criteria as general goals. In the second phase, for those remedies which meet the threshold criteria, EPA then evaluates seven balancing criteria.

A. Threshold Criteria

1. Protect Human Health and the Environment

The primary human health and environmental threats are direct exposures to the onsite groundwater plume and wastes remaining in the landfills. These threats have been mitigated by the closure and post-closure activities under PADEP oversight and the execution of a deed restriction that limits the property for non-residential use and restricts the groundwater use for industrial purposes only.

Historical groundwater data confirm that the groundwater plume is immobile and is unlikely to migrate beyond its present location. A deed restriction is currently in place that limits groundwater use for industrial purposes only.

NFC retains ownership of the former the EAF landfill cap. Under an existing environmental covenant with NFC, the area of the former landfill is restricted to non-residential use and NFC is required to maintain the landfill cap.

EPA's proposed remedy consists of compliance with the PADEP Solid Waste Permit and ICs that restrict certain land and groundwater uses at the Facility. EPA's proposed final remedy will ensure continued protection of human health and the environment.

2. Achieve Media Cleanup Objectives

EPA's proposed remedy meets the cleanup objectives based on assumptions regarding current and reasonably anticipated land and water resource use(s). The former landfills were closed under the PADEP. Groundwater monitoring confirms that there are no significant impacts or releases to groundwater beneath the former landfills. The multi-layered covers over the former landfills and the proposed environmental covenant will prevent human and environmental exposures to the wastes remaining in the former landfills.

The onsite groundwater plume consists of mineral/cutting oil, quenching oil and No. 2 fuel oil. The horizontal area of groundwater impact is approximately 4.5 acres. Historical groundwater data confirm that the groundwater plume is immobile and is unlikely to migrate

beyond its present location. Institutional controls are currently in place that limits groundwater use for industrial purposes only.

3. Remediating the Source of Releases

In all remedy decisions, EPA seeks to eliminate or reduce further releases of hazardous wastes or hazardous constituents that may pose a threat to human health and the environment. While waste remains in place in the closed landfill, groundwater monitoring confirms that there are no significant impacts or releases to groundwater beneath the former landfills. The onsite groundwater plume consists of mineral/cutting oil, quenching oil and No. 2 fuel oil. The horizontal area of groundwater impact is approximately 4.5 acres. Historical groundwater data confirm that the groundwater plume is immobile and is unlikely to migrate beyond its present location.

B. Balancing/Evaluation Criteria

4. Long-Term Effectiveness

EPA's proposed remedy requires the compliance with the PADEP Solid Waste Permit and ICs that restrict certain land and groundwater uses at the Facility. The proposed remedy will maintain protection of human health and the environment over time by controlling exposure to the wastes remaining in the landfills and groundwater.

5. Reduction of Toxicity, Mobility, or Volume of the Hazardous Constituents

The reduction of toxicity, mobility and volume of hazardous constituents has already been achieved by the closure of the former landfills under PADEP. Groundwater monitoring confirms there are no significant impacts or releases to groundwater beneath the former landfills.

The onsite groundwater plume consists of mineral/cutting oil, quenching oil and No. 2 fuel oil. The horizontal area of groundwater impact is approximately 4.5 acres. Historical groundwater data confirm that the groundwater plume is immobile and is unlikely to migrate beyond its present location. Groundwater use at the Facility is restricted for industrial purposes only.

6. Short-Term Effectiveness

EPA's proposed final remedy does not involve any additional activities, such as construction or excavation that would pose short-term risks to workers, residents, and the environment.

7. Implementability

EPA's proposed remedy is already implemented. ICs are currently in place that restrict land and groundwater uses at the Facility. The Facility is in compliance with the PADEP Solid Waste Permit.

8. Cost

EPA's proposed remedy is cost effective. The cost of maintaining ICs at the Facility is minimal.

9. Community Acceptance

EPA will evaluate community acceptance of the proposed remedy during the public comment period and will describe community acceptance in the FDRTC.

10. State/Support Agency Acceptance

EPA will evaluate State acceptance of the proposed remedy during the public comment period and will describe the State's position in the FDRTC.

VII. Environmental Indicators

Under the Government Performance and Results Act (GPRA), EPA has set national goals to address RCRA Corrective Action facilities. Under GPRA, EPA evaluates two key environmental cleanup indicators for each facility: (1) Current Human Exposures Under Control and (2) Migration of Contaminated Groundwater Under Control. EPA determined that both environmental indicators are under control on August 18, 2015. The approved environmental indicator determinations are available at:

<http://www.epa.gov/reg3wcmd/ca/pa/pdf/pad061779815.pdf>.

VIII. Financial Assurance

PADEP refunded the cash collateral bond to the Facility for the closure of the former landfills. EPA determines that financial assurance is not required.

IX. Public Participation

Before EPA makes a final decision on its proposal for the Facility, the public may participate in the remedy selection process by reviewing this SB and documents contained in the Administrative Record (AR) for the Facility. The AR contains all information considered by EPA in reaching this proposed decision. It is available for public review during normal business hours at:

U.S. EPA Region III
1650 Arch Street
Mail code: 3LC30
Philadelphia, PA 19103
Contact: Mr. Khai Dao
Phone: (215) 814-5467
Fax: (215) 814-3113
Email: dao.khai@epa.gov

and

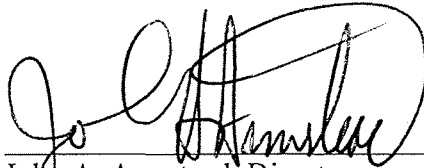
PADEP Northwest Regional Office
230 Chestnut Street
Meadville, PA 16335
Phone: (814) 332-6945

Interested parties are encouraged to review the AR and comment on EPA's proposed decision. The public comment period will last thirty (30) calendar days from the date that notice is published in a local newspaper. You may submit comments by mail, fax, or e-mail to Mr. Khai Dao. EPA will hold a public meeting to discuss this proposed decision upon request. Requests for a public meeting should be made to Mr. Khai Dao.

EPA will respond to all relevant comments received during the comment period. If EPA determines that new information warrant a modification to the proposed decision, EPA will modify the proposed decision or select other alternatives based on such new information and/or public comments. EPA will announce its final decision and explain the rationale for any changes in the FDRTC. All persons who comment on this proposed decision will receive a copy of the FDRTC. Others may obtain a copy by contacting Mr. Khai Dao at the address listed above.

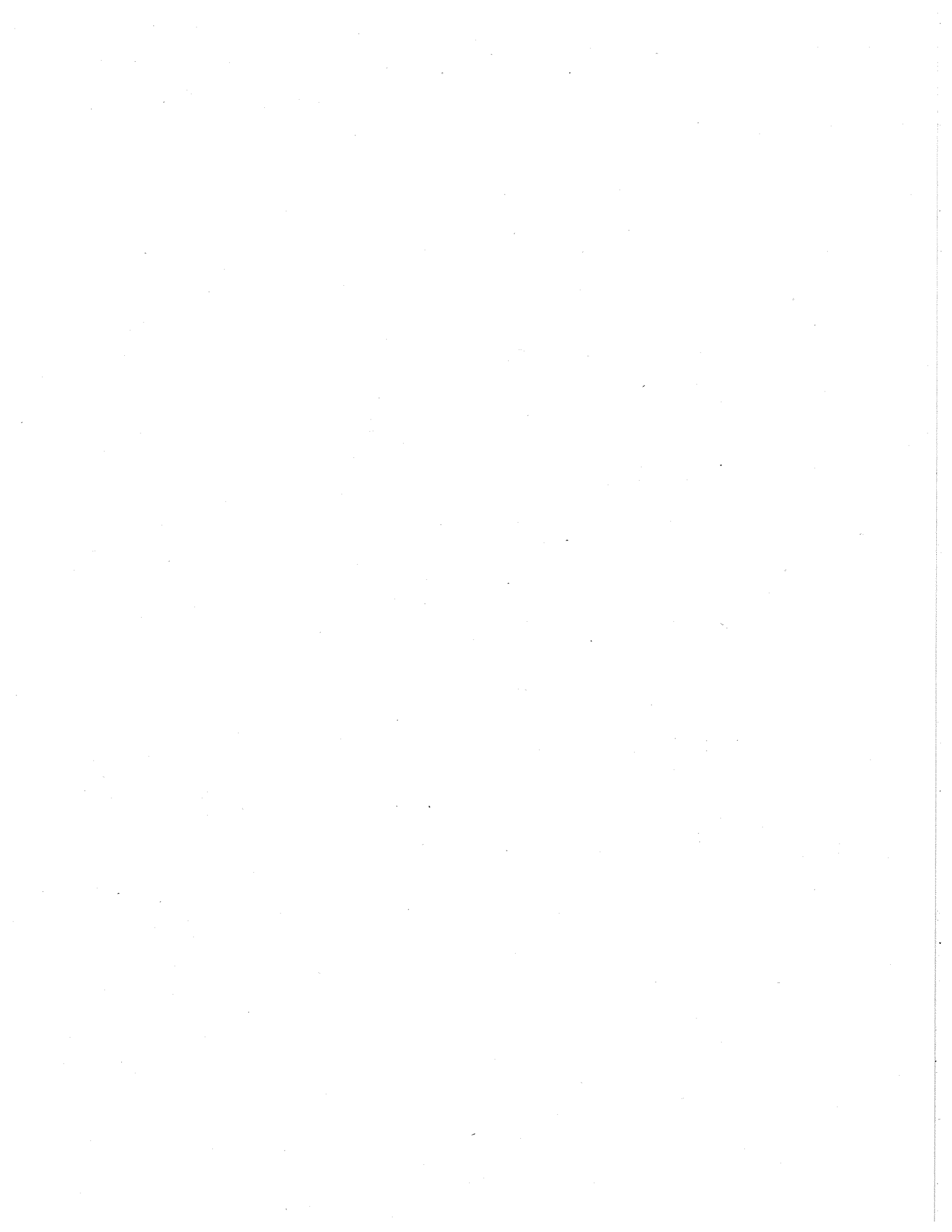
9.1.15

Date



John A. Armstead, Director
EPA Region III
Land and Chemicals Division

Attachment A: Figure 1 Ellwood Group Inc., Irvine PA



ATTACHMENT A

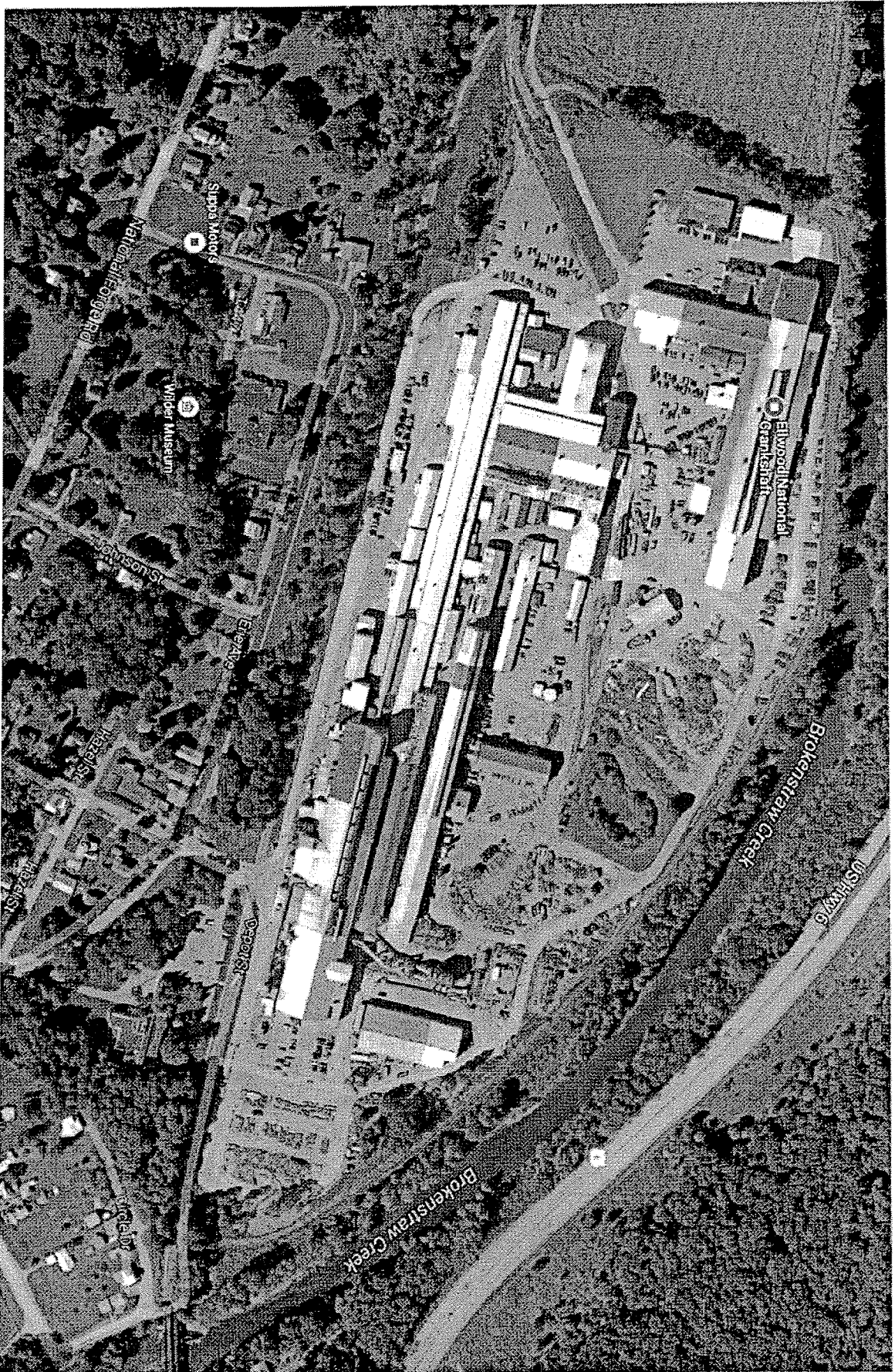


Figure 1 Ellwood Group Inc., Irvine PA