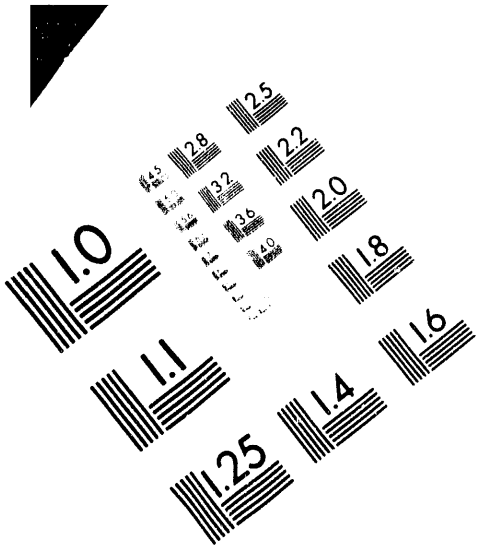
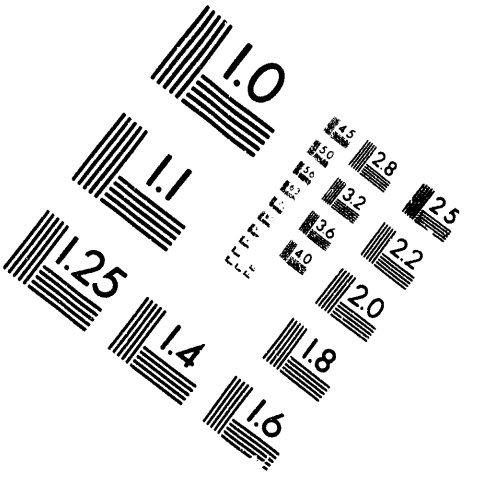
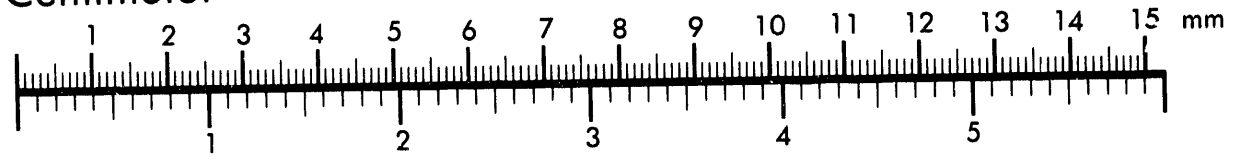


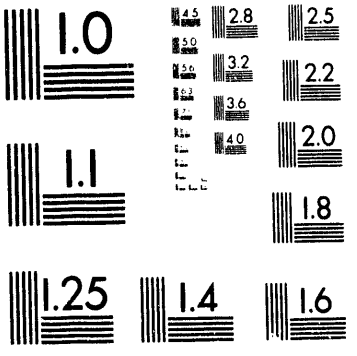
Association for Information and Image Management

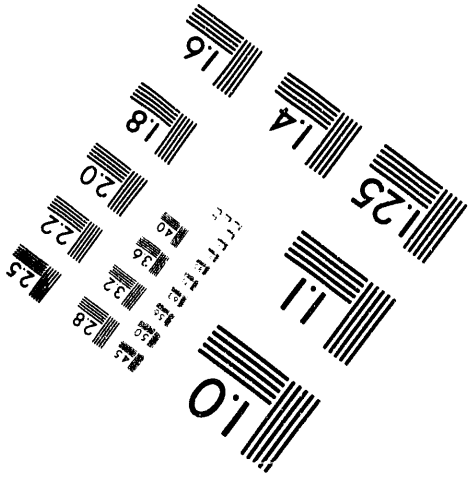
1100 Wayne Avenue, Suite 1100
Silver Spring, Maryland 20910

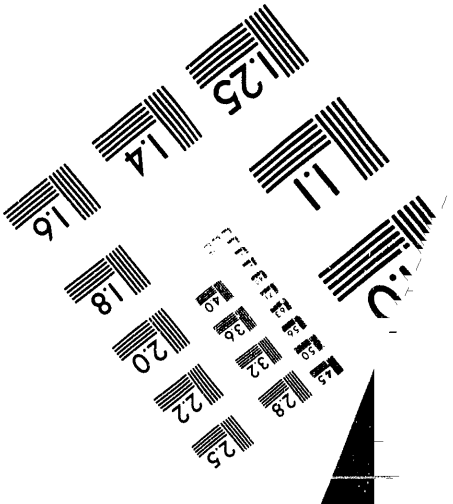
301/587-8202











MANUFACTURED TO AIIM STANDARDS
BY APPLIED IMAGE, INC.

1 of 1

DOE/EA-0822 (2)

Environmental Assessment

Idaho National Engineering Laboratory Consolidated Transportation Facility

Published April 1993

U.S. Department of Energy
DOE Idaho Field Office
Idaho Falls, Idaho

MASTER

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

FINDING OF NO SIGNIFICANT IMPACT FOR THE CONSOLIDATED TRANSPORTATION FACILITY AT THE CENTRAL FACILITIES AREA, IDAHO NATIONAL ENGINEERING LABORATORY

AGENCY: Department of Energy

ACTION: Finding of No Significant Impact

SUMMARY: The Department of Energy (DOE) has prepared an environmental assessment (EA), DOE/EA-0822, addressing environmental impacts that could result from siting, construction, and operation of a consolidated transportation facility at the Idaho National Engineering Laboratory (INEL) near Idaho Falls, Idaho. Based on the analyses in the EA, DOE has determined that the proposed action is not a major Federal action significantly affecting the quality of the human environment, within the meaning of the National Environmental Policy Act (NEPA) of 1969, as amended. Therefore, the preparation of an environmental impact statement (EIS) is not required and the Department is issuing this finding of no significant impact.

FOR FURTHER INFORMATION CONCERNING THE PROPOSED ACTION, CONTACT:

Dennis Hurtt, Director
External Affairs
Idaho Field Office
U.S. Department of Energy
785 DOE Place
Idaho Falls, ID 83402-1118
(208) 526-1317

FOR FURTHER INFORMATION CONCERNING THE DOE NEPA PROCESS, CONTACT:

Carol Borgstrom, Director
Office of NEPA Oversight, EH-25
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585
(202) 586-4600 or leave a message at (800) 472-2756

PROPOSED ACTION: The DOE proposes to construct and operate a new transportation facility at the Central Facilities Area (CFA) at the INEL. The proposed facility would replace outdated facilities and consolidate in one location operations that are conducted at six different locations at the CFA. The proposed facility would be used for vehicle and equipment maintenance and repair, administrative support, bus parking, and bus driver accommodation. The facility would be constructed in a previously disturbed area and would cover approximately 5.3 hectares (13 acres), including the building, access roads, sidewalks, fuel islands, parking for buses and vehicles, and an outdoor equipment holding area. Excavating, filling, and grading would be required at the proposed site in order to construct a pre-engineered building; pave access roads and parking areas; install underground utilities and liquid storage tanks; and provide landscaping. The facility would have a ventilation system that would adequately remove emissions from operations, such as vehicle exhaust. The facility would be heated with steam heat produced by an oil burning boiler.

A smaller oil burning backup boiler and an emergency generator from the existing facilities may be relocated to the proposed facility.

ENVIRONMENTAL IMPACT: Construction activities for the proposed transportation facility would temporarily create some fugitive dust and a minor increase in hydrocarbon emissions and noise from construction equipment. Dust would be controlled through application of water. The facility would be built in a previously disturbed area with limited habitat. Some small burrowing and less mobile animals that may reside there may be destroyed by construction activities. Larger animals and birds would be forced to relocate; however, similar or more suitable habitat is located nearby and is abundant elsewhere on the INEL. The area has been surveyed for archaeological resources and none were found.

Operations that are currently scattered through several buildings would be consolidated in one location but are expected to remain the same. Therefore, air pollutant emissions from operations would not increase relative to present conditions. Hazardous and non-hazardous waste generation from operations would not increase relative to present conditions. Continuing waste minimization efforts are expected to reduce or eliminate some waste streams. There would be a minor increase in air pollutant emissions from operation of new boilers and a new emergency generator.

ALTERNATIVES CONSIDERED: Three alternatives to the proposed action were evaluated: 1) no action, 2) upgrade existing facilities, and 3) locate facility in another area.

1) Under the no action alternative, DOE would not construct and operate the proposed new transportation facilities, and would continue to operate the existing facilities. DOE does not prefer this alternative because the existing facilities have mechanical, electrical, and structural deficiencies that make it difficult to meet several regulatory requirements.

2) Upgrading the scattered existing facilities to correct code deficiencies would be difficult because of space limitations and would not improve work efficiency.

3) Other alternative site locations were not near the centrally located bus dispatch area, which will remain at the CFA. Therefore, vehicles would have to travel longer distances for repairs, which would increase transportation costs and reduce efficiency.

DETERMINATION: The proposed action to construct and operate a consolidated transportation facility at the CFA on the INEL does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of NEPA. This finding is based on the analyses in the environmental assessment. Therefore, the preparation of an EIS is not required for this proposed action.

Issued at Washington, D.C. this 2nd day of April, 1993.

Peter N. Brush
Acting Assistant Secretary
Environment, Safety and Health

ENVIRONMENTAL ASSESSMENT FOR THE IDAHO NATIONAL ENGINEERING LABORATORY CONSOLIDATED TRANSPORTATION FACILITY

DOE/EA-0822

April, 1993

U.S. Department of Energy
Idaho Field Office
Idaho Falls, Idaho

CONTENTS

Figures

Tables

1. NEED FOR PROPOSED ACTION

Fleet transportation operations at the U.S. Department of Energy (DOE) Idaho National Engineering Laboratory (INEL), such as vehicle maintenance, refueling, and bus driver accommodations, are currently located in six separate buildings throughout the Central Facilities Area [CFA (Figure 1)]. These existing structures have a total area of approximately 4,645 m^2 (50,000 ft^2). Parts and supplies are stored in three different locations and occasionally outdoors. The main facilities are over 40 years old and have numerous mechanical, electrical, and/or structural deficiencies that make it difficult to meet the regulatory requirements of several DOE Orders, the National Fire Protection Association (NFPA) standards for repair garages, Uniform Building Code, and the National Electric Code.

Work accommodations in the main repair facility do not meet the Occupational Health and Safety Administration (OSHA) standards for space and equipment. All the tasks required for complete repair and service cannot be accomplished in the same building, so the work flows from one building to another, creating communication problems and inefficient use of time. Personnel accommodations are inadequate or nonexistent in some buildings.

The DOE proposes to construct and operate a new facility at CFA that would consolidate, in one location, the functions that are conducted in six of the seven existing buildings used for transportation operations. A single, well-designed, energy efficient facility housing all operations would improve work efficiency, while eliminating worker health and safety concerns and reducing operational costs. The seventh building, which is the bus depot, would continue operation in its present location, across the street from the proposed facility.

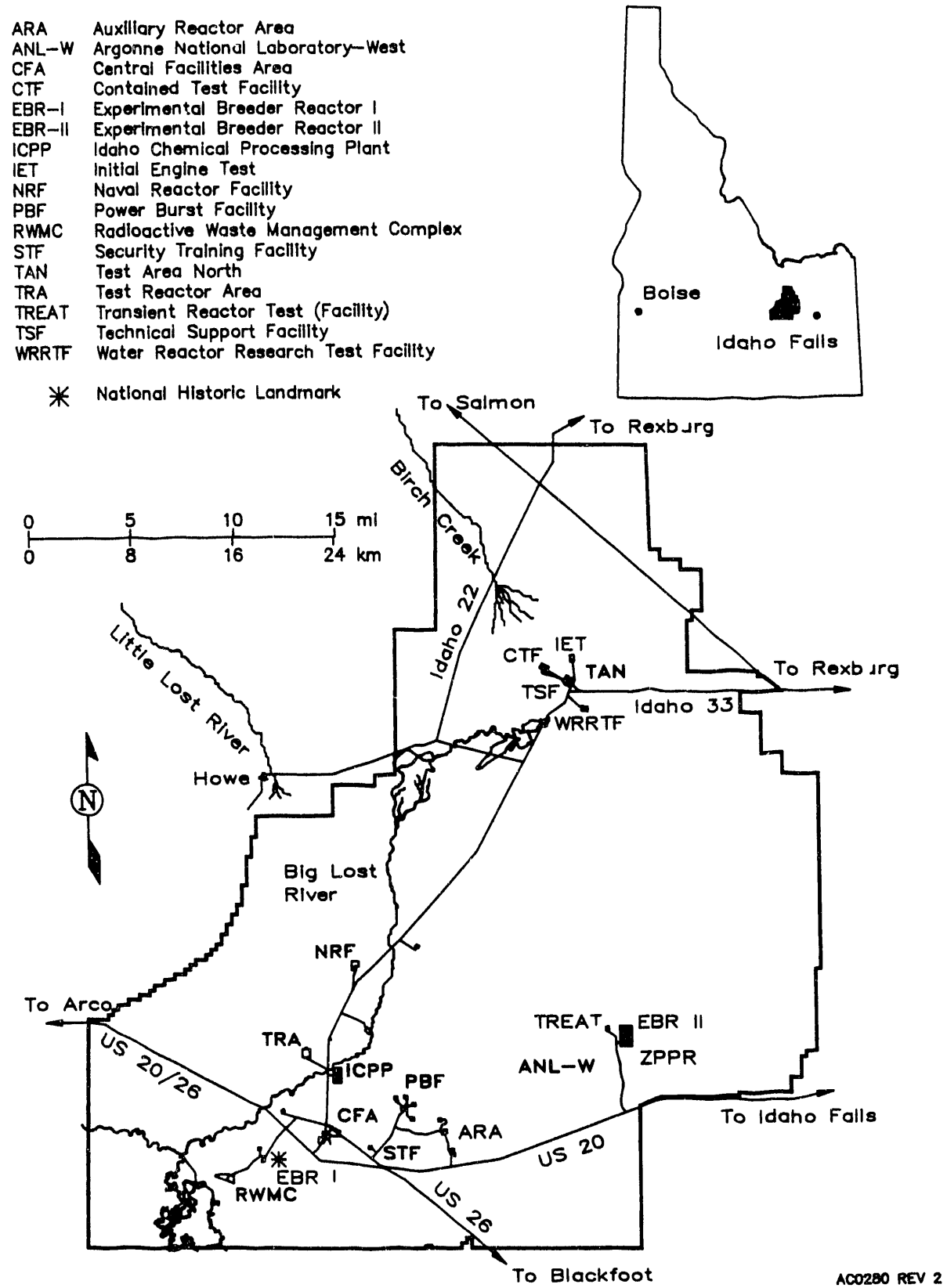


Figure 1. Location of CFA on the INEL.

2. DESCRIPTION OF THE PROPOSED ACTION

The proposed action consists of construction and operation of a new transportation facility at CFA that would consolidate six existing facilities (Figure 2). This proposed project would replace out-dated facilities and provide a consolidated, functional facility supporting three major operational areas: 1) equipment maintenance and repair, 2) administrative support, and 3) bus driver accommodation and bus parking. Existing facilities would be vacated by fleet transportation operations and evaluated for possible reuse, including use as unheated storage. Some existing equipment would be relocated to the new facility. The existing underground tanks would be abandoned and placed in the Tank Management Program for future removal. The new facility design would meet current transportation operations requirements and have capability for increased operations. The new facility would also meet applicable health and safety codes.

The new facility would be a pre-engineered, insulated metal building with approximately 8,236 m^2 (88,650 ft^2) of floor space on the ground level and 989 m^2 (10,650 ft^2) on the second floor (Figure 3). Space would be provided for each of the functional requirements listed in Table 1. The complex would cover approximately 5.3 ha (13 acres) including the building, access roads, sidewalks, fuel islands, parking for 80 buses and 15 vehicles, and an outdoor equipment holding area.

Construction activities would include:

- filling and grading the construction site to provide proper drainage and foundation construction;
- excavating and installing of underground utilities;
- installing nine new underground liquid storage tanks;
- constructing a pre-engineered, insulated metal building for the main facility;

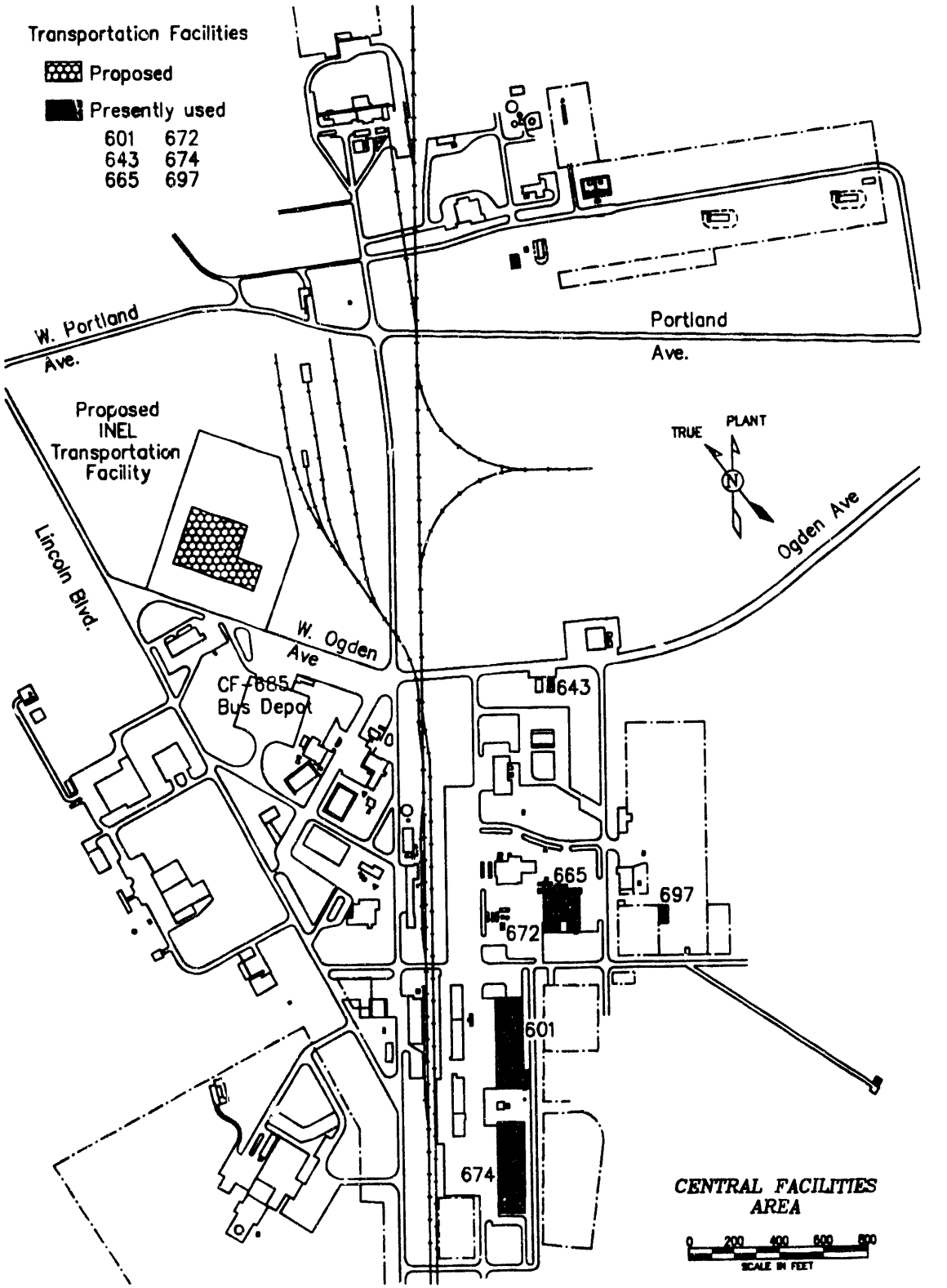
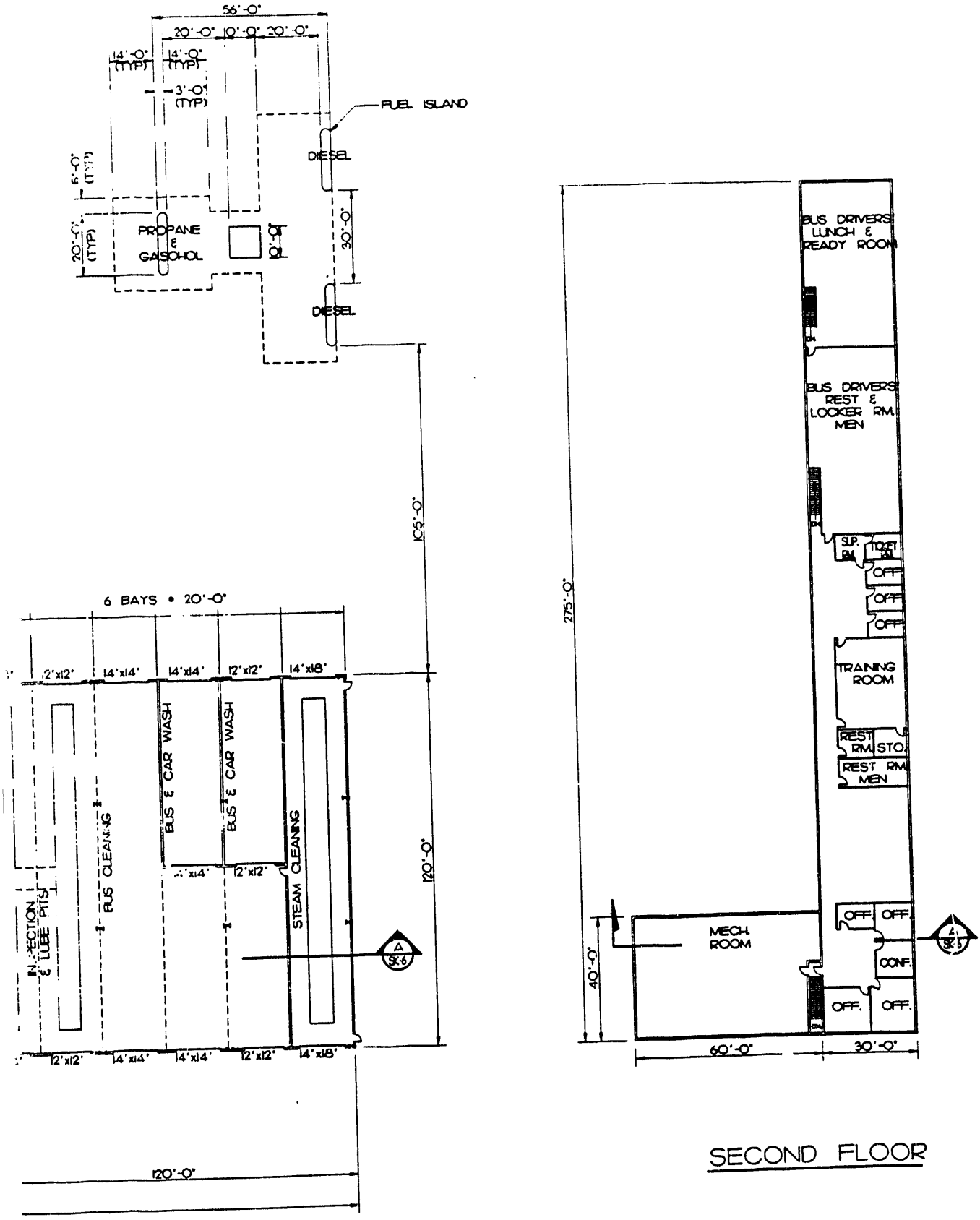


Figure 2. Location of proposed facility and existing facilities at CFA.



SECOND FLOOR

0-8421

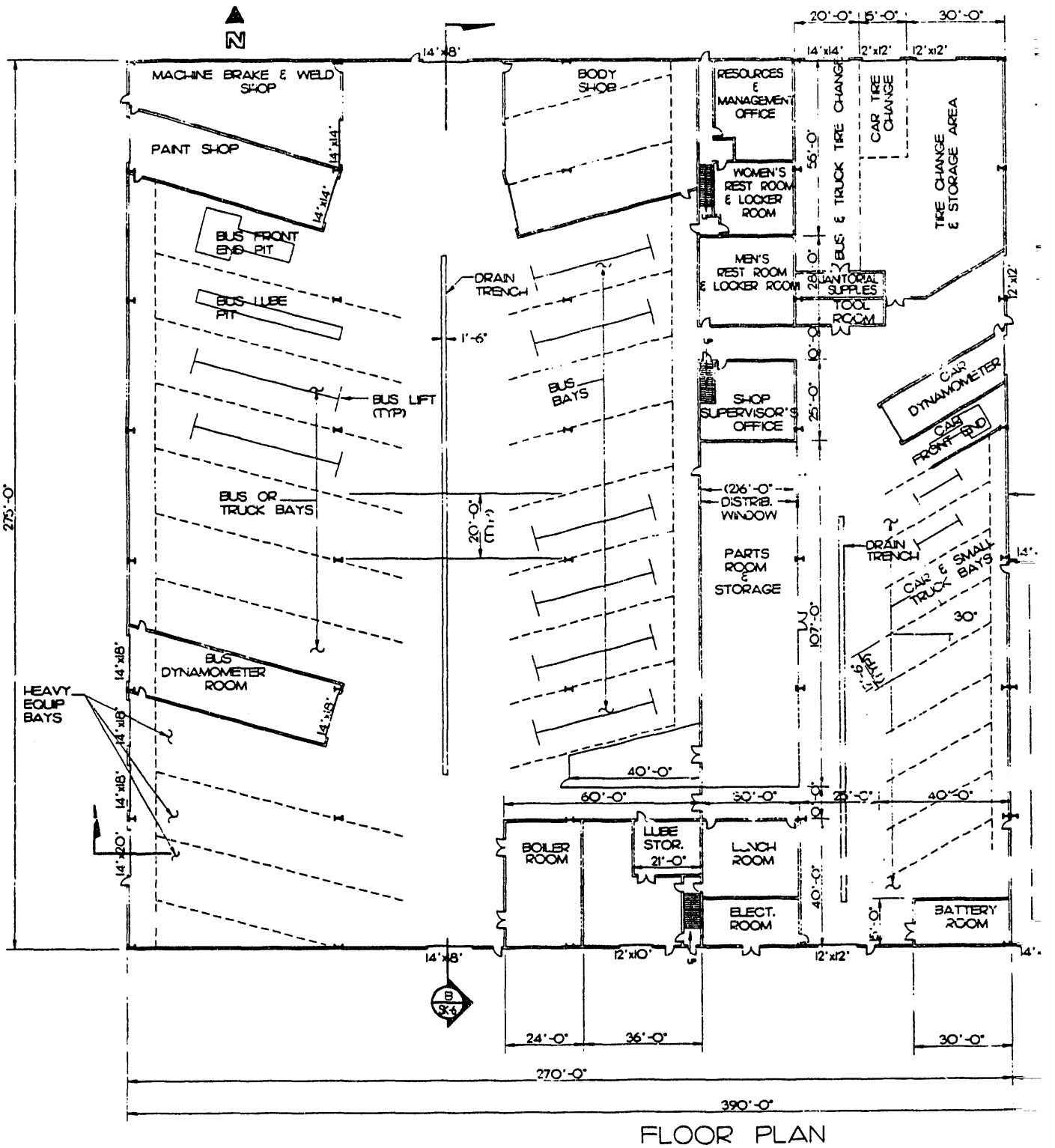


Figure 3. Floor Plan of the Proposed Transportation Facility

Table 1. Functional Requirements for the Transportation Facility (listed by major areas of operation)

Equipment Maintenance and Repair	Administrative Support	Bus Driver Accommodation and Bus Parking
machine brake and weld shops	administrative offices	bus driver restroom and locker
paint shop	training room	bus driver lunch and ready room
bus and truck bays	resources and management office	bus parking
heavy equipment bays	training equipment storage room	
car and small truck bays	men/women restroom	
bus dynamometer room	supply room	
body shop	ticket room	
battery room	open office space	
parts storage	vehicle parking	
tool room		
tire change and storage		
inspection and lube bays		
lube storage room		
bus interior cleaning bays		
bus/car steam cleaning bays		
shop supervisor office		
restrooms and lockers (men and women)		
shop lunchroom		
fuel islands and attendant station		
fuel/antifreeze storage		
outdoor equipment holding area		
Satellite Accumulation Area (for used oil, antifreeze, hazardous waste, etc.)		

- constructing and paving access roads, parking areas, turn-around areas, curbs, and storm drainage system in the vicinity of the proposed building; and
- installing landscaping.

The following sections contain a description of the major systems in the facility. A more complete description can be found in the Conceptual Design Report for the INEL Transportation Complex (EG&G, 1991).

2.1 Mechanical Systems

The ventilation system would be capable of providing 360 m^3/min. (127,070 cfm) of air, of which 24 m^3/min. (8,500 cfm) would be recirculated through a heat recovery system to minimize energy usage for the facility. The system would provide 0.3 $m^3/min./m^2$ (1 cfm/ft^2) in all shop and garage areas except the repair pits, which would have an air exchange six times per hour. The ventilation system would be capable of removing exhaust fumes created from vehicles moving in and out of the building. In addition, each bay of the car and light truck repair section and dynamometer room would include in-floor vehicle exhaust collection systems. Overhead vehicle exhaust collection systems and/or dual in-floor vehicle exhaust collection systems would be installed in each bus and truck repair bay and dynamometer room. Standard Occupational Safety and Health Administrative (OSHA) protective equipment such as carbon monoxide (CO) and nitrogen oxides (NO_x) analyzers and lower explosive limit (LEL) detectors would be provided for each shop area. Separate exhaust systems would be provided for the battery recharging room, paint booth, body shop, and brake/weld shop. The paint booth, body shop, and brake/weld shop would also have independent filtration for exhaust air. Steam heat would be produced by a 300-hp operational boiler with a 150-hp boiler for backup. An existing 300-hp boiler from the main repair facility (CFA-665) may be relocated to the new facility.

Storage tanks and pumps would be installed to distribute oil, grease, transmission fluid, and antifreeze throughout the facility. Nine fiberglass, double-walled tanks with leak detection systems would be installed underground

in compliance with Resource Conservation and Recovery Act (RCRA) regulations (40 CFR 280) and the State of Idaho would be notified as required by the Environmental Protection Agency (EPA). These tanks would include the following:

- one 37,854-L (10,000-gallon) tank for new oil;
- one 18,927-L (5,000-gallon) tank for antifreeze;
- two 37,854-L (10,000-gallon) tanks for gasoline;
- two 56,781-L (15,000-gallon) tanks for diesel;
- one 18,927-L (5,000-gallon) tank for waste oil;
- two 56,781-L (15,000-gallon) tanks for Number 2 fuel oil; and
- one 5,678-L (1500-gallon) tank for fuel oil for the emergency generator.

Grease and transmission fluid would be stored in 208-L (55-gallon) drums within the building. One existing 3785-L (1,000-gallon), above ground propane tank would be relocated to an area near the fuel islands.

Appropriate fluids would be piped to auto-reel dispensing systems in the six inspection and lube pits, and to at least one bus and car bay. Gasoline and diesel pumps would be installed in two islands at a covered fuel station with the capability of fueling four vehicles at one time. Each fuel island would be equipped to dispense air, lubrication oil, and antifreeze.

Floor drains would be installed throughout the building in vehicle traffic lanes. Appropriate drains would be connected to an oil/water separator before discharge to the sewer system. Outside parking areas would also drain through an oil/water separator before discharge to the storm water drainage system. Oil from the oil/water separators would be recycled offsite by contractors. The building would be connected to existing water and sewer lines. The fire protection system would consist of three separate automatic wet pipe sprinkler systems for ordinary hazards and systems designed for extra protection in areas where needed.

2.2 Electrical Systems

The electrical power would be supplied to the facility by connecting one new pad-mounted 12.5 kv-480Y/277 volt transformer with one service entrance and disconnect to nearby existing power lines. A standby power system would be installed to deliver backup power in emergencies. Standby power would be provided by a self-starting, diesel fuel driven engine-generator with an output of 480Y/227 volts. The existing emergency generator from CFA-665 may be relocated to the proposed facility.

3. AFFECTED ENVIRONMENT

The INEL covers approximately 2,305 km^2 (890 mi^2) in a cool, high desert environment on the Upper Snake River Plain (USRP) in southeastern Idaho. The physical and biological environment at the INEL has been extensively described in previous documents (DOE, 1991; Bowman et al., 1984). The surface of this plain is covered by windblown and waterborne topsoil underlain by composite layers of interbedded volcanic (principally basaltic lava) and sedimentary rocks. The topography is generally flat to gently rolling, with elevations ranging from 1,450 m (4,750 ft) to 1,585 m (5,200 ft). Compilations of earthquake epicenters for the USRP and surrounding mountainous terrain indicate that the plain is aseismic for earthquakes above a magnitude 2.5 relative to the surrounding active region (Anders et al., 1989). Detailed earthquake monitoring by the INEL Seismic Network from October 1972 through December 1990 has only detected 15 micro earthquakes within the USRP, all having magnitudes of 1.5 or less (Jackson, et al., 1990).

The Snake River Plain Aquifer beneath the INEL is the principal groundwater feature in southeastern Idaho, underlying nearly all of the Upper Snake River Plain. This aquifer discharges approximately 8.0 billion cubic meters (6.5 million acre-feet) of water annually through springs and irrigation wells. Discharges from the springs contribute significantly to the flow of the Snake River. At CFA, the aquifer is approximately 137 m (450 ft)

below the ground surface. Surface water flows at the INEL include three intermittent streams and localized runoff. No surface water flows leave the INEL. Studies have shown that the projected 100-year flood of the Big Lost River on the INEL would be adequately contained by the river channel with the utilization of an existing diversion area that was constructed near the point where the river enters the INEL (Bennett, 1986). Therefore, no flooding is expected to occur at the proposed location. There are no recognized wetlands in the vicinity of the proposed transportation facility, according to the U. S. Department of the Interior National Wetland Inventory.

The proposed location for the INEL Consolidated Transportation Facility is an area within the CFA boundary that has been extensively disturbed in the past. Native vegetation was previously removed from the proposed construction site and the area reseeded with crested wheat grass.

A list of the most common species of animals found at the INEL can be found in DOE, 1991. There are no known species listed as endangered or threatened by the U. S. Fish and Wildlife Service (USFWS) residing year-round on the INEL and there are no known critical habitats (USFWS, 1991; Reynolds et al., 1986). The bald eagle (Haliaeetus leucocephalus), which is classified as endangered by the USFWS, has been observed wintering on the INEL (USFWS, 1991). The construction site was previously surveyed by qualified archaeologists and no cultural resources were discovered (Reed et al., 1986). In the event that paleontological or cultural resources were encountered during subsurface activities, work would stop until a qualified professional assessed the significance of the resources.

Employment at the INEL has risen steadily since the mid 1980s to a yearly average of approximately 12,387 employees [fiscal year (FY) 91]. The majority of employees reside in Bonneville and Bingham counties east of the INEL. In FY 1991, an average of 8,500 employees commuted daily to INEL facilities, primarily using the INEL bus transit system. Idaho Falls, which is the largest town in Bonneville County, has a population of 43,929 according to the 1990 census and is located approximately 71 km (44 mi) east of CFA. Atomic

City, population 25, is the closest community to CFA, located approximately 15 km (9 mi) south.

4. ENVIRONMENTAL IMPACTS OF PROPOSED ACTION

4.1 Construction

Construction of the Transportation Facility is expected to take approximately 22 months to complete, with a peak construction work force of about 30 people. A project of this size would not have an impact on area economies other than to sustain local construction employment. Standard construction equipment and techniques would be utilized to build this facility and all applicable safety requirements of OSHA and DOE Order 5480.9 would be followed. Grading and excavation work would create some temporary fugitive dust but would be controlled through application of water or other means. A Stormwater Pollution Prevention Plan would be prepared before construction commences. Non-radioactive, non-hazardous solid waste would be removed to the INEL landfill. The use of heavy construction equipment would temporarily cause a minor increase in hydrocarbon emissions and noise and may cause a temporary disruption of traffic or limit area access.

Construction activities may destroy some burrowing and less mobile animals (such as invertebrates, reptiles and small mammals) that may reside in the area and force larger animals and birds to relocate to adjacent areas that have similar or more suitable habitat. These animals are generally well represented on the INEL (DOE, 1991). The loss of habitat due to construction is not expected to affect the viability of any plant species, local wildlife populations or any endangered species. The Radiological and Environmental Sciences Laboratory of DOE-ID has analyzed this project and determined that a formal Section 7 consultation concerning the Endangered Species Act would not be required (see Appendix A).

4.2 Operations

The consolidation of transportation operations into one facility would concentrate existing emission sources and waste streams that are presently scattered throughout several buildings. Air emissions and hazardous waste generation from operations would essentially remain the same or be reduced through waste minimization efforts with no additional impact to the environment. Utility requirements are expected to be comparable to requirements of the existing facilities and could be reduced in some areas, such as water consumption and heating demand because of improved building design or recycling efforts. The number of employees at the proposed transportation facility depends on sitewide program employment requirements (an increase in program employment would require more buses for transportation and repair). The proposed facility would be capable of accommodating an increase in transportation operation employees if necessary to meet anticipated future needs. Normal employment fluctuation at the transportation facility would not have an effect on the local economy. The operational activities in this facility would be considered standard industrial hazards that are routinely accepted by the public.

4.2.1 Air Emissions

The potential sources of air pollutants at the proposed Transportation Facility would be the same as the existing facilities. Sources would include boilers used for generating heat, the diesel-fueled emergency generator, vehicles undergoing maintenance, the paint shop, brake/weld shop, body shop, battery recharging room, and evaporative emissions from filling underground storage tanks and vehicles. Emissions generated from maintenance operations would remain the same or be less than the present emissions and would not create an additional impact on the environment. Volatile organic compound (VOC) emissions generated through use of solvents and other maintenance products are expected to be eliminated from most areas of the proposed facility because the existing waste minimization program has found non-VOC emitting, biodegradable products to substitute for VOC emitting products. The only new potential impact to the environment from the proposed facility would

be from any new boilers used for heating and a new emergency generator (if the existing generator is not relocated to the proposed facility).

Although emissions from maintenance operations are expected to remain the same, they are discussed in the following section in order to provide a total emission rate for the whole Transportation Facility. General assumptions used to calculate the emissions from the existing maintenance operations and new boilers/generator are also discussed in the following sections.

4.2.1.1 Emissions from Maintenance Operations. Vehicles would be idled during maintenance operations and would run at higher speeds [66 to 81 km/hr (41 or 50 mph)] during testing with the dynamometer, producing exhaust emissions. This exhaust would be captured by an in-floor vehicle exhaust system and vented through a stack. The total idle time for a year was assumed to be 1,040 hrs for gasoline powered vehicles and 2,600 hrs for diesel vehicles based on the assumption that current maintenance procedures would remain the same. The dynamometer was assumed to be in use 2 hrs/day, 260 days/yr as a conservative upper bounding estimate. Vehicle emissions were calculated using EPA emission factors for vehicle maintenance and for, as summarized in Table 2.

Emissions from the paint shop, which would be filtered through a separate exhaust system, were calculated using emission factors in Table 4.2-1 in EPA (1985a) and are shown in Table 2. Paint weight was assumed to be 5.9 kg/gal (13 lb/gal) with 473 L (125 gal) used per year. The paint shop would also operate a parts washer that uses small quantities of paint thinner.

Evaporative emissions would occur during the filling of the underground tanks and refueling vehicle tanks. Gasoline throughput was assumed to be 11.4×10^6 L/yr (3×10^5 gal/yr) through two tanks and diesel throughput would be 37.9×10^9 L/yr (1.0×10^6 gal/yr) through two tanks. Refueling tanks of #2 fuel for the boilers was also included in the calculations. Total yearly VOC emissions are shown on Table 2.

Table 2. Emissions from Existing Maintenance Operations

		CO	NO_x	SO_2	PM	VOC	
Autos, Idle[a]	lb/hr	0.35	0.0053	--	--	0.0066	
	ton/yr	0.46	0.0069	--	--	0.0086	
Autos, Dynamometer[b]	lb/hr	2.9	1.3	--	--	0.14	
	ton/yr	1.1	0.05	--	--	0.055	
Buses, Idle[c]	lb/hr	0.053	0.38	--	0.013	0.061	
	ton/yr	0.028	0.2	--	0.0069	0.032	
Buses, Dynamometer[d]	lb/hr	4.69	2.36	--	0.5	0.3	
	ton/yr	1.22	0.61	--	0.13	0.079	
Paint Shop[e]	lb/hr	--	--	--	--	0.32	
	ton/yr	--	--	--	--	0.46	
Fuel Tanks[f]	lb/hr	--	--	--	--	1.7	
	ton/yr	--	--	--	--	7.6	
TOTAL Operations	ton/yr	2.8	0.87	--	0.14	8.2	

a. Automobiles and light trucks assumed to idle for 2600 hr/yr. Emission factors from Table 2.1.3 in EPA (1985b). No emission factors are available for particulate matter (PM) or sulfur dioxide (SO_2).

b. Automobiles and light trucks have been assumed to operate 3 hr/day, 5 day/week, 52 week/yr, at 50 mph. Emission factors from Table 2.1.1A in EPA (1985b). No emission factors are available for PM or SO_2.

c. Buses have been assumed to idle for 1,040 hr/yr. Emission factors from Table N-1 in EPA (1985b). No emission factor is available for SO_2.

d. Buses have been assumed to operate for 2 hr/day, 5 day/week, 52 week/yr, at 41 mph. Emission factors from Table N-1 in EPA (1985b). No emission factor is available for SO_2.

e. The only emissions of concern from paint shop operations are VOCs. The paint shop is assumed to operate 352 day/yr, 8 hr/day, and use 125 gallons of paint/yr. Paint has been assumed to weigh 13 lb/gal. Emission factors from Table 4.2-1 in EPA (1985a).

f. VOCs are the only emissions of concern from losses associated with the filling, breathing, and emptying of fuel tanks, and vehicle refueling operations. Total estimated throughput of fuel approximately 1.5 million gallons/yr. Emission factors from Table 4.4-7 in EPA (1985a).

4.2.1.2 Emissions from Boilers and the Emergency Generator. Since the existing vehicle maintenance buildings would be used for cold storage, it is possible that one of the two existing 300-hp boilers and the emergency generator would be relocated for use at the new facility. Under that circumstance, the only new source of air emissions at the proposed transportation facility with potential for impact to the environment would be the 150-hp backup boiler. Emissions from the existing boiler/generator would remain the same but would be relocated within the boundaries of CFA. The State of Idaho Air Quality Bureau (IAQB) considers this type of relocation action a 'like-for-like' replacement having no additional impact on air emissions. A new 300-hp boiler and emergency generator (if required) would be considered a new source of emissions in addition to the new 150-hp boiler. Normal estimated emissions from each type of boiler/generator, estimated total facility emissions, State of Idaho Significant Emission Rate, and total INEL emission rates [taken from the INEL emissions inventory (DOE, 1991a)] are presented in Table 3. All pollutants rates would be below the State of Idaho Significant Rate and total emissions for the INEL would increase by only a small percentage. The highest emission rate would be for sulfur dioxide (SO_2). If all new boilers and an emergency generator were installed, the estimated normal emission rate for SO_2 would be less than 50% of the State of Idaho Significant Emission Rate and would increase the total INEL rate by 1.5%. If only a new 150-hp backup boiler were to be installed the estimated rate for SO_2 would be less than 10% of the Significant Rate and increase the INEL rate by 0.3%. (Conservative assumptions have been made about operating time and fuel consumption that exceed the actual operating conditions of the existing boilers as reported in the emissions inventory compiled for the INEL.)

4.2.1.3 Permitting Requirements. The proposed action would either relocate the existing 300-hp boiler and emergency generator and install a new 150-hp backup boiler or install all new boilers and a new emergency generator. The relocation and consolidation of existing sources of emissions within the CFA area may be considered a 'like-for-like' replacement. However, a facility

Table 3. New Source Emission Estimates and Total Emission Estimates for the Proposed Transportation Facility

		CO	NO_x	SO_2	PM	VOC	
150-hp Boiler[a]	lb/hr	0.1	0.40	1.44	0.04	0.004	
	ton/yr	0.25	1.00	3.60	0.10	0.010	
300-hp Boiler[b] (normal)	lb/hr	0.45	1.79	6.44	0.18	0.018	
	ton/yr	1.1	4.48	16.11	0.45	0.045	
Generator[c]	lb/hr	0.43	2.0	0.13	0.14	0.19	
	ton/yr	0.007	0.03	0.002	0.002	0.003	
TOTAL (new source-all new equipment)	ton/yr	1.4	5.5	19.7	0.5	0.058	
Total INEL	ton/yr	1929.0	5358.0	1281.0	1025.0	686.1	
Total Facility	ton/yr	4.2	6.3	19.7	0.69	8.3	
State of Idaho Significant Emission Rate	ton/hr	100.0	40.0	40.0	25.0	40.0	

a. Boiler assumed to use 89.5 gal/hr of #2 fuel oil; operates 8,760 hr/yr for maximum potential; operates 5000 hr/yr for normal. Emission factors from Table 1.3-1 in EPA (1985a). Assumed the maximum allowed sulfur content of 0.5%.

b. Boiler assumed to use 40 gal/hr of #2 fuel oil and normally operate 2500 hr/yr as back-up boiler. Emission factors from Table 1.3-1 in EPA (1985a), sulfur content of 0.5%.

c. Diesel-powered emergency generator assumed to operate 30 hr/yr. Emission factors from Table 3.3-1 in EPA (1985a)

with any new source of emissions would be required to submit to the State of Idaho a Permit to Construct (PTC) application for that facility. A PTC application would be submitted because of new source emissions from either a 150-hp generator or from all new boilers (300-hp and 150-hp) and a new emergency generator. All other sources of emissions in the proposed transportation facility would be from the existing relocated operations and would remain the same. Data for all the emission sources at the proposed

facility would be provided to the IAQB for review. Emissions from a new 150-hp backup boiler or new boilers/generator would fall below the Significant Emission Rate and, therefore, a Prevention of Significant Deterioration (PSD) review would not be required.

Additionally, regulations promulgated by the EPA (New Source Performance Standards, 40 CFR 60) establish control, emission, and record-keeping requirements for boilers with a rated capacity of 10 to 100 million Btu/hr. The new boilers would most likely fall within this category and would have to comply with the appropriate portions of these regulations.

4.2.2 Hazardous Waste Generation

The waste minimization program at the INEL would continue to provide for recycling of most of the hazardous waste products that would be used at the Transportation Facility. Waste oil would be collected by contractors and recycled for energy recovery off-site. Used antifreeze, batteries, and tires would also be collected and recycled by contractors. Hot water parts washers that use biodegradable cleaning agents would eliminate the use of solvents for parts cleaning except in the paint shop. The new facility would not generate any more hazardous waste than the existing facility and, therefore, would not have any additional impact on offsite disposal facilities. The existing facility disposes of approximately one 208 L (55 gal) drum of liquid hazardous waste (primarily paint related waste generated by the parts washer in the paint shop) per year. Continuing waste minimization efforts may reduce this amount.

4.2.3 Cumulative Environmental Impacts

The proposed transportation facility would be designed for energy conservation, waste minimization, and recycling; therefore, energy and utility demand and the need for waste disposal space would stay the same or be reduced. Installation of new boilers and an emergency generator in the proposed facility would cause a small increase in total INEL emissions and would be below the Idaho Significant Emission Rate as indicated in Table 3. A

smaller increase in emissions would result with installation of a new 150-hp backup boiler and relocation of the main boiler and emergency generator. Emissions and waste generation from all other operations would remain the same or be reduced. Equipment such as oil/water separators and underground storage tanks with leak detection systems should prevent the release of petroleum-based liquids in the environment. Construction of the transportation facility would add approximately 5.3 hectares (13 acres) of developed area to CFA.

5. ALTERNATIVES

Three alternatives to the proposed action, including a No Action alternative are described below.

5.1 No Action

With the No Action alternative, no new construction would take place and the existing facilities would not be upgraded. If this alternative were selected, the mechanical, electrical, and structural deficiencies would remain. Operations would continue to be scattered in several physical locations and the present energy inefficiencies would continue.

5.2 Upgrade Existing Facilities

Upgrading existing facilities to alleviate unsatisfactory conditions would require service bay construction, administrative area construction, electrical renovation, heating and ventilating system renovation, energy conservation renovation, warehouse space construction, and diagnostic equipment purchases. These upgrades would correct code deficiencies to meet minimum requirements and improve energy efficiency but worker productivity, communication, and coordination problems would not be improved because of the scattered locations of the facilities. The existing buildings are located so close to each other that major expansion or renovation would be difficult because of space limitations. Renovation of existing facilities could not be accomplished

without interruption of operations, whereas construction of a new facility would not interrupt operations.

5.3 Locate the Facility in Another Area

A site selection process was performed involving several other locations at the site as well as in Idaho Falls. The proposed location was determined to be the best because of the amount of land required and proximity to the existing bus depot. Other sites not centrally located would increase the fuel requirements for transportation of maintenance equipment and personnel. Construction as proposed at CFA would take place in a previously disturbed vacant area, which is not the case at some alternative locations.

6. AGENCIES CONSULTED

The State of Idaho Historic Preservation Office has been consulted about cultural resources in the vicinity of the proposed facility and agrees with the findings of Reed et al. (1986).

The Radiological Environmental Services Laboratory of DOE-ID has evaluated the proposed project and determined that the project would not have a measurable effect on any currently listed species; therefore, formal Section 7 consultation with U. S. Fish and Wildlife Service (USFWS) under the Endangered Species Act is not necessary (see Appendix A). Prior to construction, the most recent INEL endangered species list from USFWS would be reviewed, as required, to see if any additional species have been added to the list that could be affected by the project.

7. REFERENCES

Anders, M. H., J. W. Geissman. L. A. Piety, and J. T. Sullivan, 1989. Parabolic Distribution of Circumeastern Snake River Plain Seismicity and Latest Quaternary Faulting: Migratory Pattern and Association with the Yellowstone Hotspot, J. Geophy. Res., 94, 1589-1621.

Bennett, C. M., 1986. Capacity of the Diversion Channel Below the Flood-Control Dam on the Big Lost River at the Idaho National Engineering Laboratory, Idaho. U.S.G.S. Water Resources Investigative Report 86-4204.

Bowman, A. L., W. F. Downs, K. S. Moor, and B. F. Russell, 1984. INEL Environmental Characterization Report, EG&G-NPR-6688.

DOE (U.S. Department of Energy), 1991. Draft Environmental Impact Statement for the Siting, Construction, and Operation of New Production Reactor Capacity,DOE-EA-0306.

DOE (U.S. Department of Energy), 1991a. Air Emission Inventory for the Idaho National Engineering Laboratory.

EG&G (EG&G Idaho, Inc.), 1991. Conceptual Design Report for INEL Transportation Complex. EGG-xx, Idaho Falls, Idaho

EPA (U.S. Environmental Protection Agency), 1985a. Compilation of Air Pollution Emission Factors, Volume 1: Stationary Point and Area Sources, 4th Edition, AP-42.

EPA (U.S. Environmental Protection Agency), 1985b. Compilation of Air Pollution Emission Factors, Volume 2: Mobile Sources, 4th Edition, AP-42.

EPA (U.S. Environmental Protection Agency), 1988. Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, EPA-450/4-88-010.

Jackson, S. M., G. S. Carpenter, and I. G. Wong, 1990. Microearthquake Investigations of the Eastern Snake River Plain, Idaho (abstract), Seis. Res. Lett., 61, 41.

Reed, W. G., J. W. Ross, B. L. Ringe, and R. N. Holmer, 1986. Archaeological Investigations on the Idaho National Engineering Laboratory, 1984 - 1985, Idaho State University, Swanson/Crabtree Anthropological Research Laboratory, Reports of Investigations 86-4.

Reynolds, T. D., J. W. Connelly, D. K. Halford, and W. J. Arthur, 1986. Vertebrate Fauna of the Idaho National Environmental Research Park, Great Basin Naturalist 46, pp. 513-527.

USFWS (U. S. Fish and Wildlife Service), 1991. Listed and Proposed Endangered and Threatened Species, and Candidate Species That Occur Within the INEL, Species List No. FWS 1-4-92-SP-5, SE #6003.0310, TF #BFO-92-004, October 16, 1991.

APPENDIX A

Determination of Need for Biological Assessment
CFA Transportation Complex

United States Government

memorandum

Department of Energy
Idaho Field Office

DATE: July 8, 1992

SUBJECT: Determination of need for Biological Assessment CFA Transportation Complex - AM/EP-RESL-92-201

TO: Teresa Perkins, NEPA Compliance Officer
Technical Support Division
DOE-ID, MS-1146

As indicated in my February 18, 1992, memo to Roger Twitchell, the Endangered Species Act allows Federal Agencies to determine, at the local level, whether or not it is necessary to consult with the Fish and Wildlife Service and initiate a Biological Assessment for any particular project. If the Agency determines that the potential for a project to have a measurable effect on a species on the Threatened and Endangered Species List is extremely unlikely, that Agency need only prepare a memo-to-file that indicates the circumstances were evaluated and it was concluded that consulting with the Fish and Wildlife Service was unnecessary.

On June 22, 1992, I visited the proposed site for the Transportation Complex with the Project Manager, Mr. Marv Rucker. My objective was to determine whether a Biological Assessment was necessary for this project. Attached is a copy of my Field Evaluation Form for this action. This site is located east and northeast of the Bus Depot at CFA. The complex, including bus parking areas, will occupy about 10 acres. The habitat has been significantly disturbed. About half of the proposed area has been replanted with crested wheatgrass. Rabbitbrush, a native shrubby species commonly invading disturbed sites, dominates the remainder of the area. Some Russian olive trees and Poa sp. (lawn grass) are presently maintained and will not be impacted by the development.

The only listed Threatened or Endangered species that is known to regularly occur on the INEL is the bald eagle. With few exceptions, sightings of this species have been on the north end of the INEL during winter. It is highly unlikely that the construction or operation of the complex, including associated utility corridors, would have a measurable impact on the bald eagle population.

Similarly, it is unlikely that candidate species, such as the Townsend's big-eared bat, long-billed curlew, and the ferruginous hawk would be negatively impacted. Neither Townsend's big-eared bat nor the long-billed curlew have been recorded near CFA. Ferruginous hawks routinely hunt near CFA and occasionally perch on power poles within Central during working hours. Human activity does not appear to affect their hunting. Historically, the ferruginous hawk nest nearest to CFA was along the river, west of Lincoln Boulevard over 4 mi from CFA. It is highly unlikely that any activities associated with the construction or operation of the Transportation Complex would influence nesting success.

I believe that the potential for the construction and operation of the proposed Transportation Complex to measurably impact candidate or listed Threatened or Endangered species is extremely remote. I conclude that DOE-ID does not need to consult with the Fish and Wildlife Service regarding the preparation of a Biological Assessment for this proposed action. Furthermore, it is my impression that placing a copy of this memorandum in the project file will satisfy the NEPA requirements regarding the Endangered Species Act.

Please let me know at your earliest convenience if you do not concur.

Timothy D. Reynolds, Radioecologist
Environmental Sciences Branch
Radiological and Environmental
Sciences Laboratory

cc: B. P. Conlon DOE-ID, MS-1223
P. P. Martin DOE-ID, MS-1223
D. Hardinger, EG&G, MS-1560
M. Rucker, EG&G, MS-4143

DATE
FILMED
9/21/93
END