SIERRA CLUB

Miami Group

Post Office Box 43-0741 • South Miami, Florida 33243-0741

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

June 9, 2000

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Homestead AFB Property Disposal

Sierra Club, Miami Group would appreciate the opportunity to comment on the Nuclear Regulatory Commission ("NRC") letter by Richard P. Correia, Chief, Section 2, dated May 26, 2000 to Mr. Douglas Heady, SAF/GCN, United States Air Force ("USAF").

Mr. Correia states: "Therefore, the NRC staff is not in a position, at this time, to assess the potential risk of the proposed spaceport to the Turkey Point Plant." Sierra Club, Miami Group realizes very little is currently known about the proposed spaceport operations. However, the National Environmental Policy Act of 1969 ("NEPA") requires a detailed statement by the responsible official of any adverse environmental effects which cannot be avoided should the proposal be implemented. We believe this requirement has not been met. We feel the NRC cannot suspend its obligation to provide a safety assessment of Turkey Point operations in close proximity to spaceport operations. If the information provided by the USAF on spaceport operations cannot be used to demonstrate safe operation of Turkey Point, then the assessment must be decisively negative.

The Mission Statement of the NRC (see attachment) reads in part "...to ensure adequate protection of the public health and safety..." If the NRC cannot demonstrate adequate public health and safety concerning Turkey Point operations in relation to the spaceport operations, then again, the assessment must be decisively negative. This assessment will most likely be included in the Final Supplemental Environmental Impact Statement ("FSEIS") which will most likely be used by the decision makers to convey or not convey portions of the former Homestead Air Force Base to the spaceport developers. We expect the decision on conveyance to be made shortly after the publication of the FSEIS. The Mission Statement does not

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provide for a suspension of the NRC's obligations to the health and safety of the public.

The Sierra Club, Miami Group would also appreciate the opportunity to comment on the "Response to Request for Additional Information" by R.J. Hovey, Vice President, Turkey Point Plant, dated May 1, 2000.

Response 2

The twin 400' chimneys (413' above mean sea level) need to be factored into the calculation of the effective area since their presence may cause a crash of a wayward low flying aircraft that otherwise might have cleared all the other plant structures. The height of the twin chimneys (232' taller than the containment buildings) likely increases not decreases the probability of air crashes. The effective area needs to be recalculated.

As to the notion that the chimneys offer a form of protection for the nuclear site, it is not likely that a B-767 weighing 450,000 lbs. or a MD-11 weighing 633,000 lbs. (see attachment) would be stopped by a chimney. It is far more realistic that such a collision would create missiles in the form of chimney pieces that could impact the nuclear site in addition to the crashing aircraft. There is also a remote possibility that an aircraft could strike both chimneys bringing them both down. The mass and velocity of chimney pieces as missiles needs to be factored into the calculations.

Response 3

Omitted from the target building data table were Unit 1 smokestack, fire fighting equipment, all fuel tanks (including the tanks associated with fossil units 1 & 2), and the switchyard. The on-site crash frequency needs to be recalculated encompassing all the safety related structures.

Response 4

Attached is a copy of a letter from Bernice U. Constantin, U.S. Dept. of Agriculture to Lt. Col. Dunaway, dated March 4, 1996. The letter describes the seriousness of bird hazards, site specific to Homestead Air Force Base. A quantitative multiplier needs to be incorporated into the air crash probability calculations.

Response 5

Increasing the crash frequency of commercial carriers by a factor of 10 to account for 80 % of operations connected with Latin America, the Caribbean, or other international locations disregards the 56,771 operations of general aviation. According to NUREG-0800, general aviation has a crash frequency 4.44 higher than commercial aviation. An assumption can be made that 80 % of the general aviation operations will have an international connection.

Question 5 quotes a crash frequency of 0.5 major accidents per million departures for U.S. commercial carriers and 5.7 for Latin American carriers. Using a factor of 10 appears to significantly underestimate the risk of a major air crash for Latin American carriers.

Omitted from the hit frequency table were unit 1 smokestack, unit 2 smokestack, fire fighting equipment, all fuel tanks (including the tanks associated with fossil units 1 & 2), and the switchyard.

The hit frequency table data for CCDP and CCFP for spent fuel building units 3 and 4 appear to imply a catastrophic radiological accident independent of the nuclear steam supply system, yet still able to cause core damage and containment failure. The radiological consequences of an aircraft impacting the spent fuel buildings needs to be addressed along with core damage and containment failure. We are extremely concerned about a catastrophic failure of the spent fuel pools in relation to air crashes. We estimate that Turkey Point houses in excess of 300,000 spent fuel rods.

In conclusion, we hope this letter will help clarify our positions for the

NRC staff. We apologize for its lateness. We urge the NRC to revisit the letter of February 24, 2000 from the Sierra Club, Miami Group and request that the information is incorporated into the Safety Evaluation Report.

Sincerely,

Mark Oncavage
Energy Chair

Mission and Organization

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Mission

THE mission of the U.S. Nuclear Regulatory Commission (NRC) is to ensure adequate protection of the public health and safety, the common defense and security, and the environment in the use of nuclear materials in the United States. The NRC's scope of responsibility includes regulation of commercial nuclear power reactors; nonpower research, test, and training reactors; fuel cycle facilities; medical, academic, and industrial uses of nuclear materials; and the transport, storage, and disposal of nuclear materials and waste.

Statutory Authority

The **NRC** was created as an independent agency by the *Energy Reorganization Act of 1974* , which abolished the **Atomic Energy Commission (AEC)** and moved the AEC's regulatory function to NRC. This act, along with the Atomic Energy Act of 1954, as amended, provides the foundation for regulation of the nation's commercial nuclear power industry.

NRC regulations are issued under the *United States Code of Federal Regulations* (CFR) Title 10, Chapter 1. Principal statutory authorities that govern NRC's work are--

- Atomic Energy Act of 1954, as amended
- Energy Reorganization Act of 1974, as amended
- Uranium Mill Tailings Radiation Control Act of 1978, as amended
- Nuclear Non-Proliferation Act of 1978
- Low-Level Radioactive Waste Policy Act of 1980
- West Valley Demonstration Project Act of 1980
- Nuclear Waste Policy Act of 1982
- Low-Level Radioactive Waste Policy Amendments Act of 1985
- Diplomatic Security and Anti-Terrorism Act of 1986
- Nuclear Waste Policy Amendments Act of 1987
- Solar, Wind, Waste and Geothermal Power Production Incentives Act of 1990
- Energy Policy Act of 1992

The NRC and its licensees share a common responsibility to protect the public health and safety. Federal regulations and the NRC regulatory program are important elements in the protection of the public. NRC licensees, however, have the primary responsibility for the safe use of nuclear materials.

Licensing and Regulatory Responsibilities

The NRC fulfills its responsibilities through a system of licensing and regulatory activities that include--

- Licensing the construction and operation of nuclear reactors and other nuclear facilities, such as nuclear fuel cycle facilities and nonpower test and research reactors, and overseeing their decommissioning
- Licensing the possession, use, processing, handling, and export of nuclear material
- Licensing the siting, design, construction, operation, and closure of low-level radioactive waste disposal sites under NRC jurisdiction and the construction, operation, and closure of the geologic repository for high-level radioactive waste

BOEING

commercial airplanes

Background Info

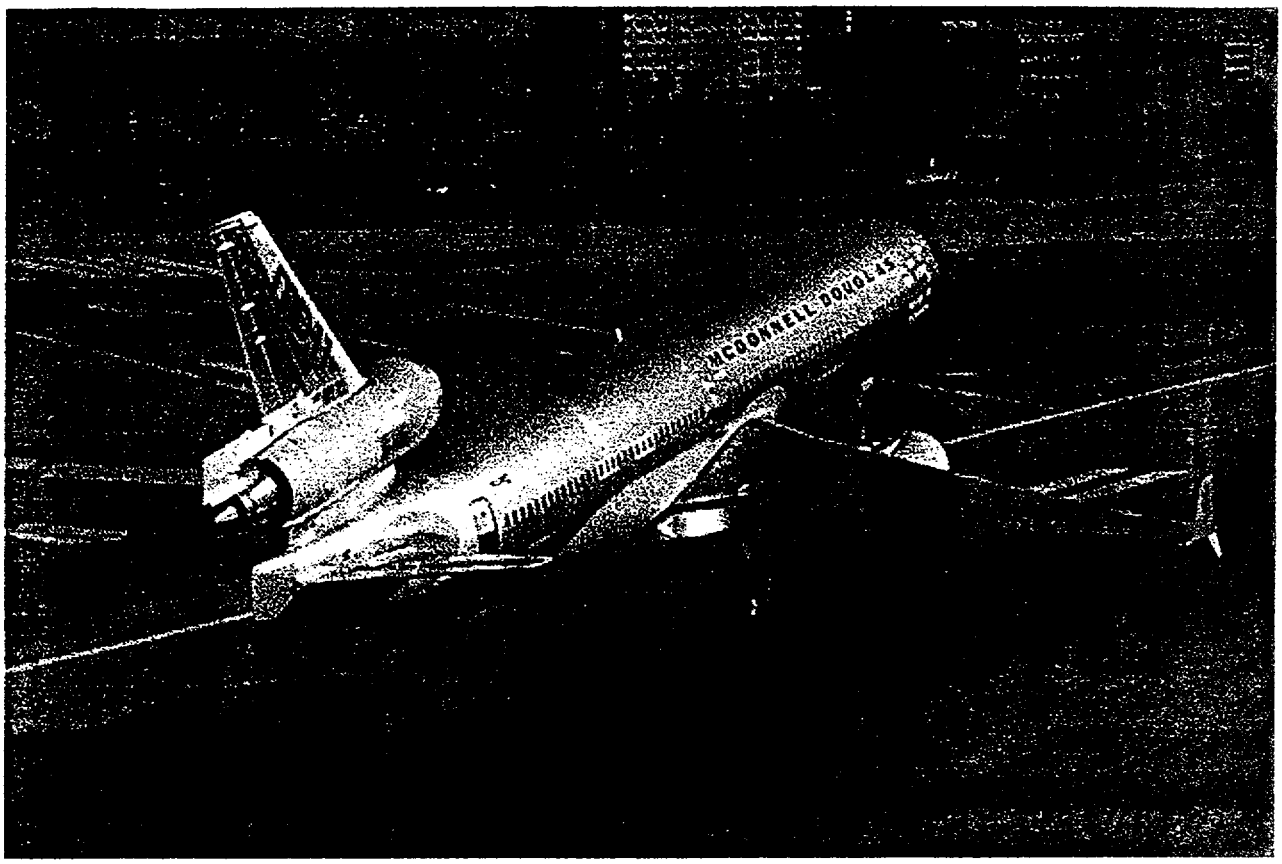
Technical Specs

SPECS EXTERIOR INTERIOR RANGE

Passengers	
Typical 3-class configuration	245
Typical 2-class configuration	304
Typical 1-class configuration	up to 375
Cargo	4,580 cu ft (129.6 cu m)
Engines	Pratt & Whitney PW4000
maximum thrust	63,300 lb (28,713 kg)
	General Electric CF6-80C2
	62,100 lb (28,169 kg)
Maximum Fuel Capacity	24,140 U.S. gal (91,380 l)
Maximum Takeoff Weight	450,000 lb (204,120 kg)
Maximum Range	6,480 statute miles (10,426 km)
	Typical city pairs: London-Tokyo
Typical Cruise Speed	0.80 Mach
at 35,000 feet	530 mph (854 km/h)
Basic Dimensions	
Wing Span	170 ft 4in (51.9 m)
Overall Length	201 ft 4in (61.4 m)
Tail Height	55 ft 4in (16.8 m)
Interior Cabin Width	15 ft 5 in (4.7 m)

Search

The McDonnell Douglas MD-11



Some Quick Stats

Passenger Capacity: 295-410

Length: 61.6m

Wingspan: 51.7m

Engines: P&W 4000's, GE CF6-80C2D

Maximum Take-off Weight: 602-633,000lbs.

Fuel Capacity: 148,000 litres

Max. Range: 13,240km

Cruise Speed: 882km/h

Cargo Capacity: Passenger: 6,850 cubic ft. Freighter: 22,000 cubic ft.

Attch 1

United States Department of Agriculture

Animal and Plant Health Inspection Service

Animal Damage Control

2820 East University Ave
Gainesville, FL 32641
904/377-3336

March 4, 1996

Lt. Col. Joe Dumaway
482nd SE
Homestead ARB, FL 33039-1299

Dear Col. Dumaway,

It was a pleasure getting together with you, Flight Chief John Mitchell and Environmental Specialist Andy Bobick to review the bird situation at Homestead ARB as it relates to air traffic safety. I appreciate the opportunity to comment on the need for bird control at the base.

The cursory inspection tour of the airbase and part of the surrounding area gave me an indication of the magnitude and cause of the bird problems you are experiencing. Though I did not see large numbers of birds on the airbase, I noted several reasons for the reported excessive bird activity there. The main reason is that a county operated landfill located three miles north-northeast of the end of the runway is attracting large numbers of birds. Landfills are artificial attractants to birds because of the constant supply of available food and the large expanse of open land for loafing. As you are aware, we observed hundreds of vultures and gulls on the face of and soaring above the landfill. These two groups of birds are especially hazardous to aircraft because of their size and soaring habits. Vultures weigh from 4 to 5 pounds and will soar at great heights for several hours at a time. Gulls weigh 1 to 2.5 pounds and also soar for long periods of time. This situation is exacerbated by the fact that gulls using the landfill roost in an area just south or southeast of the airbase. According to base OPS personnel, hundreds of gulls fly through the runway area each morning and evening going to and from the landfill and roosting area. This will be hard to prevent unless gulls are deterred from using the landfill.

Ring-billed gulls were observed using a water puddle on the base. Gulls habitually use standing water on runways, parking lots and other concrete surfaces after a rain. Serious problems occur when this happens on or near runways. Gulls and wading birds will also frequent puddles in grassy areas in search of frogs, worms, insects and other small animals.

Other birds of concern at the airbase are wading birds, (e.g. egrets, herons, etc) and diving birds (e.g. cormorants, anhingas,

etc.). Some of these were observed using the drainage ditch and marshy area that parallels the runway. The standing water and marshy grasses in this area should be eliminated and measures taken to keep drainage ditches open to facilitate water flow and keep water from ponding.

Another concern is the reported congregating of cattle egrets and gulls around the tractor-mowers during grass cutting. This commonly happens as birds are attracted to the large number of insects, frogs and other small prey that become available when grass is cut.

As previously stated, the county landfill located north-northeast of Homestead ARB presents a major problem for air traffic using the base. The course of the runway directs air traffic almost directly over the landfill where bird activity is very heavy. Also, bird numbers in the area will always be artificially high because of the birds attracted to the landfill. The soaring habits of most of these birds inadvertently brings them over the airbase and into air traffic lanes. Controlling bird activity at the airbase will be difficult unless bird management is also implamented at the landfill.

Because of the complexities of bird usage at Homestead ARB, and the urgent need to reduce bird activity in the aerodrome, I recommend that a biological assessment and hazard action analysis be conducted concurrently with an operational hazard control program. This program would determine pertinent facts relative to bird use at Homestead ARB such as species composition, bird numbers, daily and seasonal activity and habitat factors that attract wildlife. It would also implement new control strategies based on observations and evaluate the effectiveness of the current bird control program. An assessment/operational program would allow us to develop long-range bird management plans for Homestead ARB. This assessment/operational program would be in compliance with the BASH Reduction plan for Homestead ARB.

Another benefit that can be realized from a bird control program at Homestead ARB is controlling birds in hangers and other open buildings. Birds using hangers for roosting and nesting can cause problems when their manure and nesting debris gets into engine parts or on airplane surfaces. Bird manure, because of the high acidic content, tends to corrode the body and canopy of airplanes, and manure and debris can contaminate sensitive mechanical and electrical equipment. In fact, it was stated during our meeting when discussing this problem that repainting areas where bird manure has corroded the paint can be quite a lengthy and expensive process.

I want to make you aware that I met with the Environmental Engineer for the Florida Air National Guard, Major David Youmans,

and informed him of the situation at Homestead ARB. Major Youmans said that he would recommend that the Air National Guard support any bird hazard management operations at Homestead.

As mentioned at our meeting, the USDA, ADC, Wildlife Services has Wildlife Biologists who are trained at assessing wildlife damage problems and implementing operational programs at airports and military air installations. I would be happy to provide assistance to your agency for implementing a bird hazard assessment/operational program.

I have enclosed the "Wildlife Hazard Prevention and Control" section of the ADC Airport Safety Manual. This section expounds on the principles and guidelines set forth in the BASH Reduction Plan for Homestead ARB. I have also submitted a draft Work Plan and budget for the USDA, Wildlife Services to conduct an assessment/operational program for Homestead ARB for your consideration.

Contact me should you have any questions or want to discuss the subject of this letter. I look forward to hearing from you soon. This office remains ready to serve you should you need our assistance.

Regards,

Bernice U. Constantin
State Director

Enclosure:

cc: John B. Mitchell, Flight Chief, Homestead ARB
Andrew L. Bobick, Environmental Specialist, Homestead ARB
Bart Vernace, District Office FAA, Airports