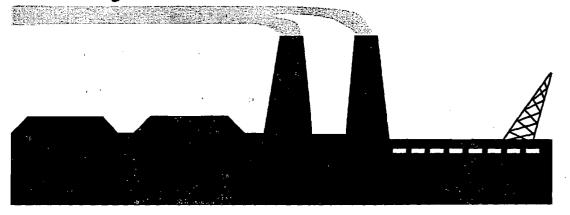
# Title V Permit Application



## Turkey Point Nuclear Plant



TO:

Isidore Goldman, SED

FROM:

Bruce Mitchell

DATE:

April 8, 1997

SUBJECT:

Completeness Review of an Application Package for a Title V Operation Permit

Florida Power & Light Co., Turkey Point: 0250003-061-AV

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Enclosed is an application package for a Title V operation permit that is being processed in Tallahassee. Please review the package for completeness and respond in writing by May 9, 1997, if you have any comments. Otherwise, no response is required.

It is very important to verify the compliance statement regarding the facility, since we do not have a readily effective means of determining compliance at the time the application was submitted. Please a living if you know of any emissions unit(s) that were not in compliance at that time and provide supporting information. You should have a copy on file of the original initial Title V permit application submittal. Also, please do not write on these documents.

If there are any questions, please call the project engineer, Steve Welsh, at 904/488-1344 or SC: 278-1344.

RBM/bjb

Enclosure

cc: Joe Kahn

## DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF AIR RESOURCES MANAGEMENT

#### APPLICATION FOR AIR PERMIT - LONG FORM

See Instructions for Form No. 62-210.900(1)

Received 19/16/97

#### I. APPLICATION INFORMATION

This section of the Application for Air Permit form identifies the facility and provides general information on the scope and purpose of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department using ELSA, this section of the Application for Air Permit must also be submitted in hard-copy form.

#### Identification of Facility Addressed in This Application

Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility site name, if any; and a brief reference to the facility's physical location. If known, also enter the facility identification number.

1. Facility Owner/Compan	y Name: Florida Power & Light Cor	mpany
2. Site Name: Turkey Point N	Suclear Plant	
3. Facility Identification	Number : Unknown	
	760 S.W. 344 Street (10 miles east of	
City: Florida City	County: Dade	Zip Code: 33035
5. Relocatable Facility? (Y		Permitted Facility?(Y/N):

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Permit Number:	
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

#### Owner/Authorized Representative or Responsible Official

l·.	Name and Title of Owner/Authorized Reproduction     Name: Vito Kaminskas     Title: Services Manager	resentative or I	Responsible Official:
2.	2. Owner or Responsible Official Mailing Ac	ldress:	
	Organization/Firm: FPL Environmental Service Street Address: 9760 S.W. 344 Street City: Florida City	es Department State: FL	Zip Code: 33035
3.	3. Owner or Responsible Official Telephone Telephone: 3052466090		ax: 305 2466783
4.	4. Owner or Responsible Official Statement:		·
	I, the undersigned, am the owner or autho addressed in this Application for Air Perm 62-210.200 F.A.C., of the Title V source a applicable. I hereby certify, based on infoinquiry, that the statements made in this a that, to the best of my knowledge, any estimate based upon reasonable techniques for emissions units and air pollution control experience and maintained so as to comply pollutant emissions found in the statues of Department of Environmental Protection of permit, if granted by the Department, can the Department, and I will promptly notify any permitted emissions unit.	nit or the responderessed in this primation and be pplication are to mates of emissicalculating ement descriptions the State of Floand revisions the of the transferressed.	nsible official, as defined in Rule is application, whichever is elief formed after reasonable true, accurate and complete and ons reported in this application tissions. The air pollutant ribed in this application will be able standards for control of air orida and rules of the hereof. I understand that a tred without authorization from

\* Attach letter of authorization if not currently on file.

#### **Application Contact Information**

1. Name and Title of Application Contact:
Name: Richard G. Piper

Title: Environmental Specialist

2. Application Contact Mailing Address:

Organization/Firm: FPL Environmental Services Department

Street Address: P.O. Box 14000

City: Juno Beach

State: FL

Zip Code: 33408

3. Application Contact Telephone Numbers:

Telephone: 5616917058

Fax: 5616917070

#### **Application Comment**

This application is being submitted to obtain a federally-enforceable construction and operation permit for the Turkey Point Nuclear plant. The Turkey Point nuclear facility consists of two nuclear generating units with a combined capacity of 1,332 megawatts. The nuclear generating units, which are regulated by the Nuclear Regulatory Commission (NRC) are not included in this application.

The facility also contains several ancillary pieces of diesel-driven equipment (such as diesel generators and air compressors) and fuel oil storage tanks. This ancillary equipment, when considered in aggregate, has the potential to emit in excess of 100 tpy of NOx. The nuclear plants are co-located with the two Turkey Point fossil generating plants (which are major sources under Title 5). However, this application is being submitted separately from the fossil units' application, pursuant to the application instructions (page 6 of DEP Form 62-210.900(1) paragraph five): "For permits issued under Chapter 62-213, F.A.C., to sources that include emissions units subject to regulation by the Nuclear Regulatory Commission, the applicant may elect to submit multiple applications for a single Title V source and to have corresponding multiple permits issued by the Department".

The facility also contains an adjacent cooling canal system, with associated support equipment and office (Land Utilization department). Emissions from the Land Utilization equipment are primarily associated with heavy diesel equipment, such as trucks, backhoes, airboats, and the like, and are exempt from consideration in Title V permitting due to being mobile sources. Regulated emissions associated with the Land Utilization Department include fugitive dust (considered in Emission Unit section 4) and miscellaneous small diesel and gasoline-driven equipment, such a pumps and air compressors. These emissions are considered in Emission Unit 3.

This application is structured as follows: The "main plant emergency diesel generators" which supply backup power to the nuclear power plant auxiliary equipment, are addressed in Emission Unit 1 section of the application. Other diesel generators which supply backup power to certain other equipment at the facility are addressed in Emission Unit section 2 of the application. Emission Unit 3 contains information regarding miscellaneous diesel-driven small equipment at the facility. The facility's safety-related equipment, paint spray booth, sandblast enclosure, tanks, and miscellaneous fugitive emissions are considered in the Unregulated Emission Units section (Emission Unit section 4 of the application).

NOx is the pollutant that is emitted in the largest quantity from the internal combustion (diesel-driven) equipment. Facility-wide potential NOx emissions, reflective of the operating limits which FPL is proposing, are as follows:

Emission Unit 1 (4 Main plant emergency diesel generators) 78.44 tons per year (1400 hours per year limit combined total)

Emission Unit 2 (Other emergency diesel generators) 6.0 tons per year (400 hours per year limit each)

Emission Unit 3 (Miscellaneous plant equipment) 48.14 tons per year (annual fuel useage limit of 160,520 gallons)

Emission Unit 4 (Exempt Diesel Equipment) 2.16 tons per year

Total: 137.74 tons per year

#### E. FACILITY SUPPLEMENTAL INFORMATION

#### Supplemental Requirements for All Applications For Facility: 1

- 1. Area Map Showing Facility Location: PTNFS-1.BMP

  (Enter the Attached Document ID, NA Not Applicable, Waived WaiverRequested, or Attach an Electronic Submission File)
- 2. Facility Plot Plan: PTNFS-2.BMP

  (Enter the Attached Document ID, NA Not Applicable, Waived WaiverRequested, or Attach an Electronic Submission File)
- 3. Process Flow Diagram(s): PTNFS-3.BMP

  (Enter the Attached Document ID, NA Not Applicable, Waived WaiverRequested, or Attach an Electronic Submission File)
- 4. Precautions to Prevent Emissions of Unconfined Particulate Matter: PTNFS-4.txt (Enter the Attached Document ID, NA Not Applicable, Waived WaiverRequested, or Attach an Electronic Submission File)
- 5. Fugitive Emissions Identification: PTNFS-5.txt
  (Enter the Attached Document ID, NA Not Applicable, Waived WaiverRequested, or Attach an Electronic Submission File)
- 6. Supplemental Information for Construction Permit Application: Not Applicable (Enter the Attached Document ID, NA Not Applicable, or Attach an Electronic Submission File)

#### Additional Supplemental Requirements for Category I Applications Only

- 7. List of Proposed Exempt Activities: Not Applicable
  (Enter the Attached Document ID, NA Not Applicable, or Attach an Electronic Submission File)
- 8. List of Equipment/Activities Regulated under Title VI: PTNFS-8.txt
  (Enter the Attached Document ID, NA Not Applicable, Onsite Equipment/Activities Onsite but not Required to be Individually Listed, or Attach an Electronic Submission File)
- 9. Alternative Methods of Operation: Not Applicable

  (Enter the Attached Document ID, NA Not Applicable, or Attach an Electronic Submission File)
- 10. Alternative Modes of Operation (Emissions Trading): Not Applicable (Enter the Attached Document ID, NA Not Applicable, or Attach an Electronic Submission File)
- 11. Identification of Additional Applicable Requirements: Not Applicable (Enter the Attached Document 1D, NA Not Applicable, or Attach an Electronic Submission File)

2

12. Compliance Assurance Monitoring Plan: Not Applicable

(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File).

13. Risk Management Plan Verification: NA

(Enter the Attached Document ID, NA - Not Applicable, Plan Submit - Plan to be submitted to Implementing Agency by Required Date, or Attach an Electronic Submission File)

14. Compliance Report and Plan: NA

(Enter the Attached Document ID, NA - Not Applicable, or Attach an Electronic Submission File)

15. Compliance Statement (Hard-copy Required): PTNFS-14.txt (Enter the Attached Document ID, NA - Not Applicable)

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Emission	Unit	Information	Section	of
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#### III. EMISSIONS UNIT INFORMATION

Information for Facility - ID: 1 Emission Unit #: 2

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

### A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

#### Type of Emissions Unit Addressed in This Section

1.	Regula	ated or Unregulated Emissions Units? Check one:
[	]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[	x ]	The emissions unit addressed in this Emissions Unit Information Section is a unregulated emissions unit.
2.	Single	e Process, Group Processes, or Fugitive Only?

Enter The Number (1-3): 1

- [1] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
- [2] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point(stack or vent) but may also produce fugitive emissions.
- [3] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

<b>Emission Unit</b>	Information	Section	of
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## B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

#### **Emissions Unit Description and Status**

Description of Emissions Unit Addressed in This Section (limit to 60 characters):     Auxiliary Emergency Diesel Generators
2. Emissions Unit Identification Number: Unknown (No Corresponding ID or Unknown)
3. Emission Unit Status Code: (A or C): A
4. Acid Rain Unit? (Y/N): N
5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters):  This emission unit considers several pieces of equipment; the security system diesel generator, the seway plant diesel generator, and three meteorological tower diesel generators. The initial startup dates, manufacturer and model numbers vary with each piece of equipment.
Emissions Unit Control Equipment  A. Control Equipment #:
Description (limit to 200 characters):     None
2. Control Device or Method Code:

E	Emission Unit Information Section of						
E	3. Control Equipment #:						
	1. Description (limit to 200 characters):						
	2. Control Device or Method Code:						
(	C. Control Equipment #:						
	1. Description (limit to 200 characters):						
	2 Control Device or Method Code:						

Emission Unit Information Section	of	
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#### C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units)

#### **Emissions Unit Details**

1.	Initial	Startup	Date	(DD-MON-YYYY)	×
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- 2. Long-term Reserve Shutdown Date (DD-MON-YYYY):
- 3. Package Unit:

Manufacturer:

Model Number:

- 4. Generator Nameplate Rating: MW
- 5. Incinerator Information:

Dwell Temperature:

Dwell Time: seconds

Incinerator Afterburner Temperature: °F

#### **Emissions Unit Operating Capacity**

- 1. Maximum Heat Input Rate: 4.08 mmBtu/hr
- 2. Maximum Incineration Rate: lbs/hr

tons/day

- 3. Maximum Process or Throughput Rate: Units:
- 4. Maximum Production Rate:

Units:

5. Operating Capacity Comment (limit to 200 characters): Information provided is for the security system diesel generator, which is the largest.

#### **Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule:

hours/day

days/week

weeks/yr

400 hours/yr

## E. EMISSION POINT (STACK/VENT) INFORMATION (Regulated Emissions Units Only)

#### **Emission Point Description and Type**

Information for Facility-ID 1 Emission Unit #:2

Identification of Point on Plot Plan or Flow Diagram:     PTN security system emergency diesel generator				
2. Emission Point Type Code (1,2,3,4): 3				
3. Descriptions of Emissions Points Comprising this Emissions Unit: Sewage plant diesel gen., security system diesel gen., 3 meteorological tower diesel gen.				
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:				
5. Discharge Type Code (D, F, H, P, R, V, W): V				
6. Stack Height: 13 ft				
7. Exit Diameter: 0.67 ft				
8. Exit Temperature: 1006 °F				
9. Actual Volumetric Flow Rate: 3686 acfm				
10. Percent Water Vapor: %				
11. Maximum Dry Standard Flow Rate: dscfm				
12. Nonstack Emission Point Height: ft				
13. Emission Point UTM Coordinates:  Zone: 17 East: 567282.32 North: 2813081.87				
14. Emission Point Comment (limit to 200 characters):				

<b>Emission Unit Information Section</b>	- 1	of		
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## E. EMISSION POINT (STACK/VENT) INFORMATION (Regulated Emissions Units Only)

#### **Emission Point Description and Type**

Information for Facility-ID <u>1</u> Emission Unit #:2

Identification of Point on Plot Plan or Flow Diagram:     PTN sewage emergency diesel generator
2. Emission Point Type Code (1,2,3,4): 1
3. Descriptions of Emissions Points Comprising this Emissions Unit: Sewage plant diesel gen., security system diesel gen., 3 meteorological tower diesel gen.
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:
5. Discharge Type Code (D, F, H, P, R, V, W): H
6. Stack Height: 7.25 ft
7. Exit Diameter: 0.33 ft
8. Exit Temperature: 847 °F
9. Actual Volumetric Flow Rate: 1114 acfm
10. Percent Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm
12. Nonstack Emission Point Height: ft
13. Emission Point UTM Coordinates:  Zone: 17 East: 567086.79 North: 2813080.89
14. Emission Point Comment (limit to 200 characters):

## E. EMISSION POINT (STACK/VENT) INFORMATION (Regulated Emissions Units Only)

#### **Emission Point Description and Type**

Information for Facility-ID <u>/</u> Emission Unit #:2

Identification of Point on Plot Plan or Flow Diagram:     PTN meteorological tower diesel generators
2. Emission Point Type Code (1,2,3,4): 3
3. Descriptions of Emissions Points Comprising this Emissions Unit: Sewage plant diesel gen., security system diesel gen., 3 meteorological tower diesel gen.
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common.
5. Discharge Type Code (D, F, H, P, R, V, W): H
6. Stack Height: 7.25 ft
7. Exit Diameter: 0.33 ft
8. Exit Temperature: 847 °F
9. Actual Volumetric Flow Rate: 1114 acfm
10. Percent Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm
12. Nonstack Emission Point Height: ft
13. Emission Point UTM Coordinates: Zone: East: North:
14. Emission Point Comment (limit to 200 characters): Stack height, exit diameter, temperature and flow rate are estimates.

<b>Emission Unit</b>	Information !	Section	of
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## F. SEGMENT (PROCESS/FUEL) INFORMATION (Regulated and Unregulated Emissions Units)

#### **Segment Description and Rate:**

Information for Facility\_ID:// Emission Unit #: 2 Segment #: /

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  Diesel fuel fired in the meteorological tower emergency diesel generators (3)
2. Source Classification Code (SCC): 2-01-001-02
3. SCC Units: thousand gallons
4. Maximum Hourly Rate: 0.005
5. Maximum Annual Rate: 2
6. Estimated Annual Activity Factor:
7. Maximum Percent Sulfur: 0.5
8. Maximum Percent Ash: 0.01
9. Million Btu per SCC Unit: 136
10. Segment Comment (limit to 200 characters): Information provided above is based on 5 gallons per hour of fuel consumption for the 3 met. tower generators combined.

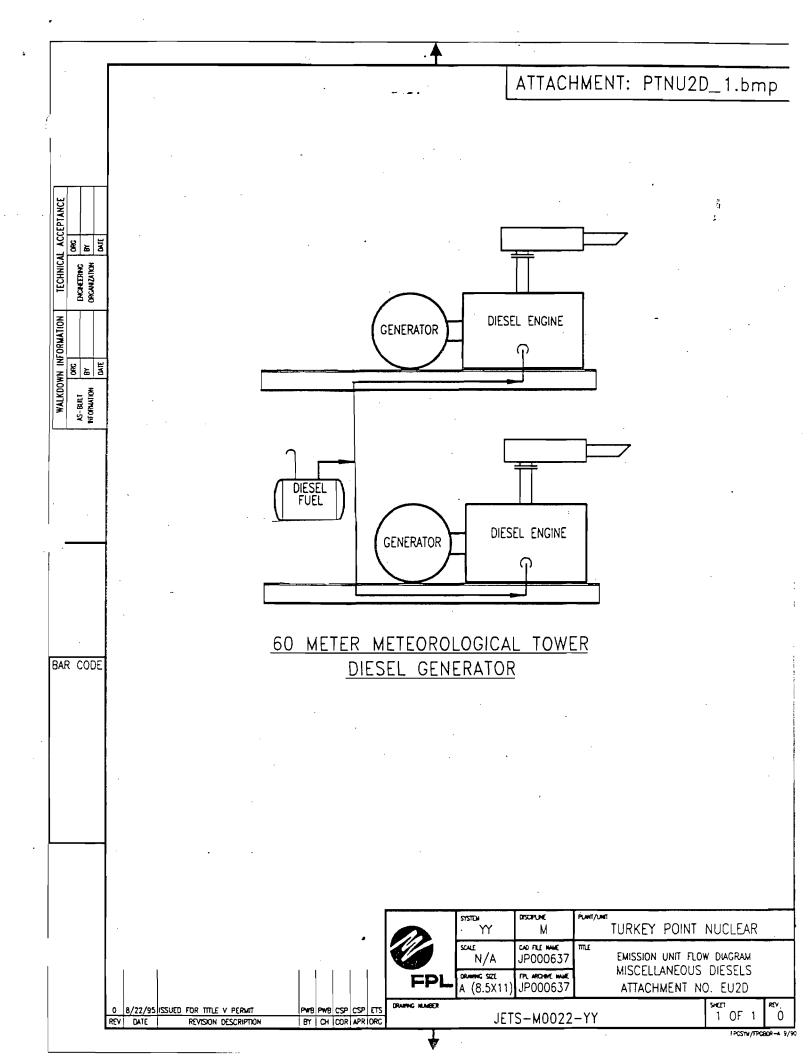
Emission Unit Information Section of	ssion Unit Information (	missi	Em	t Information Section	on of	
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## H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Information for Facility\_ID: / Emission Unit #: 2 Pollutant #: /

#### Pollutant Detail Information

1. Pollutant Emitted: Nitrogen Oxides
2. Total Percent Efficiency of Control:  %
3. Potential Emissions: 29.99 lbs/hr 6 tons/yr
4. Synthetically Limited? (Yes/No): Y
5. Range of Estimated Fugitive/Other Emissions: (1, 2, 3): to tons/yr
6. Emission Factor: 4.41 Units lb/mmBtu Reference: AP42
7. Emissions Method Code: (0, 1, 2, 3, 4, 5): 3 [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): 4.41 lb/mmBtu x 15 gph x 0.136 mmBtu/gal = 9.0 lb/hour 4.41 lb/mmBtu x 1 gph x 0.136 mmBtu/gal = 0.6 lb/hour 4.41 lb/mmBtu x 2 gph x 0.136 mmBtu/gal x 2 = 2.4 lb/hour 4.41 lb/mmBtu x 30 gph x 0.136 mmBtu/gal = 17.99 lb/hour 9 + 0.6 + 2.4 + 17.99 = 29.99 lb/hour 29.99 lb/hour x 400 hours/year = 11,516 lb / 2,000 lb/ton = 6.0 TPY
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  FPL is requesting a 400 hour-per-year limit on each of the diesel generators in this emission unit section, in lieu of annual emission testing, per DEP Rule 62-297.340(1)(c)2



#### Appendix U-1, List of Unregulated Emissions Units and/or Activities.

Florida Power & Light DRAFT Permit No.: 0250003-002-AV

Turkey Point Nuclear Station

<u>Unregulated Emissions Units and/or Activities</u>. An emissions unit which emits no "emissions-limited pollutant" and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither 'regulated emissions units' nor 'exempt emissions units'.

## No. Brief Description of Emissions Units and/or Activity -xxx Gas decay tanks -xxx Fuel building exhaust -xxx Diesel oil storage tanks -xxx Fuel pool -xxx Lube oil vapor extractor system -xxx Atmospheric dumps

-xxx Turbine lube oil tank
-xxx Sulfuric Acid Tank
-xxx Equipment

-xxx Open material stockpiles

-xxx Wastewater treatment plant gases

-xxx Paint building vents

-xxx Hazardous waste storage building vents

-xxx Aerosol can puncturing -xxx Slime sucker pumps

-XXX

E.U. ID

-xxx

-XXX

-xxx

-XXX

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