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National Security Agency

Fort George G. Meade, Maryland

10

30 November 1970

REPORT OF TEBAC CONFERENCE #30

11 - 13 AUGUST 1970

SPACE PAYLOADS

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REPORT OF TEBAC CONFERENCE #30

11 - 13 AUGUST 1970

SPACE PAYLOADS

I. GENERAL

This report provides the results of TEBAC Conference #30, held in the NSA Friendship Annex Facility (NSAFANX II) 11 -13 August 1970. Chairman TEBAC convened the meeting and directed the conference activities which were carried on in three working groups (W/G). In addition, papers of general interest were presented during general session periods to all conferees.

II. SPECIFIC DETAILS

A. The conference deliberations were carried on in three working groups as outlined below. The Chairman and Vice Chairman of individual working groups were as follows:

W/G #1 SOYUZ

Withheld from public release Pub. L. 86-36

W/G #2 - SL-8 Launched Payloads

Withheld from public release Pub. L. 86-36

W/G #3 - New/Modified Photo-Recce Payloads

Withheld from public release Pub. L. 86-36

B. Titles of papers presented in the working groups and to all conferees at general sessions are listed below:

1. General Session Presentations:

a) Status of LUNA 15 Analysis, NSA/VISTA

b) Non-Scientific SL-7 Payloads

Portion identified as unresponsive to appeal

c) CHICOM Satellite

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2. Working Group Presentations:

a) W/G #1 SOYUZ

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13) Similarities between ZOND and SOYuZ (NSA/VISTA)

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b) W/G #2 - SL - 8 Launched Payloads

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c) W/G #3 - Modified and New Photo-Reconnaissance Payloads

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III. GENERAL SESSION PAPERS

A. STATUS OF LP-15 ANALYSIS

Withheld from public release Pub. L. 86-36

1. The LUNA 15 probe was launched on 13 July 1969. Following a mid course maneuver on 14 July, it was injected into an approximate 2 hour orbit of the moon on 17 July. Two corrections to this initial orbit occurred on 19 July and 20 July and an attempted soft landing took place on 21 July at 1546Z. The estimated velocity of impact of LUNA 15 is 500 ft/sec.

E.O. 13526, section 3.3(b)(1)

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m). Similarities Between SOYuZ and Zond

Withheld from public release Pub. L. 86-36

a.SOUuZ: Manned ESV weighing 14,060 plus or minus 355 pounds, capsule re-enters

ZOND: Circumlunar spacecraft weight estimate as (1) 16,700 plus or minus 2,300 pounds, or (2) about 12,000 pounds (based on SL-12 estimated capability)

E.O. 13526, section 3.3(b)(1)

b). Concurrent development of SOYuZ and ZOND, as shown by chronology of launch attempts

c). Command system (5C) and several other signal modes common

E.O. 13526, section 3.3(b)(1)

e). Same propulsion system

E.O. 13526, section 3.3(b)(1)

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E.O. 13526, section 3.3(b)(1)

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STATUS OF LP-15 [redacted]

E.O. 13526, section 3.3(b)(1)

Withheld from public release under statutory authority

A. THE LUNA 15 MISSION

1. LUNA 15, an unmanned Soviet space probe, was launched from Tyura Tam, by an SL-12 booster on 13 July, 1969. Following a small midcourse maneuver on 14 July, the spacecraft was inserted into a retrograde lunar orbit on 17 July. Two orbital corrections were made, one on 19 July and one on 20 July. An attempted soft landing in the Mare Crisium took place on 21 July 1969 at [redacted] E.O. 13526, section 3.3(b)(1) 1546:43 (G.M.T.). The latest calculations [redacted] and Soviet announcements of earlier orbital parameters indicate that LUNA 15 hard-impacted at 1550:39 (G.M.T.) with a total velocity of approximately 500 feet per second.

2. Coincident with this mission, the first manned landing on the moon took place. Apollo 11 was launched from Cape Kennedy on 16 July 1969. The successful manned landing took place on 20 July 1969 in Mare Tranquillitatis.

B. TOPICS COVERED IN THE PRESENT REPORT

[redacted]

E.O. 13526, section 3.3(b)(1)

APPENDIX B

E.O. 13526, section 3.3(b)(1)

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E.O. 13526, section 3.3(b)(1)

D. EVENT HISTORY OF LUNA 15

1. The daily in-flight event history of LP-15 (Fig. 7) as seen through the Crimean window depicts the time of midcourse burn on 14 July, the lunar orbital injection burn on 17 July, the 1st and 2nd orbital corrections on 19 and 20 July, and the attempted soft-landing burn on 21 July. The dark-hatched sections are those times when the vehicle was occulted with respect to Crimea. The APOLLO 11 launch on 16 July and the landing on 20 July are shown. The landing location of APOLLO 11 on the lunar surface is also shown. The LUNA 15 landing area is N-E of the APOLLO 11 landing site.

E.O. 13526, section 3.3(b)(1)

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E.O. 13526, section 3.3(b)(1)

E. EVENT SEQUENCE ON 21 JULY 1969

E.O. 13526, section 3.3(b)(1)

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E.O. 13526, section 3.3(b)(1)

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E.O. 13526, section 3.3(b)(1)

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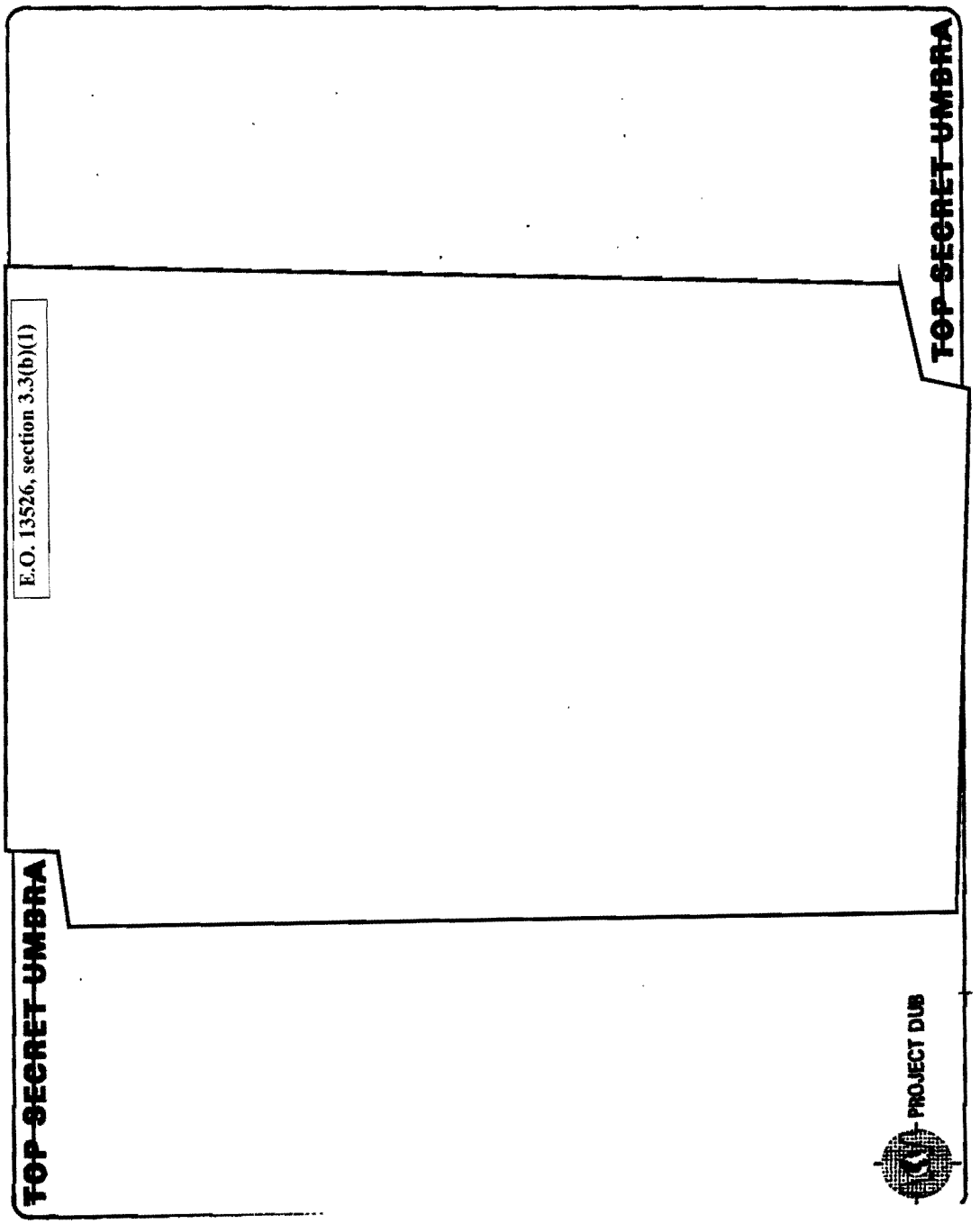

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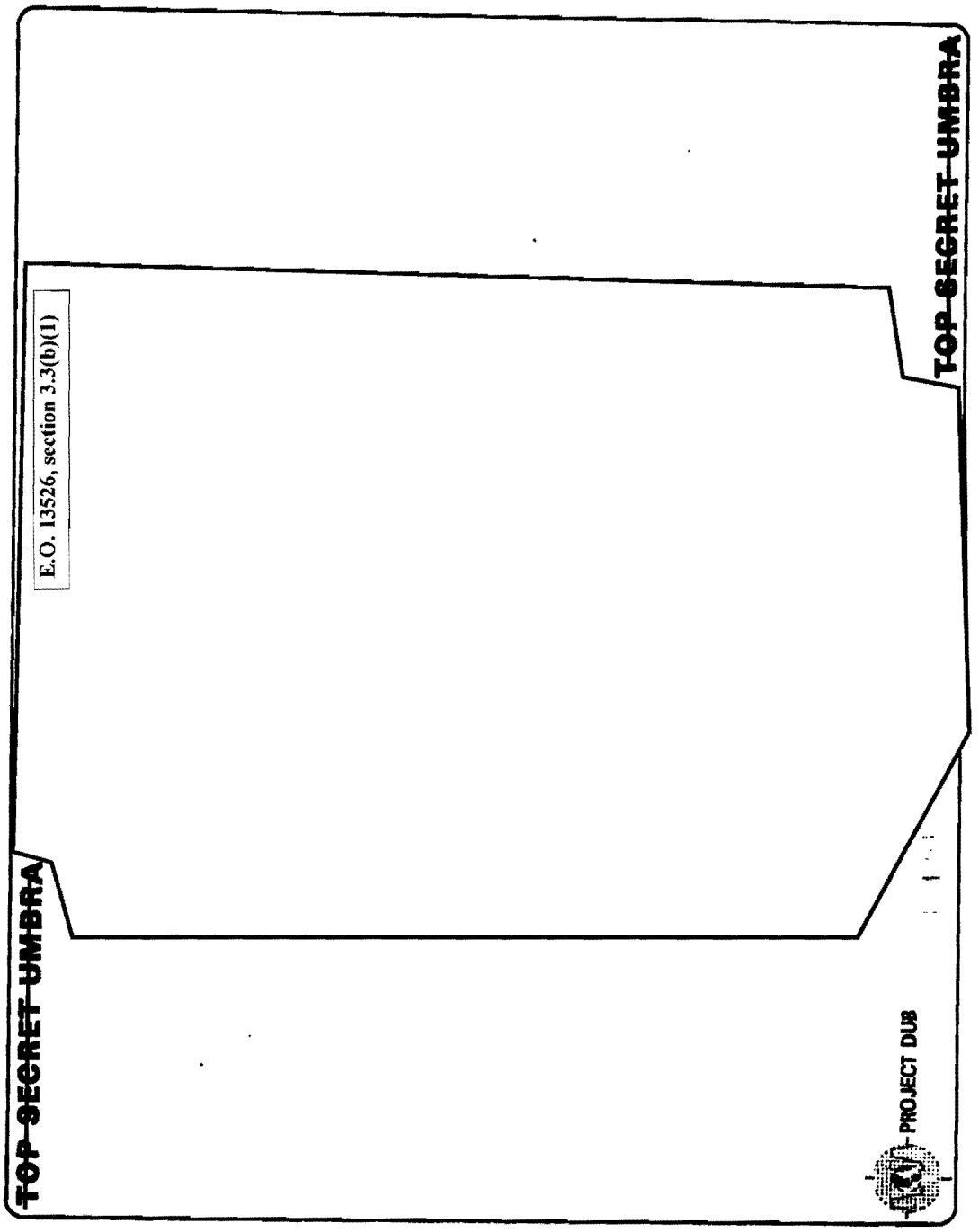

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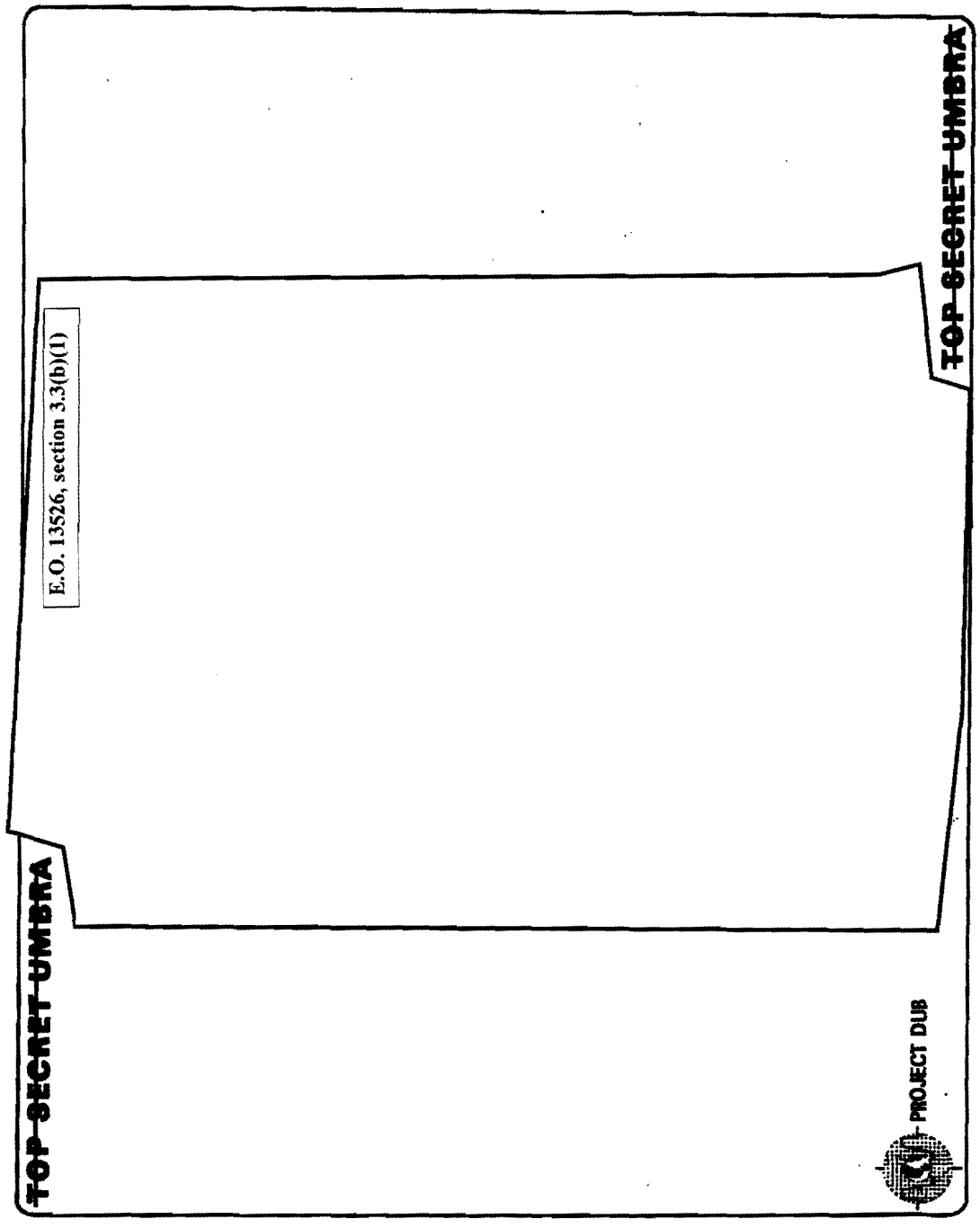

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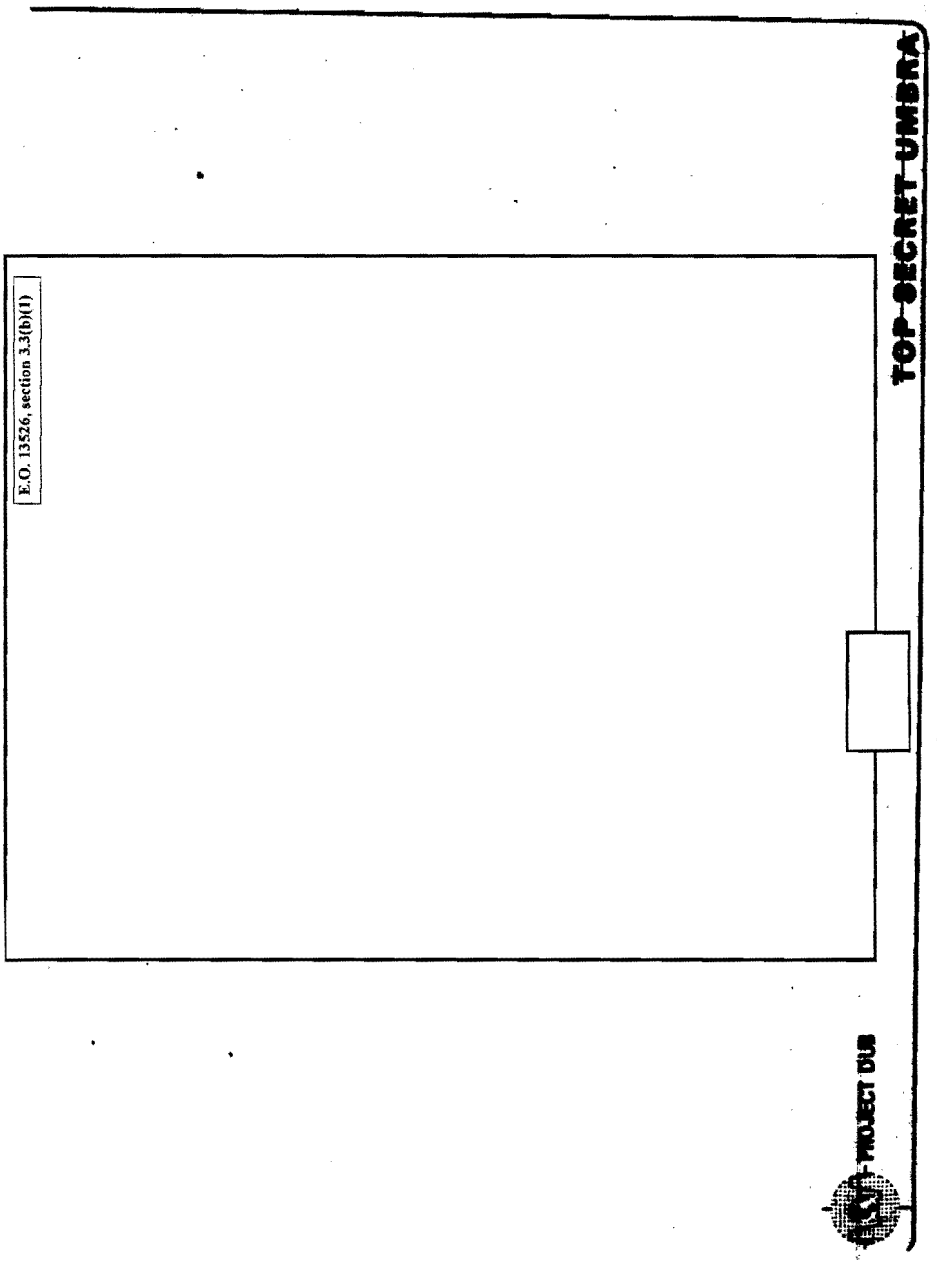

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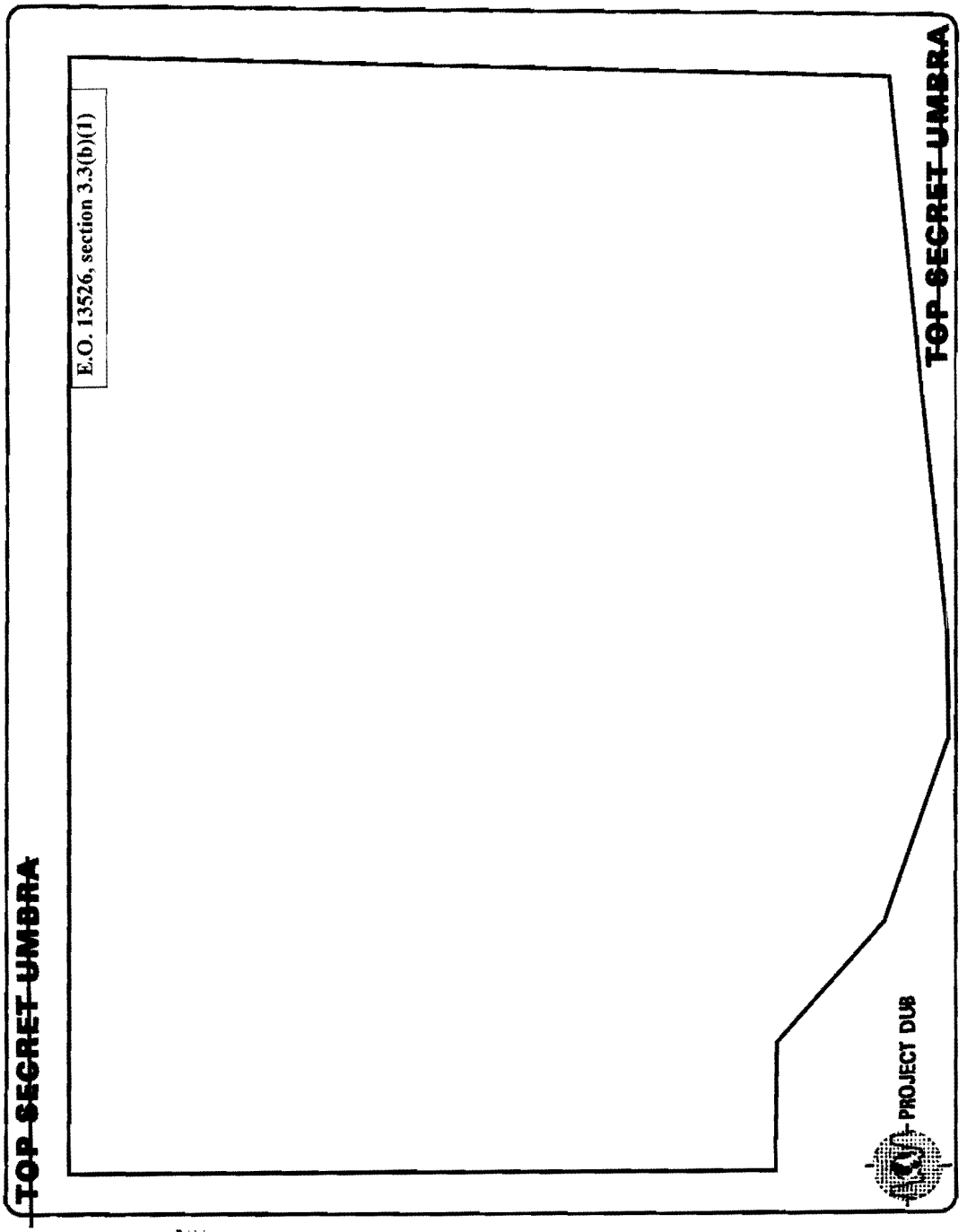

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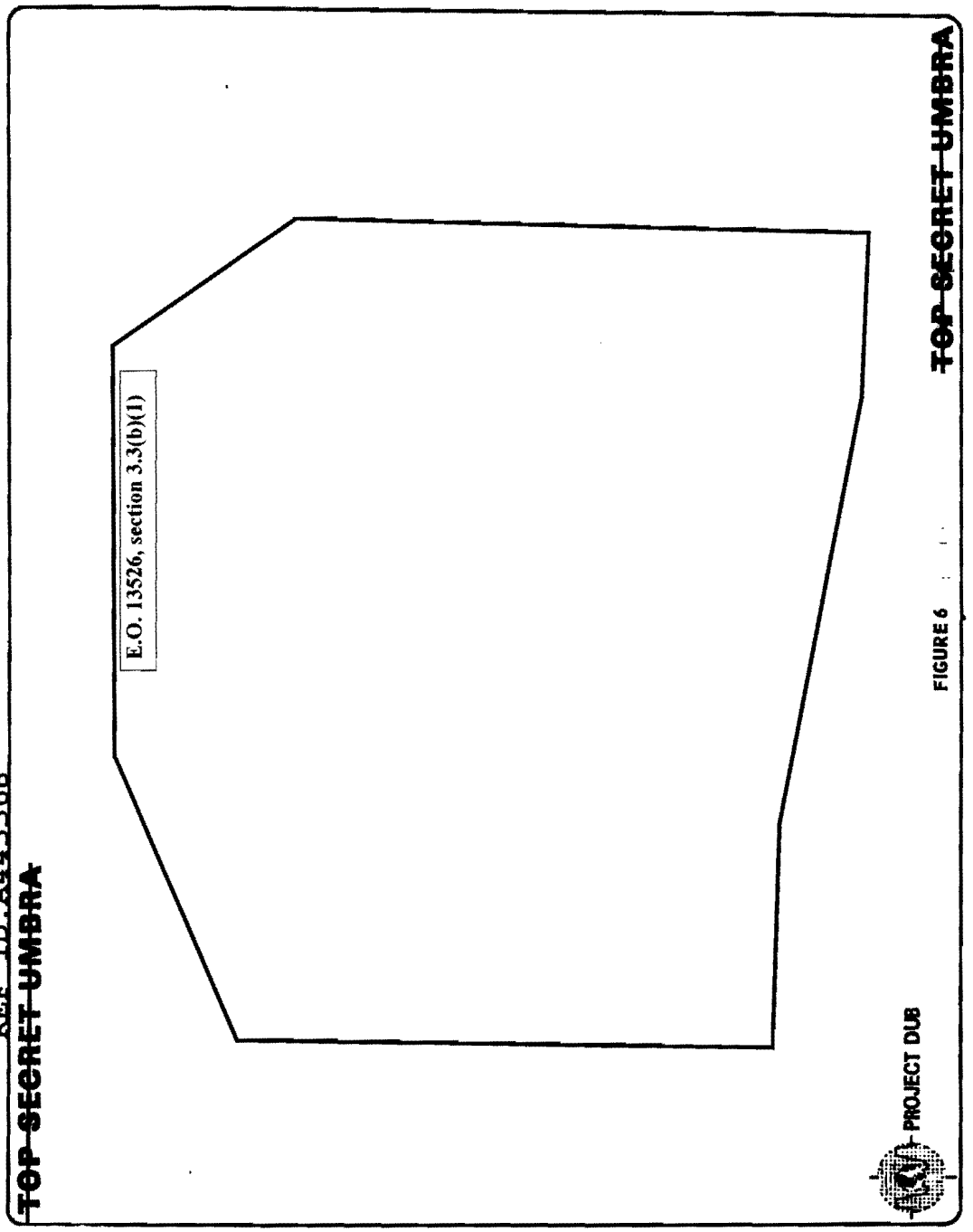

FIGURE 6

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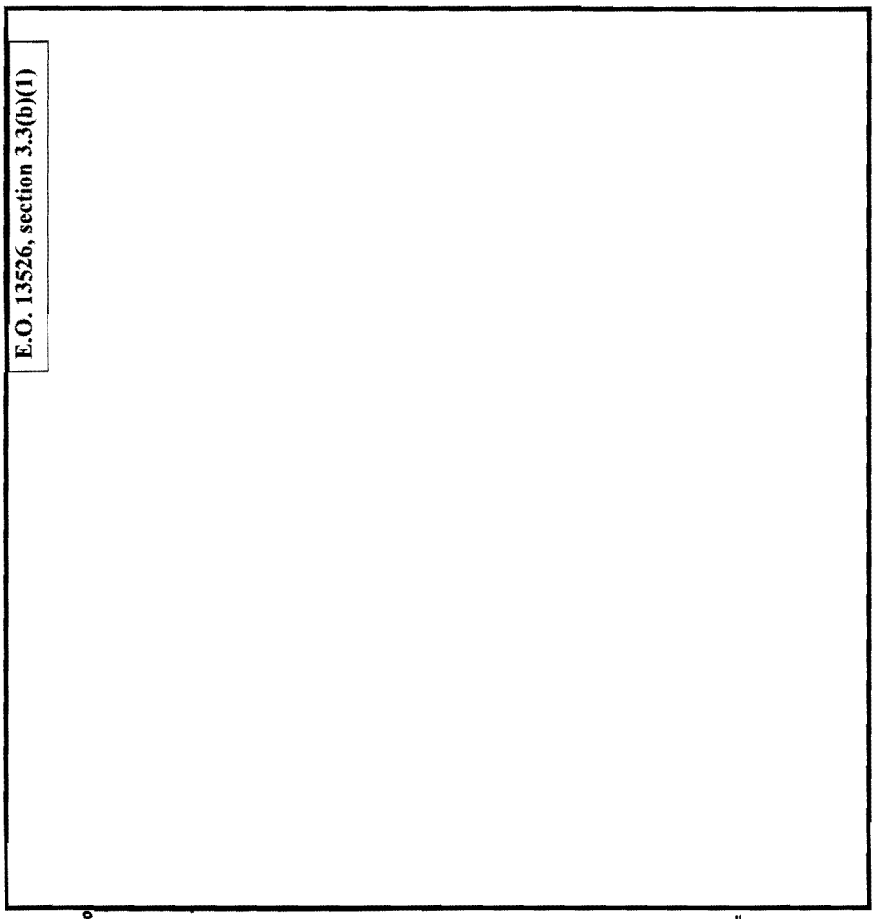

FIGURE 7

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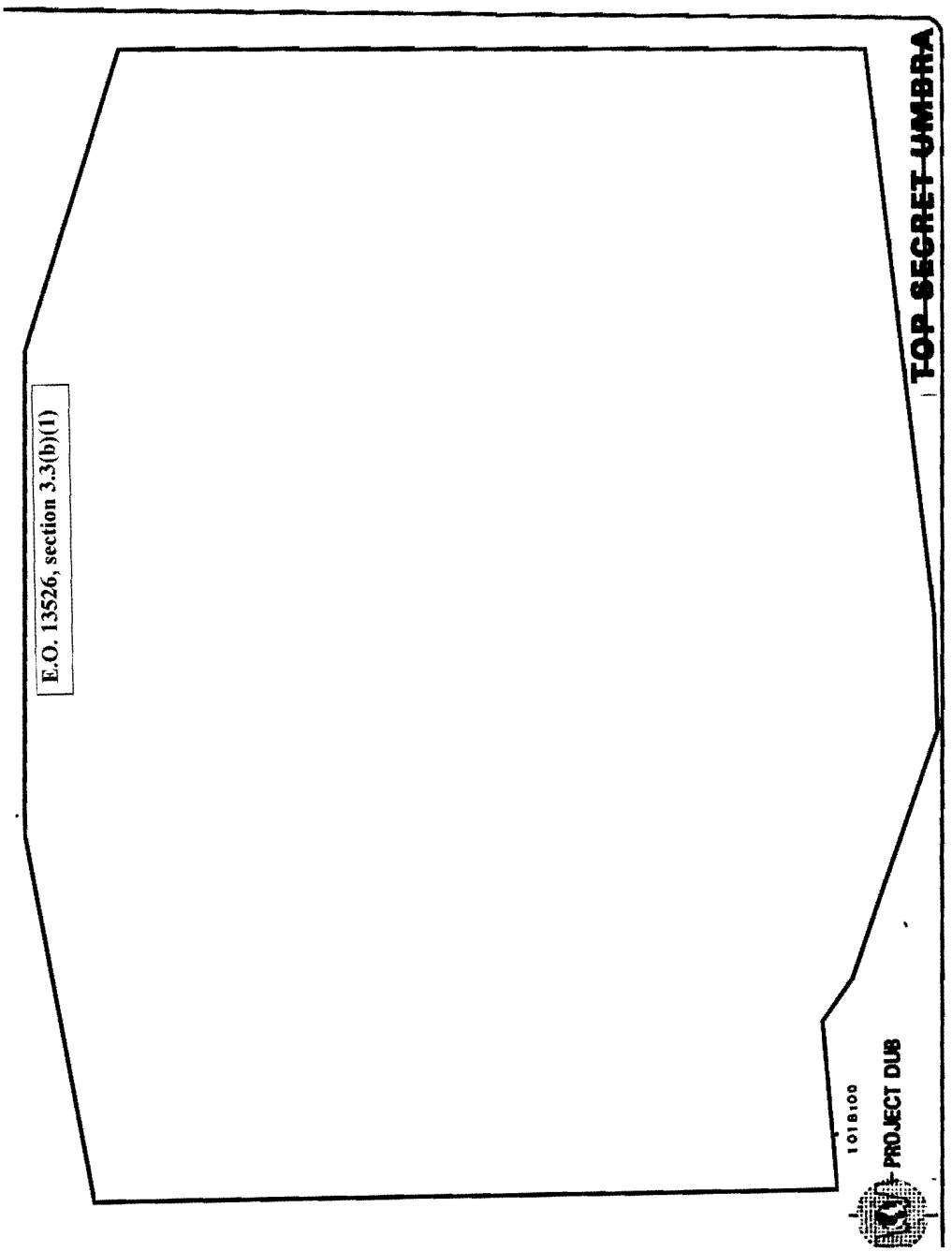

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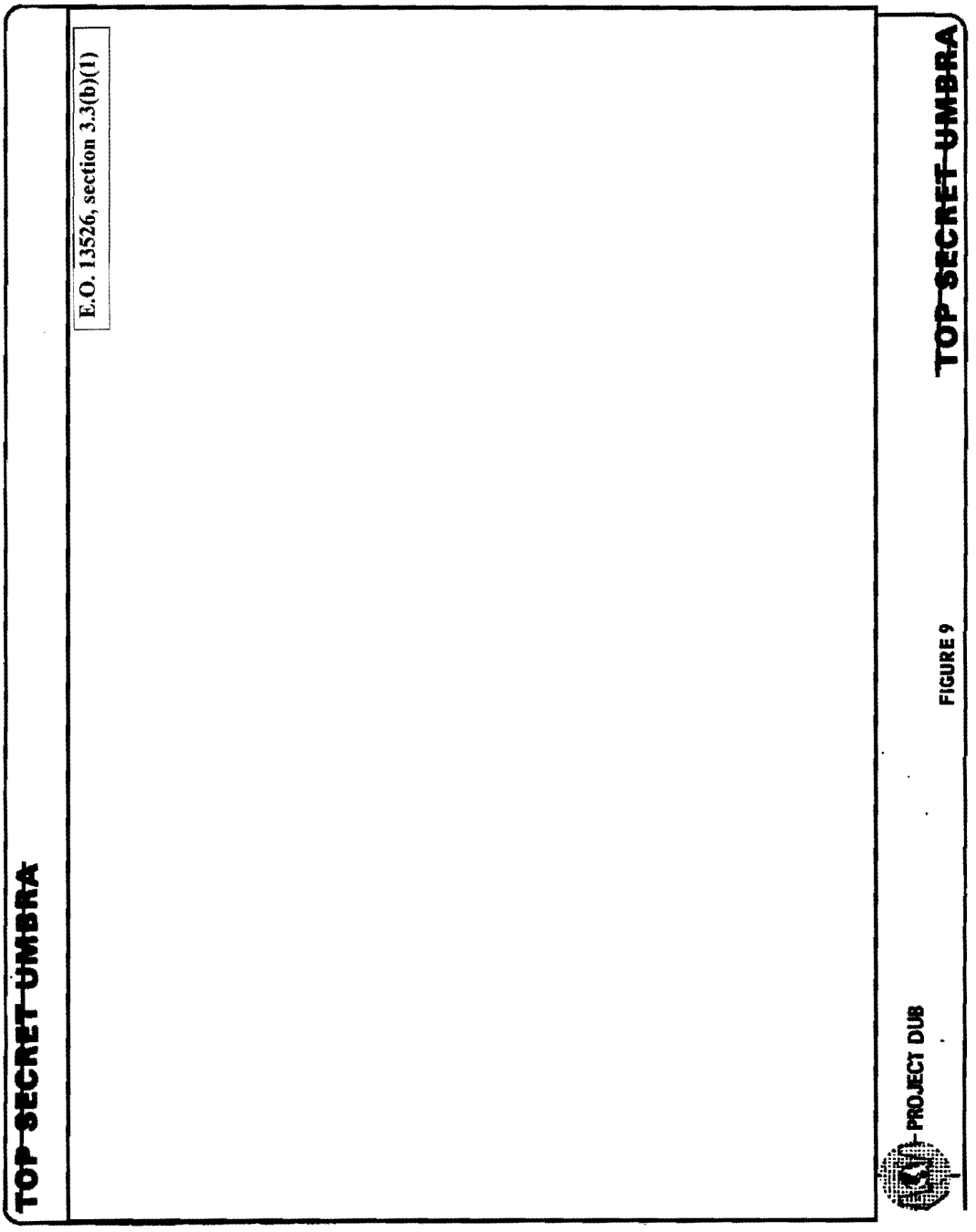

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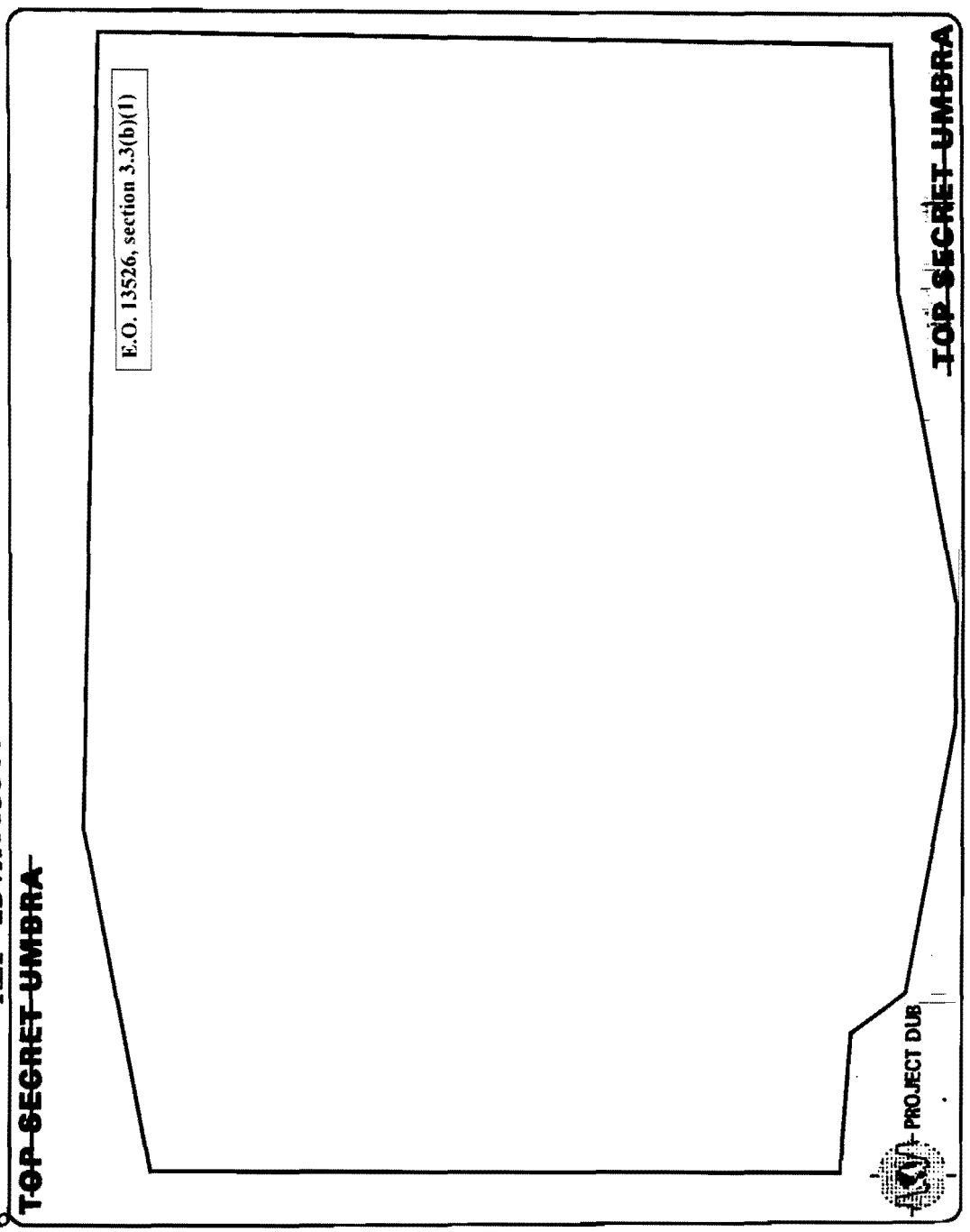

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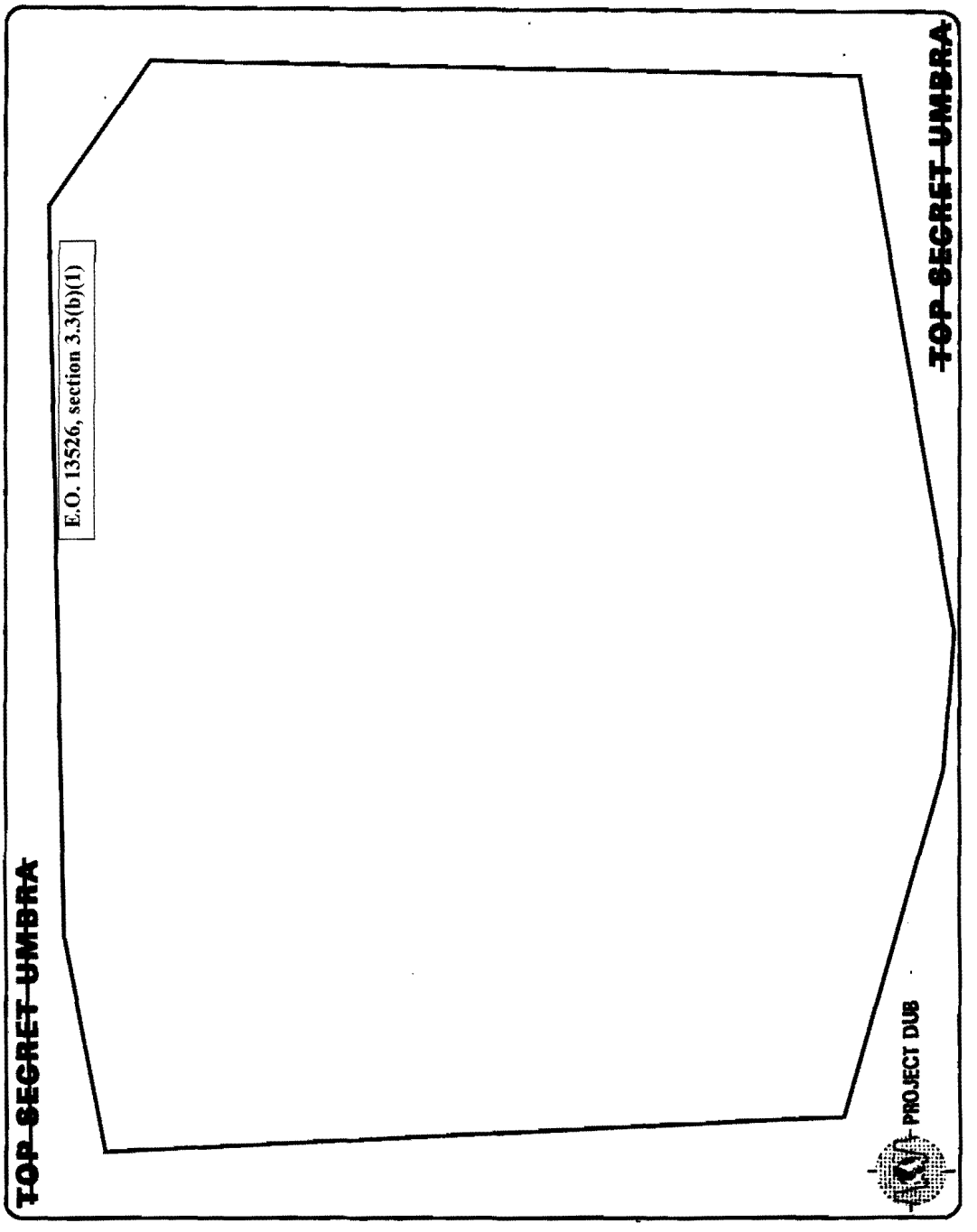

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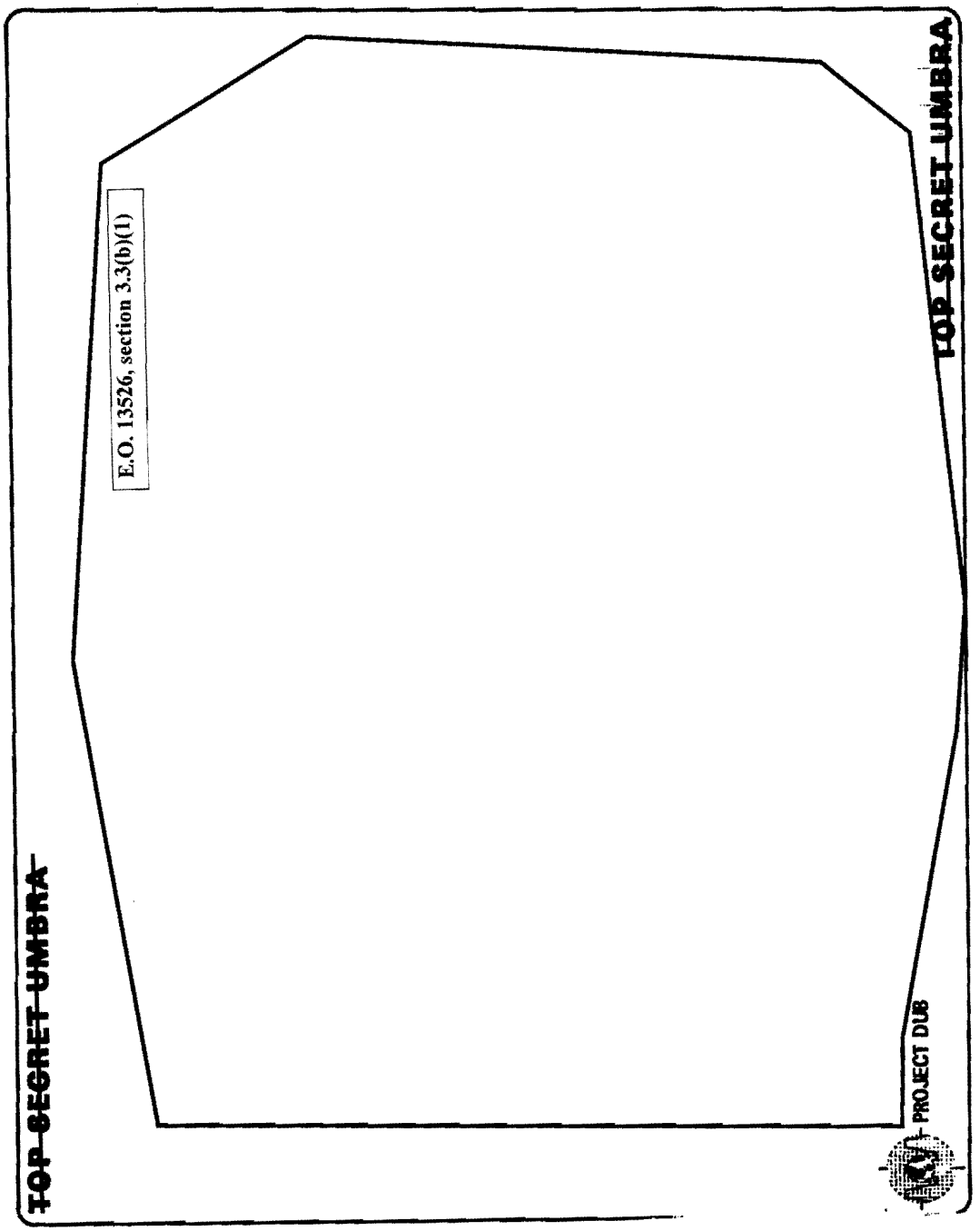

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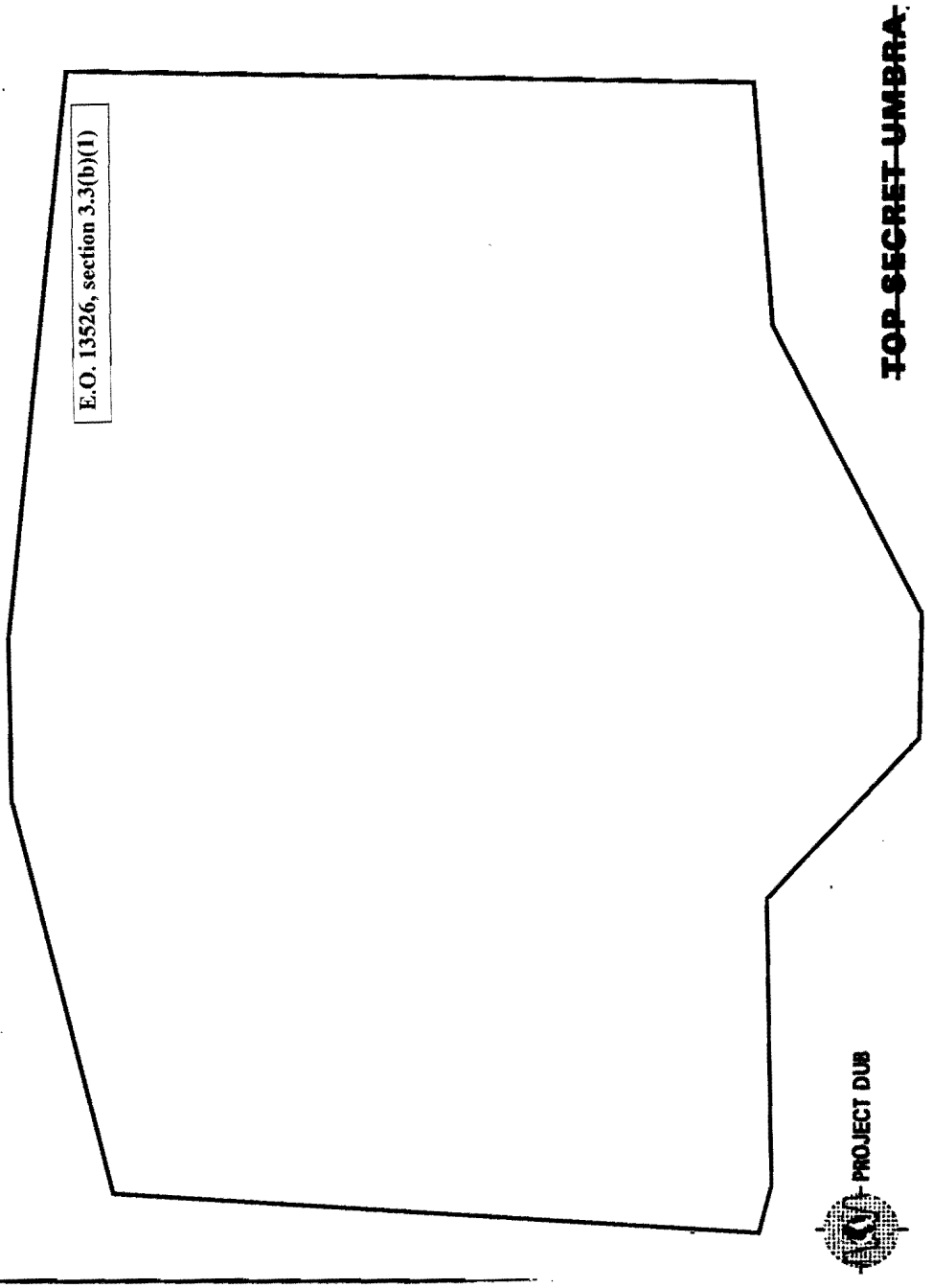

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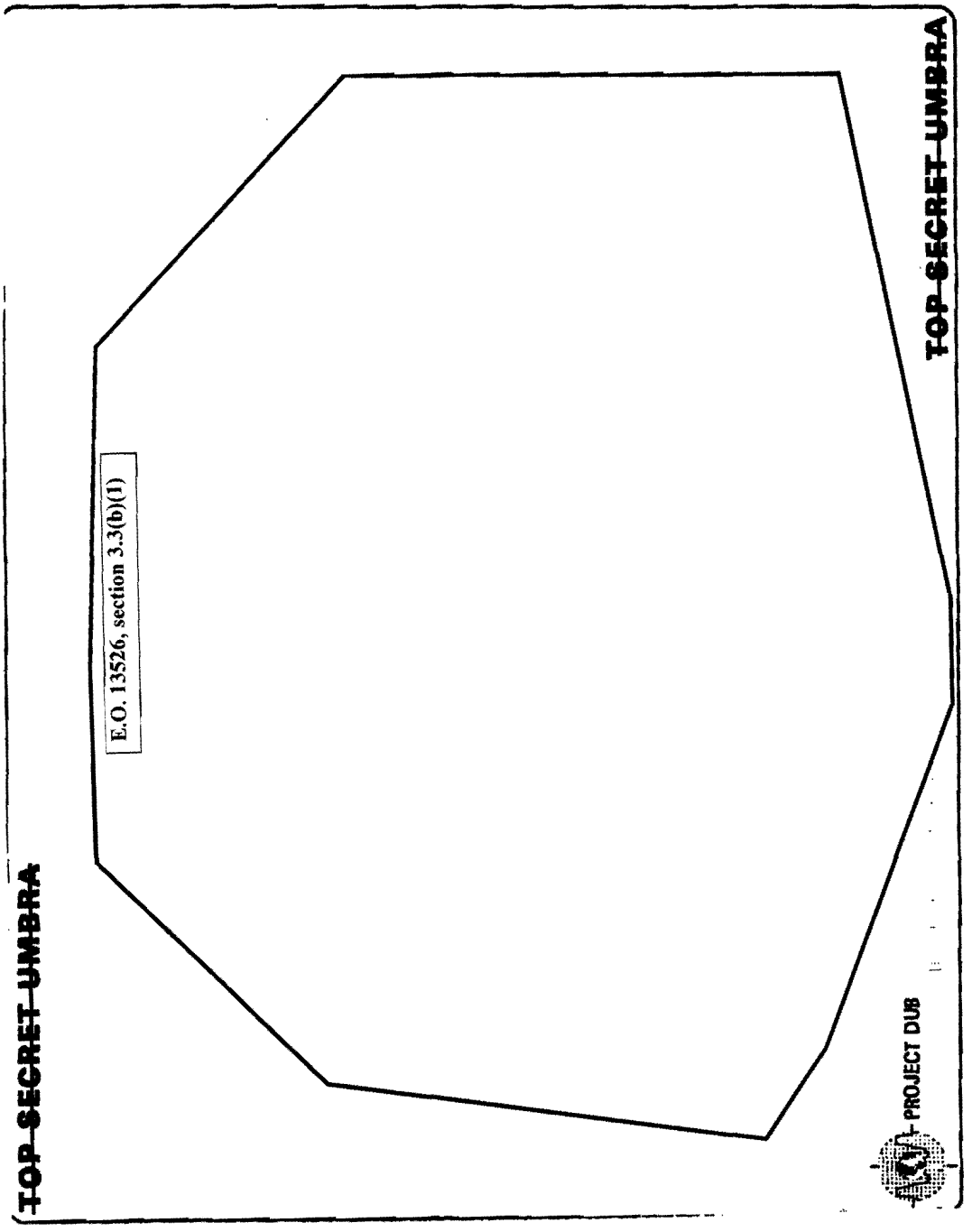

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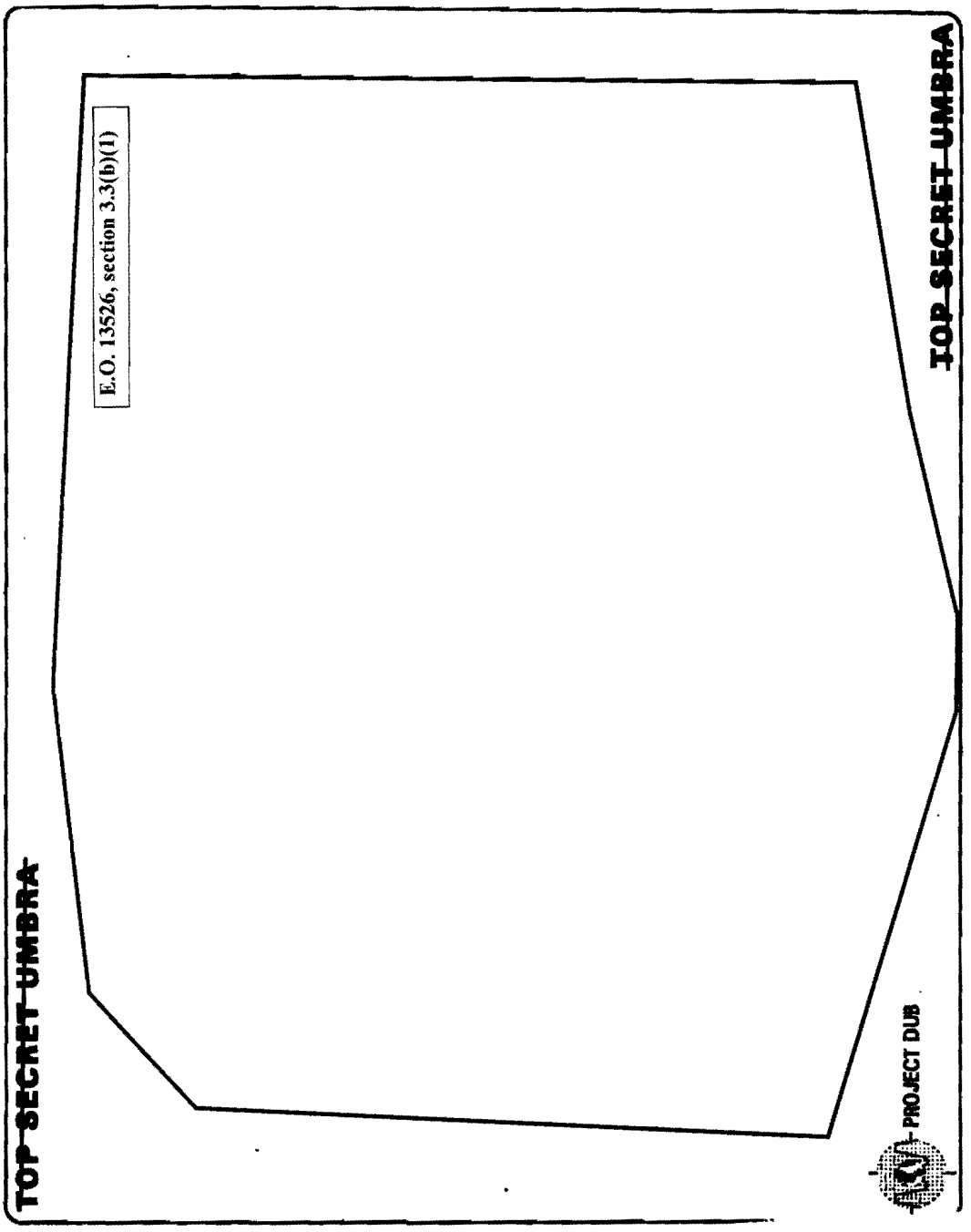

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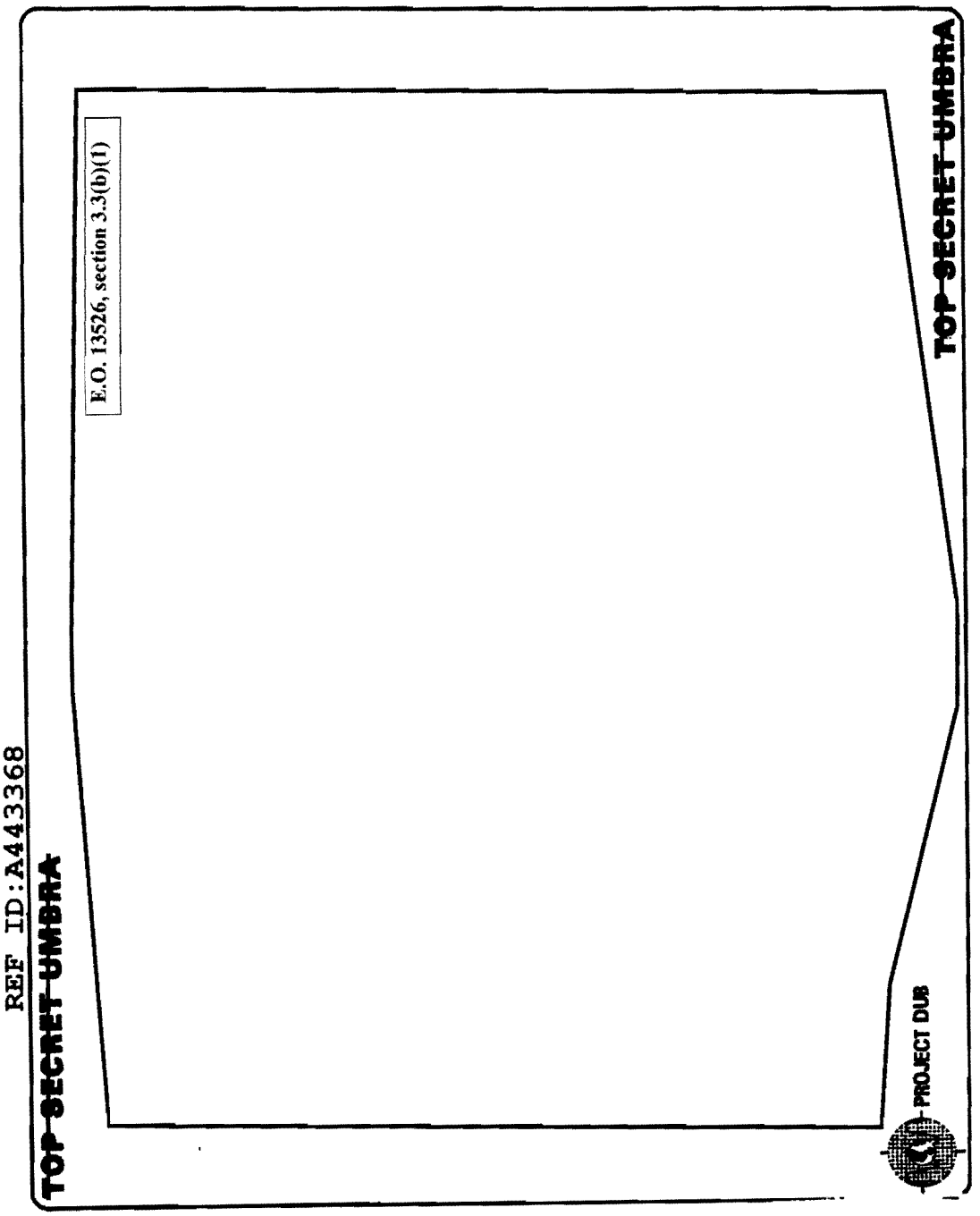

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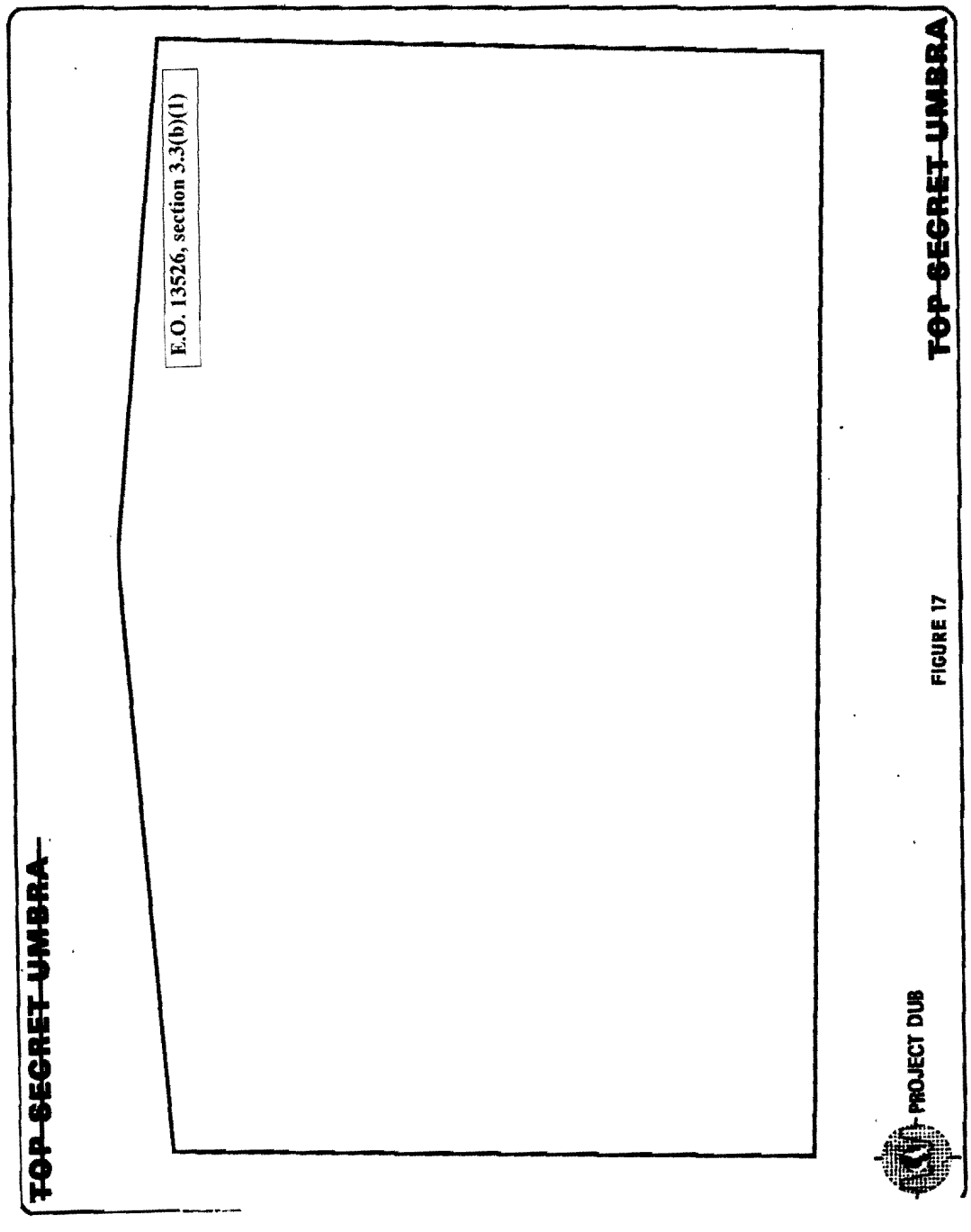

FIGURE 17

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