DEPARTMENT OF HEALTH & HUMAN SERVICES

Food and Drug Administration
10903 New Hampshire Avenue
Building #51
Silver Spring, MD 20993

MAY 0 6 2015

April 28, 2015

Mr. Joseph T. Rannazzisi
Deputy Assistant Administrator
Office of Diversion Control
Drug Enforcement Administration
8701 Morrissette Drive
Springfield, Virginia 22152

Dear Mr. Rannazzisi:

This document is in response to your letter dated January 21, 2015, to the Food and Drug Administration, Center for Drug Evaluation and Research (FDA/CDER), requesting estimates of medical, scientific, and reserve stock needs for calendar years 2015 and 2016, for Schedule I and II substances, pursuant to 21 CFR Part 1303 (21 United States Code [U.S.C.] 826 and 42 U.S.C., Section 242). The Controlled Substance Staff in the Office of the Center Director, FDA/CDER, has been requested to respond.

I also wish to bring to your attention the letter sent to you by Dr. Margaret Hamburg (former FDA Commissioner) dated June 24, 2014 (copy attached) where she asked for information regarding the DEA process for establishing quotas. As mentioned in the letter, there can be significant differences between the estimates FDA provides and the actual published Aggregate Production Quota (APQ). We continue to be interested in more fully understanding the process that DEA uses to set the APQ. In particular, we are interested in understanding how the DEA Automation of Reports and Consolidated Orders System (ARCOS) or any other data sources are used to establish and distribute the APQ.

Currently, we are providing forecasts on the usage of twenty-six Schedule II substances for the years 2015 and 2016. The Schedule II substances to be evaluated in this memorandum are: alfentanil, amobarbital, amphetamine, cocaine, codeine, dihydrocodeine, diphenoxylate, fentanyl, hydrocodone, hydromorphone, levorphanol, lisdexamfetamine, meperidine, methadone, methamphetamine, methylphenidate, morphine, nabilone, opium, oxycodone, oxymorphone, pentobarbital, remifentanil, secobarbital, sufentanil, and tapentadol.

In general, according to the forecasted data in **Table 1**, usage for most opioids are predicted to decline in 2015 and 2016.

We also provide forecasts for the same years for ephedrine and pseudoephedrine. As in previous years, we are including the predicted usage of drug substances synthesized from the

Schedule II precursor, thebaine. Production of these substances determines the quantities of thebaine produced. The drug substances derived from thebaine include naloxone and naltrexone.

At the additional request of the DEA, we are providing forecasts on the usage of substances that are internationally controlled under the Psychotropic Convention. These drugs include: alprazolam, buprenorphine, clobazam, clonazepam, diazepam, diethylpropion, lorazepam, midazolam, temazepam, and zolpidem.

I. Tabular Data

The *observed* usage (purchases in kilograms) of Schedule II substances in 2012, 2013, and 2014, and percent changes based on the *observed* values from the previous year are presented in **Table 1.** *Predicted* usage (purchases, in kilograms) of the Schedule II substances are also provided for 2015 and 2016. Each predicted value is an estimate subject to variation.

The *observed* usage for 2012, 2013, and 2014, and *predicted* usage (purchases, in kilograms) for 2015 and 2016 for substances controlled under the Psychotropic Convention are provided in **Table 2.** The *observed* usage for 2012, 2013, and 2014, and *predicted* usage (purchases, in kilograms) for 2015 and 2016 for ephedrine and pseudoephedrine are provided in **Table 3.**

Among the substances for reporting requested by DEA, we are not providing forecasted usage for the following: cannabidiol, difenoxin, etorphine, gamma-hydroxybutyric acid, marijuana, noroxymorphone, phenylpropanolamine, propiram, psilocybin, synthetic cannabinoids, synthetic cathinones, and tetrahydrocannabinols because data regarding the usage of these substances were limited or not available. Phenylpropanolamine had limited data, in that complete data were available only from June 2013 to December 2014. There were data gaps for difenoxin in which no sales data were available for varying time periods.

- Comments on *Observed* usages in 2014 (See Table 1, Table 2 and Table 3).

In 2014, there was an increase in the *observed* usage (relative to 2013) for amphetamine, buprenorphine, clobazam, levorphanol, lisdexamfetamine, methylphenidate, naloxone, naltrexone, oxymorphone, and remifentanil. The increase is also *predicted* for 2015.

Most of the predicted usage data for drugs received this year were similar to usage data from previous years. In contrast, amobarbital, dihydrocodeine, meperidine, methamphetamine, midazolam, pentobarbital, and sufentanil all demonstrated a decrease of ≥10% in their observed use. Further, cocaine, dihydrocodeine, meperidine, pentobarbital, midazolam, and sufentanil are *predicted* to have a decrease of ≥ 10% in 2015.

The *observed* retail and non-retail sales values for some substances were inconsistent with previous years. This is a result of regular data corrections and updates by the IMS data

investigation team. As stated in previous reports, most of these corrections were minor (e.g., ≤0.5%) and should not be an influencing factor in the current forecasting. Similar discrepancies were also noted and resolved in previous reports.

- Forecasted (*Predicted*) Increases for 2016 (See **Table 1, Table 2, and Table 3).**

The *predicted* usage of these substances does not take under consideration the specific needs of some manufacturers due to recent recalls of defective products or drug shortages.

II. Reports from FDA's Office of New Drugs, Office of Generic Drugs, and Center for Veterinary Medicine, and the Substance Abuse and Mental Health Services Administration (SAMHSA)

The CDER Office of New Drugs review divisions reported the approvals and pending actions of products with Schedule I and II controlled substances, as well as substances controlled under the Psychotropic Convention. The reports originate from the Division of Anesthesia, Analgesia, and Addiction Products (DAAAP), Division of Metabolism and Endocrinology Products (DMEP), Division of Neurology Products (DNP), Division of Psychiatry Products (DPP), and the Division of Pulmonary, Allergy and Rheumatology Products (DPARP). Information on drug shortages and manufacturing delays were reported by the CDER Drug Shortages Staff. The CDER Office of Generic Drugs provides listings of products containing Schedule I and II substances that were approved in 2014 **(Table 4)**, products discontinued in 2014 **(Table 5)**, and products that may be approved in 2015 **(Table 6)**.

The Division of Anesthesia, Analgesia, and Addiction Products (DAAAP) reports the approval of NDAs or Efficacy and Manufacturing Supplements in the past year for the following substances: buprenorphine, codeine, fentanyl, hydromorphone, methadone, morphine, naloxone, naltrexone, oxycodone, oxymorphone, and tapentadol.

In 2014, the Division of Metabolism and Endocrinology Products (DMEP) approved the NDA for Contrave (naltrexone and bupropion) capsules. As a post-marketing commitment, the Sponsor of Contrave will conduct another trial under the IND.

The Division of Neurology Products (DNP) reports the approval of NDA efficacy supplements for clobazam and diazepam in 2014. In addition, DNP reports receiving INDs for cannabidiol oral solution and Sativex (tetrahydrocannabinol and cannabidiol) oral mucosal spray. DNP also reports that approximately (b) (4) units of GHB were distributed in approved marketed products from July 1, 2013 to June 30, 2014 (Note: One unit = 180 mL Bottle).

In 2014, the Division of Psychiatry Products (DPP) approved manufacturing supplements for methylphenidate, lisdexamfetamine, and alprazolam. A manufacturing supplement is pending for methamphetamine. DPP has pending NDAs/efficacy supplements for (b) (4)

(b) (4)

DPP has also received the following INDs that may require the manufacturing of commercial-type batches of products containing the following substances: (b) (4)

(b) (4)

The Division of Pulmonary, Allergy and Rheumatology Products (DPARP) reports the approval of an NDA for hydrocodone bitartrate and guaifenesin in 2014, as well as manufacturing supplements for (b) (4)

Based on increased demand and shortages in 2014, the CDER Drug Shortages Staff predicts additional quota demands 2015 for the following substances: amphetamine, fentanyl, methadone, methamphetamine, methylphenidate, morphine, naloxone and ephedrine.

The Center for Veterinary Medicine (CVM) reports the following drugs approved or indexed by CVM: buprenorphine and oxymorphone (not marketed). Additionally, CVM reports that veterinarians often use FDA-approved human drugs in their animal patients, when those drugs are available. One additional FDA-approved human drug that veterinarians might use is sufentanil.

SAMHSA provides information about the usage of methadone and buprenorphine in maintenance treatment of opioid addiction. Data on the use of methadone in Opioid Treatment Programs (OTPs) are not available from IMS; therefore, **Table I** most likely refers to methadone usage for treatment of pain.

SAMHSA reports that based on data from the National Survey of Substance Abuse Treatment Services (N-SSATS) on March 29, 2013 (the most current data available), there were 330,308 patients that received methadone via OTPs. N-SSATS does not collect data for the number of physicians prescribing methadone.

SAMHSA also reports that they do not collect dosage information in N-SSATS (or any other regularly occurring survey). The last time these data were collected was in 2011; therefore, these data are the same as reported last year.

Finally, based on the 2013 N-SSATS data, there were 12,513 patients receiving buprenorphine and 359 patients receiving injectable naltrexone (Vivitrol) within OTPs and an additional 35,635 patients receiving buprenorphine and 3,781 receiving injectable naltrexone in specialty substance abuse treatment facilities that were not OTPs, for a total of 48,148 patients receiving buprenorphine and 3,781 patients receiving injectable naltrexone in OTPs and specialty substance abuse treatment facilities. These numbers do not include patients that received

buprenorphine from office-based practicing physicians who were not associated with a specialty substance abuse treatment facility.

We hope these data prove useful to the Drug Enforcement Administration in making quota determinations. If you have any questions or need additional clarifications, please contact Corinne P. Moody, Science Policy Analyst, Controlled Substance Staff, at 301-796-5402.

Sincerely,

Michael Klein, Ph.D.
Director, Controlled Substance Staff
Office of the Center Director
Center for Drug Evaluation and Research

Concur:
Douglas C. Throckmorton, M.D.
Deputy Center Director
Center for Drug Evaluation and Research

Attachments:

Attachments:

Attachment I: Description of Forecasting Methodology

Table 1: Forecast Uses (Purchases, in Kg) for 2015 and 2016, and Observed Use for 2012, 2013, and 2014 of Schedule II Controlled Substances

Table 2: Forecast Uses (Purchases, in Kg) for 2015 and 2016, and Observed Use in 2012, 2013, and 2014, of substances derived from thebaine and for substances controlled under the Psychotropic Convention

Table 3: Forecast Uses (Purchase, in Kg) for 2015 and 2016, Observed Use in 2012, 2013, and 2014 of ephedrine and pseudoephedrine

Table 4: Generic Drug Products Containing Schedule II Controlled Substances Approved in 2014

Table 5: Generic Drug Products Containing Schedule II Controlled Substances Discontinued in 2014

Table 6: Generic Drug Products Containing Schedule II Controlled Substances With Action Dates in 2015

Attachment I. **Description of Forecasting Methodology**

Monthly purchase data comprised of retail and non-retail sales are extracted from the IMS Health, National Sales Perspectives™ database. The IMS Health, IMS National Sales Perspectives™ measures the volume of drug products, both prescription and over-the-counter, and selected diagnostic products moving from manufacturers into various outlets within the retail and non-retail markets. Volume is expressed in terms of sales dollars, eaches, extended units, and share of market. These data are based on national projections. Outlets within the retail market include the following pharmacy settings: chain drug stores, independent drug stores, mass merchandisers, food stores, and mail service. Outlets within the non-retail market include clinics, non-federal hospitals, federal facilities, HMOs, long-term care facilities, home health care, and other miscellaneous settings.

The accuracy of the usage data provided depends on a variety of factors, including sampling and non-sampling errors. The IMS Health, National Sales Perspectives™ does not provide a direct estimate of patient use but do provide a national estimate of units sold from the manufacturers to various channels of distribution. The amount of product purchased by these retail and non-retail channels of distribution may be a possible surrogate for use, if we assume that facilities purchase drugs in quantities reflective of actual patient use. The estimates provided are national estimates, but no statistical tests were performed to determine statistically significant changes over time or between products.

As in past years, accuracy of the forecast is affected by unexpected changes in consumption, supply, data collection, or IMS Health's drug categorization and sampling plan. The mathematical modeling process involves only objective factors. Deterministic factors may affect the reliability of the forecasted values. Predictions of usage for 2016 should be carefully interpreted because the precision of the forecast reduces with time into the future.

Each year, IMS Health adjusts the complete database by applying correction factors to update product usage data. Such factors may include a "re-calibration" of reported values or shifts in series reflecting new use of a drug containing the substance of interest. Such changes can result in the forecasted estimate for a given year that differs from the estimate given in previous years. Fortunately, the correction factors for most substances are small.

The forecasting method relies on a mathematical model that is accurate only to the extent that the environment of the drug use system remains essentially unchanged from previous years. To minimize errors in forecasting, the predictions are based on one of three smoothing methods:

- Simple Exponential Smoothing (SES)
- Brown's exponential smoothing (Brown)
- Damped-trend exponential smoothing (Damp)

The decision to use one approach over the other is based on the characteristics of the data used to make the projections. Time-series smoothing methods were applied to annual time-series data in order to predict the amount of Schedule I/II controlled substances, certain

substances controlled under the Psychotropic Convention, and List I chemicals, requested by DEA, required to meet the legitimate medical, scientific, and stock needs of the United States for 2015 and 2016. Simple exponential smoothing is generally applied to series that either do not have any apparent recent trend or to series with a recent trend but is currently experiencing erratic behavior. Brown's linear exponential smoothing or damp-trend exponential smoothing is applied to series characterized by increasing or decreasing trend. For substances in which SES is applied, predictions are made only for 2015 – a reflection of uncertainty. For substances in which the Brown or damp methods are appropriate, predictions are provided for 2015 *and* 2016 for some substances, while only 2015 predictions are provided for others. The latter reflects either the small number of data points used for the series or the low stability in the observed increasing or decreasing trend or both. For substances in which 2015 and 2016 projections are provided, the 2016 projections are more uncertain than the 2015 projections and should be interpreted with caution.

Table 1: Forecast (*Predicted*) uses (Purchases, in Kg) for 2015 and 2016, and observed use for 2012, 2013, and 2014, of Schedule II Controlled Substances. (*Note*: Substances and years for which either *observed* or *predicted* increases are equal to or exceed 10% appear in **bold**.) Percent changes reflect the change from the previous year.

SUBSTANCE	2012 Observed	2013 Observed (%CHANGE[1])	2014 Observed (%CHANGE[2])	2015 Predicted (%CHANGE[3])	2016 Predicted (%CHANGE[4])
ALFENTANIL	0.40	**0.34 (-15.0)**	0.34 (0.0)	0.35 (2.94)	N/A
AMOBARBITAL	1.55	1.61 (3.87)	**0.93 (-42.2)**	0.91 (-2.15)	N/A
AMPHETAMINE	10647.50	10629.80 (-0.17)	**11730.60 (10.4)**	12401.40 (0.57)	13130.22 (5.88)
COCAINE	43.70	**39.00 (-10.76)**	35.40 (-9.23)	**31.77 (-10.25)**	**27.80 (-12.50)**
CODEINE	22294.80	21343.70 (-4.27)	21328.00 (-0.07)	20593.40 (-3.44)	N/A
DIHYDROCODEINE	71.30	**33.81 (-52.58)**	**3.06 (-90.95)**	**0.41 (-86.60)**	N/A
DIPHENOXYLATE	381.40	378.60 (-0.73)	358.10 (-5.41)	359.43 (0.37)	349.22 (-2.84)
FENTANYL	560.40	536.40 (-4.28)	523.50 (-2.40)	520.27 (-0.62)	517.39 (-0.55)
HYDROCODONE	62004.30	60671.10 (-2.15)	55648.30 (-8.28)	51885.61 (-6.76)	47891.19 (-7.70)
HYDROMORPHONE	1895.30	1905.00 (0.51)	1809.50 (-5.01)	1731.48 (-4.31)	1667.57 (-3.69)
LEVORPHANOL	1.53	**2.29 (49.67)**	**2.66 (16.16)**	**3.46 (30.01)**	N/A
LISDEXAMFETAMINE	13402.50	13083.30 (-2.38)	13737.00 (5.00)	13872.65 (0.99)	14022.77 (1.08)
MEPERIDINE	1862.30	**1505.00 (-19.19)**	**1229.30 (-18.32)**	**1006.14 (-18.15)**	**826.73 (-17.83)**
METHADONE	6734.50	**5759.20 (-14.48)**	5205.20 (-9.62)	4791.01 (-7.96)	4496.00 (-6.16)
METHAMPHETAMINE	12.74	11.97 (-6.04)	**10.77 (-10.03)**	10.35 (-3.90)	9.70 (-6.28)
METHYLPHENIDATE	18595.70	17096.00 (-8.06)	17280.10 (1.08)	17288.01 (0.05)	N/A
MORPHINE	28300.00	25867.60 (-8.60)	24213.50 (-6.39)	22827.34 (-5.72)	21667.61 (-5.08)
NABILONE	0.04	**0.03 (-25.00)**	**0.04 (33.33)**	0.04 (0.00)	N/A
OPIUM	77.00	73.00 (-5.19)	73.20 (0.27)	73.20 (0.00)	N/A
OXYCODONE	65721.30	59470.00 (-9.51)	58114.80 (-2.28)	57071.11 (-1.80)	56278.33 (-1.39)
OXYMORPHONE	1916.10	1825.60 (-4.72)	1889.20 (3.48)	**2107.40 (11.55)**	2299.90 (9.13)
PENTOBARBITAL	46.70	**24.27 (-48.03)**	**16.54 (-31.85)**	**12.19 (-26.30)**	**10.25 (-15.91)**
REMIFENTANIL	1.10	1.16 (5.45)	1.22 (5.17)	1.29 (5.74)	1.35 (4.65)
SECOBARBITAL	15.40	**11.53 (-25.13)**	11.10 (-3.73)	10.79 (-2.79)	N/A
SUFENTANIL	0.05	0.05 (0.00)	**0.04 (-20.00)**	**0.03 (-25.00)**	N/A
TAPENTADOL	6255.70	5843.50 (-6.59)	5505.10 (-5.79)	5215.84 (-5.25)	N/A

[1] 100 x [Observed (2013) – Observed (2012)]/Observed (2012)
[2] 100 x [Observed (2014) – Observed (2013)]/Observed (2013)
[3] 100 x [Forecast (2015) – Observed (2014)]/Observed (2014)
[4] 100 x [Forecast (2016) – Forecast (2015)]/Forecast (2015)

Source: FDA/CDER/Office of Biostatistics VII.

Table 2: Forecast (*Predicted*) uses (Purchases, in Kg) for 2015 and 2016, and observed use for 2012, 2013, and 2014 of substances derived from thebaine and for substances controlled under the Psychotropic Convention (*Note:* Substances and years for which either *observed* or *predicted* increases are equal to or exceed 10 percent appear in **bold**).

SUBSTANCE	2012 Observed	2013 Observed (%CHANGE[1])	2014 Observed (%CHANGE[2])	2015 Predicted (%CHANGE[3])	2016 Predicted (%CHANGE[4])
ALPRAZOLAM	2277.00	2277.60 (0.03)	2241.70 (-1.58)	2218.69 (-1.03)	N/A
BUPRENORPHINE	1981.60	**2275.90 (14.85)**	**2525.50 (10.09)**	2775.19 (9.89)	3024.88 (9.00)
CLOBAZAM	75.40	**153.90 (104.11)**	**220.20 (43.08)**	**292.97 (33.05)**	N/A
CLONAZEPAM	1418.00	1485.60 (4.77)	1496.50 (0.73)	1523.67 (1.82)	1544.49 (1.37)
DIAZEPAM	4892.20	4841.10 (-1.04)	4639.90 (-4.16)	4513.08 (-2.73)	N/A
DIETHYLPROPION	545.40	**487.30 (-16.15)**	465.40 (-4.49)	435.18 (-6.49)	413.97 (-4.87)
LORAZEPAM	1349.10	1384.80 (2.65)	1334.60 (-3.63)	1385.93 (3.85)	N/A
MIDAZOLAM	330.30	**423.20 (28.13)**	**349.50 (-17.41)**	**312.49 (-10.59)**	N/A
NALOXONE	431.10	**479.30 (11.18)**	520.00 (8.49)	560.72 (7.83)	601.43 (7.26)
NALTREXONE	605.50	**694.60 (14.72)**	**865.70 (24.63)**	**1036.64 (19.75)**	**1207.57 (16.49)**
TEMAZEPAM	6398.00	6443.10 (0.70)	6214.20 (-3.55)	6149.13 (-1.05)	6022.31 (-2.06)
ZOLPIDEM	12141.20	11505.20 (-5.24)	10812.80 (-6.02)	10162.63 (-6.01)	9550.86 (-6.02)

Source: FDA/CDER/Office of Biostatistics VII

[1] 100 x [Observed (2013) – Observed (2012)]/Observed (2012)
[2] 100 x [Observed (2014) – Observed (2013)]/Observed (2013)
[3] 100 x [Forecast (2015) – Observed (2014)]/Observed (2014)
[4] 100 x [Forecast (2016) – Forecast (2015)]/Forecast (2015)

Table 3: Forecast (*Predicted*) uses (Purchases, in Kg) for 2015 and 2016, and observed use for 2012, 2013, and 2014 of ephedrine and pseudoephedrine.

SUBSTANCE	2012 Observed	2013 Observed (%CHANGE[1])	2014 Observed (%CHANGE[2])	2015 Predicted (%CHANGE[3])	2016 Predicted (%CHANGE[4])
EPHEDRINE	1971.20	2078.20 (5.43)	2233.20 (7.46)	2411.40 (7.98)	2591.47 (7.47)
PSEUDOEPHEDRINE	92869.90	92333.80 (-0.58)	90183.60 (-2.33)	86680.84 (-3.88)	83674.07 (-3.47)

Source: FDA/CDER/Office of Biostatistics VII

[1] 100 x [Observed (2013) – Observed (2012)]/Observed (2012)
[2] 100 x [Observed (2014) – Observed (2013)]/Observed (2013)
[3] 100 x [Forecast (2015) – Observed (2014)]/Observed (2014)
[4] 100 x [Forecast (2016) – Forecast (2015)]/Forecast (2015)

Table 4: Generic Drug Products Containing Schedule II Controlled Substances Approved in 2014

DRUG PRODUCT	ANDA #	SPONSOR
ACETAMINOPHEN; CAFFEINE; DIHYDROCODEINE BITARTRATE Capsules	204785	Wraser Pharmaceuticals, LLC
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Oral Solution	203573	Vintage Pharmaceuticals
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Tablets	201278	Rhodes Pharmaceuticals, LP
BROMPHENIRAMINE MALEATE; DEXTROMETHORPHAN HYDROBROMIDE; PSEUDOEPHEDRINE HYDROCHLORIDE Syrup	202940	Vintage Pharmaceuticals
BROMPHENIRAMINE MALEATE; DEXTROMETHORPHAN HYDROBROMIDE; PSEUDOEPHEDRINE HYDROCHLORIDE Syrup	205292	Paddock Laboratories, LLC
BUPRENORPHINE HYDROCHLORIDE; NALOXONE HYDROCHLORIDE Sublingual Tablets	091149	Teva Pharmaceuticals, USA
BUPRENORPHINE HYDROCHLORIDE; NALOXONE HYDROCHLORIDE Sublingual Tablets	203326	Roxane Laboratories, Inc
CHLORPHENIRAMINE MALEATE, HYDROCODONE BITARTRATE; PSEUDOEPHEDRINE HYDROCHLORIDE Oral Solution	203838	Tris Pharma, Inc
CHLORPHENIRAMINE MALEATE, HYDROCODONE BITARTRATE; PSEUDOEPHEDRINE HYDROCHLORIDE Oral Solution	204627	Paddock Laboratories, LLC
CLONAZEPAM Orally Disintegrating Tablets	078654	Sun Pharmaceutical Industries, Inc
CODEINE PHOSPHATE; PHENYLEPHRINE HYDROCHLORIDE; PROMETHAZINE HYDROCHLORIDE Syrup	040674	Hi-Tech Pharmacal Co, Inc
CODEINE SULFATE Tablets	203046	Lannett Holdings, Inc
DEXMETHYLPHENIDATE HYDROCHLORIDE Extended Release Capsules	078908	Teva Pharmaceuticals, USA
DEXMETHYLPHENIDATE HYDROCHLORIDE Extended Release Capsules	079108	Watson Laboratories, Inc
DEXMETHYLPHENIDATE HYDROCHLORIDE Extended Release Capsules	202731	Teva Pharmaceuticals, USA
DEXTROAMPHETAMINE SULFATE Tablets	090652	Corepharma, LLC
DIAZEPAM Oral Concentrate	204433	Lannett Holdings, Inc
DRONABINOL Capsules	079217	Akorn, Inc
FENTANYL Extended Release Transdermal Film	076258	Mylan Technologies, Inc
FEXOFENADINE HYDROCHLORIDE; PSEUDOEPHEDRINE HYDROCHLORIDE Extended Release Tablets	076667	Dr. Reddy's Laboratories, LTD
HYDROCODONE BITARTRATE; PSEUDOEPHEDRINE HYDROCHLORIDE Oral Solution	203839	Tris Pharma, Inc
HYDROCODONE BITARTRATE; PSEUDOEPHEDRINE HYDROCHLORIDE Oral Solution	204658	Paddock Laboratories, LLC

HYDROMORPHONE HYDROCHLORIDE Extended Release Tablets	202144	Actavis Laboratories FL, Inc
[redacted]ETHYLPHENIDATE HYDROCHLORIDE Extended Release Capsules	079031	Barr Laboratories, Inc
METHYLPHENIDATE HYDROCHLORIDE Tablets	091159	Corepharma, LLC
METHYLPHENIDATE HYDROCHLORIDE Tablets	202892	Vintage Pharmaceuticals
MIDAZOLAM HYDROCHLORIDE Injectable	203460	BD Rx, Inc
MORPHINE SULFATE Extended Release Capsules	202718	Teva Pharmaceuticals, USA
MORPHINE SULFATE Oral Solution	201011	Sun Pharmaceutical Industries, Inc
NALOXONE HYDROCHLORIDE Injectable	204997	Mylan Institutional, LLC
OXYCODONE HYDROCHLORIDE Capsules	203823	Lannett Holdings, Inc
OXYCODONE HYDROCHLORIDE Oral Solution	204085	Lannett Holdings, Inc
OXYCODONE HYDROCHLORIDE Oral Solution	204092	Coastal Pharmaceuticals
OXYCODONE HYDROCHLORIDE Tablets	203638	Amneal Pharmaceuticals
OXYMORPHONE HYDROCHLORIDE Extended Release Tablets	200792	Par Pharmaceutical, Inc
OXYMORPHONE HYDROCHLORIDE Extended Release Tablets	202946	Mallinckrodt, Inc
OXYMORPHONE HYDROCHLORIDE Tablets	201187	Corepharma, LLC

Table 5: Generic Drug Products Containing Schedule II Controlled Substances Discontinued in 2014 majority are high APAP products (>325mg)

DRUG PRODUCT	ANDA #	SPONSOR
ACETAMINOPHEN; BUTALBITAL; CAFFEINE; CODEINE PHOSPHATE Capsules	074911	Valeant Pharmaceuticals International
ACETAMINOPHEN; HYDROCODONE BITARTRATE Oral Solution	040182	Pharmaceutical Assoc Inc, Div of Beach Products
ACETAMINOPHEN; HYDROCODONE BITARTRATE Oral Solution	040418	Mallinckrodt, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Oral Solution	040520	Vintage Pharmaceuticals, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Oral Solution	081051	Mikart, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040468	Mallinckrodt, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	089160	Mallinckrodt Chemical, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	089725	Mallinckrodt Chemical, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040084	Mallinckrodt Chemical, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040094	Watson Laboratories, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040143	Vintage Pharmaceuticals, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040144	Vintage Pharmaceuticals, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040148	Actavis Laboratories FL, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040155	Vintage Pharmaceuticals, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040157	Vintage Pharmaceuticals, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040201	Mallinckrodt Chemical, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040356	Vintage Pharmaceuticals, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040358	Vintage Pharmaceuticals, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040495	Watson Laboratories, Inc Florida
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040729	Amneal Pharmaceuticals NY, LLC
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040748	Amneal Pharmaceuticals NY, LLC
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040754	Amneal Pharmaceuticals NY, LLC
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040757	Amneal Pharmaceuticals NY, LLC

ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040769	Amneal Pharmaceuticals NY, LLC
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040813	Amneal Pharmaceuticals NY, LLC
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	081079	Watson Laboratories, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	081080	Watson Laboratories, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	081083	Watson Laboratories, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	081223	Mikart, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	089689	Mikart, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	089699	Mikart, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	089883	Watson Laboratories, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	089971	Vintage Pharmaceuticals, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	090265	Caraco Pharmaceutical Laboratories, LTD
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	090380	Caraco Pharmaceutical Laboratories, LTD
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040100	UCB, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	087722	UCB, Inc
ACETAMINOPHEN; HYDROCODONE BITARTRATE Tablets	040288	Vintage Pharmaceuticals, LLC
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Capsules	040106	Vintage Pharmaceuticals, LLC
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Capsules	040234	Watson Laboratories, Inc
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Capsules	040257	Mallinckrodt Chemical, Inc
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Capsules	040289	Duramed Pharmaceuticals, Inc, subsidiary of Barr Laboratories, Inc.
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Capsules	040061	Roxane Laboratories, Inc
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Capsules	088790	Janssen Pharmaceuticals, Inc
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Tablets	040371	Watson Laboratories
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Tablets	040550	Mallinckrodt, Inc
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Tablets	040676	Mikart, Inc
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Tablets	040687	Mikart, Inc
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE	040692	Mikart, Inc

Tablets		
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Tablets	040698	Mikart, Inc
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Tablets	040789	Amneal Pharmaceuticals NY, LLC
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Tablets	040800	Actavis Elizabeth, LLC
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Tablets	090177	Coastal Pharmaceuticals
ACETAMINOPHEN; OXYCODONE HYDROCHLORIDE Tablets	040341	Vintage Pharmaceuticals, LLC
ASPIRIN; BUTALBITAL; CAFFEINE; CODEINE PHOSPHATE Capsules	074359	Watson Laboratories, Inc
ASPIRIN; CARISOPRODOL; CODEINE PHOSPHATE Tablets	040283	Prosam Labs, LLC
ASPIRIN; CARISOPRODOL; CODEINE PHOSPHATE Tablets	040860	Mirror Pharmaceuticals, LLC
ASPIRIN; OXYCODONE HYDROCHLORIDE; OXYCODONE TEREPHTHALATE Tablets	040255	Watson Laboratories, Inc
DIAZEPAM Tablets	070226	Dava Pharmaceuticals, Inc
FENTANYL Extended Release Transdermal Film	077775	Noven Pharmaceuticals, Inc
FENTANYL CITRATE Sublingual Buccal Tablets	079075	Watson Laboratories, Inc
LORAZEPAM Tablets	071118	Watson Laboratories, Inc
MEPERIDINE HYDROCHLORIDE Injectable	073444	Watson Laboratories, Inc
MEPERIDINE HYDROCHLORIDE Injectable	073445	Watson Laboratories, Inc
MEPERIDINE HYDROCHLORIDE Injectable	073443	Watson Laboratories, Inc
MEPERIDINE HYDROCHLORIDE Injectable	081309	International Medication System
MEPERIDINE HYDROCHLORIDE Tablets	040186	Watson Laboratories, Inc
METHYLPHENIDATE HYDROCHLORIDE Extended Release Tablets	040410	Watson Laboratories, Inc
MORPHINE SULFATE Injectable	073373	Watson Laboratories, Inc
MORPHINE SULFATE Injectable	073374	Watson Laboratories, Inc
MORPHINE SULFATE Injectable	073375	Watson Laboratories, Inc
MORPHINE SULFATE Injectable	073376	Watson Laboratories, Inc
TEMAZEPAM Capsules	071446	Watson Laboratories, Inc
TEMAZEPAM Capsules	071447	Watson Laboratories, Inc
ZOLPIDEM TARTRATE Tablets	077773	Watson Laboratories, Inc

? Watson merger with Actavis per FTC ruling

Table 6: Generic Drug Products Containing Schedule II Controlled Substances With Action Dates in 2015

DRUG PRODUCT	ANDA #	SPONSOR
MORPHINE SULFATE Injectable	204393	Mallinckrodt, Inc
MORPHINE SULFATE Extended Release Tablets	203849	Actavis Elizabeth
HYDROCODONE BITARTRATE; HOMATROPINE METHYLBROMIDE Solution	205731	Paddock Laboratories
BUPRENORPHINE HYDROCHLORIDE Sublingual Tablets	090819	Actavis Laboratories