



February 2018

Dundalk – The Revival of Whiskey



The Great Northern Distillery is a private Irish owned company operating two large distilleries in Dundalk, Ireland. It is the second largest distilling complex in Ireland and the largest independent.

Mission: We make good whiskey

Strategy: To supply Malt and Grain bulk whiskey at varying ages to customers with their own brands of Irish whiskey and/or bottled whiskeys to Retail Own Label customers



Introduction

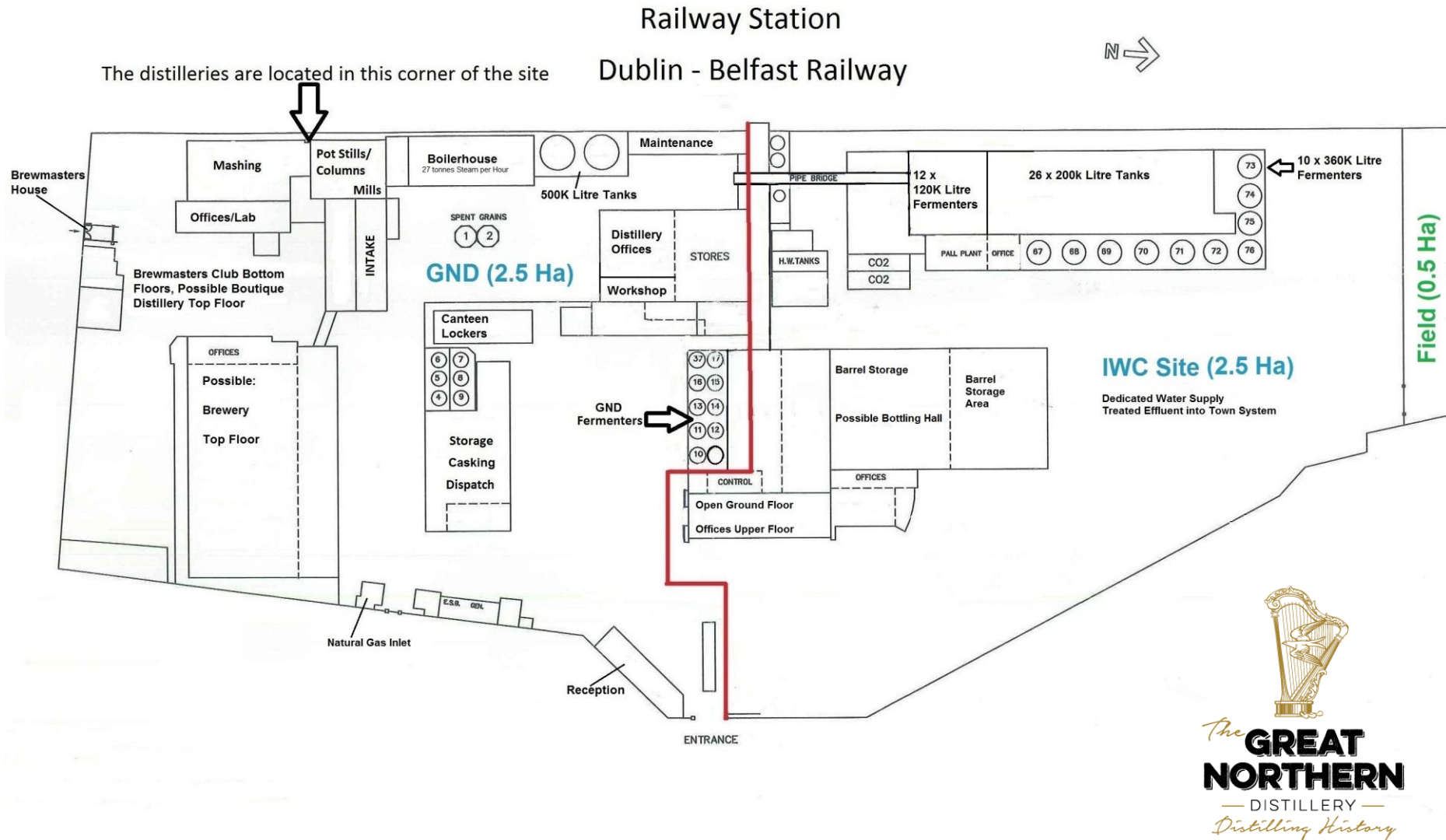
- Private 100% Irish owned company
- The principals, the Teeling Family, Jim Finn and David Hynes have long experience in Irish whiskey. They established and operated the Cooley Distillery until they sold it to Beam Suntory in 2012
- Two distilleries on the site of the former Harp Brewery in Dundalk (Exhibit 1 & 2), which is 90 km north of Dublin on the way to Belfast – a 5.0 million litre pot still and an 12 million litre column still distillery (24/7 capacity)
- Grain whiskey distillation started in late July 2015. The pot stills started late September 2015
- First mature grain September 2018, malt November 2018
- Markets are Bulk and Own Label, Retail Own Label, small branded operations (Appendix 1 for background on the Burke's brand)
- Jack and Stephen Teeling own the premium branded Teeling Whiskey Company distillery in Dublin



Exhibit 1 - Great Northern Distillery (GND), Dundalk, Co. Louth



Exhibit 2 - Great Northern Distillery (GND), Dundalk, Co. Louth



Principals

The shareholding in Great Northern Distillery is Teeling Family 66%, Jim Finn 17% and David Hynes 17%

John Teeling – Executive Chairman (72)



Founder, in 1987, and former Chairman of Cooley Distillery, which was sold in early 2012 to Jim Beam for \$95m. John Teeling holds degrees in Economics and Business from University College Dublin (UCD). He holds a doctorate from Harvard Business School in addition to an MBA from Wharton. He has extensive business experience and has set up numerous ventures in resources and manufacturing. He lectured on business and finance in University College Dublin for 20 years.

James Finn – Finance Director (59)



A former director at Cooley Distillery. He has worked with John Teeling for 30 years. Mr. Finn has extensive experience in administration, control and corporate finance. He holds a degree in Management from Trinity College Dublin (TCD) and an Accounting qualification. He has been responsible for listing several resource sector companies on AIM in London. He supervises the financial aspects of GND.



Principals

David Hynes – Operations Director (71)

Holds a degree in Chemical Engineering from UCD and an MBA from Harvard. He worked in the chemical industry in the US for many years constructing new plants. After his MBA he worked in Business Development with Air Products and FMC. On his return to Ireland he was a marketing consultant before joining Cooley Distillery where he oversaw the construction of two distilleries and was managing director until 2010. He is overseeing the two distilleries.

Jack Teeling (41)



Co-founder the Teeling Whiskey Company (TWC) based in Newmarket, Dublin which is a premium branded pot still malt distillery. TWC buys grain for the Teeling brands and malt and grain for Third Party brands. Having worked in banking he joined Cooley Distillery in 2001 and rose to become Managing Director in 2010. He holds a degree in Commerce and a Masters in Finance from University College Dublin (UCD) and a Masters in International Business from Trinity College Dublin (TCD)

Stephen Teeling (37)



Co-founder of the Teeling Whiskey Company where he is Commercial Director. Worked in banking prior to joining Cooley in marketing. After the sale to Jim Beam he was Global Marketing Manager Irish whiskey for Jim beam. He holds a business degree from TCD and a Masters in International Business from UCD.



The Story of Whiskey

- Whiskey is Irish not Scottish, American or Canadian
- The word derives from the Gaelic “uisce beatha” meaning water of life which became “fusice” which became whiskey
- Ireland, with its mild island climate, fresh water and good grain, is the perfect location to make whiskey – which is why it developed in Ireland
- In the early 19th century Ireland had about 60% of world whiskey sales and 1200 to 1500 distilleries. A change in technology decimated the industry. By 1886 there were still 28 large distilleries.



Whiskey Background (contd.)

- A decline started in the 1850s which continued until finally in 1973 there was only one company, a monopoly, Irish Distillers, with three operating distilleries, two in Midleton and one in Bushmills
- Irish sales fell to 2% of Scotch sales – 2 million plus cases of Irish against 100 million cases of Scotch. In 1912 there were 12 million cases of Irish produced
- The revival began in the late 1980s with the establishment by the GND principals of the independent Cooley Distillery followed by the acquisition of Irish Distillers by Pernod Ricard
- But the main cause was the turn to brown spirits by young drinkers starting about 2000
- Irish whiskey is now the fastest growing brown spirit in the world with growth rates of 12.5% annually across 75 countries
- There are now 20 working distilleries and 12 being built or planned, most of the multinationals have entered the sector



Distilling in Dundalk

- The Dundalk Distillery – also known as the Malcolm Brown Distillery was one of the largest in Ireland producing over 8 million litres a year (Appendix 3). It survived until 1935.
- The town of Dundalk has always been ideally suited to foster a distilling industry. It allowed easy access to water, grain, and yeast - the three essential ingredients for successful distilling.
- The rich agricultural hinterland supplied barley and the town boasted a skillful and varied workforce in the 17th century.
- The founders of GND have re-established a substantial distillery presence on the site of the former Diageo owned Harp Brewery which began operations in 1895. The brewery which closed in September 2014 sits on 5.5 hectares of which 2.0 is being used by GND.



World Irish Whiskey Market

- From a low of 2 million case sales in the early 1980s, of which 50% was in the domestic Irish market, sales were 8.5 million cases of 12 x 70 cl in 2016. (See Table 1) including liqueurs
- The rapid changes and growth in Irish whiskey markets are shown in Table 2
- Sales were expected to rise to 10 million cases by end 2017 and at least 20 million by the end of 2024
- Three market forces are driving this:
 - Young drinkers in the US and Europe where sales are growing over 15% a year
 - The opening of Eastern Europe and Russia
 - Emerging middle classes around the world
- Irish is now growing at double digit rates or more in 75 countries



Table 1. Irish Whiskey Sales 2016 – (cases of 12 x 70cl) Estimated

US	3,300,000	Baltics	100,000
Ireland	500,000	Benelux	100,000
UK (incl. NI)	500,000	Israel	50,000
France	500,000	Ukraine	50,000
Nordic	300,000	Travel Retail	400,000
South Africa	250,000	Rest EU	200,000
Russia	150,000	Rest World	600,000
Germany	250,000		8,000,000
Bulgaria	150,000	Bulk Irish is used in liqueurs e.g. Baileys and in some overseas whiskeys	
Czech Rep	150,000		
Portugal	100,000		
Australia/NZ	200,000		
Canada	150,000		



Table 2. Irish Whiskey Sales by Area (000s cases of 12 bottles 700ml)

	1990	2000	2013	2016 (est)
Ireland	540	540	500	500
N. Ireland	390	170	100	100
USA	240	350	2,400	3,300
UK	220	240	350	400
Germany	100	100	200	250
France	60	450	500	500
Duty Free	50	80	250	400
Benelux	50	70	100	100
Japan	390 (bulk)	300 (bulk)	100	150
Liqueur (bulk)	400	400	400	100
South Africa			200	250
Eastern Europe	460		400	400
Russia			250	150
Scandinavia			250	300



Table 3. World Irish Whiskey Market Estimates 2024 (cases of 12 x 70cl)

US/Canada/Mexico	8 million to 10 million
Rest of Developed World (Europe, Australia, Duty Free)	5 million to 6 million
Russia/Eastern Europe	2 million to 3 million
Asia	1 million to 2 million
South America	1 million
Total	17 million to 22 million

NB – A detailed breakdown is given in Appendix 2



Irish Whiskey Market Shares

- Pernod blends, led mainly by Jameson, currently has up to 70% of the total Irish sales (Table 4)
- Until the breakup of the monopoly, Pernod controlled all brands
- Diageo bought Bushmills in 2005 increased sales and sold out to Jose Cuervo in early 2015. It re-entered the market in 2017 with the Roe brand.
- Grants bought Tullamore Dew in 2009 and have built pot still and column still operations
- Sazerac bought the Paddy brand in 2015
- Beam/Suntory bought Cooley in early 2012
- Brown Forman bought the Slane Castle Brand in 2017. Their pot still operation will be on stream Q1 2018
- Disarrano bought into Walsh Whiskey which came on stream in 2016
- Bacardi took a stake in Teeling Whiskey and got exclusive US distribution rights in return



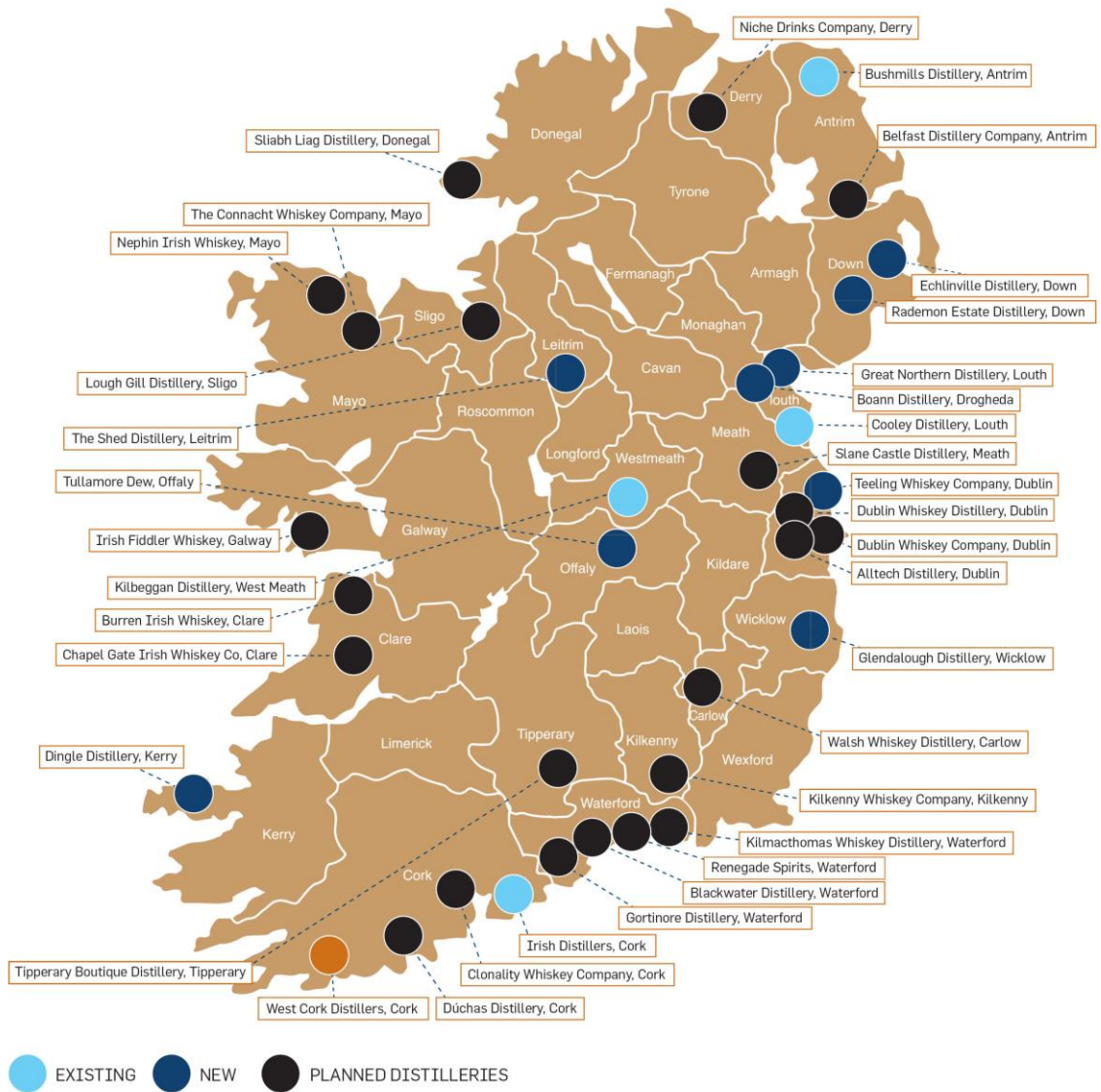
Table 4. 2015 Current Market Share by Company (Est)

	Cases (m)	%	
Pernod	5.6	70	Mainly Jameson
Grants	0.9	12	Tullamore Dew – Almost all blend
Jose Cuervo	0.9	12	Bushmills – Mainly blend
Suntory	0.3	4	Cooley products
Others	0.3	2	Small players buying small quantities –
	<hr/> 8.0	<hr/> 100	Premium products

There are now 20 producers with 12 being built or planned. Most are small pot still operations



Exhibit 3 – Map of Existing and Start-Up Distilleries 2016



Existing and Start-Up Distilleries

Working Distilleries

Bushmills	Pot Stills	Cooley	Pots/Columns
Great Northern	Pots/Columns	Blackwater	One Pot
Teeling Whiskey	Pots	Dingle	Small Pots
Irish Distillers	Pots/Columns	Tullamore Dew	Big Pots/ Columns
West Cork Distillers	Pots	Walsh Whiskey	Pots/Small Columns
Echlinville Distillery	Small Pots	Connaught	Pots
Drumshanbo (The Shed)	Small Pots	Ballykeeffe	Pots
Waterford	Pots	Rademon	Pots
Slane Castle	Pots/Small Columns	Alltech	Small Pots
Kilbeggan	Small Pots	Glendalough	Pots

Under Construction or Planned

Lough Gill	2019 – Pots	Belfast Jail	2019 - Pots
Boann	2018 – Pots	Powerscourt	2018 – Pots
Nephin	2018 – Small Pots	Niche	2019 – Pots
Lough Ree	2019 - Pots	Liberties	2019 – Pots
Sliabh Liag	2019 – Pots	Gortinore	2020 - Pots
The rest are at various stages from concept to planning		Belfast	2020 - Pots



Market Characteristics of Irish

- Over 85% blended unaged – Jameson, Tullamore, Bushmills, Teeling Small Batch
- Price – Premium, above comparable Scotch products
- Single malt market small but growing fast. As is other aged and premium sectors
- Small Pot Still category but growing
- Bulk supply to private labels was mainly Cooley
- Retail own label market was served only by Cooley now Beam/Suntory.



Types of Whiskey



Ireland has three categories of whiskey, Scotland has two (no pot still whiskey)

- Grain whiskey – produced from unmalted cereals normally maize or wheat combined with up to 10% malted barley. Distilled in columns
- Pot still whiskey – distilled from a combination of a minimum of 30% malted barley, the rest unmalted cereals, unmalted barley and distilled in pots
- Malt whiskey – distilled from a mash of 100% malted barley and distilled in pots

Irish is often triple distilled. Pot sizes in Ireland vary more than in Scotland. Both Midleton and Dundalk have very large pots.



Market Opportunities in Irish



- Rapidly growing markets provide opportunities
- In newer world markets, whisky/whiskey is being introduced so established brands are not embedded resulting in a level playing field for new entrants
- Pernod had no single malt until 2017, selling “Pot Still” instead. Have introduced small niche malt product
- The bulk market is growing as entrants do not need to own distilleries
- The Retail Own Label segment in Europe and the US is growing but is badly served
- New distilleries are being built or planned. Almost all are pot still only. Most will need grain to make blended products



GND Distilleries – Malt/Pot Still Distillery

Existing equipment on site was adapted to produce malt and pot still whiskey. Currently GND produce triple distilled, double distilled, peated malt and pot still

Existing grain intake → existing mills → Mash Tun → 10 ton lauter tun → 5 fermenters → 3 pots 1 x 50,000 litre wash still and 2 x 26,000 litre spirit stills. (Exhibit 4)

Capacity on a 24/7 day week = 5.0 m litres, commenced Sept 2015

Weekly production 35,000 LPA

First mature whiskey Q4 2018



Exhibit 4 – Pot Stills



GND Distilleries – Column Still/Grain Whiskey Distillery

3 new columns installed by Frilli of Italy. Existing grain intake → new mills → existing cookers → 5 fermenters → 3 X 22 metre distilling columns. The stills are designed to enable flexible production rates.

Capacity 12 million litres 24/7. Exhibit 5 shows the column stills

Distillation commenced in July 2015

Production about 120,000 LPA a week on 24/5 operation



Exhibit 5 – Column Stills



GND Distilleries – Burkes

While GND will be primarily a bulk and Retail Own Label supplier it owns three brands

- Burkes, a famous old Irish Brand (Exhibit 6 & Appendix 1);
- Skylark, a well know brand of the old Dundalk Distillery and;
- Castletown (Exhibits 7 & 8)
- An exclusive offering of 15 year old single malt is being sold under the Burkes brand



Exhibit 6 – Burke's Whiskey



Exhibit 7 – Label Mock Ups of Brands Held by GND



Exhibit 8 – Label Mock Ups of Brands Held by GND



Appendix 1 E & J Burkes

E. and J. Burke were the brothers, Edward Frederick Burke (1827?-1887) and John Burke (1829-1892). They were Irish distillers, brewers, bottlers and (in New York especially) importers. They were in business in New York City from 1874 to 1953. The building at 616 W. 46th St. was built by the company to serve as headquarters and storage. A six-story brick warehouse, it was designed by the architect, Thomas J. Duff, constructed in 1912-13, and housed E. & J. Burke from 1913 to 1922.

A summary of the early history of E. & J. Burke can be found at <http://bulk.resource.org/courts.gov/>. The date of this information seems to be early 1900s: "The complainant is, and at the time of the commencement of this suit was, a corporation organized and doing business under the laws of the Kingdom of Great Britain and Ireland, and for many years has had, and now has, a place of business in the city of New York, U. S. A. Its business is that of export bottlers of stout, ales, whiskies, and other goods. It is the successor in business of the firm of Edward & John Burke, composed of Edward Burke, John Burke, and John Gardner Nutting. In 1870 that firm was the sole export bottlers for the United States of the stout brewed by Arthur Guinness, Son & Co., Limited, and they continued to be such sole export bottlers of such stout until 1874 or 1875. For about 50 years the complainant and its predecessor have exported to the United States this Guinness Stout in bottles bearing labels and capsules in the following style, dress, and collocation (with some insignificant alteration of detail), viz.: The bottle itself is of the shape and size of the ordinary lager beer or beer bottle. On one side is an oval label with the picture of a small harp thereon (trademark), such label bearing the words, in large print, 'Guinness's Extra Stout, James Gate, Dublin,' and, in small type, the words, 'Printed and issued by us as our trade-mark and label, Arth Guinness, Son & Co.,' a number printed in large red figures, and also, in small type, the words 'Bottled by E. & J. Burke, Limited, Dublin, Ireland, who sell no other brown stout in bottles.' Below this, and attached horizontally, is another oval label of the same color bearing the words: 'Guinness' Extra Foreign Stout, Dublin. We the undersigned guarantee and hold ourselves responsible that we bottle none other than Guinness's Finest Foreign Stout which we have continuously done for past half century. Edward & John Burke, Limited. Established in Dublin in 1849.'"



Appendix 1 E & J Burkes (contd.)

In 1922/23 Burke relocated to Long Island City. They seem to have had at least three locations in Long Island City. This notice appeared in the *New York Times*, 12 May 1933, "E. J. Burke, Ltd., of New York, Dublin, London and Liverpool, importers and bottlers of Bass's ale and Guinness stout, have bought an entire block on the Degnon Terminal from the George A. Fuller Company bounded by Skillman Avenue, Twenty-seventh to Twenty-eighth Street and Nelson (Forty-seventh) Avenue. The site fronts 245 feet on Skillman Avenue and 358 feet on Twenty-eighth Street. The buyers plan to erect a six-story fireproof building for bottling and warehouse purposes ..." This Guinness sign is located at the 1933 facility. This is just one block away from a later Burke brewery and distribution center at 47-24 27th St. Apparently E. & J. Burke was taken over by Arthur Guinness Son & Co., and the later building was used to brew Guinness stout in the U. S. sometime in the 1940s. This account appeared in the *New York Times*, 14 June 1949, "Henceforth, Guinness's stout for American consumption will be brewed exclusively in the United States, it was announced yesterday by Arthur Guinness Sons & Co., Ltd., Dublin, Ireland. The recently acquired brewery of E. & J. Burke, Ltd., in Long Island City, Queens to which a large addition is now under construction, has been named the Arthur Guinness Son & Co., Inc., brewery and will be used for this purpose ... E. & J. Burke, Ltd., which has handled the distribution of Guinness stout in the United States for eighty years, will continue to act as prime distributors of the product brewed here."

A biographical sketch of John Burke appeared in *America's Successful Men of Affairs; An Encyclopedia of Contemporaneous Biography*, edited by Henry Hall, vol. I, The New York Tribune, 1895, "John Burke, agent for the Guinness ales and porters, born in County Galway, Ireland, Aug. 7, 1829, died Feb. 4, 1892. He was a son of the Rev. John Burke. The boy received an excellent education, although never sent to college. He studied law under private tutors, but did not practice, joining instead his brother Edward in distilling liquors. After mastering the details of business, he went into partnership with his brother, and helped found the now well known firm of E. & J. Burke, of Dublin, whose Irish whiskey soon became known all over the world. Later, the firm began the bottling of Bass's ale and Guinness's porter. Both men were energetic and shrewd and met with great success."



Appendix 1 E & J Burkes (contd.)

They maintained branches in Liverpool, New York and Australia, and finally transacted so large a trade with America that, in 1859, John Burke came to New York to take charge in this country, under the name of The E. & J. Burke Bottling Co. The parent house finally took the name of E. & J. Burke, Ltd. Edward Burke died about 1889, leaving his entire fortune to John. The latter built the Burke pavilion at the Orange Memorial Hospital in honor of Edward's memory, at a cost of \$30,000, adding \$16,000 as well as \$10,000 for the Hospital afterward. John Burke was a man of warm feelings and generous nature, and gave largely to public and private charities. He was twice married, his second wife being Elizabeth West, daughter of the Rev., John Watson, of Orange. His children were John Burke, jr.; Mrs. Moor, a resident of England; Edward F., Mabel and Edith L. Burke."

The building at 616 W. 46th St. was described as follows in an environmental impact statement prepared for the New York City Dept. of Housing Preservation & Development in 2010, "The six-story red brick E & J Burke Company warehouse (S/NR-eligible) at 610-620 West 46th Street was built in 1912-1913 for the E & J Burke company, an importer and seller of beer and whiskey ... It was designed by architect Thomas J. Duff who was the architect of several churches in Manhattan, including the 1908-1909 Franciscan Father Monastery that is part of the St. Francis Roman Catholic Church Complex at 129-143 West 31st Street and St. Malachy's R. C. Church at 239-245 West 49th Street. The building's four-bay-wide façade has street level loading docks, two end bays that project slightly forward from the two center bays, and regular fenestration with historic two-over-two double-hung sash. The parapets of the end bays extend above the center bays. A stone panel inscribed with the words "E & J Burke" spans the top of the center bays. Two copper finials extend above the roof."

<http://www.waltergrutchfield.net/burke.htm> accessed 19 Aug 2015



Appendix 1 E & J Burkes (contd.)

EDWARD & JOHN BURKE, LTD.,

Wholesale Export Bottlers, Dublin, Liverpool, New York, Melbourne, Sydney, &c.

THE history of commercial enterprise in the Irish capital includes few more notable examples of successful trading than is furnished by the records of the great house of Messrs. EDWARD AND JOHN BURKE, LTD., of whose extensive undertaking, with its widespread ramifications at home and abroad, we submit this briefly descriptive and necessarily abridged review to the notice of our subscribers. The business was originally founded in the year 1848 by the late Mr. Edward F. Burke, who was joined some few years later by his brother, Mr. John Burke. Mr. Edward Burke associated himself almost exclusively with the Dublin firm, the late Mr. John

Burke with the New York business, and Mr. J. G. Nutting, one of the original partners of the old firm, was associated with the development of the Liverpool house, which is to-day the most important bottling establishment in the world. In July, 1890, the business was incorporated into a limited liability company, with a capital of £800,000, and so well established was the firm at that time, and so highly were the proprietors held in repute in the commercial world, that the demand for the shares exceeded many times the allotment intended for the public. Some idea of the magnitude of the business may be gathered from the fact that Messrs. BURKE, LTD., have at present some two hundred agents located in

India, China, Japan, South America, Africa, and the principal cities of continental Europe, and in practically every portion of the civilised globe; the firm being the largest shipper in the world of Guinness's extra foreign stout, and the most extensive exporter of cased whisky in Dublin. One block of warehouses is situated in Bachelor's Walk by the side of the River Liffey, the premises presenting a commanding frontage to the street with handsome entrance, richly appointed in mahogany, and floor laid with artistic ornamental tiles. The offices, situated in the front part of the building, comprise handsome suite of general, clerks', and manager's rooms, fitted

with every convenience for the clerical staff and the administrative departments of the business. In the basement are the large vaults and cellars for casks and the bottling department, measuring upwards of 200 feet in length by 50 feet wide, and completely furnished with the necessary plant and appliances for forwarding the various processes of filling and corking. Down each side of this apartment are arranged many tiers of large butts of Guinness's stout, and here a large number of male and female workpeople are employed in filling and corking this beverage, the whole processes being carried out with the perfection of system and expeditious order. Coming up to the ground floor the visitor is next intro-



The **GREAT
NORTHERN**
— DISTILLERY —
Distilling History

Appendix 1 E & J Burkes (contd.)

duced to the bottle-washing department, in which the new bottles are unpacked, and after undergoing the most thorough cleansing and drying are forwarded by specially-built movable racks to the filling department. When filled the bottles are conveyed in trucks by powerful hoists to the first floor, where they are wired, capsuled, and labelled, ready for packing into barrels for export, this important department employing the services of over fifty hands of both sexes. It is worthy of mention that at the date of our visit to the establishment the firm was just completing a shipload of over 5,000 barrels for despatch to New York, which was to be followed immediately by another vessel with a similar quantity, and like despatches to Canada and elsewhere. The upper floors of the warehouse, reached by spiral staircases of iron, and connected from the basement upwards by hoists, are utilised as stores for stock, of which many thousand bottles are held by the firm in order to thoroughly season and mature for consumption.

The other block of buildings, which comprise the Government bonded warehouses, is situated opposite the stout-bottling warehouse, and consists of an extensive, finely-built, and lofty structure with wide entrance, on one side of which is the office for the Inland Revenue officials, and on the other the manager's office. In the basement of this store is the filling or bottling department, furnished with the necessary plant and machinery for this purpose, and containing a number of immense vats, of enormous capacity, holding many thousands of

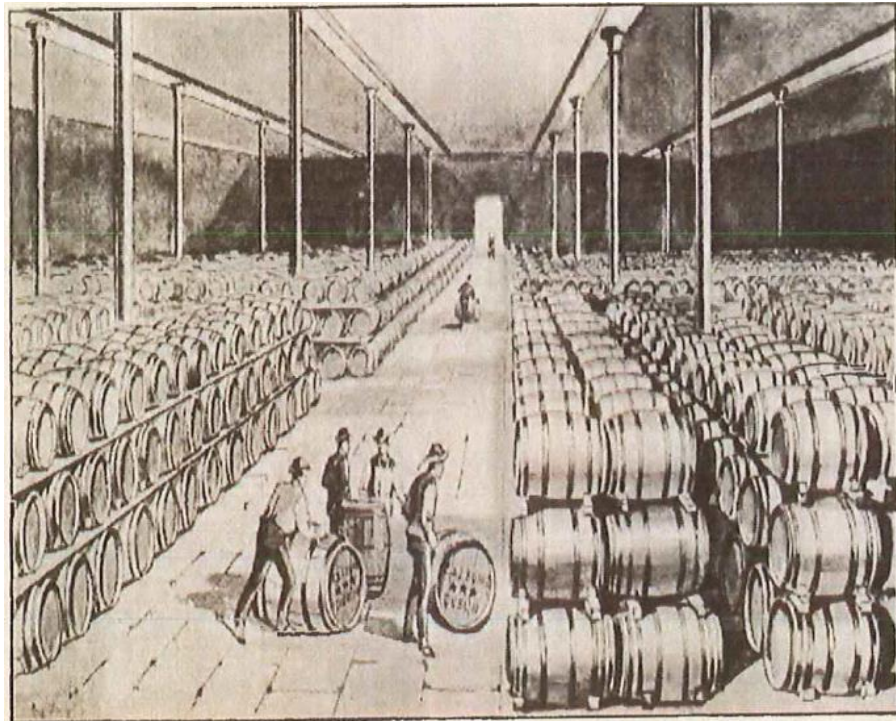
gallons of whisky each, and several vessels of smaller size. From the basement the bottled whisky is conveyed by steam lifts to the packing department, where it is most carefully labelled, capsuled, etc., and then packed into cases by a very large staff of men and boys; and afterwards the cases are forwarded to the stores ready for shipment, this department having accommodation for upwards of 28,000 full cases. In addition there are extensive spirit vaults stocked with an immense number of casks of whisky, and there are also commodious stores for empty cases and casks. The whole arrangements of the establishment are of the most complete character, the mechanical and operative resources of the undertaking having been organised with great skill and experience in order to meet the constant

pressure of the enormous bulk of trade controlled by the firm, some indication of which is afforded by the volume of the annual turnover, which was certified by the eminent firm of Messrs. Turquand, Young, and Co., at the date of the conversion of the business, to amount to the substantial average of profit aggregating to £93,469 13s. 10d. for a period of five years previous to the disposal of the concern. The board of directors includes the names of gentlemen widely known in business circles, of whom Mr. John Burke is chairman, with Sir Henry Cochrane, Knt., D.L., J.P., Henry Guinness, Esq., J.P., Andrew Jameson, Esq., George Mc. D. Dickson, Esq., and John G. Nutting, Esq.—Frederick G. Nutting, Esq., and Edmund A. Trouton, Esq., as managing directors in Dublin, Liverpool and New York respectively.

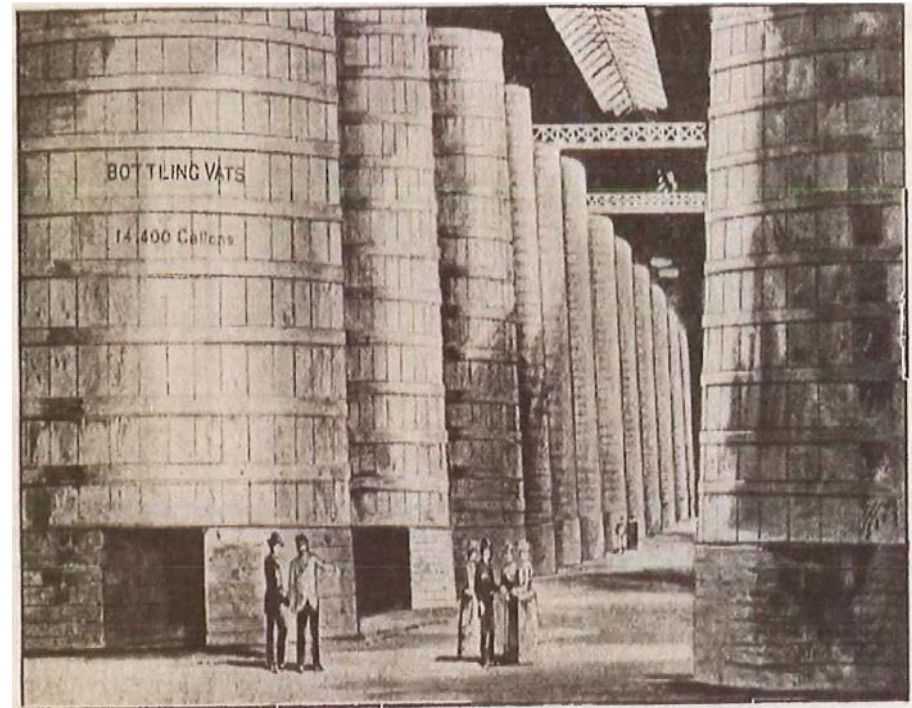


The **GREAT
NORTHERN**
— DISTILLERY —
Distilling History

Appendix 1 E & J Burkes (contd.)



BURKE'S THREE STAR IRISH WHISKY IN BOND.



THE BOTTLING VATS.

Appendix 2 Irish Whiskey Sales Projections to 2024

By Area

Where will growth come from for the next 10/15 years (starting at 7 million cases of 12x70cl January 2014). Two ways of estimation are given below – by area and by simple extrapolation.

1. **The US** - Currently growing at 15% plus. Sales 3 million plus. Stated objective of Pernod is to grow larger than Jack Daniels. It is not unreasonable to allow growth to continue at 10% for the next decade. By 2024 that would be total sales of 8 million cases plus a year including Canada and Mexico. The demographic is good



Appendix 2 Irish Whiskey Sales Projections to 2024

By Area (Contd.)

2. Rest of the Developing World – US trends spread out. We are seeing this in Canada, Mexico, Australia, the UK and even to a limited extent in Ireland – young drinkers, whiskey bars, speakeasys, cocktails. In 2013 Irish sales in the Developed World (Europe, Australia, Duty Free) were about 2 million. The growth rate here over the next decade should be faster than the US – say 12%/15%. This would mean sales of 5 million/6 million cases by 2024. If you have to pick markets you might suggest the following numbers:

• Ireland (all)	0.7 Million
• UK	1.0 Million
• Germany	0.5 Million
• France	1.0 Million
• Northern Europe	0.3 Million
• Spain	0.5 Million
• Benelux	0.3 Million
• Rest	0.4 Million
• Duty Free	<u>0.8 Million</u>
	5.5 Million



Appendix 2 Irish Whiskey Sales Projections to 2024

By Area (Contd.)

3. **Russia/Eastern Europe** – Four positives in this area

- a) Rapid trend from white to brown spirits.
- b) Growing middle class turning to imported products
- c) Level playing field for Irish V Scotch, i.e. little embedded brand preference
- d) Strong position of Irish in certain markets i.e. Tullamore Dew outsells all whisky/whiskey brands in a number of Eastern European Markets.

Industry talk is that Russia will become a 1 million case Irish whiskey market within a few years. Other markets, all of Eastern Europe, all the “Stans” between them have significant potential. Total sales currently are probably of the order of 750,000 cases. At a 10% growth rate this will be 2 million by 2024.



Appendix 2 Irish Whiskey Sales Projections to 2024 By Area (Contd.)

4. **Asia** – This is largely untouched by Irish. It has a number of distinct segments
- a) Japan – will follow US trend. Is already starting. Suntory distribution could greatly expand the market.
 - b) India – from an Irish viewpoint the potential is limitless. The inventory does not exist if, and it is a big if, successful distribution is obtained. Assume limited penetration by 2024.
 - c) China – who knows but they like brown spirits.
 - d) Emerging middle income countries – Korea, Thailand, Philippines, Vietnam, Taiwan. Some of these are already significant brown spirit markets. Some have Irish but only in a small way. There is significant potential as the supermajors add Irish to their portfolios.

The overall potential 10 years from now should be for 1 million to 2 million cases plus in the whole area.



Appendix 2 Irish Whiskey Sales Projections to 2024 By Area (Contd.)

5. **Africa** – This is the “new frontier” for Diageo. Emerging middle classes in a number of big markets offers major potential. South Africa is already a 250,000 case market for Irish where Jameson is a leading spirit brand. Nigeria, West Africa, Ethiopia and Congo are familiar with whiskey. Given that South Africa is already 250,000 cases an estimate of 1 million is not wild.

6. **South/Central America** – Argentina was a significant market for Irish 100 years ago. Venezuela/Colombia were and remain substantial Scotch markets. Johnnie Walker is growing faster in Brazil than anywhere else. There is already a substantial whisky drinking middle class which will blossom over the next decade. South America could have 500 million people in the middle class by 2024. It is a new territory for Irish. Pernod are putting people on the ground. Given the distribution strengths of the players in the Irish space there should be significant advances by the main brands. Hard to estimate but you could see Brazil as a 500,000 case market with the rest 500,000, so 1 million total.



Appendix 2 Irish Whiskey Sales Projections to 2024 By Area (Contd.)

Worldwide Irish Whiskey Market Estimates 2024

US	8 million to 10 million
Rest of Developed World	5 million to 6 million
Russia/Eastern Europe	2 million to 3 million
Asia	1 million to 2 million
South America	1 million to 1 million
<hr/>	
Total	17 million to 22 million



Appendix 2 Irish Whiskey Market Size – By Extrapolation

Currently Irish is growing at 11.5%. Assume 10% growth rate to 2024

End 2013	7.0 million @10% pa
End 2014	7.7 million
End 2015	8.5 million
End 2016	9.3 million
End 2017	10.3 million
End 2018	11.3 million
End 2019	12.4 million
End 2020	13.6 million
End 2021	15.0 million
End 2022	16.5 million
End 2023	18.2 million
End 2024	20.0 million

So a 20 million market is a reasonable expectation under both scenarios



Appendix 2 Distilling Capacity

By 2024 there is a need for 140 million LPA distilling capacity to supply 2030 sales estimates which should be at least 30 million cases:

Current Capacity	Grain	Malt/Pot Still
IDL	60.0 million max	6.0 million
Cooley	3.0 million	1.0 million
Bushmills		3.6 million
Coming on Stream		
Dundalk	6.0 million	1.8 million
Dublin		0.5 million
Planned		
Grants	10.0 million	1.8 million to 3.6 million
Others		3.0 Million
Total	79.0 million	17.8 million



Appendix 3



DUNDALK DISTILLERY

Dundalk (1708–1926)

Dundalk Distillery is thought to be one of the oldest in Ireland, having been first started in 1708 by a Mr Gillehan or Gillighan on the site of a former tannery and bleach ground. For the rest of the 18th century records are obscure, but the excise return of 1802 lists a distillery at Dundalk operated by Messrs Godbey and Gillighan with a 138-gallon still.

The distillery was bought around that time by two Scots businessmen, Malcolm Brown and a Mr Murray. The purchase date was supposed to be around 1800, so it is possible the 1802 excise return was slightly out of date. Malcolm Brown was the senior of the two, because the firm's name throughout the 19th century was Malcolm Brown and Co. However, after his death, the business seems to have passed to Mr Murray and by the time Barnard visited it, the business was run by John, Malcolm and Henry Murray, who were grand-nephews of the original Mr Murray.

The distillery prospered for more than a century in that family ownership. It expanded rapidly after the 1823 Excise Act and by 1837 employed 100 men, consumed 40,000 barrels of grain and produced 300,000 gallons of overproof spirit a year. By the mid-1880s — thanks to the installation of a big Coffey still — output was 700,000 gallons a year and it eventually reached 800,000 a year, with much of the whiskey being exported to London or Liverpool via Dublin or Belfast.

The distillery stood 300 yards from the entrance of the Earl of Roden's estate and barely 50 yards from Dundalk's main church in Roden Place. The River Ramparts flowed along the south wall of the complex and water from the river may well have been used early on for processing. However, as industrialization at Dundalk made the water unsuitable, process water was sourced from a lough or springs at Corthill (or Certial) five miles from the town. Brown and Murray installed a well-engineered new mill in 1807 which was still going strong — and still called the New Mill — a century later. Over the decades, the plant grew and expanded and was one of the most successful distilleries in Ireland, making good use of its east-coast location.

Barnard described it in great detail, noting the two maltings that could malt 1,200 barrels of barley a month, the five-storey, 80ft by 200ft corn stores, where incoming grain was still weighed on a set of beam scales said to date from the 1680s. That antique apart, the distillery was full of modern equipment, including hoppers and steam-driven elevators, a big steam engine and a donkey engine, five 20ft by 6ft boilers, three pairs of milling stones and a set of massive malt rollers.

Mash water was heated in five big coppers, the mash tuns were 25ft across by 9ft deep, there were 15 washbacks holding 24,000 gallons each and another was under construction. The 24,000-gallon wash charger fed two 10,700-gallon wash stills, an 8,000-gallon low-wines still and a 6,000-gallon spirit still. In addition, there was the Coffey still, its twin columns 50 or 60ft high. The two vats in the spirit store held 13,000 and 14,000 gallons respectively, which filled casks bound for the nine on-site bonded warehouses that held a claimed 7,000 casks.

Like nearly all Ireland's distilleries, Dundalk did everything on a large scale and was a wholly self-sufficient industrial community with its own engineering shop, smithy, stables, carpentry and harness maker's shops. Barnard did not mention coopers or barrel-makers, but it seems likely they were there too.

The distillery had two massive chimneys — one was the largest in Ireland when it was built in 1817 — which were used by sailors approaching Dundalk as navigation aids and by the countryfolk for miles around as landmarks. It may well have had a bad fire sometime during the 19th century (few distilleries then had not suffered a blaze or two), because Barnard noted a large Shand and Mason fire engine on the premises and in 1912, 25 men out of the 170 payroll were

hand-picked firemen who were in the distillery fire brigade in addition to their other duties.

Things may have been on a downturn by the end of the century, for in 1898 the Murray brothers brought in a new manager, Allen Swann, who had a good track record: he had previously managed Bushmills and Bandon. One of his first steps was to introduce yeast manufacturing. However, the company's fortunes failed to pick up in the austerity of the new century and in Jul 1912 the distillery was sold to — or bought out by — Scotland's Distillers Company Ltd (DCL) for a bargain-basement £160,000. Distilling continued (though it is thought yeast manufacturing may have been stopped) until 1926, when the distillery was closed.

As always with such closures, it took several years for whiskey stocks to be sold off, but by around 1930 the place was moribund. Within a year or two, the state of the main chimney was causing concern and the decision was taken in mid-1933 to take it down. The demolition technique was to remove the bricks (many layers thick) at one side above the base and insert massive timber supports soaked in paraffin or other combustible liquid. These would then be set alight and, once they burned away, the chimney would collapse safely in the chosen direction. D-Day was scheduled as 26 Oct 1933, and photographers and newsreel cameramen from throughout Ireland were all set to capture the great event on celluloid. However, the chimney had a mind of its own and collapsed 12 hours early during the night, the roar and thud waking up the town's inhabitants. The bricks — half a million of them — were found to be in such excellent condition that almost all were salvaged and used to build houses in nearby Seatown.

The buildings then stood empty and neglected for more than half a century, falling into dereliction and decay. At some point the stillhouse and mash houses must have been demolished, though some smaller buildings, especially beside the River Ramparts, are still standing today. The grain stores and maltings were used for some time by the Carroll Tobacco Company for bonded warehousing, then lay derelict for many years, and it seemed that demolition would be the only outcome.

However, the two premises were bought by the urban council in the 1980s and a £5 million conversion saw them transformed into the County Museum and Dundalk branch of the Co Louth Library. They were formally opened in the early 1990s by the then Minister of the Environment, Michael Smith.

Today both buildings are among the sights of Dundalk, with beautifully pointed stonework, redbrick or stone quoins around every window and doorway and deep red paintwork on every piece of exposed timber or metalwork. Joyfully, too, whiskey distilling has returned to Dundalk, with the new Cooley company turning out grain and malt whiskies at its Riverstown distillery. Barnard and the Murray brothers would definitely be impressed.



The **GREAT NORTHERN**
— DISTILLERY —
Distilling History

Appendix 3

Dundalk Distillery buildings which are now used as the County Louth Library and Museum.

