

LIMITING CONDITION FOR OPERATION

3.6.15 RADIOACTIVE EFFLUENTS (Continued)

d. Uranium Fuel Cycle

The annual (calendar year) dose or dose commitment to any member of the public due to releases of radioactivity and to radiation from uranium fuel cycle sources shall be limited to less than or equal to 25 mremS to the total body or any organ, except the thyroid, which shall be limited to less than or equal to 75 mremS.

With the calculated doses from the release of radioactive materials in liquid or gaseous effluents exceeding twice the limits of Specifications 3.6.15.a.2(b), 3.6.15.b.2(b) and 3.6.15.b.3(b), calculations shall be made including direct radiation contributions from the reactor units and from outside storage tanks to determine whether the above listed 40CFR190 limits have been exceeded. If such is the case, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.3, a Special Report that defines the corrective action to be taken to reduce subsequent releases to prevent recurrence of exceeding the above limits and includes the schedule for achieving conformance with the above limits. This Special Report, as defined in 10CFR Part 20.405c, shall include an analysis that estimates the radiation exposure (dose) to a member of the public from uranium fuel cycle sources, including all effluent pathways and direct radiation, for the

SURVEILLANCE REQUIREMENT

4.6.15 RADIOACTIVE EFFLUENTS (Continued)

d. Uranium Fuel Cycle

Cumulative dose contributions from liquid and gaseous effluents shall be determined in accordance with Specifications 4.6.15.a.(2), 4.6.15.b.(2) and 4.6.16.b.(3) and in accordance with the methodology and parameters in the Offsite Dose Calculation Manual.

Cumulative dose contributions from direct radiation from the reactor units and from radwaste storage tanks shall be determined in accordance with the methodology and parameters in the Offsite Dose Calculation Manual. This requirement is applicable only under conditions set forth in Specification 3.6.15.d.

8708060089 870731  
PDR ADDCK 05000220  
P PDR



1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

<u>Exposure Pathway and/or Sample</u>	<u>Number of Samples<sup>(a)</sup> and Locations</u>	<u>Sampling and Collection Frequency (a)</u>	<u>Type of Analysis and Frequency</u>
<u>INGESTION</u>			
Milk	<ol style="list-style-type: none"> <li>1) Samples from milk sampling locations in 3 locations within 3.5 miles distance having the highest calculated site average D/Q. If there are none, then 1 sample from milking animals in each of 3 areas 3.5-5.0 miles distant having the highest calculated site average D/Q (based on all site licensed reactors)</li> <li>2) 1 sample from a milk sampling location at a control location (9-20 miles distant and in a least prevalent wind direction)<sup>(d)</sup></li> </ol>	Twice per month, April-December (samples will be collected in January-March if I-131 is detected in November and December of the preceding year)	Gamma isotopic <sup>(c)</sup> and I-131 analysis twice per month when animals are on pasture (April-December); once/month at other times (January-March) if required
Fish	<ol style="list-style-type: none"> <li>1) 1 sample each of two commercially or recreationally important species in the vicinity of a plant discharge area<sup>(h)</sup></li> <li>2) 1 sample each of the same species from an area at least 5 miles distant from the site.<sup>(d)</sup></li> </ol>	Twice per year	Gamma isotopic analysis <sup>(c)</sup> on edible portions twice per year



410

3

<u>Exposure Pathway and/or Sample</u>	<u>Number of Samples(a) and Locations</u>	<u>Sampling and Collection Frequency (a)</u>	<u>Type of Analysis and Frequency</u>
Food Products	<ol style="list-style-type: none"> <li>1) Samples of three different kinds of broad leaf vegetation (such as vegetables) grown nearest to each of two different off-site locations of highest calculated site average D/Q (based on all licensed site reactors)</li> <li>2) One sample of each of the similar broad leaf vegetation grown at least 9.3-20 miles distant in a least prevalent wind direction</li> </ol>	Once per year during harvest season	Gamma isotopic (c) analysis of edible portions (isotopic to include I-131 or a separate I-131 analysis may be performed) Once during the harvest season



TABLE 4.6.20-1  
DETECTION CAPABILITIES FOR ENVIRONMENTAL SAMPLE ANALYSIS(a,b)  
LOWER LIMIT OF DETECTION LLD (c)

Surveillance Requirement

<u>Analysis</u>	<u>Water (c)</u> <u>(pCi/l)</u>	<u>Airborne Particulate</u> <u>or Gases (pCi/m<sup>3</sup>)</u>	<u>Fish</u> <u>(pCi/kg, wet)</u>	<u>Milk</u> <u>(pCi/l)</u>	<u>Food Products</u> <u>(pCi/kg, wet)</u>	<u>Sediment</u> <u>(pCi/kg, dry)</u>
gross beta	4	0.01				
H-3	2000 *					
Mn-54	15		130			
Fe-59	30		260			
Co-58, Co-60	15		130			
Zn-65	30		260			
Zr-95, Nb-95	15					
I-131	1 **	0.07		1	60	
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-140, La-140	15			15		

\* If no drinking water pathway exists, a value of 3000 pCi/liter may be used.

\*\* If no drinking water pathway exists, a value of 15 pCi/liter may be used.



.....



NOTES FOR TABLE 4.6.20-1

It should be recognized that the LLD is defined as a before the fact limit representing the capability of a measurement system and not as an after the fact limit for the particular measurement. Analyses shall be performed in such a manner that the stated LLDs will be achieved under routine conditions. Occasionally, background fluctuations, unavoidable small sample sizes, the presence of interfering nuclides or other uncontrollable circumstances may render these LLDs unachievable. In such cases, the contributing factors shall be identified and described in the Annual Radiological Environmental Operating Report pursuant to Specification 6.9.1.d.



.....

[The main body of the page contains extremely faint and illegible text, likely bleed-through from the reverse side of the document. The text is scattered across the page and cannot be transcribed accurately.]

LIMITING CONDITION FOR OPERATION

3.6.22 LAND USE CENSUS

Applicability:

Applies to the performance of a land use census in the vicinity of the Nine Mile Point Nuclear Facility.

Objective:

To determine the utilization of land within a distance of three miles from the Facility.

Specification:

A land use census shall be conducted and shall identify within a distance of three miles the location in each of the 16 meteorological sectors the nearest residence and within a distance of three miles the location in each of the 16 meteorological sectors of all milk animals. In lieu of a garden census, specifications for vegetation sampling in Table 3.6.20-1 shall be followed, including analysis of appropriate controls.

With a land use census identifying a milk animal location(s) that represents a calculated D/Q value greater than the D/Q value currently being used in specification 4.6.15.b.3, identify the new location(s) in the next Semi-Annual Radioactive Effluent Release Report.

SURVEILLANCE REQUIREMENT

4.6.22 LAND USE CENSUS

Applicability:

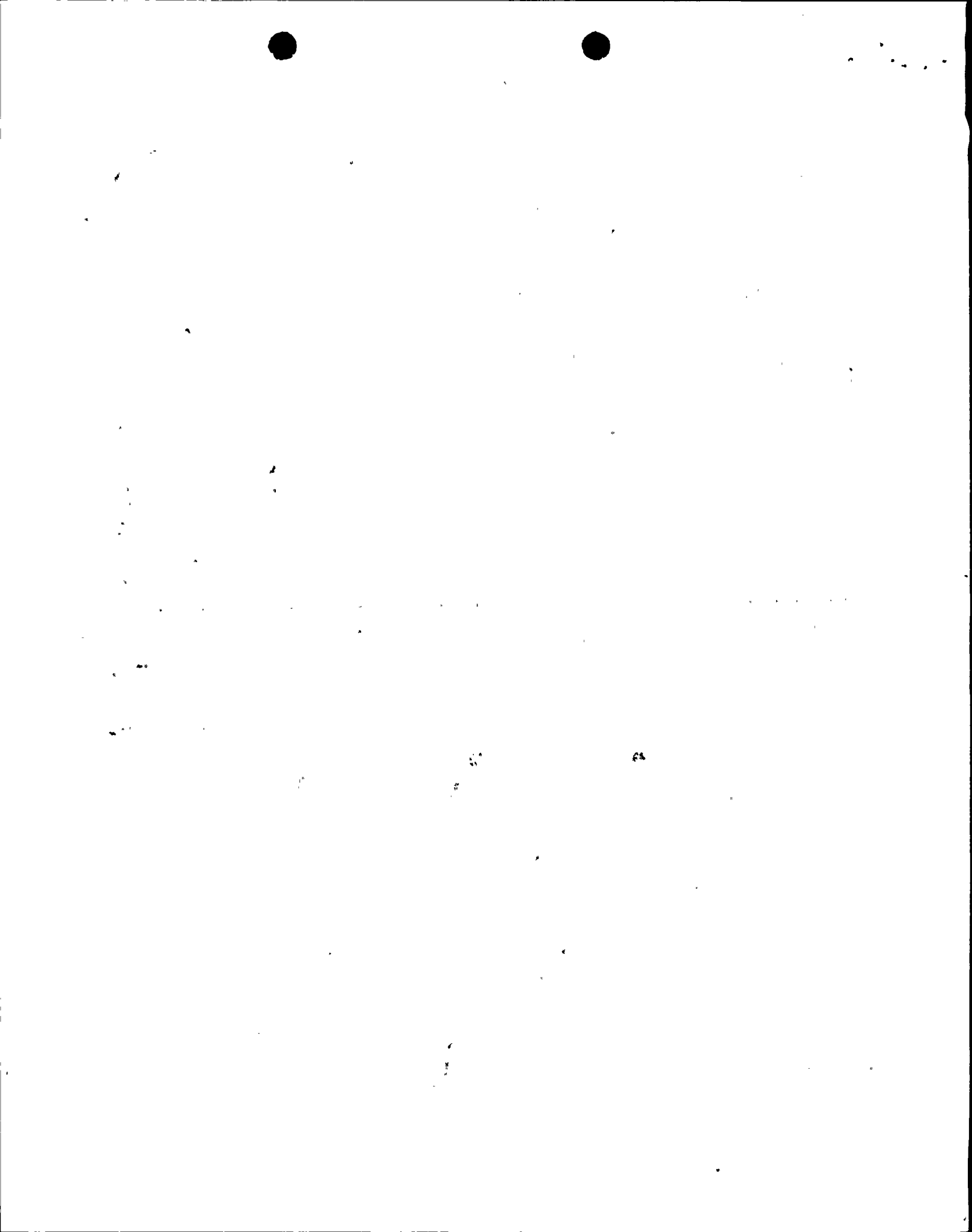
Applies to assuring that current land use is known.

Objective:

To verify the appropriateness of the environmental surveillance program.

Specification:

The land use census shall be conducted during the growing season at least once per 12 months using that information that will provide the best results, such as conducting a door-to-door survey, aerial survey or consulting local agriculture authorities. The results of the land use census shall be included in the Annual Radiological Environmental Operating Report.



## 6.9.1 Routine Reports (cont'd)

### e. Semi-annual Radioactive Effluent Release Report \*\*

Routine Radioactive Effluent Release Reports covering the operation of the unit during the previous 6 months of operation shall be submitted within 60 days after January 1 and July 1 of each year. The period of the first report shall begin on January 1, 1985.

The Radioactive Effluent Release Reports shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit as outlined in Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," Revision 1, June 1974, with data summarized on a quarterly basis following the format of Appendix B thereof.

The Radioactive Effluent Release Report to be submitted within 60 days after January 1 of each year shall include an annual summary of hourly meteorological data collected over the previous year. This annual summary may be either in the form of an hour-by-hour listing on magnetic tape of wind speed, wind direction, atmospheric stability, and precipitation (if measured), or in the form of joint frequency distributions of wind speed, wind direction, and atmospheric stability.\* This same report shall include an assessment of the radiation doses from radioactive liquid and gaseous effluents to members of the public due to their activities inside the site boundary (Figure 5.1-1) during the report period. All assumptions used in making these assessments, i.e., specific activity, exposure time and location, shall be included in these reports. The assessment of radiation doses shall be performed in accordance with the methodology and parameters in the Offsite Dose Calculation Manual.

The Radioactive Effluent Release Report to be submitted 60 days after January 1 of each year shall also include an assessment of radiation doses to the likely most exposed member of the public from reactor releases and other nearby uranium fuel cycle sources, including doses from primary effluent pathways and direct radiation, for the previous calendar year to show conformance with 40 CFR Part 190, Environmental Radiation Protection Standards for Nuclear Power Operation. Acceptable methods for calculating the dose contribution from liquid and gaseous effluents are given in the Offsite Dose Calculation Manual.

\* In lieu of submission with the Semi-annual Radioactive Effluent Release Report, the licensee has the option of retaining this summary of required meteorological data on site in a file that shall be provided to the NRC upon request.

\*\* A single submittal may be made for a multiple unit site. The submittal should combine those sections that are common to all units at the site; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.



.....

..

.

..

..

-----

TABLE 6.9.3-1  
REPORTING LEVEL FOR RADIOACTIVITY CONCENTRATIONS IN ENVIRONMENTAL SAMPLES

REPORTING LEVELS

<u>Analysis</u>	<u>Water (pCi/l)</u>	<u>Airborne Particulate or Gases (pCi/m<sup>3</sup>)</u>	<u>Fish (pCi/kg, wet)</u>	<u>Milk (pCi/l)</u>	<u>Food Products (pCi/kg, wet)</u>
H-3	20,000 *				
Mn-54	1,000		30,000		
Fe-59	400		10,000		
Co-58	1,000		30,000		
Co-60	300		10,000		
Zn-65	300		20,000		
Zr-95, Nb-95	400				
I-131	2 **	0.9		3	100
Cs-134	30	10.0	1,000	60	1,000
Cs-137	50	20.0	2,000	70	2,000
Ba-140, La-140	200			300	

\* For drinking water samples. This is a 40 CFR 141 value. If no drinking water pathway exists, a value of 30,000 pCi/liter may be used.

\*\* If no drinking water pathway exists, a value of 20 pCi/liter may be used.



12345

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16



ATTACHMENT B

NIAGARA MOHAWK POWER CORPORATION

LICENSE NO. DPR-63

DOCKET NO. 50-220

Supporting Information and No Significant Hazards Consideration Analysis

The proposed Technical Specification amendment revises Section 3.6.15.d, 3.6.22 and 6.9.1.e, and Tables 3.6.20-1, 4.6.20-1 and 6.9.3-1 regarding the Nine Mile Point Unit 1 Environmental Monitoring Program. The proposed revisions are primarily administrative in nature. The proposed revisions provide more consistency with the Nine Mile Point Unit 2 Environmental Monitoring Program and with the latest versions of NUREG 0472 and 0473. The proposed changes, which are described in more detail below, provide clarification of sampling and reporting requirements, and correct typographical errors.

Section 3.6.15.d has been proposed for amendment to delete reference to Nine Mile Point Unit 1. In accordance with NUREG 0472 and 0473, dose estimates reported in accordance with 40CFR190 must consider all uranium fuel cycle sources within five miles. This change will make this Section consistent with the regulatory requirements.

Table 3.6.20-1 has been proposed for amendment to clarify the requirements for sampling the fish ingestion and food products pathway. These changes make this table more consistent with the Unit 2 Technical Specifications and regulatory requirements.

Table 4.6.20-1 and Table 6.9.3-1 have been proposed for amendment to provide more consistency with the Unit 2 Technical Specifications and regulatory requirements.

Section 3.6.22 has been proposed for amendment to correct a typographical error. Section 4.6.15.b.3 of the Technical Specifications is the correct reference.

Section 6.9.1.e has been proposed for amendment to provide the licensee with the option of not submitting meteorological data, but to retain such data on file. This change was approved by the Commission for Unit 2 and is consistent with Standard Technical Specifications.

10CFR50.91 requires that at the time a licensee requests an amendment, it must provide to the Commission its analysis, using the Standards in Section 50.92, about the issue of no significant hazards consideration. Therefore, in accordance with 10CFR50.91 and 10CFR50.92, the following analysis has been performed:



100-100000

100-100000

100-100000

100-100000

100-100000

The operation of Nine Mile Point Unit 1, in accordance with the proposed amendment, will not involve a significant increase in the probability or consequences of an accident previously evaluated.

None of the proposed changes affects the probability or consequences of an accident. The changes to the Environmental Monitoring Program are only administrative. Release limits will not be increased by this change. Therefore, the proposed changes will not increase the probability or consequence of an accident previously evaluated.

The operation of Nine Mile Point Unit 1, in accordance with the proposed amendment, will not create the possibility of a new or different kind of accident from any accident previously evaluated.

None of the proposed changes affects the operation of any safety system. This is strictly an administrative change for consistency with Unit 2 Technical Specifications. Therefore, there is no possibility of a new or different kind of accident created by this change.

The operation of Nine Mile Point Unit 1, in accordance with the proposed amendment, will not involve a significant reduction in a margin of safety.

The changes to the Environmental Monitoring Program are only administrative. Release limits are not increased by this change, and plant safety systems are not affected. Consequently, there will be no reduction in the margin of safety.



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

101  
102  
103  
104  
105  
106  
107  
108  
109  
110  
111  
112  
113  
114  
115  
116  
117  
118  
119  
120  
121  
122  
123  
124  
125  
126  
127  
128  
129  
130  
131  
132  
133  
134  
135  
136  
137  
138  
139  
140  
141  
142  
143  
144  
145  
146  
147  
148  
149  
150  
151  
152  
153  
154  
155  
156  
157  
158  
159  
160  
161  
162  
163  
164  
165  
166  
167  
168  
169  
170  
171  
172  
173  
174  
175  
176  
177  
178  
179  
180  
181  
182  
183  
184  
185  
186  
187  
188  
189  
190  
191  
192  
193  
194  
195  
196  
197  
198  
199  
200