

the Bulletin Board

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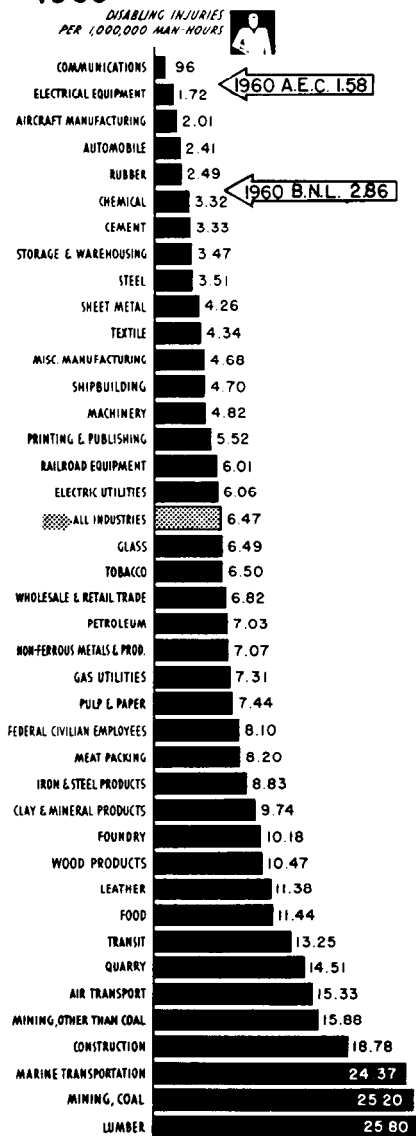
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OCTOBER 18, 1960

BNL SAFETY RECORD

11 DISABLING INJURIES at BNL thus far in 1960 (for a rate of 2.86 injuries per 1,000,000 manhours - compared to the All AEC Research Contractor rate of 1.58).

1960 FREQUENCY RATE



Many people wonder just what this regular report in the BULLETIN BOARD really means. We compare ourselves with the injury frequency rate for all AEC Research Contractors, and the comparison has not been too favorable. This week we thought we'd show you how these rates compare to the various industries in the U.S. These figures are the rates reported to the National Safety Council for 1959 by member companies

THE WHOLE BODY COUNTER

GAMMA SPECTROSCOPY IN CLINICAL MEDICINE



A whole-body counting system has been in operation at BNL since May 1959. This system was designed for detecting very low concentrations of gamma-emitting radioactive material deposited in the body. The crystal detector is located in a 6 by 7 by 9 foot shielded room (pictured above) constructed of 6 inch steel and lined with lead, cadmium, and copper for shielding against the low energy components of background radiation. The heavy shielding effectively reduces the gamma radiation to the detector from both cosmic rays and building materials and increases the signal-to-noise ratio for the system.

A patient or employee who is to be counted takes a shower, puts on a hospital gown and is seated on a special cot in the counting room. The count-
(Please turn to Page 2)

BODY COUNTER—Cont'd

ing process takes 30 minutes; during this time soothing music is played and the technician outside the counting room can converse with the patient over an inter-com system.

The applications of the whole-body counting system may be generally grouped into two classifications: environmental studies and clinical studies.

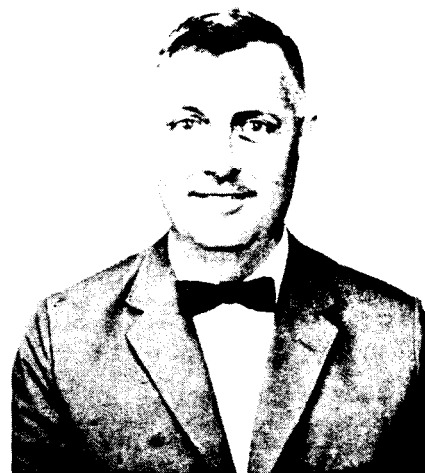
Because of natural radioactivities and of fission products from nuclear weapons testing, every person has deposited in his tissues small amounts of radioactive materials. The levels of these concentrations rise as the radioactive debris from nuclear weapons tests returns to earth from the stratosphere. During this period, when the body burdens of fission products have increased but are still low, it is of great scientific interest to determine the base lines (the average amounts of internally deposited radioelements) for the population, particularly with respect to age, diet, and geographic location. In cooperation with the Industrial Medicine Division large numbers of Brookhaven employees are being counted to provide a measure of the average levels of internally deposited radioelements. Once the base lines are determined, it will then be possible by continued measurement to detect any significant increase in the deposition of radioelements associated with increased use of atomic energy. Whole-body counting is an excellent way to detect and evaluate world-wide fallout contamination. The fission product Cesium¹³⁷ is very widespread and, as a gamma emitter, is readily detected by the whole-body counter. This element provides an index of the level of human internal contamination.

Persons who have received radioactive materials in the course of medical treatment constitute another group of interest; for example, a substantial number of people who received thorotrast (thorium dioxide) as an x-ray contrast medium. Over a long period of time, the continued internal radiation from this material may produce carcinogenesis. A study of persons known to have received this material will yield valuable data on the relation between dose and observed clinical effects.

Another valuable use of the scintillation counter derives from its ability to measure neutron-induced gamma activity in people therapeutically or accidentally exposed to neutron irradiation. By proper calibration, it is possible to quantitate the neutron dose to which an individual has been exposed. Studies along this line are under way as part of the neutron therapy research program.

A slight modification to the system - the addition of a collimator - makes it possible to localize the isotopes in a particular organ such as the lung. The lung is of interest as the focus of deposition in cases involving inhalation of a radioactive aerosol, particularly insoluble aerosols that may be retained in the lung for long periods of time. Since spectrometric properties permit identification of primary energy quanta as distinguished from scattered rays, the collimated NaI (TI) crystal is obviously the detector to determine the site of localization of very small amounts of radioactive material in the intact body.

The high quantum counting efficiency for gamma radiation makes this scintillation counter valuable for applications involving small amounts of radioactively labeled material. It is particularly suitable for administration to patients for metabolism studies. The fact that some chemical compounds concentrate in certain tissues may also be exploited. Ultrasensitive gamma detection equipment has many valuable clinical uses, particularly in the study of very slow metabolic processes in the human body. The direct *in vivo* measurement eliminates the tedious procedures of radiochemical analyses of the excreta of large numbers of patients for the determination of turnover rates of particular elements. Accurate data can be obtained on clearance rates for a particular organ, as well as elimination rates from the whole body.

WEEKLY SAFETY HINT

LIS SUYDAM, Safety Coordinator for the Instrumentation Division, relays this safety hint, "It's up to each individual to recognize eye hazards when working outside mandatory eye protection areas. Wear your safety glasses whenever the possibility of an eye injury exists".

VISITORS DAYS TICKETS

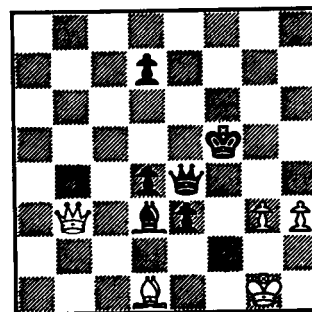
There are still a few tickets left for the 11-1:30 and 1-3:30 sessions on Saturday, October 22. Tickets for Sunday, October 23, are no longer available.

CAMERA CANDIDATES

Come on out to our next meeting, see our activities and facilities and perhaps join the Camera Club. We'll show you around on Wednesday, October 26 at the Recreation Building at 8 p.m. Everyone invited. All present members are urged to attend and exercise the privilege of electing a new slate to serve during the coming year.

CHESS PROBLEM

White wins



This week's problem is an end game for white to win. Better set up the board for this one. Answer on Page 4.



BERA BOWLING

BLUE LEAGUE 10/5/60

The Blue League of Port Jefferson got under way Wednesday, October 5, for the first time. The Pacers managed to squeeze four points away from the Bubble Boys. Jackson had a 184, while for the losers Schelig had a 188.

The Nuclides took 3 points from the Snafus. Majeski had a 184 while Uddman had a 189. The Techs and Splitters, rivals from last year, saw the Techs take three points. Wessel had a 208, 539 series, Hildenbrand a 188, 538 series, while for the losers Sick had a 212, 574 series and Sparacino a 177.

The Meteors took three points from the Powermites. John Walsh had a 176 while for the losers Brockbank had a 210.

10/12/60

The Meteors took four points from the Bubble Boys. Stelmaschuck had a 176 and Lambeck a 173 and the losers had Ferrante with a 171. The Powermites squeezed three points from the Pacers. No high scores were achieved.

The Splitters took three points from the Nuclides. Carter rolled 184, 521, Sparacino 178, 500 and Gallagher 178. The losers had Majeski 184, Kukacka 183, and Milau 170.

The Techs and the Snafus battled to split 2-2. Larson with some fine bowling had a 247, 571 series, Hildenbrand a 215, 569 series, Gangamella a 183 and Meier a 180. The losers had J. Sucher with a 188.

PURPLE LEAGUE

The Phoubars and Woodbutchers went at it hammer and tongs. After the sawdust settled, Dick Vogt's 234-578, plus Brown's and Maile's steady rolling had nailed down 3 points for the Phoubars. Benson's 206-500 for the Woodbutchers, with Seitz and Lewis right in there pitching, made this the hottest match so far.

The Scotches, with Scotty MacCafferty's 161, W. Johnson's 480, and Reamy's 497, killed all hopes for the Hopefuls, even though A. Hanson had a strike and D. Gracia a spare, trying to halt the Scotches from getting 4 points.

The Designers, with A. Teixeira's 199-500, L. Chirco's 476, could not come up with the right design against Fiscal. Capt. Saletros's 174 and some nice split shooting by Bob Eberbach with H. Bohn's 203-516 gave Fiscal 3 points.

The Dirty Birds, with steady team bowling took 3 points away from the Bowl Aids, who could not come up with the right 5 man combination. Schulz's 161, was the best effort for the losers.

GREEN LEAGUE

With the season only two weeks old we have had our first forfeit by the Electrons to the Mole-stars. Old Timers III, behind G. Walker's 200-550 series, beat the Old Timers I, 4-0. J. Gilmartin continues to roll at a fast pace with a 204-190-545 series.

The Reefers dropped three points to the Old Timers II. Lucas's 180 and Scandizzo's 180-201-535 series were enough to salvage one point. The Fire Department came back strong to take four points from the Black Birds. Kinney had 512 and T. Newham 187 - 550.

RED LEAGUE

Well, it looks like the Skins are trying to grab up the lead quickly for they have taken 4 points from Biology. P. Borzi rolled a 502, Bolter 462, Schroeder 455 for the Skins. For Biology, E. Schwinghamer rolled a striking 416.

The Downunders are bowling to get their heads above water. In doing so, they were able to take 3 points from the Gnats. Perry's 473, Iarocci's 472, Lotko's 454, Bieselin's 421, and, of course, their money bowler, G. Fales rolled a helpful (?) 392. There were only two Gnats flying at the end of the night, VanNorman with a 453 and Fox with a 423.

The battle between the Bismuth Kings and the Bugs came to a stand-still 2-2. There are just too many Bugs (?) and the biggest Bugs are Shipley 517, and Iarocci 486. With only 4 men, the Bismuth Kings held their ground with the support of Atherton (G.I.) 500, Vercla 497 and Watson 479.

LADY KEGLERS COLUMN

The second night of the new bowling season was accomplished with a little less noise, but with ever increasing skill, as proven by Grace Schiro converting the 6-7-10 split very neatly. The Alley Kats took a complete victory of four points over the APC's with the able assistance of Pat Ferrigno's 172-493. Odds and Ends came back into the fold by taking four points from the Medigals with Grace Siemen's 173-488 and Rosemarie McCann's 182-469. The Boo Boo's (Yogi's team) took three from the Allthumbs, while the Nightingales and Twinkle Toes split 2-2. Other high games for the night were: Marty Heine 172 and Judy Otto 163. We would also like to make amends for an omission last week by stating that high game last week was bowled by Jane Gulibon, 175.

SWIM SALE



Get in on the ground floor and take advantage of the savings by purchasing a season ticket to the Swimming Pool. An eight month season from October 18th to mid-June is offered to families at the price of \$10.00. A single employee's ticket can be had at only \$5.00.

Swimming as a recreational activity is perhaps one of the best, combining healthful exercise with physical and social enjoyment.

At the pool you will find dressing rooms, lockers, soap and showers provided. Caps, noseclips, ear plugs and towels are available. Bring your own suit.

Pool's vital statistics - 100 by 40 feet, equipped with 2 championship aluminum meter diving boards. Three feet shallow - nine feet deep. A life guard is on duty at all times when the pool is open.

POOL SCHEDULE

TUESDAY, WEDNESDAY, AND FRIDAY
7:00 - 10:00 P.M.

THURSDAY
5:00 - 10:00 P.M.

DAILY ADMISSION

Employee or Family Member.....	35¢
Guest of employee.....	60¢
Children under 6 yrs. FREE.	

For further information, call George Sabine, Ext. 391, Recreation Office.

FIRST LADY PRESIDENT

Tradition at BNL was shattered as the Bowling Executive Board at its first meeting elected as its president, Grace Siemen, who has been active in the Ladies League for several years. George Hardman was elected to the Vice Presidency while newcomer Len Baker drew the secretarial honors. Chris Podlaski, on the basis of a job well done, was re-elected Treasurer. The Board met at 5:00 p.m. on Thursday the 13th and set the schedule for the 1960-1961 season. A revision of the leagues' regulations was begun and will be concluded at a special meeting of the board on this Thursday, October 20, at 5 p.m., in the Recreation Building.

SKIN DIVERS CLUB

The meeting of the Brookhaven Skin Divers Club that was scheduled for Wednesday, October 19th, has been cancelled, and will take place instead on Tuesday, October 25th. New business to be discussed at this meeting will be the purchase of a Porta-Sub for the club, and plans for the next skin diving class will be formulated. All members are urged to attend, and guests and potential members are always welcome.

SLOW-BREAK BASKETBALL?

The Captains of last year's teams will meet at the Recreation Office on Friday, October 21, at noon to discuss plans for the coming season. The main topic for discussion and vote will be the conversion of our league to a "Slow-Break League". This type game provides a simple rule variation which is intended to slow down a fast game and create an active sport for aging stars and inexperienced players. It is hoped that adoption of this game would enable more of our employees to participate in and enjoy this activity. The meeting will be open to all wishing to voice their opinion.

UPTON RIFLE AND PISTOL CLUB

The fourth meeting of the large bore Upton Rifle group took place Sunday at the Medford Range. The avid competition resulted in a new high of 183 out of 200 set by Al Lukas. Identical scores of 178 were made by Judd Diener and Pete Colombo. Following closely were J. Diener, P. Colsmann, and A. Lukas. The last two matches are scheduled for October 23 and October 30.

FREE SQUARE DANCE FREE
RECREATION BUILDING
TUESDAY, OCT. 18 AT 8:30 P.M.

CLASSIFIED ADS**FOR SALE**

1953 CADILLAC - fully equipped. Push button windows. White walls. \$500. Ext. 2453 or ATLantic 6-9112 after 6 p.m.

1950 FORD V8 - Engine in good running condition. Body needs work. Best offer over \$60. Ext. 2151 or POrt Jefferson 8-0735 after 6 p.m.

1959 RENAULT - Yours for only \$800. Call ATLantic 6-8224 after 5:30.

1957 RENAULT DAUPHINE - Blue. Body excellent. Recent re-conditioning. 35 mpg. Outstanding buy. H. Bolotin, Ext. 648.

1955 PONTIAC - 2 dr. hardtop convertible. R&H. Good rubber. Ext. 301-93 or POrt Jefferson 8-2568.

1953 OLDSMOBILE 98 - Good running condition and good tires. \$150. Call ATLantic 6-9248 or Ext. 2179.

1952 WILLYS STATION WAGON - 2 wheel drive, 4 cylinder engine, new exhaust system, battery, shocks, voltage regulator. 8.20x15 tires. Best offer. Gibson or Goland, Ext. 407.

1955 FORD V8 - 4-dr. 6 pass. station wagon. S. Garrett, Ext. 2123.

1952 HILLMAN - 4 dr. sedan in good condition. Dependable second car. Recent work done. 32 mpg. \$210. J. Walsh, Ext. 454.

HOUSE - 3 bedroom ranch. Breezeway and garage. Shirley St., Center Moriches. S. Garrett, ATLantic 4-1002.

SPLIT LEVEL HOUSE - Beautiful 7 room, on wooded 1/2 acre lot. Fireplace, large living room, 3 bedrooms, 1 1/2 baths, laundry, private beach. Ext. 600 or SHoreham 4-9877 evenings.

HOUSE - 3 bedroom Cape with Dutch dormer on back, 100x100 ft. plot fenced in back yd. Storms and screens. Full basement. Located in Blue Point not too far from water. \$5000 takes over 25 yr. 4 1/2% mortgage. R. Stocks, Ext. 772 or EMerson 3-6214.

HOUSE - Well landscaped wooded corner lot, 125x200 ft. Two bedrooms on main floor, one in basement. Full cellar, modern kitchen, dishwasher, large closets. 10 minutes from Lab. \$10,300. In Yaphank. Yaphank 4-6589.

CUSTOM RANCH HOUSE - 4 yr. On spacious wooded plot 235x205 ft. Two large bedrooms, living room, kitchen, bath, partial cellar. Hot water. Baseboard heat. \$11,990. A. Yonda, Ext. 2212 or SAYville 4-4360.

SHINNECOCK SLOOP - 17 ft. gaff-rigged. Outboard attachment. In water. Average condition. One heavy duty set canvas sails. Ext. 2354 or SAYville 4-3211, evenings.

KENMORE AUTOMATIC WASHER - 10 lb. Controls water level, temp., complete timing cycle. Excellent condition. \$80. Jake, Ext. 2208.

FRIGIDAIRE FREEZER - 11 cubic feet chest model. \$100 firm. ATLantic 4-7203.

SOFA & CHAIRS - with slipcovers in excellent condition. One window 3 ft. by 4 ft. 2 in. with screen and storm sash and one window 3 ft. 4 in. by 3 ft. 3 in with screen and storm sash. GRower 5-8211 after 5:30 p.m.

BABY GRAND PIANO - in perfect condition. Reduced from \$650 for quick sale. JUNiper 7-0711.

CLARINET - Boosey & Hawkes (English). Excellent tone. Also Trumpet in new condition. Harry Pedlar & Sons - \$40. J. Kelsch, Ext. 354.

UNIVERSAL TANK-TYPE VACUUM CLEANER - with attachments. Hose needs repair. \$15. Ladies brown muskrat fur coat. Full length. Size 14. Good condition. \$10. Child's high-chair. Red. Good condition. \$3. Child's wardrobe. Painted gray and yellow. Needs to be repainted. \$3. E. Potter, Ext. 2456.

COFFEE TABLE - room divider, 2 single beds, 4-piece maple bedroom set, washing machine, bathroom enclosure and miscellaneous items. ATLantic 6-9239.

FOR RENT

TWO-ROOM APARTMENT - centrally located in Patchogue. Furnished or unfurnished. All utilities. Call GRower 5-1880.

TWO LARGE ROOMS - Housekeeping and living room privileges. Television, garage. One block from center of town - Patchogue. \$20/wk. Ext. 586 or 2453.

CAR POOLS

Want to organize car pool from Huntington Village. R. Hodon, Ext. 2488.

Wish to form or join 2 or 3 man car pool from Bellport. H. Bolotin, Ext. 648.

WANTED

Outboard motor - 3 to 7 horse power. Also portable TV. Both in good condition. J. Walsh, Ext. 454.

Adopted home for 6-month old altered black cat. Gentle, affectionate and well behaved. Has had distemper shots. H. Cooke, Ext. 542.

Home for 4 kittens and mother. Two white, two black & white. Mother all white. Will gladly part with any or all. C. Paul, Ext. 731.

Anyone interested in joining a recorder playing group, please get in touch with Steve Yamamoto, Ext. 474. We also welcome pianists, cellists and singers (madrigals).

DON'T FORGET - FREE SWIM

OPENING NIGHT AT SWIMMING POOL
TUESDAY, OCT. 18, AT 7:00 P.M.

ANSWER TO CHESS PROBLEM

WHITE	BLACK
1. B - B3	Q X B
2. Q - B7 check	K - K5
3. Q - K8 check	K - B4
4. Q - B8 check	K - K5
5. Q - R8 check	P - Q4
6. Q - K8 check	K - B4
7. Q - B7 check	K - K5
8. Q - K6 mate.	